



Major Capital Program Handbook

Office of the Senior Vice President for Operations
and State Government Relations
2024

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Dear Colleagues,

The purpose of the Major Capital Program Handbook is to document and communicate the workflow and other important information needed to effectively propose and execute major capital projects at the University of Virginia. This handbook will provide key information for project sponsors, as well as serve as a resource for the many individuals in Facilities Management, the Office of the Architect for the University, and other units responsible for implementing UVA's Major Capital Program.

The first two sections provide an overview of the program, including program philosophy and purpose as well as an introduction to the three-phased approach to major capital projects. The remainder of the handbook provides a detailed look at the associated milestones, communications, and approvals required to successfully move through each of the three phases: Capital Plan Development, Planning/Design, and Construction.

This guide will be reviewed and updated as needed to help advance projects supporting the University's [mission](#) and [priorities](#). We welcome your feedback as you engage in the capital process; we are committed to refining our work processes and enhancing our service delivery model.

Sincerely,

Colette Sheehy
Senior Vice President for Operations
and State Government Relations

INTRODUCTION

The Major Capital Program Handbook is intended to be a resource for the various participants involved in the Major Capital Program. While it provides key information about the people, departments, units, and processes commonly involved in a major capital project with costs of \$5M or more, it is by no means exhaustive. Due to the inherent complexity and unique nature of each major capital project, this handbook is meant as a starting place to help navigate the program and players. It is intended to:

- Be a general guide, not a stand-alone training manual or how-to guide.
- Supplement conversations, not replace them.
- Be regularly evaluated and improved upon.

Major Capital Program Website:

In addition to the information provided in this handbook, additional details, templates, and forms are available online at svpo.virginia.edu/capital.

Contact Information:

General program questions should be directed to:

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For other questions and concerns, please consult the *Glossary and Contact Information List* on page 18.

GENERAL PROGRAM OVERVIEW

UVA's Major Capital Program:

The Major Capital Program seeks to provide expertise, institutional knowledge, quality assurance, design consistency, and standardized processes for all projects. Specifically, the program's core purpose is to:

- Fulfill the University's [mission](#) and [vision](#).
- Address physical needs.
- Standardize processes and ensure projects are appropriately vetted with leadership.
- Integrate building planning with University priorities.

The program's goal is to have an integrated portfolio of major capital projects to ensure projects are aligned at both the institutional and local levels. A holistic view also enables a deeper understanding of the needs of current and future projects and ensures we are appropriately prioritizing, stewarding, and optimizing University resources.



At UVA, projects are defined as either non-Capital (less than \$3M), Minor Capital (\$3M-<\$5M), or Major Capital (\$5M and above).

Building Project Tiers		
<p>Non-Capital Projects Less than \$3M Approval at School/Unit Level</p>	<p>Minor Capital Projects \$3-<\$5M Approval by BOV*</p>	<p>Major Capital Project \$5M or More Approval by BOV</p>
<p>*Board of Visitors or those with delegated authority can approve on BOV's behalf. The SVPO&SGR, Executive Vice President and Chief Operating Officer (EVP-COO), and the Chair of the Buildings and Grounds Committee have delegated authority.</p>		

Governance and Roles and Responsibilities:

The Major Capital Program is administered by the [Office of the Senior Vice President for Operations and State Government Relations \(SVPO&SGR\)](#); however, authority over major capital projects lies with the [Board of Visitors](#) and specifically the [Building and Grounds](#) and [Finance Committees](#).

The University's annual capital planning process ensures major capital projects – defined as new construction, renovation, or infrastructure projects with budgets of \$5 million or more – align with institutional priorities and engages executive leadership and the Board of Visitors at various points throughout the process. The Buildings and Grounds Committee determines whether a project should be added to the [Major Capital Plan](#), and the Finance Committee evaluates whether there is a sound finance/business plan to pay for the estimated project cost and additional operating costs expected once a project is complete. The Major Capital Plan is presented annually to the Board of Visitors for review in February/March and approval in June.

The Board of Visitors reviews and approves:

[Multi-Year Major Capital Plan](#): The Buildings and Grounds Committee and the full Board of Visitors approve a proposed project by adding it to the multi-year major capital plan.

Finance/Business Plan: Once a project is placed on the major capital plan it is required to have a finance/business plan. The Board of Visitors' Finance Committee reviews the finance/business plan for funding assessments/strategies, verification of funding assumptions, and to evaluate operating, maintenance, and debt repayment costs. Once approved by the Committee, it is subject to approval by the full Board of Visitors.

Concept, Site, and Design Guidelines (CSDG): The Building and Grounds Committee reviews and approves a project's concept, site, and design guidelines as presented by the Architect for the University.

Schematic Design (SD): CSDG are further developed into a Schematic Design. The Buildings and Grounds Committee reviews and approves Schematic Design in a two-step process. The design is presented for review and comment at one meeting and then is brought back to a subsequent meeting for approval.

Changes: Changes of 10% or more to the approved total project budget must go back to the Finance Committee (and full Board) for approval. Material changes in approved scope are typically reviewed and approved with the submittal of the SD, but if they are not, they must be brought back to the Building and Grounds Committee for review and approval.

In addition, there are many University departments and offices with advisory and decision-making roles throughout a project's lifecycle. To learn more about the various roles and responsibilities involved, please see the **Project Charter Organization and Governance Chart** on page 10.

SUMMARY OF THE THREE-PHASE PROCESS

A major capital project moves through three distinct phases, each separated by a “gate.” A project cannot move from one phase to the next without accomplishing the required gate.

- Gate 1 - A project achieves the Gate 1 requirement when the Board of Visitors approves a preliminary finance/business plan and adds the project to the Major Capital Plan.
- Gate 2 - A project must have an approved Schematic Design by the Building and Grounds Committee and a viable funding plan in place; and if gift-funded, 100% pledged [50% cash in-hand].

Overall, this process takes a project from being a proposed idea to a finished project.

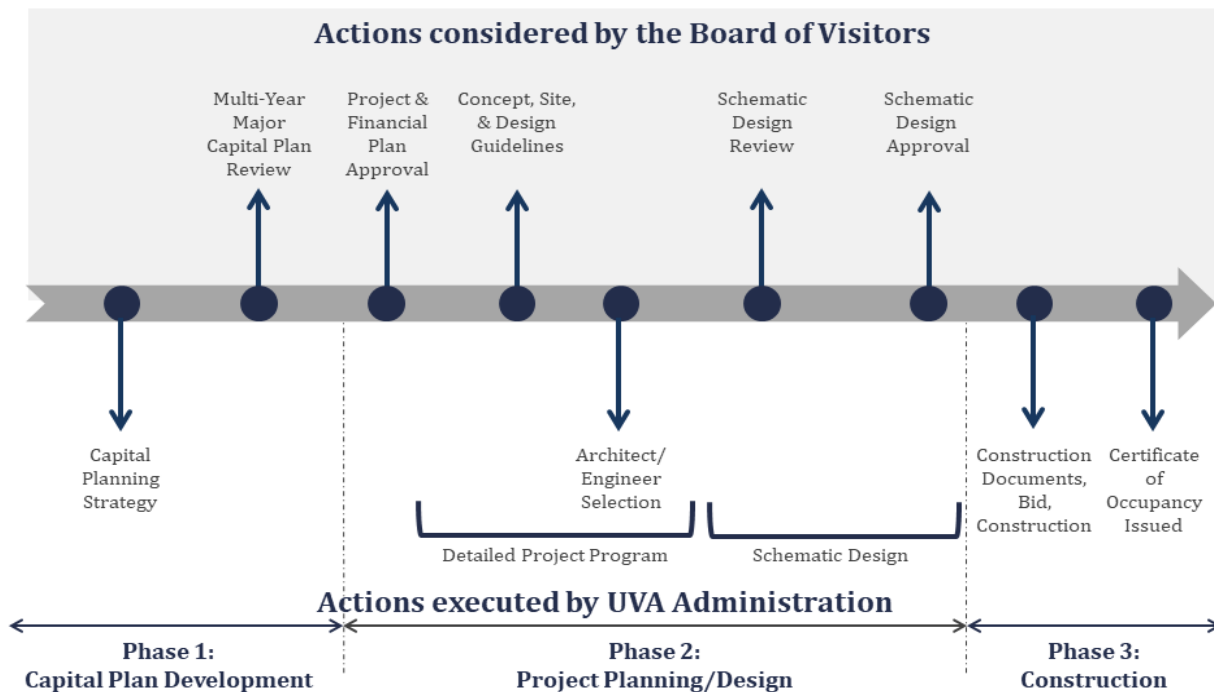
Phase One- Capital Plan Development/Call for Proposals: *Establishing the need.* During this phase, which starts with the Senior Vice President for Operations and State Government Relations issuing a “*Call for Proposals*” in September, the project sponsor, with guidance from various stakeholders, develops a project proposal and preliminary finance/business plan. This phase is often preceded by a pre-design feasibility study that will develop a preliminary program and cost estimate. The phase ends when a project is added to the [Major Capital Plan](#) (typically at the June Board of Visitors meeting).

Phase Two- Project Planning/Design Phase: *Assembling the project teams, helping refine the concept, scope, and design of the major project components, and developing a Schematic Design.* This phase encompasses everything between the project kickoff meeting and the Board of Visitors’ Buildings and Grounds approval of the Concept, Site and Design Guidelines through Schematic Design. The gate for this phase (Gate 2) is that a project must have an approved Schematic Design by the Building and Grounds Committee and a viable funding plan in place; and if gift-funded, 100% pledged [50% cash in-hand].

Phase Three- Construction Phase: *From the development of preliminary design through construction to certificate of occupancy and a post-occupancy evaluation.* The timing, and sometimes order of the steps within the construction phase, vary greatly because much of the process is dictated by procurement methods and other variables specific to the project. Therefore, regular communication between the project sponsor and the project team is essential.

The Major Capital Project Process Overview, shown in the following graphic, provides a high-level snapshot of the steps of the major capital process and the major milestones and communications a project sponsor should expect during each phase of a project. This overview is intended to help provide the basics of the process but does not detail all project complexities.

Major Capital Project Process



Sample Project Timeline:

The time it takes a project to get from proposal to occupancy varies and depends on many factors including project complexity, scope, changes, required approvals, project funding, and construction procurement method among other items. However, there are some milestones for which timing is determined by the Board of Visitors' action, and thus, are determined by their quarterly meeting schedule.

The Board of Visitors has four regular meetings every year. The regular meetings are in September, December, February/March, and June. Most committee meetings are conducted at the time of regular board meetings; however, some will meet outside the regular Board schedule.

A typical timeline might be:

- The Senior Vice President for Operations and State Government Relations issues the annual "Call for Proposals" in September; this starts the project timeline.
- The writing of the project proposal takes place over the next few months. This may have been preceded by a pre-design or feasibility study.
- Project is reviewed by the Board of Visitors' Buildings and Grounds Committee in February/March.
- The Board of Visitors approves the proposed project and adds it to the Major Capital Plan, typically at its June meeting (Gate 1).
- Once approved on the Multi-Year Major Capital Plan, the project may then enter the Planning/Design Phase, which culminates with the Board of Visitors' Buildings and Grounds Committee considering the project's Schematic Design, first for review and then for approval. If the Board of Visitors' approval is not obtained, the project must be brought back at a subsequent quarterly meeting.

- Once Schematic Design is approved by the Board of Visitors' Buildings and Grounds Committee (and funding is in place), the project meets Gate 2 and may move into the Preliminary Design and Construction Phases.
- After Schematic Design, the project duration for completion of design and construction is typically 2-3 years.

Funding for Major Capital Building Projects:

There are several approaches for funding Major Capital Building Projects. For example, projects may be funded in-whole or in-part by cash; state general funds; auxiliary, operating or reserve funds; debt; gifts; or some combination thereof. Conversations and decisions about funding happen early in project development and have impacts on project timing.

It is important the project sponsor consult with the designated Facilities Management Project Manager to understand the cost estimates for planning/design and construction phases of the project.

A brief description of each of the possible funding sources is below; please consult with your local Finance team to learn more:

- **Cash:** Work with your local Finance team to determine the availability of cash to fund the project. Projects are funded monthly based on actual expenditure.
- **Debt:** Work with Treasury to create an internal loan agreement to fund the project. Interest rates/length of loan will be determined by Treasury.
- **Gift:** Work with Advancement as soon as the project is identified, and a Project Proposal Form is submitted. Remember, if gift-funded, the project must be 100% pledged [50% cash in-hand].
- **State General Fund:** Work with the Office of the Senior Vice President for Operations and State Government Relations to determine if the project is eligible for state funding; and by means of a thorough vetting process with Executive Leadership, determine whether the project is a University priority for seeking state funding. Requests to be included in the Commonwealth's capital budget are submitted to the Commonwealth each summer for consideration of funding in the following fiscal year.

PHASE ONE: Capital Plan Development/Call for Proposals

Establishing the need: During this phase, the project sponsor is assisted in developing a robust project proposal and finance/business plan. This phase ends when a project achieves the **Gate 1** requirement of a Board of Visitors approved preliminary finance/business plan and is included on the [Major Capital Plan](#) (typically at the June Board of Visitors meeting).

The annual evaluation and update of the multi-year major capital plan is formally kicked off when the Senior Vice President for Operations and State Government Relations issues the *Call for Proposals* in September. The Call requests Executive Leadership to consult with their deans, vice presidents and other unit heads to create a prioritized list of projects they recommend be added to the multi-year major capital plan. The Call also requests recommendations to remove projects that have remained on the capital plan for a while but have yet to advance.

Project Proposal:

In accordance with the directions set forth in the *Call for Proposals* and to be considered for placement on the major capital plan, a [Major Capital Project Proposal Form](#) must be submitted by the project sponsor.

A robust proposal is recommended, and at minimum, should include:

- Project background, scope, drivers or need, and any program, space, or land use studies conducted. (Needs based on institutional risk or other regulatory requirements should be clearly stated).
- Proposed timeframes for design and construction, expected completion date.
- Specific financial information including an estimated budget and proposed funding source(s).

Project Charter:

Clear and reliable communication is essential to the success of any project. To ensure timely and consistent communication throughout the life of a project, the Major Capital Program has adopted a Project Charter process. We recognize every project has unique characteristics, but the consistency and clarity of communication should not vary depending on the complexity of a project or experience of the people involved. (Facilities Management has issued guidance to facilitate charters being implemented by the end of programming, prior to the start of Schematic Design). The Facilities Management Project Manager will initiate the Charter in collaboration with the project sponsor, Office of the Architect for the University, and others.

A Project Charter is intended to:

- Provide key stakeholders with baseline information to ensure a common understanding of the project objectives, scope, and budget, and tracks major changes that occur over the course of the project.
- Create alignment between the project management team and project sponsor.
- Define roles and responsibilities of each major stakeholder.
- Act as a foundation document against which key stakeholders can assess progress and identify issues and potential risks. The charter will be reviewed by the Steering Committee at major design milestones. Any significant/major changes in scope, budget, schedule, risks, or other areas impacting the project's initial alignment will be documented via a revised charter and rerouted for approval. Budget increases will be documented via a decision brief and included as an addendum to the project charter.

Project Charter Organization and Governance:

Unit/Department	Role/Responsibility
Project sponsor	<ul style="list-style-type: none">• Responsible for the overall project scope to accommodate the desired program; agree to and approve the overall project budget.• Provide input on the ultimate building design including the exterior materials, interior layout and finishes, and surrounding hardscape and plantings.• Approve any value engineering suggestions.• Approve change orders that represent a change from the originally approved project scope and specifications including substitutions of equipment and materials.
Office of the Architect for the University	<ul style="list-style-type: none">• Lead land use, programming, and design efforts, coordinating with internal and external stakeholders.• Partner with Facilities Management on budget and schedule with both parties having shared responsibility during design and construction, including the value management process.• Facilitate community engagement.• Gain concept, site, and design approval from leadership and Board of Visitors.
Facilities Management	<ul style="list-style-type: none">• Lead construction execution.• Partner with Office of the Architect for the University on budget and schedule with both parties having shared responsibility during design and construction, including the value management process.• Provide project stakeholders with updates on construction schedule status, project budget status, and change orders.• Provide value engineering suggestions to the project sponsor.• Approve all change orders.
Project Planning Group/Steering Committee	<ul style="list-style-type: none">• Provide oversight as the project's primary decision-making body in accordance with the approved budget and scope.
Senior Vice President for Operations & State Government Relations	<ul style="list-style-type: none">• Approve the architect/engineer selection.
Board of Visitors	<ul style="list-style-type: none">• Approve adding projects to the capital plan; finance plan; concept, site, and design guidelines; schematic design.

Multi-Year Major Capital Plan Project Criteria:

In accordance with capital planning procedures, the University updates its multi-year capital plan annually to add new projects, remove projects that are no longer a priority, and prioritize projects using established criteria including, but not limited to, the following considerations:

- Aligns with institutional strategy.
- Responds to a legal, compliance, or regulatory mandate; addresses a life safety risk.
- Provides value to the University community.
- Improves current conditions.
- Complies with current land use master plans.
- Supports the University's long-term mission.

Executive Leadership and the Board of Visitors review and determine project prioritization on the Major Capital Plan. Important things to note about the Major Capital Plan:

- Placement on the Major Capital Plan constitutes project approval, but not necessarily funding approval.
- Office of the Senior Vice President for Operations and State Government Relations communicates the Board of Visitors' decision about the review and approval to Facilities Management, the Office of the Architect for the University, and the school/unit representative via email (usually, February and June)

Estimating Project Cost:

Because the budget is one of the most critical components of every project, it is imperative every project begin with a realistic and workable budget. Project budgets are based on an understanding of the programmatic requirements, and the concept, site, and design guidelines (CSDG) established for the project. The earlier in the process this occurs the more the budgets need to be stated in terms of cost ranges with contingencies that reflect the inherent risk that the lack of detailed information at this stage of project development conveys. It is for this reason it is recommended every major capital project begins with a programming and feasibility study to establish scope and quality expectations, and an accompanying cost estimate with which to move forward into an approved project on the Capital Plan.

Finance/Business Plan:

A finance/business plan is a document outlining the financial aspects of a project, including one-time and ongoing costs, i.e., funding sources, financial feasibility, fundraising and debt repayment if applicable. It is required to ensure the project sponsor can demonstrate the viability of the project's finance/business plan, as well as how they propose to meet ongoing operating and maintenance costs (O&M).

Once drafted, the project sponsor, Facilities Management, the Office of the Architect for the University and SVPO&SGR review the finance/business plan for consistency. The finance/business plan is presented to the Board of Visitors' Finance Committee, which reviews and submits the plan to the Board of Visitors for final approval. The project budget's approval depends on the availability of the funding approved as part of the finance/business plan.

Once approved by the Board of Visitors, the budget is set, and the Office of SVPO&SGR communicates the decision and provides a copy of the approved finance/business plan to all participants.

Gate 1: A project achieves the Gate 1 requirement when the Board of Visitors approves the preliminary finance/business plan and adds it to the Major Capital Plan.

PHASE TWO: Planning/Design Phase

The Planning/Design Phase focuses on building the project team, helping define the concept, scope, and design of the major project components, and developing an approved Schematic Design. This phase includes Concept Design and Schematic Design and encompasses everything between the project kickoff meeting through the Board of Visitors' Buildings and Grounds approval of the Schematic Design. The Gate for this phase (Gate 2) is that a project must have Schematic Design approval, a viable funding plan in place; and if gift-funded, 100% pledged [50% cash in-hand].

Project Management:

Once a project is approved, the Director of Capital Construction and Renovations in Facilities Management assigns a project manager, and the Architect for the University assigns a project planner. These roles are assigned to specific projects based on several factors including expertise, experience, and availability. The project planner and project manager will share management responsibility throughout the project's lifecycle.

Capital Project Steering Committee:

A Capital Project Steering Committee (CPSC) is appointed and responsible for the project's development. It oversees the project's scope, budget, and schedule throughout design and construction. The CPSC serves as a project's primary decision-making body. The CPSC is chaired by the Architect for the University through Preliminary Design and by the Chief Facilities Officer through the remainder of design and construction.

Working Group:

The Working Group includes the project planner, project manager, and other stakeholders to advance the project and make recommendations to the CPSC regarding a project's development in accordance with approved budget and scope. The working group develops the agenda for CPSC meetings. Key decisions are communicated to all participants.

Architect/Engineer Selection:

In 2019, the Board of Visitors delegated the authority to approve the selection of the Architect/Engineering (A/E) consultants to the Senior Vice President for Operations and State Government Relations. The Architect for the University is charged with making the recommendation of the A/E and convenes and chairs a Screening and Selection Committee, which advises on the recommendation.

To solicit proposals from prospective A/E firms, the Architect for the University authors a public Request for Qualifications (RFQ) followed by a Request for Proposals (RFP). The Screening and Selection Committee reviews the responses, shortlists qualified A/E firms, and conducts interviews with firms.

Concept, Site, and Design Guidelines (CSDG):

CSDG establish key features and characteristics for a particular project. Specifically, CSDG describe:

- Land-use criteria and alignment with the goals of the Grounds Plan.
- Site planning opportunities and constraints
- Proposed character of the building and landscape

The CSDG serve two essential functions. They are developed to (1) set expectations regarding a project's location and alignment with the goals of the Grounds Plan, preliminary scope, and approach to surrounding context and character, and (2) inform and inspire designers on how to best contribute to the continuing architectural legacy of the University. The Architect for the University develops and presents the CSDG to the Board Visitors' Buildings and Grounds Committee for approval. Major deviations or changes from the approved CSDG require BOV approval.

Changes:

As a Board of Visitors approved project evolves, changes are sometimes either suggested or required. When changes occur during construction, they are managed through the Change Order process; the reason for the change is coded, logged, effects of change are assessed, and final action and funding decisions are recorded.

Budget increases of more than 10% of the Board-approved budget must go back to the Finance Committee for review and then to the Board of Visitors for approval. Significant design changes from the approved Schematic Design must be brought back to the Building and Grounds Committee of the Board of Visitors for review and approval.

Schematic Design (SD):

SD is the first design phase that gives a more specific view of the components and the scale of a project. The Board of Visitors' Building and Grounds Committee reviews and then approves Schematic Design, which is the second Gate in the major capital process. In creating the SD, the A/E works with the team to refine the program and develop the plans, sections, elevations, and building massing on the approved site.

Throughout the process, the Office of the Architect for the University (OAU) and Facilities Management collaborate to ensure the project program is developed, articulated, and successfully integrated with the buildings design prior to the Buildings and Grounds presentation. It is through the schematic design phase that the integration of programmatic needs, site constraints, and the budget come together to give a project its physical form and its place within the broader context of the UVA Grounds.

Value Management Process:

The Value Management (VM) Process is an ongoing tool for the University to examine the integration of a project's programmatic objectives with the building design. Most importantly, it allows the University to ensure the necessary functions and essential characteristics of the design are achieved in the most cost-effective manner without sacrificing quality, use, reliability, constructability, and long-term operations and maintenance budgets. A series of VM sessions take place routinely throughout the project's design phases.

GATE 2: A project achieves Gate 2 with an approved Schematic Design by the Building Grounds Committee of the Board of Visitors and a viable funding is plan in place. If gift-funded, 100% pledged [50% cash in-hand].

- Interior renovations do not require Schematic Design approval by the Board of Visitors.

PHASE THREE: Construction Phase

The Construction Phase includes all project activity from the development of the Preliminary Design, Construction Documents, Bid/Negotiation and then Construction, Inspections, and Occupancy. The timing and order of the steps within this phase vary, as much of the process is dictated by procurement methods and other variables specific to the project. Therefore, regular communication between the project sponsor and the Facilities Management project manager is essential for success.

Preliminary Design:

In this phase there is the preparation of more detailed drawings and final design plans, showing correct sizes and shapes for rooms. Also included is an outline of the construction specifications, listing the major materials to be used. Much of the mechanical, electrical, plumbing, and structural building systems design is developed during this phase in concert with the architectural design development.

Preliminary Design & Ongoing Value Management Sessions:

The value management session is revised as needed to ensure the necessary functions and essential characteristics of the design are achieved in the most cost-effective manner without sacrificing quality, use, reliability, constructability, and long-term operational and maintenance budgets.

Construction Documents:

Architect/Engineer (A/E) prepares Construction Documents, which are reviewed and approved in an iterative process.

Construction Procurement Methods:

There are several construction procurement methods available for major capital projects: Design/Bid/Build, Construction Manager (CM) at Risk, Design/Build (DB), and Invitation for Bid (IFB). Regardless of which method is chosen, the process must comply with the University's [Higher Education Capital Outlay Manual](#).

The procurement process is intricate, and each procurement type has specific requirements, features, and implications to a project. Key factors include project size, complexity, phasing, schedule, cost, and risk. Project sponsors can expect their project managers to engage them in conversations about procurement methods early on.

Below are brief explanations of the procurement methods applicable to a major capital project. More detail can be found at the [Contract Options and Documents site](#).

- **Design/Bid/Build:** Also known as fixed price contracting, the University will complete design, advertise for construction bids, and award to the low responsive bidder.
- **Construction Manager (CM) At Risk:** This is a 2-step procurement process by which the University issues an RFQ and subsequently issues an RFP to the shortlisted firms followed by interviews and selection. The CM is typically engaged prior to the completion of schematic design.
- **Design/Build (D/B):** The University will typically engage an A/E to prepare documents that describe the intent of the project and key design requirements and will then award the completion of design and construction to a single contractor through a firm bid process.
- **Invitation For Bid Process (IFB):** *Can be used for Construction Phase only.*
 - **Health System On-Demand IFB** – *for total construction cost less than \$10M*
 - A prequalified list of contractors selected using a Design/Bid/Build process for expedited procurement of Health System construction.
 - **Academic On-Demand IFB** – *for total construction cost less than \$10M.*
 - A prequalified list of contractors selected using a Design/Bid/Build process for expedited procurement of Academic construction.
 - **Prequalified Bidders for Competitive Sealed Bid/ IFB**
 - Evaluates qualifications and credentials of potential bidders for types of construction or services and establishes a list of all qualified firms prior to bidding.

Bid and Award:

The University will finalize procurement and issue a notice to proceed with the successful contractor. At that time, the project site and all work activities are turned over to the contractor's control. The Facilities Management project manager will be the key point of contact on behalf of the University, and will focus on safety, change management, quality control, budget, and schedule.

Reporting and Updates:

To keep leadership and other interested parties updated on pending or ongoing projects, communication is critical. Monthly summary reports are produced by the project manager, certain individual capital projects are presented monthly to the executive leadership, specifically, the President's Executive Review Team known as PERT, and regular updates about the overall Capital Plan and individual projects are shared regularly with the Buildings and Grounds Committee.

Budget and Scope Controls:

Cost management is crucial to a successful project. Changes during the construction phase can significantly alter the budget and schedule. Even with the best planning and organization, unforeseen issues may have an adverse impact on the budget and schedule. These may include, but certainly are not limited to, weather delays; unexpected site conditions like rock/archeology; unknown old, abandoned, or undocumented utilities; or supply chain issues.

Even though the budget has been set using the expertise of professional cost estimators, during construction the team must continue to review the following as they may affect the schedule and budget:

- Stay updated on construction market conditions.
- Use metrics from recently constructed projects on Grounds and recently constructed similar projects at other higher education institutions.
- Inflation adjustments.
- Possible supply chain issues.
- Volume of business in our region.

Codes Governance:

The Office of the University Building Official (OUBO) is responsible for ensuring building code compliance on all University-owned properties in Virginia and with administering the Virginia Uniform Statewide Building Code (VUSBC). The University Building Official directs the OUBO and reports to the University Board of Visitors as required by [§ 23.1-1016 of the Code of Virginia](#). Numerous state and federal codes as well as the University Design Guidelines (UDG) have an impact on the design and construction of buildings on UVA-owned property. Questions about the governing requirements that may apply to your project should be directed to the OUBO.

Drawing Review and the Building Permit:

[Section 23.1-1016 of the Code of Virginia](#) authorizes the University to designate its own Building Official, who directs a team of architects, engineers, and inspectors. The OUBO is responsible for drawing review, construction permitting, construction inspections, and issuing the certificate of occupancy for all construction activity – capital and non-capital – at the University.

The drawing review and permitting processes ensure a project adheres to state and federal codes, as well as the University Design Guidelines (UDG). Beginning with SD, the technical drawings produced by the design team are reviewed by the architects and engineers in OUBO. This multi-phase review process is outlined by the [Higher Education Capital Outlay Manual \(HECOM\)](#) and helps guide the building's design toward code compliance with the Virginia Statewide Uniform Building Code (VUSBC). At the conclusion of the design process, a building permit is issued by the University Building Official. With many capital projects, early permits are issued for sitework, foundations, or other components of the project to help expedite the construction process.

Construction Inspections and Occupancy:

Throughout construction, OUBO's inspectors, architects, and engineers visit the project site to ensure compliance with the permit documents. These inspections include the review of the primary structural, mechanical, plumbing, and electrical systems. Complex life-safety systems such as sprinklers, fire alarms, elevators, and emergency lights are also inspected and tested. A building's accessibility is also verified to ensure compliance with state and federal codes and guidelines.

A project reaches substantial completion once the life-safety systems are complete, and the majority of other inspections are done. Substantial completion means the building, or a major portion of a building, is safe to occupy by the public. A Temporary Certificate of Use and Occupancy (TCUO) is often issued through an application process, allowing the contractor to complete minor punch list work such as painting or patching while move-in activities occur. The final Certificate of Use and Occupancy is issued upon completion of all punch list work and system commissioning.

Post-Occupancy Survey:

Approximately one year after completion, a post-occupancy survey is conducted as part of a quality review to produce recommendations for future building design and construction evaluation. The recommendations are based on stakeholders' observations about building use. This survey is sent out by the Office of the Architect for the University to the building's occupants and a summary of the results is shared with the Board of Visitors.

Additional Information

[The University of Virginia's Grounds Plan: A Framework for Campus Planning](#) is a comprehensive guide that provides vision and strategic direction to guide the physical planning of the University for decades to come. New real estate properties should be evaluated relative to the strategic directions outlined in the Grounds Plan, specifically to:

- Continue to reinforce and grow the core of Grounds for teaching, research, and UVA Health System. New properties should be examined with an eye toward the potential to assist with immediate or long-term programmatic needs.
- Define and enhance residential neighborhoods on Grounds; being mindful as to whether the property provides more purposeful connectivity, rather than simply protecting or expanding boundaries and how its inclusion in the portfolio may serve future growth.
- Enhance mobility connections across Grounds.
- Establish mixed-use nodes to support placemaking, connectivity and collaboration.
- Consider the sustainability of income-generating properties or the potential to create an income stream on-site.
- Be a good neighbor and a strong partner to the greater Charlottesville region, historical or cultural sensitivities of properties under review, as well as existing vibrant commercial districts should be considered.

Architectural Preservation:

The Office of the Architect for the University (OAU) is responsible for developing guidelines for restoration and maintenance of the Academical Village and all other historic facilities. This includes oversight of all historic structure reports, and participation in capital projects associated with the renovation and adaptive reuse of historic buildings. Additionally, the OAU has the responsibility to determine the nature of historic fabric and to provide guidance in the programmatic activities in the Academical Village and other historic buildings and landscapes.

The Lawn and its surroundings, bounded by University Avenue, Hospital Drive, Jefferson Park Avenue, and McCormick Road is listed as a UNESCO World Heritage Site. It is also a National Historic Landmark and is on the Virginia Landmarks Register. Approximately 25 additional buildings, sculptures, and sites are also listed on the National Register of Historic Places and/or the Virginia Landmarks Register. The [2007 Historic Preservation Framework Plan](#) identifies about 250 additional buildings important to the University's history and character. (An updated report is scheduled to be published in 2025.) Work on any of the listed properties requires review by the Virginia Department of Historic Resources and the OAU. Work on buildings described as contributing, important, or essential should be reviewed with the OAU. Questions about an individual building's status should be directed to the OAU.

Determination and Findings (D&F):

Some codes and policies contain provisions to allow a deviation from the prescribed requirement. Any requested deviations or changes require a D&F. The D&F process is used to manage the submission, review, and disposition of requests to deviate from a policy, criteria, standard procedure, or other rule within which the University would otherwise be required to operate.

D&Fs fall into five main categories, each of which has a process for routing, review, and approvals. Questions related to D&F should be directed to your FM project manager.

- Code Modifications (see below- Virginia Uniform Statewide Building Code)
- Stormwater Bank Credit Use
- Design Issue
- Procurement Issue
- Sustainability and Green Building Standards

At UVA, the following are applicable codes and policies that permit D&Fs:

- **Virginia Uniform Statewide Building Code (VUSBC):**
Waivers or exceptions to the VUSBC are not generally permitted. In extreme cases and when equivalent health and safety provisions are proposed, an alternative method may be accepted. A D&F for Code Modification is made with submittal of design materials and accompanied by documentation from a licensed professional architect/engineer to substantiate the equivalency of the proposed method and is approved by the University Building Official.
- **University Design Guidelines (UDG):**
The University Design Guidelines (UDG) provide procedural and technical requirements broadly applicable to all design and construction projects. They are intended for architects, landscape architects, and engineers involved in preparing construction documents for UVA. They apply institutional lessons-learned through design, constructions, and in-house services. D&Fs to the UDG require significant rationale and are approved by procurement, the University Building Official, and the Chief Facilities Officer.
- **[Higher Education Capital Outlay Manual \(HECOM\):](#)**
The University of Virginia's HECOM outlines the policies, procedures, and guidelines that must be followed in the execution of projects. The HECOM provides the flexibility to waive certain standards or requirements subject to the prior approval of the Director of Capital Construction and Renovations and the Chief Facilities Officer.

Major Capital Program Handbook Glossary and Contact Information

ABBREVIATIONS	DEFINITIONS	CONTACT	PHONE	EMAIL
A/E	Architect/Engineer			
AVP- FP&A	Assistant Vice President for Financial Planning and Analysis (Finance)	Katie Walker, Assistant Vice President for Financial Planning and Analysis	434-243-4747	kae9gd@virginia.edu
B&G	Buildings and Grounds Committee- Committee of the Board of Visitors with responsibility in matters relating land use planning and acquisition policy, oversight over the use of space and the care, maintenance, and security of the University's buildings and grounds including furnishings and equipment; the selection of architects and engineers and the siting, construction, and naming of new buildings; and approval of the siting and design of new buildings.			
BOV	Board of Visitors	Susan Harris, Secretary to the Board	434-924-7081	sgh4c@virginia.edu
CCR	Capital Construction and Renovations (Facilities Management)	Mark Stanis, Director of Capital Construction and Renovations	434-982-2827	mstanis@virginia.edu
CFO	Associate Vice President and Chief Facilities Officer (Facilities Management)	Don Sundgren, Associate Vice President and Chief Facilities Officer	434-982-5834	des5j@virginia.edu
CM/GC	Contract Manager/General Contractor			
CPSC	Capital Project Steering Committee			
CSDG	Concept, Site, and Design Guidelines			
CWP	Construction Work Package(s)- Proposal for executives to ensure the construction of a given project or production is well-planned.			
DBS	Director Business Services (Financial Operations Facilities Management)	Blake Watson, Director of Business Services	434-982-5075	jbw7d@virginia.edu
DGS	Department of General Services			
ELG	Executive Leadership Group			
EVP-COO	Executive Vice President-Chief Operating Officer	Jennifer "JJ" Davis, Executive Vice President and Chief Operating Officer	434-924-3252	jwd3n@virginia.edu
EVP-HA	Executive Vice President for Health Affairs (UVA Health) and CEO	K. Craig Kent, MD CEO and Executive Vice President for Health Affairs		ckkent@virginia.edu
FM	Facilities Management	Don Sundgren, Associate Vice President and Chief Facilities Officer	434-982-5834	des5j@virginia.edu

FP&A	Financial Planning and Analysis	Katie Walker, Assistant Vice President for Financial Planning and Analysis	434-243-4747	kae9gd@virginia.edu
FP&D- MC	Facilities Planning and Capital Development (Medical Center)	Kevin Fox, Director Facilities Planning & Capital Development, Major Capital Projects Medical Center	434-924-8400	KEF4Q@uvahealth.org
OAC	Owner, Architect, Contractor			
OAU	Office of the Architect for the University	Alice Raucher, Associate Vice President and Architect for the University	434-924-6015	alice.raucher@virginia.edu
OUBO	Office of University Building Official	Benjamin Hays, University Building Official	434-982-5919	bhays@virginia.edu
PM	Capital Construction and Renovations (CCR) Project Manager			
SVPO&SGR	Senior Vice President of Operations and State Government Relations	Holly Wyatt Herman, Special Assistant to the Senior Vice President for Operations and State Government Relations	434-924-6420	HWHerman@virginia.edu
TERM	DEFINITIONS	CONTACT	PHONE	EMAIL
Advancement	The fundraising arm of the University that is consulted on for gift-funded aspects of projects.	Penny Cabaniss, Associate Vice President and Chief of Staff	434-924-3454	pqc2f@virginia.edu
Budget	The total amount of authorized financial resources allocated for the particular purpose(s) of the sponsored project for a specific period of time.			
Call for Proposals	Request by the Office of the SVP for Operations and State Government Relations to the President and Executive VPs requesting review of the current Multi-year Major Capital Plan for changes (e.g., removal of projects, change of project scope/budget, change in timeframe in which project will be initiated) and recommendations for a prioritized list of new major capital projects to be added to the Plan [all recommended new projects should be accompanied by a completed Major Capital Project Proposal Form]			
Capital Authority	The budget that has been approved by the BOV. Currently, using eBuilder, FM reports against capital authority, but there are situations where peripheral charges need to be accounted for, i.e. medical equipment, software, and PCs.			

Capital Planning Program Strategy Framework	<p>A framework for ensuring capital planning dollars are allocated in the best way to provide the maximum impact towards institutional goals and provides structure to answer:</p> <ul style="list-style-type: none"> -What are our broad aspirations for our organization & the concrete goals against which we can measure our progress? - Across the potential field available to us, where will we choose to play and not play? - In our chosen place to play, how will we choose to win against the competitors there? - What capabilities are necessary to build and maintain to win in our chosen manner? - What management systems are necessary to operate to build and maintain the key capabilities? 			
Capital Project Steering Committee (CPSC)	The Steering Committee is a project's primary decision-making body and is responsible for the project's development in accordance with the approved budget and scope; oversees the project's scope, budget, schedule, and design; and serves as the primary contact with the consultant's design team.			
Certificate of Occupancy	Document issued by Office of the University Building Official certifying a building's compliance with applicable building codes and other laws and indicating it to be in a condition suitable for occupancy.	Benjamin Hays, University Building Official	434-982-5919	bhays@virginia.edu
Change in Scope	"Material" change in size of project (per UVA Management Agreement). Approval by Buildings & Grounds and Finance Committees (as well as full Board) required for 10% change in budget as result of bidding.			
Commissioning	Process of verifying, in new construction, all (or some, depending on scope) of the subsystems for mechanical (HVAC), plumbing, electrical, fire/life safety, building envelopes, interior systems (example laboratory units), co-generation, utility plants, sustainable systems, lighting, wastewater, controls, and building security to achieve the owner's project requirements as intended by the building owner and as designed by the building architects and engineers.			
Concept, Site, and Design Guidelines (CSDG)	Documents prepared by the Office of the University Architect for the Buildings and Grounds review and approval of a project's program scope, proposed site (land use recommendation), and recommended building scale/massing, and architectural character.			
Construction Documents (CD)	Drawings and specifications for incorporation in the contract documents to show the complete scope, extent, and character of the work to be furnished and performed by the contractor(s).			
Construction Phase	Construction phase begins with an approved schematic design. If a project is funded wholly or in-part by gifts, University policy/practice states that (1) 50% of philanthropy, valued on a present value basis, is received and deposited into a University account with the remaining 50% committed via written enforceable pledges; and (2) 100% of the written enforceable pledges will be collected prior to the project's completion, or the project sponsor is prepared to use short-term financing to bridge cash collections of pledges.			
Debt Funding Subprocess	<p>Specific actions that need to be taken before debt can be issued [not specifically associated with change of fund scope, should be done any time debt is issued]:</p> <ul style="list-style-type: none"> -- Project credit analysis -- BOV approval -- Private-use analysis -- External opinion from Bond Council -- Intent-to-issue from Chief Operating Officer (COO) and Chair of the Finance Committee -- Internal loan 			

Decision Brief	A required written summary, developed by the respective Facilities Management project manager, reviewed by the project sponsor, and approved by the SVPO&SGR, that explains capital project budget increases. Any budget increase in excess of 10 percent must also be approved by the Finance Committee and the Buildings and Grounds Committee, as well as the full Board.			
Design Documents	Design Documents is a term that at times is used interchangeably for both schematic design and / or preliminary design.			
Enabling Construction Packages	Subprojects that are pre-requisites to starting building construction, i.e. site work, preparing other buildings to handle capacity as in the case of a major renovation, etc.			
Executive Leadership	Representatives appointed by the University President to make final review of major capital building proposals			
Executive Level Unit/School Representative	Sponsors of the project at the executive level.			
Facilities Roundtable	Quarterly meeting of Facilities Management and other stakeholders to update/maintain information and Board-related actions for major capital projects.			
Finance/Business Plan	Template that outlines financial aspect of a project, including one time and ongoing costs, i.e. fund sources, financial feasibility, fund raising and debt repayment if			
Higher Education Capital Outlay-2 (H-2)	This form sets the budget and authority to initiate spending on a capital project and contains project budget line items, funding sources, and a high-level project schedule for the project. An e-Builder process initiates the form that requires approval by the FP&C Project Manager, FP&C Team Leader, FM Budget Analyst – Financial Services, FP&C Division Director, Customer, FM Budget Analyst – Capital Projects, and FP&C Director. Note: The form must follow Department of General Services (DGS) CO-2 form standards outlined in the Commonwealth of Virginia Construction and Professional Services Manual.			
Land Use Study	Process by which land assets are evaluated and assessed to become a basis for decisions involving program use, development density, environmental effects, and overall impacts on the UVA community and the University's Grounds Plan.			
Long Term	Third biennium and beyond in the Multi-year Major Capital Plan			
Major Capital Project	A single renovation or new construction project of 5,000 SF or more or with a project budget of \$5 million or more [note: also includes acquisition of real property and capital leases but have delegated authority so these follow a different path]. Source: UVA Management Agreement			
Major Capital Project Program Director	Position charged with directing the Major Capital Building Program, located in the office of the SVPO&SGR	Holly Wyatt Herman, Special Assistant to the Senior Vice President for Operations and State Government Relations	434-297- 6420	HWHerman@virginia.edu
Major Capital Project Proposal	Formal process by which units submit a general description, projected budget, and anticipated start date of a project, including how the proposed project aligns with the University's strategic priorities. Proposed projects may result from a specific planning process undertaken by the unit.			

Major Projects Status Report	Quarterly report provided to the Board approximately 45 days after the end of each quarter, providing key project facts for each authorized major capital project on the Multi-year Capital Plan. Project facts include: -- Authorized funding sources -- Working budget -- Building & Grounds (B&G) approval dates: (1) Project; (2) Concept/Site/Design Guidelines; (3) Architect/Engineer Selection; (4) Schematic Design -- High-level scope description -- Planned construction start and completion dates -- Comments/update on progress			
Mid Term	Second biennium in the Multi-year Major Capital Plan.			
Move-in Plan	Steps necessary to occupy the building			
Multi-year Major Capital Plan	A listing of all major capital projects for the Academic Division, Health System, and UVA's College at Wise over a six-year plus timeframe (consistent with State requirements), including estimated project budgets and fund sources, by biennium in which projects will be initiated.			
Near Term	Timeframe in the Multi-year Major Capital Plan (Plan) representing the first two years (biennium) of the Plan; all projects in the near-term should have an approved finance/business plan before entering the design phase.			
One-Pagers	New Major Capital Project Proposal summaries that are generated for the BOV.			
Operating and Maintenance (O&M) Calculation	See Definition for O&M Costs. Using the finance/business plan template, FM Finance calculates estimated O&M costs based on capital project assumptions, such as square footage, project cost, and space usage, and UVA's historical O&M costs. The project sponsor must identify the funding source for on-going estimated costs.			
Operating and Maintenance (O&M) Costs	The post-occupancy costs (utilities, maintenance, custodial, grounds care, security, and property insurance) associated with operating a building that must be funded by a building's occupants. This is part of the Finance/Business Plan.			
Phased Approach	Offers the option to include project activities that have a finance/business plan in the near term, including estimates for the rest of the project in the mid or long term			
Philanthropy	Funding from private sources (i.e., gifts).			
Planning / Design Phase	Project Phase that starts after a Finance/Business Plan is approved and completes with an approved Schematic Design by the BOV B&G Committee.			
Planning Study	Focused efforts that evaluate the feasibility and options for capital or land-use proposals, and define program, budget, and scope for capital development if applicable.			
Post Occupancy Evaluation	A quality process for improving buildings' support for productivity and wellbeing. It produces recommendations for building solutions and ways of using them more effectively. The recommendations are based on stakeholders' testable observations about building use. This survey is sent out by the Office of the Architect for the University to the building's occupants, compiled, and a summary is sent to the BOV.			
Pre-Design Phase	Project activities that occur in advance of approval of the project by the BOV, such as studies, developing a project proposal, and developing a finance/business plan			

Pre-Design/Project Development Phase	Project Phase that encompasses Near, Mid, and Long Term project development; completing with an approved project's Finance/Business Plan by the BOV Finance Committee.			
Preliminary Design (PD)	The preparation of more detailed drawings and final design plans, showing correct sizes and shapes for rooms. Also included is an outline of the construction specifications, listing the major materials to be used.			
Previously Approved Projects	Major capital projects approved by the Board of Visitors to be included on the Multi-year Major Capital Plan (approval of finance/business plan required for near-term projects only).			
Private Funding Assessment	A determination of fund-raising feasibility			
Procurement Method	There are several routes by which the design and construction of a building can be procured. The selected method should follow a strategy that fits the long-term objectives of the Finance/Business Plan. Typical methods used at UVA include, but are not limited to, Construction Manager at Risk (CM); Design/Bid/Build; Design/Build; and Invitation for Bid Process (IFB).			
Program Development	Pre-design phase that identifies a project's programmatic elements.			
Project Charter	This foundation document provides key stakeholders with baseline information to ensure a common understanding of the project objectives, scope, and budget, and tracks major changes that occur over the course of the project.			
Project Concept	Initial high-level framework/approach to a program or design.			
Project Credit Analysis	Credit analysis performed when debt is requested; review of unit's cash flow to determine amount of debt that can be serviced.			
Project Sponsor	The individual with overall accountability for the project (often an executive-level representative from the School/Unit that is the customer). The Project Sponsor is primarily concerned with ensuring the project delivers the agreed scope.			
Punch List	A list of minor deficiencies remaining when construction is determined to be substantially complete			
Schematic Design (SD)	First phase in the design of a project where an architect/engineer prepares concept diagrams giving a general view of the components and the scale of the project after detailed discussions with the project sponsor. During the schematic design phase, the building program is given form through development of the project massing, concept design, and placement on the approved site.			
School/Unit Capital Priorities	Proposed strategic investments in physical assets as defined by a school or business unit, including the Health System and UVA's College at Wise.			
School/Unit Leaders	Deans, VPs, Unit heads/Directors			
Scope	Part of project planning that involves determining and documenting a list of specific project goals, deliverables, features, functions, tasks, deadlines, and ultimately costs.			
Senior Program Management	Senior level service providers			
Stakeholders	All entities having a stake in the project.			
Substantial Completion	Construction project that is sufficiently complete in accordance with a contract for the owner to occupy and/or utilize it for its intended use, without undue			

	interference.			
Temporary Certificate of Use and Occupancy (TCUO)	Certificate may be issued via application process for move-in to occur while contractor completes minor Punch List work such as painting or patching.			
Treasury	Known as Office of the Treasurer. Consults on debt-funded projects.	Julie Richardson, Treasurer	434-243-8672	jwrichardson@virginia.edu
Unit/School Representative	The project sponsor's representative for the project			
Value Management (VM) Process	The VM process is an ongoing management tool for the University to examine the integration of a project's programmatic objectives with the building design, and to ensure necessary functions and essential characteristics of the design are achieved in the most cost-effective manner without sacrificing quality, use, reliability, constructability, and long-term operational and maintenance budgets.			
Working Group	Group comprised of representatives of Facilities Management Capital Construction and Renovations, University Architect, Unit/School Representatives, the Project Manager, and others to monitor and/or make decisions as necessary regarding a project's development in accordance with the approved budget and scope. Meets monthly at a minimum; can be scheduled more frequently depending on complexity/ size of project.			

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