



# Construction and Professional Services Manual



Proposed Corps Leadership and Military Science (CLMS) Building

Facilities Department

Effective January 24, 2020

# MEMORANDUM

TO: Dwayne L. Pinkney, Senior Vice President and Chief Business Officer

FROM: Christopher H. Kiwus, Associate Vice President and Chief Facilities Officer *CHK*

DATE: January 24, 2020

SUBJECT: Virginia Tech Construction and Professional Services Manual

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This memorandum shall serve as a request for review and authorization of the Virginia Tech Construction and Professional Services Manual (The Manual), January 24, 2020.

Pursuant to the Restructured Higher Education Financial and Administrative Operations Act, § 23.1-1002 et seq. of the Code of Virginia and the resulting Management Agreement Between The Commonwealth of Virginia and Virginia Polytechnic Institute and State University, Virginia Tech has the authority to develop implementing procedures for the procurement of Professional Design and Construction Services. This Manual is effective January 24, 2020.

Upon your approval and signature below, please return this memorandum to my office for distribution. Should you have any questions please feel free to contact me.

Enclosures:

- Summary of Changes to the VT CPSM from DGS DEB CPSM, January 24, 2020
- Virginia Tech Construction and Professional Services Manual, January 24, 2020

REVIEWED AND AUTHORIZED:

  
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Dwayne L. Pinkney  
Senior Vice President and Chief Business Officer

*1-24-2020*  
\_\_\_\_\_  
Date

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# CHAPTER 1 – INTRODUCTION

## 1.0 GENERAL

Construction and renovation of buildings on state-owned property in the Commonwealth of Virginia shall comply with the provisions of the [Code of Virginia](#). Below are applicable *Code of Virginia* sections referenced in the Virginia Polytechnic Institute and State University Construction and Professional Services Manual:

- a) Administration of Capital Outlay Construction projects: [§ 2.2-1132](#)
- b) Virginia Public Procurement Act: [§§ 2.2-4300 through 2.2-4377](#)
- c) Construction Management and Design-Build Contracting: [§§ 2.2-4378 through 2.2-4383](#)
- d) Code and Technical Requirements for Buildings on State Property
  - a. Uniform Statewide Building Code: [§§ 36-97 through 36-107.1](#)
  - b. Accessibility Standards: [§§ 2.2-1159 through 2.2-1161](#)
  - c. Asbestos Management Plan/Asbestos Project Design: [§ 2.2-1164](#)
  - d. EIR Reports: [§§ 10.1-1188, 10.1-1190 and 10.1-1191](#)
  - e. High Performance Buildings Act: [§ 2.2-1183](#)
- e) Uniform Electronic Transactions Act: [§§ 59.1-479 through 59.1-498](#)
- f) AARB review of all new buildings, exterior modification to an existing building, or demolition thereof: [§ 2.2-2402, B](#)
- g) Notification of availability of Preliminary Drawings: [§ 15.2-2202, C & D](#)
- h) Value Engineering: [§ 2.2-1133](#)
- i) Freedom of Information Act (FOIA): [§ 2.2-3700](#)
- j) Conflict of Interest: [§ 2.2-3100](#)

The Virginia Polytechnic Institute and State University (“Virginia Tech” or the “University”) Construction and Professional Services Manual (hereafter referred to as the “Manual”) consists of eight Chapters and Appendices A through V and contains policies, procedures and guidance to follow in the planning, design, and execution of both capital outlay and non-capital outlay projects.

The sequence of the Manual corresponds to the sequence of the Virginia Department of General Services (DGS)/Division of Engineering and Buildings (DEB) Construction and Professional Services Manual – 2019 (CPSM) with some exceptions to the content. Because of the enabling legislation ([Section 1.0.1](#)), emphasis has been placed on University authority, needs and requirements. Design and construction standards have been relocated to a separate document, the Virginia Tech Design and Construction Standards Manual (DCSM), to focus on the specific requirements for the University.

**The Virginia Tech Senior Vice President and Chief Business Officer (SVP & CBO) has authority over the content and execution of the Manual and any modifications, additions, or deletions shall be under the purview of the SVP & CBO without approval or input from other parties. The Associate Vice President and Chief Facilities Officer (AVP & CFO) has authority over the content and execution of the DCSM and any modifications, additions, or deletions shall be under the purview of the AVP & CFO without approval or input from other parties.**

The Manual and the DCSM and all revisions thereto, shall be incorporated into the “Contract Between the Owner and the Architect/Engineer” in their entirety, except as amended or superseded in the Contract or an addendum thereto. Architects and Engineers shall follow the policies, procedures and guidance in the Manual and the DCSM in providing services to the University in the planning, design, and execution of both capital outlay and non-capital outlay projects unless otherwise exempt in writing by the Contract or its Memorandum of Understanding.

**The Manual and the DCSM are under concurrent development. If the DCSM has not been approved and distributed prior to the approval and distribution of the Manual, then users of the Manual are required to comply with the corresponding sections from the current edition of the Virginia Construction and Professional Services Manual, published by the Virginia Department of General Services (DGS)/Division of Engineering and Buildings (DEB). When the DCSM has been approved and distributed, then users of the Manual are required to comply with the DCSM.**

### **1.0.1 Enabling Legislation**

1. [Restructured Higher Education Financial and Administrative Operations Act](#) (The Act) – *Code of Virginia* §§ 23-1000 through 23-1028
2. Management Agreement Between the Commonwealth of Virginia and Virginia Polytechnic Institute and State University Pursuant to The Restructured Higher Education Financial and Administrative Operations Act ([The Management Agreement](#))
3. Rules Governing Procurement of Goods, Services, Insurance and Construction by a Public Institution of Higher Education of the Commonwealth of Virginia Governed by the [Restructured Higher Education Financial and Administrative Operations Act](#) (the [Governing Rules](#)) which establishes the procurement policy for the University in substitution to the Virginia Public Procurement Act (VPPA), *Code of Virginia* [§§ 2.2-4300 through 2.2-4377](#), with the exception of [§ 2.2-4350](#) and [§§ 2.2-4367 through 2.2-4377](#).

In compliance with the Act and the Management Agreement, this Manual and the DCSM serves to notify the Virginia DGS/DEB, the Architect/Engineer (A/E), the Contractor, and other entities involved in regulating, proposing, or contracting with the University for design, construction, and capital outlay projects of the procedures the University applies to the management of its Capital Outlay Program.

The Act provides that:

*Tier III agencies have control over all capital outlay procedures regardless of the source of funds (General Fund or other). For pool funded projects, this control begins once the project has been funded by the Governor's Designee (6-PAC). The agency shall comply with the Higher Education Management Agreement as it relates to the Virginia Public Procurement Act.*

### **1.0.2 Subject to Changes in Legislation**

1. All Construction Work, for both Capital and Non-capital Projects, shall be procured in accordance with this Manual and the DCSM regardless of the source of funds by which the contract is to be paid. Non-capital work for repair or replacement in kind, or for minor remodeling or renovation, whose project value is estimated at less than \$1 million and which does not require plans, does not modify the building Use Group Classification, does not change existing fire safety elements, and for which no building permit or demolition permit is required may be procured as non-professional services in accordance with the [Governing Rules § 3](#) and is not subject to the requirements of this Manual.
2. The Act and the Management Agreement delegate authority for Building Code enforcement in University buildings to the University Building Official (UBO). Thus the authority having jurisdiction for building code compliance for all construction activities on University-owned property is the UBO.

### **1.0.3 Virginia Tech Facilities Principles and Standards**

The Virginia Tech Facilities Department Planning & Construction website provides quick links to University projects in both planning and construction stages and to the Virginia Tech [Principles & Standards](#) website. Links to selected requirements and standards are listed below.

- a) [Building Code Compliance](#) requirements including, but not limited to, A/E Seal Requirements, Building Code Related Design Criteria, Codes, Forms, and Guidelines, Procedures & Resources
- b) [Stormwater Management Program](#) on the Virginia Tech Site and Infrastructure website
- c) [Network Infrastructure & Services Design and Construction Standards](#) on the Virginia Tech Cabling Standards website
- d) [Construction Safety](#) requirements including, but not limited to, Asbestos, Contractor Safety, Electrical Safety, Excavation Safety, Fall Protection, Hearing Safety, Heat Safety, Lockout/Tagout, Personal Protective Equipment, and Respiratory Protection on the Virginia Tech Environmental Health and Safety website

## 1.1 MANUAL DESCRIPTION

The contents of the Manual are directive in nature. Deviations from the policy and procedures outlined within shall be requested by the Facilities Department and approved by the Senior Vice President and Chief Business Officer (SVP & CBO) or designee.

### 1.1.1 Capital Outlay Process

The Manual is arranged in a sequence that parallels this project acquisition process. The 2019 Edition of the Manual including errata corrections will be posted on the Facilities website and may be downloaded and printed by the users. DEB Notices concerning construction and professional services and DEB Notices concerning the application of the Uniform Statewide Building Code (USBC) to buildings on University property can be found in the [DEB Notices](#) section of the DGS website when issued.

### 1.1.2 Revisions to Manual

Revisions to the Manual are periodically issued electronically by posting on the Facilities Department website. Revisions in the Manual will periodically be incorporated into the Manual. Paper copies of the revisions are not issued but may be printed by the user from the website.

Many of the revisions or requirements included in a revision to the Manual are made to reflect changes in the [Governing Rules](#) or [Code of Virginia](#) or other requirements which must have immediate compliance. Therefore, a revision to this Manual shall be effective on the date stipulated and shall apply to any and all projects for which an approved HECO-6 has not been issued as of the date printed on the revision.

### 1.1.3 Maintenance of Manual

The Facilities Department is responsible for maintenance of the Manual and the DCSM. Suggestions for changes or clarifications and questions should be addressed to:

Facilities Department (0529)  
Sterrett Facilities Complex  
Virginia Tech  
230 Sterrett Drive  
Blacksburg, VA 24061

## 1.2 MANUAL ORGANIZATION

The Manual is organized as follows:

Chapter 1 provides an introduction to and overview of the Manual, outlines the authorities under which it is published, establishes the University's design and life cycle cost philosophy, and summarizes the processes for major capital and non-capital construction projects..

[Chapter 2](#) presents Capital Outlay, contractual, and procurement terminology that is used in the Manual and its standard forms.



[Chapter 3](#) provides guidance for the University on the topic of A/E services, including the procedures to be used by the University for procuring professional services, and for determining fees for A/E services.

[Chapter 4](#) has been deleted from this Manual and moved in its entirety to the DCSM. It contains applications and clarifications of the Virginia Uniform Statewide Building Code which apply to the design of building construction on University property, along with technical design criteria, and DEB policy affecting the design and construction of University facilities. This also contains information on UBO reviews, permits, certificates and approvals applicable to both Capital Outlay and Non-Capital Projects.

[Chapter 5](#) establishes the format for the preparation of design documents and other professional studies by the A/E for the University. It also outlines the submittal requirements and approval milestones in the design stages of Capital Outlay projects. Contact information is provided for submittals of Land Use Plans, Master Plans, and Master Site and Utility Plans.

[Chapter 6](#) describes University design, operation, maintenance and procurement guidelines for use in developing plans and specifications for construction and renovation of University facilities. The standards in this chapter shall be utilized unless a waiver in writing is granted by the AVP & CFO.

[Chapter 7](#) outlines the procedures for procurement of construction services for projects using design-bid-build, design-build and construction management at risk project delivery processes, and the Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA). It addresses advertisements, receiving and opening bids and contract award. Chapter 7 also contains procedures for construction administration, construction change orders, project completion, final inspection, facility occupancy and project close-out. Chapter 7 outlines special procedures including prequalification of contractors and delegation of review. This chapter provides guidance for selecting the Building Committee and describes the duties to be performed by the Committee.

[Chapter 8](#) contains guidance and procedures for University planning of Capital Outlay projects and the approval process, procedures for utilization requirements, completion and submittal of the various 'CO' forms applicable to construction for both Capital and Non-Capital projects, and contains requirements for various reports to be submitted by the University.

## **1.3 CAPITAL OUTLAY VS. NON-CAPITAL OUTLAY PROJECTS**

### **1.3.1 Capital Outlay Projects**

General Fund Capital Outlay Projects, as defined by the Virginia Department of Planning and Budget (DPB) Instructions, must be authorized by the General Assembly or by the Governor as provided for in the Acts of Assembly (also called the Appropriations Act). Non General Fund Capital Outlay projects shall be authorized by the Virginia Tech Board of Visitors (BOV). Capital Outlay Projects use an established authorization and approval sequence for the "Design Phase" of Project to include:

- Project Initiation (using the [CO-2](#) or HECO-2),
- Schematic Design Approval Phase (using the [CO-4](#) or HECO-4),
- Preliminary Design Approval Phase (using the [CO-5](#) or HECO-5) and
- Working Drawing or Construction Documents Approval Phase (using the [CO-6](#) or HECO-6).
- After receiving Bids, Construction Contract Award approval is made using a [CO-8](#) or HECO-8.

These forms are also used to track the cost of the project, the commitment of funds and the infusion or transfer of funds for the project. Forms HECO-4, HECO-5, and HECO-6 are not required for Design Build or Construction Management at Risk projects. See [Appendix B](#) for a General Guide to Key Form Submittals and [Chapter 8](#) of the Manual for a description of the approval authority for the forms. The forms will be found in the DGS Building Information Tracking System ([BITS](#)) or can be obtained from Virginia Tech Facilities Finance.

For pool projects,

- Do not proceed to Preliminary Design until the Schematic Cost Report is issued by DEB, and
- Do not proceed to Working Drawings until the Funding Report is issued by DEB.

### **1.3.2 Non-Capital Outlay Projects**

Non-Capital Outlay Projects, as defined by the Virginia DPB Instructions, are usually small construction, renovation, repair or replacement projects which are funded by University resources and do not require authorization by the Legislature and the Governor or the BOV. However, Non-Capital Outlay Projects typically involve work that is regulated by the USBC and require a Building Permit from the UBO. All Construction Work, for both Capital and Non-Capital Projects, shall be procured and managed in accordance with the Manual regardless of the source of funds by which the contract is to be funded.

Non-capital work for repair or replacement in kind, or for minor remodeling or renovation, whose project value is estimated at less than \$1 million and which does not require plans, does not modify the building Use Group Classification, does not change existing fire safety elements, and for which no building permit or demolition permit is required may be procured as non-professional services in accordance with the [Governing Rules § 3](#) and is not subject to the requirements of this Manual. For projects meeting this criteria, procurement of goods and services will be managed under the Commonwealth of Virginia Procurement Manual for Institutions of Higher Education and their Vendors.

### **1.3.3 Construction**

The Construction Phase is similar for both Capital Outlay and Non-Capital Outlay Projects (depending on the project scope) for Building Permits, Change Orders, Project Substantial Completion, and Certificate of Occupancy. The exception is usually that Capital Outlay Projects require submission of revised capital outlay authorization forms

during construction for approval to adjust certain budget line items and to revise project funding. See [Chapter 8](#) for more specific guidance on form submission requirements.

## 1.4 DESIGN PHILOSOPHY

The design goal is to create a capital investment that meets the user's functional requirements, provides the most economical life cycle cost, promotes energy efficiency and environmental conservation, and reflects the values of elegance, quality, and durability. The University's design philosophy envisions a long and useful life for University buildings. These buildings will often be used for periods exceeding 100 years and, consequently, should be designed for durability, economy of operation and ease of maintenance. Further, the Appropriations Act states that "Projects shall be developed to meet agency functional and space requirements within a cost range comparable to similar public and private sector projects." Note that this does not say the "best" or "most expensive," nor the "cheapest."

Building system components and architectural building envelope should be selected on the basis of life cycle costs. If an increased first or initial cost can be documented to show a reduced life cycle cost for the University, particularly for operating and personnel costs, then the design should incorporate the more expensive first cost feature or system, provided that it does not cause the project cost to exceed its "design-not-to exceed" budget.

## 1.5 FORMS *(not all forms listed)*

FORM	
HECO-2	Authority to Initiate Capital Project
HECO-4	Application for Approval of Schematic Design
HECO-5	Application for Approval of Preliminary Design
HECO-6	Application for Approval of Working Drawings
HECO-6A	Statement of Special Inspections
HECO-6C	Quality Assurance Plan – Special Inspections
HECO-6D	Interim Report of Special Inspections
HECO-6E	Statement of Contractors Responsibility – Special Inspections
HECO-6F	Fabricators Certificate of Compliance
CO-7	General Conditions of the Construction Contract
HECO-8	Approval to Award Construction Contract
CO-11/11a	Construction Contract Change Order
CO-11ae	A/E Contract Change Order
CO-12	Schedule of Values
HECO-13.1	Certificate of Completion by A/E or Project Manager
HECO-13.1A	Architect Substantial Completion
HECO-13.1B	Final Report of Special Inspections
HECO-13.1C	Partial or Substantial Completion by Construction Inspector, Manager, or Administrator

FORM	
HECO-13.2	Certificate of Completion by Contractor
HECO-13.2A	Certificate of Partial or Substantial Completion by Contractor
HECO-13.3A	Application for Certificate of Use and Occupancy
HECO-13.3B	Checklist for Occupancy
CO-14	Project Closeout
HECO-17	Building Permit Application
HECO-17.1	Demolition of Building on State Property
CO-17 MAN	Building Permit for a Manufactured Home
CO-17 TWR	Building Permit for a Tower
CO-17 TWP	Building Permit for a Temporary Structure
CO-17 SPC	Special Use Permit
CO-13.3	Certificate of Use and Occupancy
CO-13.3 IND	Certificate of Use and Occupancy for an Industrialized Building
CO-13.3 MAN	Certificate of Use and Occupancy for a Manufactured Home
CO-13.3 TWR	Certificate of Use for a Tower
CO-13.4	Building Permit Close Out
CO-13.5	Beneficial Occupancy

For a complete listing of the forms available for download at the [DGS Documents and Forms Center](#), refer to the link to “[DEB Forms Master List](#)” located on the [DGS website](#). [BITS](#) provides a list of Capital Outlay and Building Official forms within the BITS application. HECO forms are located on the [Virginia Tech Facilities Department Building Code Compliance Forms](#) website or can be obtained from Virginia Tech Facilities Finance.

## CHAPTER 2 – DEFINITIONS

### 2.1 GENERAL

This chapter defines terminology, acronyms, and abbreviations customarily used in the procurement of construction and professional services and in the execution of the University's Capital Outlay Program. Definitions are taken from the [Governing Rules § 4](#), the General Conditions of the Construction Contract ([DGS-30-054](#), Form [CO-7](#)), and general customs and practices associated with state construction industry and professional service contracts.

### 2.2 DEFINITIONS AND ABBREVIATIONS

Whenever used in the Manual, including the appendices and the standard forms, the following terms have the meanings indicated, which apply to both the singular and plural and the male and female gender thereof.

**AARB:** Art and Architectural Review Board

**ADA:** The Americans with Disabilities Act of 1990

**ADA Standards:** [2010 ADA Standards for Accessible Design](#) (September 15, 2010). Sometimes referred to as "ASAD."

**ADAAG:** Americans with Disabilities Act Architectural Guidelines

**Addendum:** Written or graphic instruments issued prior to the opening of bids or proposals that clarify, correct or change the bidding/proposal documents.

**Advertisement:** The term commonly used to describe the public announcement or "Notice" of the availability of the Invitation For Bids (i.e., bid documents or IFB) or Request For Proposal (RFP) made by publishing a notice in the public procurement Web site designated by the Department of General Services, [www.eva.virginia.gov](http://www.eva.virginia.gov), and by "Posting the Notice" as prescribed pursuant to the [Governing Rules § 4](#).

**A/E:** Architect/Engineer

**A/E Change Order:** A document ([CO-11ae](#)) issued on or after the effective date of the Contract ([CO-3](#)) approved by the University that authorizes an addition, deletion or revision in the Work, including any adjustment in the Contract price and/or the Contract time for performance. A Change Order, once signed by all parties, is incorporated into and becomes part of the Contract.

**A/E Contract:** The Form of Agreement ([CO-3](#), [CO-3.1](#), [CO-3.2](#)) and any documents expressly incorporated therein. Such incorporated documents customarily include the Terms and Conditions of the A/E Contract, various sections of this Manual, the Memorandum of Understanding and all modifications, including subsequent Change Orders.

**Agency:** Any of the departments, agencies and institutions of the University, including state-supported institutions of higher education; also referred to as the “Owner” in the Contract Documents.

**Architect:** An individual licensed to practice in the Commonwealth of Virginia as an architect by the Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects (APELSCIDLA) Board of the Department of Professional and Occupational Regulation. “Architect” may also be used to refer to a firm of such individuals which is properly licensed in Virginia. Also referred to as the A/E.

**Architect/Engineer:** The term used to refer to the architect and/or engineer who contracts with the University to provide the architectural and/or engineering services for a Project. The A/E is a separate contractor and is not an agent of the University. This term also includes any associates or consultants employed by the A/E to assist the A/E in providing services.

**Art and Architectural Review Board (AARB):** The Review Board appointed by the Governor to advise and provide counsel to the Governor as to the artistic merit of fixtures, structures, construction on state property and works of art.

**ASHRAE:** American Society of Heating, Refrigerating and Air-Conditioning Engineers

**Associate Vice President and Chief Facilities Officer (AVP & CFO):** The individual employed by the University to lead the Facilities Department and who has signatory authority over all Non-Capital Construction, A/E, and Term Contracts. The AVP & CFO also has ultimate authority over changes to the DCSM.

**Association:** As applied to architects or engineers, this term shall mean a legal entity formed by several architects and/or engineers who have associated together for the purposes of working as a unit on a specific project. The Association may take the form of a partnership, joint venture, corporation, et cetera.

**Auxiliary Buildings:** Support facilities which support the educational mission outside the classroom, but are not used for instruction of academic administration. Examples include residence halls, dining facilities, parking garages, intercollegiate athletics, and extracurricular activities. These facilities often generate revenue through fees charged for their use.

**Beneficial Occupancy:** The condition after Substantial Completion but prior to final completion of the project at which time the Project, or portion thereof, is sufficiently complete and systems operational such that the University could, after obtaining necessary approvals and certificates, occupy and utilize the space for its intended use. Guarantees and warranties applicable to that portion of the work begin on the date the University accepts the Project, or a portion thereof, for such Beneficial Occupancy, unless otherwise specified in the Supplemental General Conditions or by separate agreement.

**Bid:** The offer provided by the bidder submitted on the prescribed form and setting forth the bidder's price(s) for the Work to be performed.

**Board of Visitors (BOV):** The governing authority for Virginia Polytechnic Institute and State University.

**Building:** Any roofed or occupiable structure.

**Building Committee (Committee):** The group constituted by the University in accordance with the requirements of [Chapter 7](#) of the Manual and with the authority and purpose as set forth in Chapter 7 including interviewing and selecting A/E services for the planning and design of construction projects and other services required by the University.

**Building Information Tracking System (BITS):** A web-based source for Capital Outlay and Building Official forms provided by the Division of Engineering & Buildings (DEB).

**CAFM:** Virginia Tech Capital Assets and Financial Management

**Capital Project (Capital Outlay Project):** As used in this Manual, "Capital Project" means (1) Acquisition of real property; (2) New construction projects with a total project cost exceeding \$3 million for institutions of higher education; (3) Improvements, renovations, repairs, replacement, maintenance, or combination projects for a single building with a total project cost exceeding \$3 million for institutions of higher education; and (4) Umbrella projects.

**CCR:** Virginia Tech Office of Capital Construction and Renovation

**Certificate of Occupancy:** A document certifying that an occupiable structure is in compliance with applicable buildings codes and requirements and is in a suitable condition for occupancy. The UBO issues the Certificate of Occupancy (or CO) for occupiable University structures.

**Change Order:** A document ([CO-11](#)) issued on or after the effective date of the Contract ([CO-9](#)) agreed to by the Contractor and approved by the University that authorizes an addition, deletion or revision in the Work, including any adjustment in the Contract price and/or the Contract time. The term "Change Order" shall also include written orders to proceed issued pursuant to Section 38 (a) (3) of the General Conditions of the Construction Contract, [CO-7](#). A Change Order, once signed by all parties, is incorporated into and becomes part of the Contract.

**Clerk of the Works:** The University Construction Field Representative who, as part of assigned responsibilities, checks all materials delivered to the site for conformance with approved submittals, checks the installation of materials per the plans and specifications with approved submittals, and furnishes copies of all reports to the A/E. Also called the University's Project Inspector.



**CM:** Construction Management, or Construction Manager at Risk (CM at Risk)

**CM/GC:** Construction Manager/General Contractor

**CO:** Capital Outlay

**Code Official:** Refer to definition of University Building Official. The term Code Official is utilized in Part II and Part III of the VUSBC.

**Code of Virginia:** 1950 [Code of Virginia](#) as amended, Virginia's codified statutes. Sections of the *Code of Virginia* are referred to herein as § xx-xx.

**Commonwealth of Virginia (Commonwealth):** Virginia is known as the "Commonwealth of Virginia" because its constitution used the term "commonwealth" to describe the power vested in the people of the state. Laws for the Commonwealth of Virginia fall under the *Code of Virginia*.

**Commissioning:** A quality assurance process to verify and document that building systems and components operate in accordance to the University's project requirements and the project design documents.

**Commissioning Authority (CxA):** The party responsible for the commissioning process.

**Competitive Negotiations:** A method of Contractor selection that includes the following two elements ([Governing Rules § 4](#)):

- a. Issuance of a written Request for Proposal (RFP) indicating in general terms that which is sought to be procured, specifying the factors which will be used in evaluating the proposal and containing or incorporating by reference the other applicable contractual terms and conditions, including any unique capabilities or qualifications which will be required of the Contractor.
- b. Public notice of the RFP at least ten (10) days prior to the date set for receipt of the proposal by publication on the [eVA](#) Web site (i.e., Virginia Business Opportunities (VBO)). Public notice of the RFP may also be posted in a newspaper of general circulation in the area in which the contract is to be performed.

**Competitive Sealed Bidding:** A method of Contractor selection which includes the following elements ([Governing Rules § 4](#)):

- a. Issuance of a written Invitation for Bid (IFB) containing or incorporating, by reference, the specifications and contractual terms and conditions applicable to the procurement. Unless the University has provided for prequalification of bidders, the Invitation to Bid shall include a statement of any requisite qualifications of potential contractors. When it is impractical to prepare initially a purchase description to support an award based on prices, an Invitation to Bid shall be issued requesting the submission of unpriced offers to be followed by an Invitation to Bid limited to those bidders whose offers have been qualified under the criteria in the first solicitation.



- b. Public notice of the IFB at least ten (10) days prior to the date set for receipt of bids by publication of the public announcement or “Notice” of the availability of the Invitation For Bids (i.e., bid documents or IFB) on the [eVA](#) Web site. The University may also publish the Notice in a newspaper of general circulation or on other appropriate websites, or both. Bids may be solicited solely from Contractors who have prequalified ([Governing Rules § 4](#)). Bids may be solicited directly from potential contractors. Bids shall be solicited from businesses certified as a Small, Women-Owned or Minority-Owned business by the [Virginia Department of Small Business and Supplier Diversity](#). In addition, bids may be solicited directly from potential contractors.
- c. Public opening and announcement of all bids will occur 24 hours following receipt of bids.
- d. Evaluation of bids based upon the requirements set forth in the invitation, which may include special qualifications of potential contractors, life-cycle costing, value analysis, and any other criteria such as inspection, testing, quality, workmanship, delivery, and suitability for a particular purpose, which are helpful in determining acceptability.
- e. Award to the lowest responsive and responsible bidder. When the terms and conditions of multiple awards are so provided in the Invitation to Bid, awards may be made to more than one bidder.
- f. Competitive sealed bidding shall not be used for procurement of Professional Services as defined in this Manual.

**Construction:** As used in this Manual, includes new construction, reconstruction, renovation, restoration, major repair, demolition and all similar work upon buildings and ancillary facilities owned or to be acquired by the University, including any draining, dredging, excavation, grading or similar work upon real property.

**Construction Administration (CA):** As used in this Manual, this term means non-professional services provided under a contract with the University which generally includes inspection of the Work, coordinating testing services contracts procured by the University, reviewing change orders and schedule submittals from the Contractor, and providing other construction period services for the benefit of the University. The Construction Administrator is the entity responsible to the University for providing these services to assure compliance with the Contract Documents but is not responsible under the CA Contract for providing the Work. The University may use an employee to perform construction administration services. This differs from the Construction Administration services required under the A/E Contract.

**Construction Contract:** The form of agreement and any document incorporated. Such incorporated documents customarily include the Proposal/Bid submitted by the Offeror, the General Conditions of the Construction Contract, any supplemental general conditions, any special conditions, the plans and specifications, and all modifications, including addenda/amendments and subsequent Change Orders.

**Construction Management (CM):** As used in this Manual, this term means services provided under contract with the University, which generally include coordinating and

administering construction contracts for the benefit of the University, but may also include, if provided in the contract, furnishing construction services to the University. See [Section 7.2](#) of the Manual for further descriptions. The Construction Manager has direct responsibility and liability to the University for performing the Work as described by the Contract Documents. Also called the CM/GC or the ‘Contractor’ for the CM project.

**Consultant:** An individual or firm with professional expertise engaged to render a specific service in connection with a project.

**Contract:** An agreement between the University and an outside source that is enforceable in a court of law.

**Contract Administration:** The duties and responsibilities normally performed by the A/E during the construction phase of a project.

**Contract Completion Date:** The date by which the construction Work must be substantially complete. The Contract Completion Date is customarily set forth in the Contract ([CO-9](#)) based on Notice to Proceed and the Time for Completion. In some instances, however, the Contract contains a mandatory Contract Completion Date, which date shall have been stated in the Invitation for Bid.

**Contract Documents:** As used in this Manual and General Conditions of the Construction Contract ([CO-7](#)), this term shall mean the Contract ([CO-9](#)) and any documents expressly incorporated therein. Such incorporated documents customarily include the bid submitted by the Contractor, the General Conditions of the Construction Contract, any Supplemental General Conditions, any Special Conditions, the plans and specifications, and all modifications, including addenda and subsequent change orders.

**Contract Price:** The total compensation stated in the Contract, as modified by Change Orders, payable to Contractor for performing the work set forth in the Contract Documents.

**Contract Term:** As applicable to A/E Term Contracts and Job Order Contracting, one year or when the cumulative total project fees reach the statutory dollar limits, whichever comes first.

**Contractor:** As used in this Manual and the Standard Forms, “Contractor” means the specific person or firm with whom the University has contracted to do the Work described in the Contract Documents for that undertaking. On a Design Build project, the Design Builder is the “Contractor.” On a Construction Management project, the CM or CM/GC is the “Contractor.” Can also be used as a generic term used to indicate a person, firm or corporation with who has entered into a contract agreement to perform work or provide a professional or nonprofessional service.

**CPI-W:** Consumer Price Index for Urban Wage Earners and Clerical Workers published by the Bureau of Labor Statistics

**CPSM:** Construction and Professional Services Manual as published by the Virginia Division of Engineering and Buildings (DEB)

**Cure Notice:** A notice, either oral or in writing, that informs the contractor that the contractor is in default and states what the contractor has to do to correct the deficiency. If the notice is oral it shall be confirmed in writing.

**CVS:** Certified Value Specialist

**Day(s):** Calendar day(s), unless otherwise noted.

**DBE:** Disadvantaged Business Enterprises

**DCJS:** Virginia Department of Criminal Justice Services

**DCSM:** Virginia Tech Design and Construction Standards Manual

**DEB:** Division of Engineering and Buildings, a division of the Virginia Department of General Services.

**Defective:** An adjective which, when modifying the word Work, refers to Work that is unsatisfactory, faulty, deficient, does not otherwise conform to the Contract Documents, does not meet the requirements of applicable inspections, standards, tests or approvals referred to in the Contract Documents, or has been damaged prior to the A/E's recommendation of final payment (unless responsibility for the protection thereof has been assumed by the University at Substantial Completion or Beneficial Occupancy).

**Demolition:** Removal of a building or facility either for land clearance or to make land available.

**DEQ:** Virginia Department of Environmental Quality

**Design-Build (D/B or DB):** A contract between the University (the Owner) and Contractor in which the other party agrees to both design and build the structure, roadway or other item specified in the Contract.

**“Design-Not-To-Exceed” Cost:** The Project construction cost established in the A/E's contract and accepted by the A/E as the ceiling for the estimated construction cost of the Project the A/E is engaged to design.

**Determinations & Findings (D&F):** A document, usually prepared by the University Project Manager (PM), which justifies and substantiates the need for special procedures or actions. Typically, this is for a deviation or waiver from standard policies or procedures which results in saving time and/or money and/or improving quality.

**DGS:** Virginia Department of General Services

**DHCD:** Virginia Department of Housing and Community Development

**DHR:** The Virginia Department of Historic Resources is the state historic preservation office for the Commonwealth of Virginia.

**DPB:** Virginia Department of Planning and Budget

**DPOR:** Virginia Department of Professional and Occupational Regulation

**Drawing:** A page or sheet of the Plans which presents a graphic representation, usually to scale, showing technical information, design, location, and dimensions of the various elements of the Work in sufficient detail for the University Building Official to determine code compliance. Graphic representations include, but are not limited to, plan views, elevations, transverse and longitudinal sections, large and small scale sections and details, isometrics, diagrams, schedules, tables and/or pictures.

**DSBSD:** Virginia Department of Small Business and Supplier Diversity

**E&G Buildings:** Education and general buildings is a budgetary classification of buildings constructed for higher education. These can be funded from both general fund (GF) and non-general fund (NGF) sources.

**EHS:** Virginia Tech Environmental Health Services Department

**Emergency:** Any unforeseen situation, combination of circumstances or a sudden occurrence or state resulting therefrom that poses imminent danger to health, life or property and which usually demands immediate action.

**Engineer:** A person who is qualified and licensed to practice engineering in Virginia as a Professional Engineer by Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects (APELSCIDLA) Board of the Department of Professional and Occupational Regulation, also referred to as the A/E. "Engineer" may also be used to refer to a firm of such individuals which is properly licensed in the Commonwealth of Virginia.

**Equal:** Any other brand, make or manufacturer of a product, assembly or equipment that, in the opinion of the A/E, is equivalent to that specified, considering quality, capabilities, workmanship, configuration, economy of operation, useful life, compatibility with design of the work and suitability for the intended purpose, and which is accepted as such by the University.

**Equipment:** A tangible resource, such as machinery, articles or apparatus, of a permanent or long-term nature, used in an operation or activity.

**ESCO:** Energy Service Company, or Energy Service Contract

**eVA:** Electronic procurement in VA. The eVA home page address is [www.eva.virginia.gov](http://www.eva.virginia.gov).

**Extra service:** A service which the Owner/University tasks the A/E to provide after the Contract has been signed and which was not included in the Basic Services or in the additional services as described in the A/E Contract. Extra services, and the compensation therefore, are authorized by a modification to the A/E Contract using the A/E Change Order, [CO-11ae](#).

**FAACS:** The Fixed Asset Accounting and Control System of the Virginia Department of Accounts. As used herein, the real estate subsystem of FAACS.

**Facility:** A structure or group of structures, including all buildings and other improvements thereto, which is built, installed or established to serve a particular purpose.

**Field Order:** A written order issued by the A/E which clarifies or explains the Plans, the Specifications, or any portion or detail therein, without changing the design, the Contract Price, the Time for Completion or the Contract Completion Date.

**Final Completion Date:** The date of the University's acceptance of the Project from the Contractor upon confirmation from the A/E by a [CO-13.1](#) and the Contractor by a [CO-13.2](#) that the Project is totally completed in accordance with the Contract Documents. Procedures for determining Final Completion are set forth in Section 44 of the General Conditions of the Construction Contract ([CO-7](#)).

**Float:** The excess time included in a construction schedule to accommodate such items as inclement weather and associated delays, equipment failures, and other such unscheduled events. It is the contingency time associated with a path or chain of activities and represents the amount of time by which the early finish date of an activity may be delayed without impacting the critical path and delaying the overall completion of the project. Any difference in time between the Contractor's approved early completion date and the Contract Completion Date shall be considered a part of the project float.

**Float, Free:** "Free float" is defined as the time by which an activity may be delayed or lengthened without impacting upon the start day of any activity following in the chain.

**Float, Total:** "Total float" is defined as the difference (in days) between the maximum time available within which to perform an activity and the duration of that activity. It represents the time by which an activity may be delayed or lengthened without impacting the Time for Completion or the Contract Completion Date.

**Forms:** In addition to the Manual revisions, proper, related capital outlay and building official forms are updated on a continual basis as modifications are needed. A complete listing of the current revision of each form is provided on Form [DGS-30-000](#). CO Forms are available for download from the [DGS Documents and Forms Center](#) or are accessible on [BITS](#). Higher Education Capital Outlay (HECO) forms are located on the [Virginia Tech Facilities](#)

[Department Building Code Compliance Forms](#) website or can be obtained from Virginia Tech Facilities Finance.

**GCPay:** Online/Internet-based design and construction contract progress billing and reporting service. Utilized to track SWaM and SDV efforts for Capital Construction at Virginia Tech.

**General Conditions (GC):** The General Conditions of the Construction Contract, [DGS-30-054](#), Form [CO-7](#). Also, the General Conditions of the Design-Build Contract, [DGS-30-056](#), Form [CO-7DB](#) for use with Design-Build contracts; and the General Conditions of the Construction Manager “At Risk” Construction Contract, [DGS-30-057](#), Form [CO-7CM](#) for Construction Manager at Risk contracts. All documents can be found on the [DGS Documents and Forms Center](#).

**Goods:** Material, equipment, supplies, printing and automated data processing hardware and software.

**Governing Rules:** Rules Governing Procurement of Goods, Services, Insurance, and Construction by a Public Institution of Higher Education of the Commonwealth of Virginia Governed by Subchapter 3 of the Restructured Higher Education Financial and Administrative Operations Act, Chapter 4.10 (§ 23-38.88 et seq.) of Title 23 of the *Code of Virginia*.

**HECO:** Higher Education Capital Outlay

**Higher Ed Purchasing Manual:** Commonwealth of Virginia Procurement Manual for Institutions of Higher Education and their Vendors

**HPBA Building Value:** The value for the building as it stands in its current configuration.

**HVAC:** Heating, Ventilating and Air Conditioning

**Improvements:** All work necessary to produce a complete and usable change to an existing facility or structure, including the associated architectural and other technical services, the fixed equipment installed and made part of the facility or structure, and site development. Improvements include:

- a. Alteration of interior space arrangement and other physical characteristics, such as utilities, so that the structure may be more effectively used for its present designated functional purpose;
- b. Conversion of interior arrangement and other physical characteristics, such as utilities and fixed equipment installed on and made a part of the facility or structure, so that an existing structure may be effectively utilized for a new functional purpose;
- c. Renovation of most or all of a facility or structure, or an existing mechanical system to comply with current building code requirements or to modernize it so that it may be more effectively used for its designated functional purpose;

- d. Restoration of a facility or structure, to the maximum extent possible, to its former or original state (historic property);
- e. Relocation from one site to another of a facility or structure either by moving it intact or by disassembling and subsequently reassembling it; and
- f. Major repair to restore a facility, mechanical system or utility system to a condition that allows it to be appropriately used, including the reprocessing or replacement of parts or materials that have deteriorated by action of the elements or “wear and tear” in use.

**Informality:** A minor defect or variation of a bid or proposal from the exact requirements of the Invitation to Bid or Request for Proposal that does not affect the price, quality, quantity or delivery schedule for the goods, services or construction being procured. ([Governing Rules § 4](#))

**Interior Designer:** An individual trained to create functional, safe, and beautiful interior spaces using knowledge and skills about space planning, decorative items, and human environmental behavior.

**Invitation for Bids (IFB):** A formal solicitation to the public including the Notice, Instructions To Bidders, Bid Form, General Conditions, Supplemental General Conditions, Special Conditions, Forms to be used, the Plans and Specifications, and any other documents listed in the Specifications, all of which request qualified bidders to submit competitive prices or bids for providing the described work on a project.

**Landscape Architect:** An individual licensed by the Commonwealth of Virginia as a “Landscape Architect” by the APELSCIDLA Board of the Department of Professional and Occupational Regulation. The Landscape Architect may function as a project manager and may be the A/E of Record on those projects where the preponderance of the work is represented by the application of the principles and methodology of landscape architecture in consultation, evaluation, planning (including the preparation and filing of sketches, drawings, plans and specifications) and responsible supervision or administration of contracts relative to projects principally directed at the functional and aesthetic use of land.

**LEED:** Leadership in Energy and Environmental Design

**Liquidated Damages:** See Section 43 of the General Conditions of the Construction Contract ([CO-7](#)). As used in this Manual, the term “Liquidated Damages” generally means a predetermined and fixed amount of money per period of time as stated in the Contract Documents and which will be charged to the Contractor as a measure of damages for delay suffered by the University due to failure of the Contractor to substantially complete, or finally complete, the Project/Work by the date or time established in the Contract Documents.

**Maintenance Prevention:** A technique embracing reliability engineering and maintenance experience and directed at preventing potential design defects that would ultimately inhibit proper operation and maintenance of new equipment, buildings, and property components. Design deficiencies are identified, mitigated or eliminated through careful maintenance

oriented review of the design document prior to purchase, construction, or installation. Maintenance Prevention is influenced heavily by life cycle cost considerations.

**Maintenance Reserve Project:** A single effort undertaking which involves major repair or replacement to plant, property, or equipment that is intended to extend its useful life. Any project, other than a roof replacement, should cost between \$25,000 and \$2 million. A roof replacement project may cost up to \$4 million. However, a project costing under \$25,000 and over the \$2 or \$4 million limits that meets the criteria may also qualify as a maintenance reserve project if authorized by the Facilities Department. Coordinate with the Facilities Department regarding project cost limitations for Maintenance Reserve Projects. A project that meets one or more of the following criteria qualifies for maintenance reserve funding:

- a. Repair or replacement of functionally obsolete, damaged or inoperable built-in equipment such as elevators, furnaces, plumbing fixtures, air conditioning and ventilation;
- b. Repair or replacement of components of a plant such as exterior wood, masonry, ceilings, floors, floor coverings, doors, windows, roofs, sidewalks, parking lots, fencing, and exterior lighting;
- c. Repair or replacement of existing utility systems, such as steam lines, natural gas, air, electrical, water and sewer. When replacement of components of utility systems is required (e.g., transformers, distribution panels, cables, etc.), new components should be sized to account for future growth if the existing components are operating at or near capacity;
- d. Correction of problems resulting from erosion and drainage;
- e. Work related to handicapped access, energy conservation, building and safety codes compliance, safety and security, lead paint abatement, or asbestos correction; and/or,
- f. Other projects approved by the Facilities Department.

**Major Capital Project:** See Capital Project.

**Manual:** The short term used for the Virginia Tech Construction and Professional Services Manual – current edition, as amended (called the Manual), Chapters 1 through 8 including Appendices A through V, and all revisions thereto, except those Chapters, Sections, and Appendices noted throughout to have been moved to the DCSM.

**Memorandum of Understanding (MOU):** A document signed by both the A/E and the University that formalizes the details of the fee negotiations, the scope of work, the A/E schedule, and other items agreed to during negotiations. The terms of the MOU are more project specific, supplementing and/or clarifying the requirements of the A/E Contract in terms of the particular project. However, the MOU does not supersede nor take precedence over the requirements of the Manual unless (1) such change has been approved in writing by the SVP & CBO or designee and (2) such written approval is attached to the MOU. Nor does the MOU supersede or take precedence over the requirements of the DCSM unless



(1) such change has been approved in writing by the AVP & CFO or designee and (2) such written approval is attached to the MOU.

**Micro Business:** A small business certified as such by the [Virginia Department of Small Business and Supplier Diversity](#) (DSBSD). For purposes of DSBSD micro certification, the business must have no more than 25 employees and has no more than \$3 million in average annual revenue over the three-year period prior to certification.

**Minority-owned Business:** A business certified as such by the [Virginia Department of Small Business and Supplier Diversity](#) (DSBSD). A DSBSD-certified minority-owned business is at least 51% owned by one or more minority individuals who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more minority individuals, or any historically black college or university, regardless of the percentage ownership by minority individuals or, in the case of a corporation, partnership, or limited liability company or other entity, the equity ownership interest in the corporation, partnership, or limited liability company or other entity.

**New Construction:** The building of a new structure, facility or improvement (including utilities) on a site. A new construction project is a single undertaking involving construction applicable to one or more facilities. Included in the project are: all work necessary to accomplish a specific purpose and produce a complete and usable new facility; all associated architectural and other technical services; all equipment installed and made part of the facility; and site development and improvements. New construction includes:

1. Construction of, or site preparation for, a new plant, including the erection, installation, assembly of a new building, structure, or utility system;
2. Any addition, expansion, or extension to a structure which adds to its overall exterior dimensions;
3. Complete replacement of a structure or facility that, because of age, hazardous conditions, obsolescence, structural and building safety conditions or other causes is beyond the point where it may be economically repaired or renovated and can no longer be used for its designated purpose.

**Nonprofessional Services:** Any services not specifically identified as professional services in the definition of professional services. It also includes small construction projects valued not over \$1 million provided that the requirements stated in subdivision 3a of the definition of “competitive negotiation” from [Governing Rules § 4](#) shall still apply to professional services for such small construction projects.

**Notice:** All written notices, including demands, instructions, claims, approvals and disapprovals, required or authorized under the Contract Documents. Written notice by either party to the Contract shall be sufficiently given by any one or combination of the following:

(1) delivered in hand at the last known business address of the person to whom the notice is due; (2) delivered in hand to the person's authorized agent, representative or officer wherever they may be found; (3) enclosed in a postage prepaid envelope addressed to such last known business address and delivered to a U.S. Postal Service official or mailbox; or (4) via e-mail to the authorized agent, representative or officer of the business. Notice is effective upon such delivery. Notice shall also mean the Notice of Invitation for Bids included in the IFB.

**Notice of Award:** The written notification by the University to the apparent successful bidder notifying the bidder that it has been awarded the contract, pending the submittal and execution of all documents required in the IFB.

**Notice of Intent to Award:** The written public posting by the University announcing the apparent successful bidder and notifying the bidder and all other bidders that the University intends to award the contract to the apparent successful bidder pending completion of the verification that it is a Responsible Bidder and the receipt and acceptance of all executed documents required in the IFB.

**Notice to Proceed:** A written notice by the University to the Contractor (with a copy to A/E) fixing the date on which the Contract time will commence for the Contractor to begin the prosecution of the Work in accordance with the requirements of the Contract Documents. The Notice to Proceed will customarily identify a Contract Completion Date.

**NFPA:** National Fire Protection Association

**Office of University Planning (OUP):** The Office of University Planning (OUP) is responsible for the long-term and capital and noncapital development of architectural, site, landscape, transportation, interior design, and space management to meet the campus standards and planning outcomes of the University.

**Owner:** As used in this Manual, "Owner" shall mean the University, University division, or University department with whom the Contractor or the A/E has entered into a contractual agreement and for whom the Work or services will be provided. also referred to as "Agency."

**Payment and Material Bonds:** A payment and materials payment bond assures that the contractor will pay specified subcontractors, laborers, and materials suppliers associated with the project.

**Performance Bonds:** A surety bond issued by an insurance company or a bank to guarantee satisfactory completion of a project by a contractor.

**Performance Specification:** A specification which generally describes the characteristics of the article required, e.g., the style, type, quality, character, economy of operation, and purpose to be served by the article, and the results required of the article provided. It does not restrict bidders to a specific brand, make, or manufacturer, nor does it tell the Contractor how to achieve the required result.

**Person:** Any individual, corporation, partnership, association, company business, trust, joint venture or other legal entity.

**Plans:** The group or set of project-specific drawings included in the Contract Documents.

**Pre-bid Conference:** A meeting of interested, prospective bidders held by the University, usually with the assistance of the A/E, prior to the receipt of bids in which comments or questions concerning specifications or other provisions in the IFB can be received and considered. Any response shall be in writing and distributed to all who requested and received the IFB.

**Pre-proposal Conference:** A meeting of interested, prospective bidders held by the University, usually with the assistance of the A/E, prior to the receipt of bids in which comments or questions concerning specifications or other provisions in the RFP can be received and considered. Any response shall be in writing and distributed to all who requested and received the RFP.

**Preplanning:** A process meant to obtain a more detailed definition and cost estimate of a project.

**Prequalification of Bidders:** The process by which the qualifications and credentials of potential bidders may be evaluated for particular types of services or construction in accordance with criteria established in writing and sufficiently in advance of their implementation to allow interested persons or firms a fair opportunity to complete the process ([Governing Rules § 14](#)).

**Professional Services:** As used in this Manual, services provided by a licensed professional within the scope of the practice of accounting, architecture, land surveying, landscape architecture, or professional engineering.

**Project:** The term used to represent the specific or proper assigned title of the entire undertaking which includes, but is not limited to, the design services by the A/E and the construction “Work” performed by the contractor pursuant to the Contract documents.

**Project Inspector:** One or more persons employed by the University to inspect the Work for the University and to document and maintain records of activities at the worksite to the extent required by the University. The University shall notify the Contractor in writing of the appointment of such Project Inspectors.

**Project Manager (PM):** As used in this Manual, the “Project Manager” shall be the University’s designated representative for the Project. The scope of the Project Manager’s authority is limited to that authorized by the University, who shall provide written information to the Contractor at the Preconstruction meeting defining those limits. This authorization by the University of Project Manager authority shall not impinge upon or supersede the professional responsibility and liability of the A/E of Record. Changes to any aspect of the design, including: interior layout, exterior appearance, materials of construction, and

technical details shall only be made in consultation with the A/E of Record. Also used as a generic designation of the representative of the University, an A/E or a Contractor or others through whom written decisions and notices are generally conveyed.

**Project Manual:** The assemblage of documents including the front end documents that establish the contract requirements for construction, the specifications which establish the technical requirements for the materials and installation of construction, and appendices, if applicable.

**Proprietary:** An adjective used to describe a product or piece of equipment which is manufactured under some exclusive right but which is available to subcontractors from multiple vendors or suppliers; (e.g., a product or piece of equipment which is specified by a single brand name and model number and which is available to bidders from more than one source, but for which no “Equal” is permitted).

**Provide:** As used herein and in the Contract Documents, “Provide” shall mean to supply, to furnish and to install complete with all accessories, parts and services to be ready for its intended use.

**Qualifications Statement:** Also known as a Contractor’s Qualification Statement or Summary of Qualification, a document submitted in a response to RFQ that details the qualifications of a proposer for the solicited project.

**Real Estate:** Any land and improvements including all rights and interest (e.g., leasehold, easements, permission, licenses, allotments, minerals, remainder or any other interest).

**Request for Proposal (RFP):** A written public notification by the University soliciting proposals for professional, nonprofessional, or contractor services. The RFP generally describes the services sought, the unique capabilities or qualifications needed to perform the work, factors to be used to evaluate proposals and the conditions for negotiating prices and terms with the Offerors.

**Responsible Bidder:** A bidder who has the capability, in all respects, to perform fully the Contract requirements and the moral and business integrity and reliability that will assure good faith performance, and who has been prequalified, if required ([Governing Rules § 4](#)).

**Responsive Bidder:** A person or firm who has submitted a bid which conforms in all material respects to the Invitation to Bid ([Governing Rules § 4](#)).

**Restructuring Act:** The Restructured Higher Education Financial and Administrative Operations Act, Chapter 4.10 (§ 23-38.88 et seq.) of Title 23 of the *Code of Virginia*.

**RFQ:** Request for Qualifications

**SCHEV:** State Council on Higher Education in Virginia

**SDV:** Service Disabled Veterans

**Sealed Bid:** A bid which has been submitted in a sealed envelope to prevent its contents from being revealed or known before the deadline for the submission and opening of all bids.

**Senior Vice President and Chief Business Officer (SVP & CBO):** The individual employed by the University who has signatory authority over all Capital Construction Contracts. The SVP & CBO also has ultimate authority over changes to this Manual.

**Service:** A service that the Owner/University includes in the A/E's Scope of Work as part of the Work under the A/E Contract but which service is not included in the A/E Basic Services as described in the Manual and the DCSM. Compensation for the additional services is included in the fee negotiations prior to signing the contract and is, therefore, included in the A/E Contract.

**Services:** Any work performed by an independent contractor wherein the service rendered does not consist primarily of acquisition of equipment or materials, or the rental of equipment, materials, or supplies ([Governing Rules § 4](#)).

**Shop Drawings:** The drawings, diagrams, illustrations, schedules, installation descriptions and other data prepared by or for the Contractor to provide detailed information for the fabrication, location, erection, installation, connection and methodology associated with the Work. Shop drawings are intended to aid in the preparation and installation of materials and to ascertain that the materials proposed by the Contractor conform to the requirements of the Contract Documents.

**Small Business:** A business that is certified by the [Virginia Department of Small Business and Supplier Diversity](#) (DSBSD) to be at least 51% independently owned and controlled by one or more individuals who are U.S. citizens or legal resident aliens and, together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years.

**Sole Source:** Upon a determination in writing that there is only one source practicably available for that which is to be procured, a contract may be negotiated and awarded to that source without competitive sealed bidding or competitive negotiation.

**Special Conditions:** That part of the Contract Documents which describes special or additional requirements or procedures applicable to the particular project. The Special Conditions do not amend or supersede the General Conditions.

**Specifications:** Those portions of the Contract Documents containing the General Conditions as well as written technical descriptions of materials, equipment, construction systems, standards and workmanship describing the proposed Work in sufficient detail for the Contractor to perform the Work and providing sufficient information for the University Building Official to determine Code Compliance.

**State Agency:** Any authority, board, department, instrumentality, institution, agency or other unit of state government. The term shall not include any county, city, town or any local or regional governmental authority.

**Subcontractor:** An individual, partnership or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work. The Subcontractor may include any person who provides on-site labor but does not include any person who only furnishes or supplies materials for the project.

**Submittals:** As used in the construction Contract Documents, shall mean all shop drawings, illustrations, brochures, standard schedules, performance charts, and other data required by the Contract Documents which are specifically prepared by or for the Contractor to illustrate some portion of the Work and which are submitted to the A/E for review to assure conformance with the requirements of the Contract Documents. As used in the Professional Services Contract, shall mean the drawings, specifications, cost estimates, schemes and other documents required by Chapter 5 of the Manual to be submitted by the A/E to the University for review and/or approval.

**Substantial Completion:** The date on which the project (or a specific part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the project (or the specific part thereof) can be utilized by the University for the purpose for which it is intended. The University, at its sole discretion, may request approval from the University Building Official for University buildings to take Beneficial Occupancy at this time or may choose to wait until final completion to occupy.

**Substitute:** A material, product, equipment, or assembly that deviates from the requirements of the Contract Documents but which the Contractor deems will perform the same function and have equal capabilities, service life, economy of operation, and suitability for the intended purpose. The proposal must include any cost differentials proposed. Any such proposed substitute must be submitted to the A/E for review and, if acceptable to the A/E and the University, incorporated into the Contract by Change Order.

**Supplemental General Conditions:** The part of the Contract Documents which amends or supplements the General Conditions of the Construction Contract, [CO-7](#).

**Supplier:** A manufacturer, fabricator, distributor, material provider or vendor who provides material for the project but does not provide on-site labor.

**SWaM:** Small, Women-Owned and Minority-Owned Businesses by the definition set by the Commonwealth of Virginia Department of Small Business and Supplier Diversity.

**Tax Exempt:** Construction is not tax exempt per Title 23 VAC 10-210-410 A. The sales tax exemption does not extend to tangible personal property sold to a construction Contractor for its use or consumption in the performance of a real property construction contract. However, when materials are purchased directly by the University and provided to the Contractor for use on a project, the University is Tax Exempt on that purchase. When an

estimate is provided for a Guaranteed Maximum Price, Change Order, or other similar item requiring a detailed itemization of the costs of a project, the itemized sales tax is considered a part of the cost of the work. The itemized sales tax is valid for inclusion in these estimates and demonstrates that the Contractor has complied with Title 23 VAC 10-210-410 by taking the amount of the tax into consideration when submitting its price.

**Time for Completion:** That number of consecutive calendar days following receipt of a Notice to Proceed that the Contractor has in which to substantially complete everything required of it by the Contract. The time for completion is usually set out in the IFB. When the Notice to Proceed is issued, it states a Contract Completion Date which has been set by the University based on the Time for Completion.

**UFAS:** Uniform Federal Accessibility Standards

**Unit Price Work:** Work to be paid for on the basis of established unit prices for the quantity of material provided or work done.

**Universal Design:** Principles used in the design and composition of project elements to allow for ease of access, use, and understanding, to the greatest extent possible, by all people regardless of their age, size, ability or disability. See DCSM.

**University:** Virginia Polytechnic Institute and State University (State University 208) and the Virginia Cooperative Extension (State University 229). May be referred herein as “Agency” or “Owner.”

**University Building Official (UBO):** The Building Official for all buildings on University property (including occupiable buildings and other structures owned or on property leased by Virginia Tech) is the University Building Official. The University Building Official’s duties, responsibilities and authority generally conform to those described in the Uniform Statewide Building Code (*Code of Virginia § 36-98.1*).

**University Contracting Officer:** The person designated in writing by the University President as being delegated authority to award and sign contracts, change orders and other documents related to a capital outlay project for the University. May also be called the Senior Vice President and Chief Business Officer (SVP & CBO) or as delegated by the SVP & CBO.

**Unsealed Bid:** An unsealed written offer conveyed by U.S. Postal Service, commercial courier service, facsimile, email, or other means. The bids are normally opened and recorded when received.

**USBC:** The Uniform Statewide Building Code adopted by the Virginia Department of Housing and Community Development (DHCD) in conformance with the *Code of Virginia § 36-98.1*. (Also referred to as the VUSBC.)

**USGBC:** U.S. Green Building Council



**VAC:** Virginia Administrative Code

**VBO:** Virginia Business Opportunities

**VCC:** The Virginia Construction Code

**VCCO:** The acronym used to refer to a state employee who has completed the necessary training and testing and recertification by the DEB in state procurement law, policy and procedures and who has been awarded the designation of Virginia Construction Contracting Officer (VCCO). Where used in this Manual, the VCCO functions are related to the following: procurement of professional services contracts, non-professional construction contracts and capital outlay construction contracts; receipt, opening and review of bids; and signing the HECO-8 recommending award of the contract to the successful bidder.

**VCO:** A state employee who has been certified by the Division of Purchases and Supply as a Virginia Contracting Officer (VCO).

**VEBC:** The Virginia Existing Building Code

**VEES:** The Virginia Energy Conservation and Environmental Standards

**VPPA:** The Virginia Public Procurement Act, *Code of Virginia §§ 2.2-4300 through 2.2-4377*, as amended. Because of the [Restructured Higher Education Financial and Administrative Operations Act](#), the University is no longer subject to all sections of the VPPA. *Governing Rules* replace the *Code of Virginia §§ 2.2-4300 through 2.2-4377*, with the exception of [§ 2.2-4350](#) and [§§ 2.2-4367 through 2.2-4377](#).

**VUSBC:** Virginia Uniform Statewide Building Code (Also referred to as the USBC). Refer to the DCSM for detailed descriptions of the various VUSBC parts.

**Women-owned Business:** A business certified by the [Virginia Department of Small Business and Supplier Diversity](#) (DSBSD) as a business that is at least 51% owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest is owned by one or more women who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more women.

**Work:** All labor, materials, equipment and other services necessary to perform the complete services, or any separate identifiable part thereof, or to provide the complete product required by the Contract. In construction, Work includes, but is not limited to, performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction to provide the entire completed construction, or the various separately identifiable parts thereof, as required by the Contract Documents.



## CHAPTER 3 – ARCHITECTURAL AND ENGINEERING SERVICES

### 3.1 PROCUREMENT PROCEDURES FOR PROFESSIONAL SERVICES

#### 3.1.1 General Policy on Procuring A/E Services

The [Governing Rules §§ 4 and 5](#) set forth the general parameters for public procurement, including procurement of professional services. The sections in this chapter provide further clarification of the requirements for procurement of professional services. Requirements for the procurement of construction services (a nonprofessional service) is addressed in Chapter 7 of this Manual.

##### 3.1.1.1 Professional Disciplines

The University contracts with a single entity in acquiring the full range of disciplines necessary to provide the services identified for the project. The entity may be an Architectural & Engineering firm with in-house capabilities in all disciplines, or it may be an Architectural, Engineering or Land Surveying firm which subcontracts for disciplines not in house. All of the above entities have an equal opportunity to compete for projects. Consideration will be given to the proposer which demonstrates it has the ability to meet the criteria in the RFP and is best suited to provide the services for the project. In any case the proposer will be referred to as the A/E and will be required to provide the services indicated in the contract.

##### 3.1.1.2 Professional Responsibility

The person having overall responsibility for the project management and coordination of disciplines may be either a licensed Architect or Professional Engineer. A licensed Architect shall be in charge of planning and design of the Architectural aspects of the project. A licensed Engineer competent in that particular discipline shall be in charge of each discipline of the Engineering aspects of the project. The Architect or Engineer shall be registered and licensed by the Virginia Department of Professional and Occupational Regulation (DPOR) in accordance with requirements of the [Code of Virginia](#).

##### 3.1.1.2.1 Professional Liability Insurance

The A/E shall carry Professional Liability Insurance covering Professional errors and omissions in an amount not less than ten percent (10%) of the estimated cost of construction of all University-owned Projects designed by the A/E which are currently under construction unless otherwise specified by the University. In no event shall the amount of Professional liability insurance be less than \$100,000. The A/E shall maintain this insurance in force for a period of five (5) years after completion of the Services under the construction Contract.

The form and amount of liability coverage will be negotiated with the A/E firm, and the cost and source of the coverage will be reflected in negotiated fees. The amount of any deductible must be acceptable to the University considering the design firm's financial capability, capacity, and loss history.

At the option of the University, it may elect to obtain the A/E Professional liability coverage for the construction Project. The University would provide the A/E firm with coverage by one of the following methods:

1. Purchasing a Single Project Policy; or,
2. Including the Project on its Master Project Policy.

Neither the University's review, approval, nor acceptance of, nor payment for any of the Services required shall be construed to operate as a waiver by the University of any rights or any cause of action arising out of the Contract. The A/E shall be and remain liable to the University for all costs of any kind which are incurred by the University as a result of negligent acts, errors, or omissions on the part of the A/E including its Subcontractors and Consultants, in the performance of any of the Services furnished.

#### **3.1.1.2.2 Design Errors and Omissions**

The A/E shall be responsible for all costs resulting from its errors, omissions, and other breaches of the applicable standards of care established by HECOM and under Virginia law including, but not limited to, its own costs for labor and other in-house costs, any resulting Contractor Change Order costs including the costs for demolition, cutting, patching, repairs, removal, or modification of Work that is already in place, any Contractor or University delay damages, and any judgments, fines or penalties against the University resulting from A/E errors, omissions, and other breaches of the applicable standards of care. However, the A/E shall not be responsible for the cost of the correct equipment or system which should have been originally specified, except the A/E shall be responsible for any increased costs, whether the result of inflation, reordering, restocking or otherwise, of incorporating the corrected Work into the Contractor's Contract Change Order. For the purposes of determining the A/E's share of such costs for Work which has not yet been performed, the cost of Work performed by Contractor's Change Order shall generally be presumed to be fifteen percent (15%) greater than if the Work had been included in the Contractor's Contract. The A/E shall have the burden of disproving this presumption.

The University shall actively pursue reimbursement of costs resulting from the A/E's errors, omissions, or breaches of the applicable standard of care. Upon determination that there may be A/E financial responsibility involved, the A/E shall be contacted by the University. The A/E shall be advised of the design deficiency, informed that it is the University's opinion that the A/E may be financially responsible, and requested to provide a technical solution to the problem, including Cost Estimate. Upon notification of potential liability, the A/E should coordinate with the University to determine required technical support and timing to minimize delay costs. Pending final decision by the University, the A/E will be invited to attend all price negotiations with the Contractor for the corrective

Work. The A/E shall participate as a non-voting technical advisor to the University's negotiator. If the A/E refuses to cooperate in the negotiations or disputes its responsibility, the University shall have the right to proceed with the remedial construction or Change Order negotiations without the A/E.

Alternatively, where there is clearly a design error, the A/E may discharge its financial responsibility through negotiation with, and direct payment to, the Contractor. This action must be participated in and approved by the University.

#### **3.1.1.3 University Responsibility**

The University President will designate, in writing, a person, called in this Manual the Associate Vice President and Chief Facilities Officer (AVP & CFO), who shall be responsible for the administration and supervision of the University's capital outlay and construction program.

### **3.1.2 Procurement of Related Services**

The procurement department shall be responsible for assuring that the University conforms to the policies and procedures in the Manual for the procurement and administration of professional and nonprofessional service contracts and for the procurement and administration of construction contracts.

The following types of services are typically required for capital outlay projects and for building planning, construction and renovation projects:

#### **3.1.2.1 Professional Services**

Land surveyors, geotechnical engineers, soils engineers, landscape design, or any service requiring the use of a licensed architect, engineer, landscape architect, or surveyor are, by state law, considered to be Professional Services and shall be procured as outlined in this chapter.

#### **3.1.2.2 Nonprofessional Services (Other than Construction)**

Cost consultants, interior design, soils testing, concrete testing, project management, project administration, inspection/clerk of the works, and other services which may be performed by either licensed or non-licensed architects, engineers or others are considered to be Nonprofessional Services and shall be procured using procedures contained in the [Commonwealth of Virginia Procurement Manual for Institutions of Higher Education and their Vendors](#) (Higher Ed Purchasing Manual).

### **3.1.3 Project Scope of Work**

Once the University determines the need for professional services, a Scope of Work will be prepared to identify or outline the services required, to identify the criteria, limitations and parameters for the services, and to describe the product(s) expected. The Scope may range from very general to very specific and will usually reference the Manual, the State Budgeting Instructions, the VUSBC and/or other standards for the specific related requirements.

### **3.1.4 Requests for Proposal (RFP)**

When the total contract fees are expected to be greater than \$80,000, RFP shall indicate in general terms the nature of the project and the architectural and/or engineering services which are sought, specify the factors which will be used in evaluating the proposals, incorporate by reference the Manual including the contractual terms and conditions contained therein, and set forth specifically any additional contractual terms and conditions. The RFP will state any unique capabilities or qualifications which will be required of the A/E. Each respondent to the RFP agrees to provide all the architectural and/or engineering services with respect to the project that are set out in the Manual and the RFP.

The RFP may specify the method to be utilized during negotiations in arriving at the fee amount for services; however, it shall not call for Proposers to furnish estimates of man-hours, labor rates, or cost for services with their qualification proposals. If no method is specified, the respondents may propose methods for negotiating the fee amount.

Each respondent shall submit current ARCHITECTURAL/ENGINEERING FIRM DATA ([Forms AE-1 through AE-6](#)) in response to the RFP and include the data and qualifications of any A/E firms to be associated with it on the Project. Responses which do not include the Forms AE-1 through AE6 and/or do not include the requested information and data may be considered as Not Responsive to the RFP.

Sample RFP formats for A/E services are available from the Virginia Tech Procurement Division.

Proprietary information from respondents shall not be disclosed to the public or to the competitors provided such proprietary information is appropriately identified in the RFP response, as required by [Governing Rules § 34.F](#).

An A/E who submitted a proposal but was not selected may contact the University for a de-briefing no later than 30 days after award to the winning firm.

### **3.1.5 Advertisements for Professional Services**

#### **3.1.5.1 Public Notice of Request for Proposals**

Public notice of the RFPs for A/E services for Capital Projects and for Term A/E Contracts shall normally be posted for at least 21 days, but not less than 10 days.

#### **3.1.5.2 Methods of Notice**

Public notice of any RFP shall be given by the following methods:

1. Publication of a notice on [eVA](#), Virginia's central electronic procurement website, and
2. Proposals may be solicited directly from potential A/E firms.

#### **3.1.5.3 Contact Information**

The public notice shall show the name, address, e-mail address, phone number to be used to obtain a copy of the RFP.

### **3.1.6 Small Businesses and Small Businesses Owned by Women and Minorities, and Service Disabled Veterans**

The university is committed to increasing participation of Virginia Department of Small Business and Supplier Diversity (DSBSD) Certified (i) small businesses, (ii) small woman-owned businesses, and (iii) small minority-owned businesses. The university also expects Contractors to provide for significant participation of small businesses, businesses owned by women and minorities through partnerships, joint ventures, subcontracts, or other contractual opportunities. All bids/proposals shall include a small business participation plan.

For professional services, reporting shall be submitted through GCPay or on a form template provided upon contract award.

#### **3.1.6.1 Fees Up to \$10,000**

This section has been deleted in its entirety.

#### **3.1.6.2 Fees More Than \$10,000 Up to \$80,000**

This section has been deleted in its entirety.

#### **3.1.6.3 Fees More Than \$80,000**

This section has been deleted in its entirety.

##### **3.1.6.3.1 Data Required with the Proposal**

This section has been deleted in its entirety.

##### **3.1.6.3.2 Reporting**

This section has been deleted in its entirety.

### **3.1.7 Standard Formats for A/E Firm Data**

Standard formats for responding to RFPs provide a uniform layout for the A/E to present both the historical data on A/E firm and the project specific qualifications and help streamline the University's review and evaluation process. Using standard formats also reduces the effort and expense of responding to RFPs and provides uniformity in the types of information requested.

Capital Outlay forms AE-1 through AE-6, ARCHITECTURAL/ENGINEERING FIRM DATA, are structured to gather information on the responding A/E that is relevant to the RFP. An A/E responding to Professional Service RFPs shall use these forms for the responses. Required additional or supplemental information shall be provided as requested in the individual RFP.

Blank copies of the AE-1 through AE-6 forms are downloadable from the [DGS Documents and Forms Center](#).

Social Security numbers for Sole Proprietors are not required until the University awards a contract to that firm.

Forms AE-1 and AE-1A provides historical data on the firm to include firm name, location, type of ownership, size, previous name(s), principals, type of personnel, consultants proposed, Professional Liability Insurance coverage, proposed participation of small businesses and variety of past project experience data.

Form AE-2 provides information on the proposed consultants for the particular project.

Form AE-3 provides information on the personnel proposed to be assigned to the project and a narrative of the methodology to be used for providing the services and for quality assurance.

Form AE-4 provides information on the individual qualifications, experience and expertise of the key personnel proposed to be assigned to the project.

Form AE-5 provides specific data on similar projects or projects with similar features on which the A/E and/or its consultants have provided services.

Form AE-6 offers the A/E a forum for a narrative to describe particular capabilities, expertise, project approach, current workload and other information supporting the firm's qualifications for the project.

An A/E interested in being considered by the University for Emergency Procurements and Small Purchase Procurements should file with the Procurement Department a generic copy of Forms AE-1 through AE-6 indicating the consultants often used, current staff with qualifications, typical or representative projects, and a narrative summary of the firm's capabilities. The forms should be updated at least annually.

### **3.1.8 Procedures for Selection of the A/E**

#### **3.1.8.1 Category A - Emergency Procurement**

Per [Governing Rules § 5](#), in the event of a bona fide emergency, the selection may be made without using the usual professional services procurement procedures.

##### **Written Determination**

A written determination shall be made in advance and signed by the University President documenting the nature and basis of the emergency and authorizing procurement of A/E services (and related corrective work, if applicable) on an emergency basis. The written determination shall be made part of the project file.

##### **Contact A/E Firm(s)**

The University shall contact one or more A/E firms who have demonstrated a capability to do the necessary work in a timely manner. The University should describe to the A/E the nature of the work and the necessary time frame for accomplishing the work. A commitment should be requested from the firm(s) that if it is selected for the work, it will provide the services within the required time frame.

**Negotiation**

The University shall negotiate with the selected firm to establish a fee for the work on a LUMP SUM basis or on a UNIT COST (hourly rate) basis with a NOT TO EXCEED AMOUNT.

**Award**

The University shall award a contract using Form [CO-3](#) or [CO-3.2](#) for the work and shall issue and post a written notice stating that the contract is being awarded on an emergency basis, identify the work being procured, identify the firm selected and the date of award of the contract. Typically, use of the CO-3 is recommended unless the scope of the A/E services will be extremely limited and the fees are not expected to exceed \$10,000. (An example of extremely limited scope of A/E services would be preparation of construction documents for repairs to an exterior wall after an automobile runs into it.) Post the notice on [eVA](#).

**Purchase Order**

The University will issue a Purchase Order after the Notice of Award.

**3.1.8.2 Category B - Small Purchase Professional Services Procurement**  
([Governing Rules § 5](#))

Category B procurements of professional services are used for projects where the total fees (including reimbursable expenses) are expected to not exceed \$80,000.

The University shall use the following procedures:

1. Advertise and post a notice at least once a year requesting qualifications from A/E firms interested in providing services to the University on small projects where the fee will be \$80,000 or less.
2. The Request for Qualifications (RFQ) should be similar to an RFP which lists the information desired and the general types of work to be procured using these procedures.
3. Require the A/E response to RFQ to include Forms AE-1 through AE-6, emphasizing their qualifications for the type of small projects for which they seek consideration.
4. Statements of qualifications (Forms AE-1 through AE-6) and RFQ responses shall be accepted at any time to allow new firms to be considered for work and to allow A/E firms to update their qualification forms to show current information.
5. When using this Category B procedure, the University shall sort RFQ responses/interest packages, establish a listing of responding A/E firms by qualification or discipline/capability and file RFQ responses by category for use in selecting A/E firms for interview.

**Fees Less Than \$10,000**

When selecting an A/E by Category B procedures for a project with total fees not to exceed \$10,000, the University will:

- a. Prepare a Scope of Work and provide it to one A/E firm already in the existing Category B pool. The firm shall have Form AE-1 through AE-6 on file with the University.
- b. Negotiate the fee for services. If the fee is not fair and reasonable, informally solicit another A/E and follow the steps above for that A/E. Repeated selection of the same A/E firm for these small purchases violates the intent of these procedures.
- c. The University will issue a Purchase Order to the awarded A/E.

**Fees Greater Than \$10,000, Not to Exceed \$80,000**

When selecting an A/E by Category B procedures for a project with total fees in this range, the University will:

- a. Prepare a Scope of Work and provide it to a minimum of three A/E firms. The A/E firms shall be selected from a list of A/E firms interested in providing services to the University on small projects. The firms shall have Form AE-1 through AE-6 on file with the University.
- b. Conduct telephone or personal interviews with representatives of all selected A/E firms to determine current personnel qualifications, location relative to the work, expertise, workload, capability to meet the proposed schedule, past performance on similar projects and ability to provide the service within budgeted costs.
- c. Consideration should be given to number and value of previous University and state contracts awarded to each firm. The University shall consider the opportunity to maximize the participation of qualified Virginia firms interested in doing such work for the University and to avoid favoritism or the appearance of favoritism.
- d. Determine which A/E is qualified for the work required and negotiate the fee for services. If the negotiated fee is not fair and reasonable, move to the next highest ranked A/E firm and follow the steps above for that A/E. Repeated selection of the same A/E firm for these small purchases violates the intent of these procedures.
- e. The University will issue a Purchase Order to the awarded A/E.

**3.1.8.3 Category C - Standard Professional Services Procurement**

[\(Governing Rules §§ 4 and 5\)](#)

Except in instances in which a term A/E contract is used, projects with fee amounts expected to be greater than \$80,000 are procured by the competitive negotiation process. The Building Committee shall base the selection on qualifications, suitability, and capability followed by competitive fee versus scope of work



negotiations with the selected A/E. These procedures may optionally be used for smaller fee contracts.

### **Request for Proposal**

Prepare a RFP.

### **Advertisement**

The University shall post a notice of the advertisement for RFP on [eVA](#). The University may also publish the notice in a newspaper in the general area of the project. If appropriate, publication of the notice may also be included in a newspaper of general circulation statewide. For advertisements in newspapers, use the abbreviated format provided in [Appendix O](#).

### **Evaluation**

Receive, evaluate, and rank the respondents based on the data contained in the Forms [AE-1 through AE-6](#) submittals of each respondent with respect to the criteria listed in the RFP. The evaluation criteria shall include factors for past and proposed use of small businesses.

### **Verification**

Verify that the top ranked A/E proposed for interview is properly registered with the APELSCIDLA Board and licensed to provide A/E services in Virginia. Any respondent shall be properly registered and licensed. Verify the [DSBSD](#) certification status, if applicable. Additionally, verify that the A/E is not debarred or enjoined.

### **Associations**

Contracting with an association of firms, such as joint ventures or an associated A/E, involves additional business and legal considerations. Factors to be considered include:

1. Whether the association is a registered or licensed entity authorized to offer the necessary services in Virginia;
2. The nature of each party's responsibilities to the other and to the University;
3. The professional liability insurance coverage of the association;
4. The association's organization and management structure;
5. Each firm's financial condition and stability with respect to fulfilling its obligations under the contract; and
6. Whether the parties to the association are jointly and severally liable for the work.

Prior to selecting an association for fee negotiation for possible contract award, the University shall request a review of the association's legal documents. The review shall be accomplished by the University's staff legal counsel.

Associations not legally constituted and authorized to offer the requested services in Virginia at the time of the closing date of the RFP will be deemed “Not Responsive.”

### **Interviews**

Interview a minimum of the top two ranked respondents who are deemed to be fully qualified, responsible, and suitable on the basis of their initial responses. Discussions of fees, rates, design costs, etc., shall not be included in these evaluations or the interviews. Allow the A/E to present more detailed information on the RFP criteria; on specific qualifications and expertise of the personnel proposed to be assigned to the project; on the concepts, methods and approaches proposed for the design; and other pertinent information. Evaluate responses of each interviewed firm along with other material and data submitted, the A/E's past performance, and responses from references, and rank order the firms as best suited for the project. Proprietary information from respondents shall not be disclosed to the public or to the competitors provided such proprietary information in the RFP response is appropriately noted as proprietary information exempted from public disclosure as required by the [Governing Rules § 34.F](#).

### **Negotiation**

Negotiate with the A/E ranked first as to overall suitability and qualifications. If the University cannot reach agreement on a fee amount based on compliance with all of the Manual requirements, the negotiations shall be formally terminated in writing. The University shall then proceed to negotiate with the A/E ranked second. If not successful, the negotiations with the second ranked are terminated in writing and the University proceeds to the third ranked. It is understood that at any time, negotiations may be terminated and the project re-advertised.

It is anticipated that the fee amount negotiated will cover all the services required. It is recognized that unforeseen circumstances may arise, requiring resolution. Accordingly, at the time of negotiation, the hourly rates for the various technical personnel classifications must be set forth in the MOU for use in determining a reasonable fee for additional services.

### **Award Process**

1. Recommend the selected A/E to the SVP & CBO for approval.
2. The terms of the agreement shall be recorded in a written and signed MOU and attached to the Form [CO-3](#) signed by the SVP & CBO and the A/E.
3. Post a Notice of Award on [eVA](#).
4. Issue a Purchase Order on eVA referencing the Contract CO-3. Forward a copy of the Contract, Form CO-3, and the MOU to DEB.

### **3.1.8.4 A/E Term Contracts**

(Governing Rules §§ 4 and 5)

A/E Term Contracts are a useful and effective tool for the University in managing their planning, maintenance, and renovation programs and quickly handling emergency procurement of professional services. Term contracts shall include the terms and conditions and pricing for work which may be issued during the term of the contract. The following policy governs the use of these contracts.

#### **Applicability**

Term Contracts for A/E services may be used for engaging one or more A/E firms to provide investigations, cost estimates, designs, and related services for multiple small projects for a period of time subject to the limitations below. The projects must require similar expertise.

Some advantages for the University include a reduction in the cost and time of advertising for services, a shorter response time from the A/E, and an improved efficiency and clarity in the production of the contract documents for the University. For the A/E, it is usually more cost effective to provide the services on multiple small projects for the same University. Examples of Term A/E Contracts include: feasibility studies, cost studies, designs of small capital and construction projects and maintenance reserve project designs.

#### **Request for Proposals**

The RFP shall include a description of the nature and types of the potential projects, the disciplines or expertise required by this Term A/E Contract, and the nature of services expected to be required. The RFP shall also describe factors pertinent to the evaluation and selection process.

#### **Advertisement for the Term Contract**

The notice of the RFP shall be made on the University's Procurement Department website and [eVA](#). The notice may also be published in a newspaper of general circulation statewide or in the general area of the anticipated projects, or both.

#### **Term Contracts Not Exclusive**

The term contract is not exclusive. The University may issue separate RFPs for similar work and other projects as the need may occur.

#### **Multiple Contract Awards from a Solicitation**

The University may issue multiple awards for Term A/E Contracts from any one single RFP solicitation.

#### **Contract Limit**

No A/E, including any subdivisions or branches thereof, may at any time have in effect more than one (1) A/E Term Contract with the University including any subdivisions or branches thereof.

**Fees**

The fee for the services on each Project Order shall be negotiated individually on a lump sum basis considering the Scope of Services required, the estimated man-hours required for each skill level/discipline and the labor rates agreed upon and listed in the MOU attached to the term contract. If the time required to perform the Work cannot be reasonably estimated, the A/E may be directed to proceed with the work on an hourly basis with a maximum or not-to-exceed amount. The compensation shall be determined by the A/E's certified record of man-hours expended by classification, skill level and discipline, and the hourly rates for each as listed in the MOU.

Any individual Term A/E Contract or the aggregate total of fees for all Project Orders issued during any term of a Term A/E Contract shall not exceed \$3 million.

The MOU attached to the Term Contract will document the negotiated acceptable labor rates for the various A/E classifications, skill levels and disciplines. These rates will be used by the University for arriving at lump sum fees and for any hourly rate work authorized by the University for Project Orders issued under the Term Contract resulting from the solicitation.

If a Project Order is to be performed on a lump sum basis, the A/E shall determine a lump sum based on the Scope of Work required, the estimated man-hours required for each classification, skill level and discipline and the labor rates agreed upon during the contract negotiations.

**Contract Term**

Term contracts shall be limited to one year, or when the cumulative total project fees reach the maximum cost authorized, whichever occurs first. Such contracts may be renewable for four additional one-year terms at the option of the University.

When the aggregate total of all Project Orders, including Change Orders to those Project Orders, reaches the term dollar limit, no further Project Orders may be issued during that term. (A new term may be exercised immediately if the University elects to do so, however no more than four term renewals may be exercised.)

It is understood that the A/E's work under the Project Orders issued may not be completed during the contract's term; however, all terms and conditions of the contract, including all rights and obligations, shall survive until the Work is completed, except the University's right to issue, and the A/E's right to accept, additional Project Orders. The University and the A/E are obligated to fulfill the requirements of all Project Orders issued, including Change Orders, even though the term for issuing new Project Orders has concluded.

The University may, at its sole discretion, renew the Contract for up to four additional one-year Contract Terms, provided the option to renew was indicated in the RFP. A new aggregate limit of \$3 million shall apply to the second Contract Term, without regard to the dollar amounts of Project Orders issued during the first year of the Contract. Any unused amounts from the first Contract Term are forfeited and shall not carry forward to the next Contract Term. Subsequent renewals shall follow the same procedures.

### **Project Orders**

Project Orders authorize the A/E to perform Work for a lump sum amount or at the hourly rates, as agreed to and set forth in the A/E Term Contract.

Although the potential exists for multiple project orders during the Contract Term with aggregate fees up to \$3 million, the University does not represent or guarantee that the A/E will receive any Project Orders.

The Scope of Work offered to the Term Contract A/E shall include a definition of the product required and a request for a fee proposal based on the rates in the Term Contract. If the A/E and the University cannot agree on the scope of work and/or the number of hours or lump sum fee, the University shall offer the Scope of Work to another Term Contractor.

### **Procedures for Selection of an Architect or Engineer for a Term A/E Contract:**

1. Draft a RFP.
2. Advertise: Same as Category C procurements.
3. Receive, evaluate, and rank the respondents.
4. License: Verify all A/E respondents are properly licensed to offer services in Virginia.
5. Interview: The Building Committee shall conduct interviews with two or more offerors deemed fully qualified, responsible and suitable. Repetitive informal interviews are permissible.
6. Selection: Rank the interviewees.
7. Negotiation: Negotiate with the highest ranked Offeror(s) to agree upon the special terms and conditions, if any, and the hourly rates which pertain to the Contract. If negotiations, including hourly rates and other terms and conditions are not successful, the negotiations shall be formally terminated in writing. **Note that the fee negotiations are fixed; the rates negotiated for the original term will remain fixed for all subsequent term contract renewals.** CPI-W adjustments annually.
8. Award: If the negotiations are successful, the University will award a Term Contract to no more than four (4) selected firms, unless approved with a Determinations and Findings (D&F) by the AVP & CFO.

9. Documentation: Execute the Contract using a Contract Form [CO-3.1](#). The Notice of Award is also posted on eVA.
10. Subsequent Project Orders: When the University has work to be performed, the University may offer Project Orders to the A/E in accordance with the Contract.

#### **Contract Forms to Be Used**

Form [CO-3.1](#) shall be used for the A/E Term Contract, and Form [CO-3.1a](#) for each individual Project Order.

These Contract forms shall not be modified, other than filling in the appropriate data and information, without the recommendation of the University's legal counsel.

#### **Terms and Conditions for Professional Services**

Terms and conditions for professional services contracts are provided in Form [CO-3a](#). The CO-3a shall be made a part of all contracts for A/E services and shall not be modified without approval of the University legal counsel and the AVP & CFO.

### **3.1.9 eVA Business-to-Government Vendor Registration**

When procuring construction, professional services and non-professional services, all potential vendors shall be registered with eVA.

### **3.1.10 Audits**

The A/E, by signing the Contract, agrees to retain all books, records, and other documents relative to the Contract for three (3) years after final payment, or until audited by the University, whichever is sooner. The University, its authorized agents, and/or State auditors shall have full access to and the right to examine any of the materials during said period.

## **3.2 FEES AND PAYMENTS FOR A/E SERVICES**

### **3.2.1 Architectural and Engineering Fees**

The Commonwealth's policy is to compensate Architects and Engineers in a fair and reasonable manner for providing the high quality services required by the Manual. Compensation or fees should be negotiated based on the scope of work for the particular project, the estimated effort (man-hours) necessary to accomplish the work, and hourly rates comparable to those earned by other equally competent architects, engineers, technicians, and support personnel in the Commonwealth. This section provides guidance for determining fair and reasonable fees by using a detailed fee proposal describing the services to be provided and showing the estimated man-hours by discipline and skill level and the corresponding hourly rates for each.

### **3.2.2 A/E Fee Proposal Standards and Guides**

The A/E is expected to be thoroughly familiar with the Manual and the definitions, scope of services, submittal requirements, technical criteria and standards, standard

procedures, and standard forms required. These basic requirements, combined with the specific project requirements, are the basis for the fee proposal.

Competitive negotiations for professional services are based on qualifications. However, most often all of the A/E firms selected for interview are fully qualified technically to provide the services required for the project and the ranking of the A/E firms is based on other factors such as recent experience on a similar project, A/E workload and perceived ability to meet the schedule, or similar factors. Therefore, the top ranked firm is considered "fully qualified technically and best suited" for the work. With this in mind the intention is to negotiate hourly rates and fees for services which are fair and reasonable to the A/E, the University and the taxpayers of the Commonwealth of Virginia.

### **3.2.2.1 Plans and Specifications**

The A/E should be aware and keep in mind that there are differences between private work and Commonwealth of Virginia work. Particularly, the A/E must conform to Manual requirements for describing and specifying the Work to be performed as part of the construction contract. The A/E must also conform to the requirements of the Virginia Public Procurement Act as clarified and expanded upon in the Manual.

### **3.2.2.2 Personnel Classifications and Hourly Rates**

The following shall be used as guidance by the A/E in developing its fee proposal and by the University in evaluating the proposal and negotiating the fees for services.

#### A/E Project Technical Personnel

Technical personnel shall be construed to mean the A/E's Project Manager, architects (licensed), engineers (licensed) by discipline, designers including non-licensed architects and engineers, project inspector, surveyor, survey team, interior designer, landscape architect, drafters or CADD operators, estimator, specifications writer, typist/clerical staff and field inspectors.

"Principals," "Partners," "Associates," "CEO" and similar titles are generally considered by the Commonwealth to be administrative and/or management functions whose costs have been included in the overhead markup of the rates for technical categories.

Technical activities which are performed by principals, etc., are categorized for fee negotiations, for change orders, and for hourly rate payment at the rates indicated for the technical activity or function that the Principal, etc., may be performing, not at a higher "Principal" rate. See the descriptions of Personnel Classifications below.

#### Hourly Rates:

The hourly rates proposed for the various classifications, categories, disciplines, and skill levels should be comparable to the average actual salary of qualified and competent persons in that skill level as marked up or adjusted for overheads and profit. Overhead markup consists of direct technical salary overhead (or "fringes") such as payroll taxes and insurances, vacation, holidays, health insurance

premiums, and other benefits and of general office overhead such as administrative salaries, rent, utilities, business and liability insurances, telephone, equipment rental and depreciation, travel, promotion, etc. Hourly rates agreed to shall be the "marked-up" rates including all overheads and profit.

General review, negotiations, supervision and such by the principals or other senior personnel are usually considered part of the general office overhead expense included in the hourly rates or the activity is part of the "project management" function.

The University shall have the right to require the A/E to submit documentation to support the proposed hourly rates with mark-up factors proposed for use in the fee negotiations and fee determination when the proposed hourly rates exceed what the University considers the "norm" for the area. The average hourly rates by classification, including markups which are negotiated and accepted in fee negotiations, shall be recorded and listed in the MOU which is appended to the A/E contract.

A/E accounting methods and procedures for determining overhead and "marked-up" hourly rates often vary. For instance, policies on vacation, sick leave, holidays and employer contributions to insurance vary from A/E to A/E. Methods of tracking man-hours and expenses vary depending on whether the A/E is determining its overhead rates or the profitability of each project. The procedures presented herein use the "tax return" approach where general materials, supplies, depreciation of computers and software, insurances, and such, are treated as general office overhead expenses.

The negotiated rates should be comparable to those of similarly experienced and qualified personnel in those classifications in Virginia firms providing similar services.

#### Technical Personnel Classifications

The following personnel classifications, categories, disciplines and skill levels descriptions are recognized as those directly involved with the coordination, planning, quality control and delivery of the A/E services required for the project:

A/E Project Manager/Coordinator - An experienced and licensed architect or engineer who has overall responsibility for the planning, design, coordination of all disciplines, quality assurance and delivery of the A/E services to the University.

Note: A Principal of the A/E firm may perform this function, especially in a small firm. In larger firms a Principal, Associate or similarly "titled" person of the A/E firm may be assigned this responsibility. Regardless of title, the function is the same and the marked-up rate should be comparable to Project Managers of other firms in Virginia.

Architect (Professional) - A licensed architect who has the knowledge, skills and experience to perform all architectural services required for the project and who is qualified to be in "responsible charge" of the architectural aspects of the project.



Cost Estimator - Skills required include knowledge of building systems and components, the ability to read plans and specifications, the ability to make quantity takeoffs and apply pricing, the ability to obtain pricing information from reliable sources and adjust/apply such information to the specific project conditions and the ability to present a cost estimate with proper back up documentation.

Drafters/Interns - The skills required of this level position include drafting plans, sections and details to scale from sketches and data; modifying typical sections and details to be project/situation specific; and other miscellaneous duties supporting the preparation of contract documents.

Note: Depending on the personnel, organization and operation standards of the A/E, Designers (Architects and Engineers), Drafters, or both may be required to use CADD or have CADD skills.

Designer (Architects and Engineers) - Architects and/or engineers who by education, practical experience or a combination of education and experience have the knowledge and skills to perform analyses, calculations, and/or detailing for portions of a project in a particular discipline. This level person usually has either a degree and is gaining experience to become certified - licensed - registered or has many years of experience in layouts, detailing and/or calculations and works under the supervision of a licensed professional.

Engineers - Structural, Mechanical, Electrical, Civil (Professional) - A licensed professional engineer who has the knowledge, skills and experience to perform the analyses and design, to prepare the documents for the particular discipline and to be "in responsible charge" of that discipline.

Landscape Architect - A licensed landscape architect who has the knowledge, skills and experience to provide the design and documents for the site landscaping for the project.

Interior Design - A certified interior designer who has the knowledge, skills and experience to provide the interior design services and documents for the project.

Note: The layout of spaces, selection of finishes, and similar functions are Basic Services whether the A/E uses an Architect or an Interior Designer. "Additional Service of an Interior Designer" for Fee calculations/negotiations on state work relate to furnishings and accessories which are not part of the construction contract and are further explained in [Section 3.2.2.3](#) below.

Specification/Report Writer - A professional level architect or engineer skilled in writing technical specifications for building and site related systems, equipment and components. The Writer shall also be skilled in preparing contract documents and understand the basic legal requirements and applications thereof.

Typist/Clerical - Skills required include knowledge of the terms and procedures of the design and construction process and a proficiency in the use of word processing and

spreadsheet applications used in the production of specifications, reports and associated typing and clerical functions.

### **3.2.2.3 Additional Services**

The Terms and Conditions of the A/E Contract, Form [CO-3a](#), describes the Basic Services required of the A/E as well as the responsibilities of the University and typical Additional Services that the University requests the A/E to perform.

The A/E and University will normally determine the additional services (i.e., services in addition to the "Basic Services" identified in the Manual) required of the A/E prior to or during contract negotiation and negotiate the fees for such services at the same time as the basic services fee negotiation. The additional services to be provided by the A/E and the compensation for such shall be set out in the Contract or the MOU. Once the contract is signed, any extra services required will be a change in scope and shall be authorized in writing by Change Order using Form [CO-11ae](#). Any Change Order authorizing work to be performed which does not stipulate a fixed sum amount for the work shall be subject to audit by the University and/or the State Auditor for a period of three (3) years following conclusion of the Contract.

### **3.2.2.4 Computer Services**

Computer use is commonplace in the A/E profession for analyses, designs, drafting (drawings), word processing (specifications) and estimating. As such, the computer is a "tool" used by the technical person to produce a product. These "tools" are purchased and depreciated or leased and are, therefore, considered a part of the A/E's office overhead expense included in its overhead. Only specialized computer services required by the University which must be acquired from an outside vendor are considered for payment in fee negotiations.

Computerized analyses and designs for building systems, word processing, and data processing utilized by the A/E to provide Basic Services are normally considered by the Commonwealth to be a part of the project design effort and are not an additional service required by the University.

Specialized outside computer analysis services required by the University for the project may be treated as an additional service. The compensation for such specialized computer analyses may be a negotiated lump sum or a reimbursable expense. The allowable reimbursable expense method will normally be the actual charge made by an outside computer service organization plus 10% for A/E overhead and profit.

### **3.2.2.5 Special Consultants**

Consultants engaged by the A/E to augment the A/E's staff to provide the required A/E services are considered by the University to be part of the A/E's staffing for the project. This includes, but is not limited to; architectural, mechanical/electrical/plumbing, structural engineering, civil engineering, interior design, landscape design,

sustainability consultants, geotechnical analysis, site survey, building code consulting, schedule analysis, cost estimating and hazardous material surveys.

The University may require the use of a special consultant with a particular expertise related to some feature of the project. The A/E shall engage such a required consultant, subject to the University's approval, and incorporate such work in the services for the project. The compensation for such consultant shall be negotiated and set out in the MOU and included in the total A/E fee. The A/E will normally be allowed to mark up the University approved direct cost to the A/E of such special consultant by 10% for the A/E's overhead and profit.

#### **3.2.2.6 Reimbursable Expenses**

1. The costs of long distance phone calls, postage and similar expenses incurred by the A/E in the performance of the Contract are considered by the Commonwealth to be a part of the A/E's overhead expenses and are not normally reimbursable.
2. The University shall reimburse the A/E for the reproduction of drawings, specifications, and other documents required for initial schematic, preliminary, working drawing and Bid Set submittals in accordance with the policy in Chapter 5 at the actual costs plus 10% markup for handling. If re-submittals are required to correct deficiencies and/or complete the documents for submittal, the cost of reproduction for these submittals shall be borne by the A/E unless waived by the University.
3. Where the A/E is engaged by the University to secure the reproduction of the Bid Documents, the A/E may be reimbursed for the actual direct cost of reproduction plus a markup of 10% to account for the A/E's overhead and handling cost in securing this service for the University. The cost of reproduction and sending addenda to address UBO review comments, clarify or supplement the Bid Documents and/or correct errors or omissions are considered to be an expense of the A/E and shall not be included in the allowable reimbursement costs.
4. The University shall reimburse the A/E for the actual costs of overnight or second day shipping of submittals and /or shop drawings when such method of shipping is directed by the University. The University should establish a budget amount for such reimbursements and include same in the Contract amount and as a line item in the MOU breakdown of the fee.
5. Compensation for travel and living expenses associated with the performance of the project scope of work will be included in the fee negotiated and set out in the MOU as a lump sum amount for travel and/or subsistence for each particular facet of the work where travel compensation is proposed by the A/E.
6. The A/E may be reimbursed for travel and living expenses of technical personnel while traveling in the discharge of duties in connection with extra services authorized by the University. The travel rates and the per diem rates for lodging and subsistence shall not exceed the maximum amounts allowable for such expenses in the Commonwealth's Travel Regulations. Records supporting such

requests for reimbursement shall be subject to audit by the University and/or the State Auditor.

7. Each item/account planned for reimbursement should have a "budget" amount established and included in the Contract with the condition that payment for these items will be subject to proper authorization and documentation. Further, the Contract Amount will be adjusted upward or downward by Change Order, as appropriate, based on the actual amounts approved for reimbursement.
8. The University will incur the cost of the UBO's first schematic submittal review, the first preliminary submittal review, the first working drawing review and the review of the one corrected and highlighted bid set of documents. If additional submittals and reviews are required, the University may require the A/E to reimburse the University (by change order to the A/E contract or otherwise) for the actual costs of such additional review unless the A/E can submit justification satisfactory to the University demonstrating why the A/E should not be held accountable/responsible for such costs.

### **3.2.2.7 Interior Design**

The A/E's basic architectural services includes sizing of spaces for the intended function, providing diagrammatic furniture layouts to the client to confirm functional layouts, and the selection and specification of building fixtures and finishes which are necessary to provide a complete and useable facility and/or which are included in the construction contract.

FF&E design is an additional service pertaining to the design, selection, arrangement and color coordination of furniture, furnishings and accessories (or equipment). These items include but are not limited to desks, chairs, lamps, tables, screens, planters, artwork, draperies and similar furnishings which are procured separately from the construction contract.

The interior designer shall verify the actual building surface finish colors applied by the Contractor and coordinate the selection of colors, fabrics and textures with the building colors and the Office of University Planning. The interior design services also include the coordination with and preparation of procurement materials for the University Procurement Department for the furniture, furnishings and accessories.

Examples of the scope of work for interior design services for furniture, furnishings and decorations when procured as an A/E additional service or as a separate contract are listed below. The person providing these services is referred to herein as the Interior Designer.

Selection of furniture, furnishings, and accessories including but not limited to sofas, chairs, tables, screens, planters, art work, carpets, draperies, etc. Most items are available on and should, if possible, be selected through contracts available for University use.

- If the items are available on University available contract, the interior designer will recommend the proper item and color, fabric, finish, etc. for the University to procure.
- If the items available on University available contracts are considered not acceptable for the particular application, the interior designer will prepare written justifications for the University stating why items available on said contracts are not suitable. If procurement of the items off University available contract is approved, the interior designer will prepare adequate specifications and other data necessary for University procurement.

The interior designer shall select and coordinate all colors, fabrics, etc., with the colors of the building finishes. Although building finishes are selected by the A/E during design and finalized during the review of Contractor submittals, the interior designer shall verify actual Contractor applied finishes through on-site verification and/or coordination with the University Project Manager.

### **3.2.3 A/E Fee Proposal Worksheet (Form CO-2.3)**

The A/E shall prepare a detailed fee proposal using the Form [CO-2.3](#). The hourly rates and the man-hours proposed should relate to the rates and times required for a qualified and competent person in that skill level to perform the work. Supplemental information shall be attached as necessary to support the proposed drawings, hourly rates and man-hour estimates. Guides for the use of the form are as follows:

- Disciplines/Classifications commonly used are indicated on the form. Additional classifications may be listed.
- Hourly rates should be the average for those persons in that skill level/discipline/classification. NOTE: It is generally perceived that a person being compensated at a rate higher than the norm would be more efficient/productive/take fewer man-hours than a person being compensated at a rate below the norm.
- Indicate the drawing size and proposed/estimated number of sheets for each discipline. Attach a proposed or estimated list of drawings.
- Enter the Estimated (proposed) number of hours for each discipline/skill level and multiply times the Hourly Rate to yield the Estimate Cost.
- CADD line is for drafting/intern hours to produce a CADD basic plan for each level, wing or area to use as a base sheet for the various disciplines. The man-hours to produce the individual sheets for each discipline, whether manually or CADD, should be shown for the applicable discipline.
- Spec/Report Writer effort includes the mark up and edit of standard and/or master specification sections and writing any required special sections.
- Typist effort includes typing new specification sections and editing masters on the word processing program.
- Cost Estimate effort includes the takeoff of quantities and the application of prices to produce the Cost Estimate in the required format.

- Bid Assistance service includes the effort of the Professional to conduct the Pre-Bid Conference, assist in opening Bids, and evaluate the bids/bidders for responsiveness and responsibility. It also includes the clerical level effort to receive document deposits, issue bid documents, receive/review returned bid documents and return deposits/issue refunds.
- Shop Drawing Review includes the professional/technical level effort to review shop drawings and other submittals to determine compliance and conformance with the requirements of the Contract Documents and the markup/approval of same. It also includes the clerical level effort to log submittals in and out, to copy markups from the reviewer's master review set to the copies being returned to the Contractor and others, and the distribution of same.
- Record Drawing Preparation includes the efforts of a Drafting level person to transfer data from the Contractor's "As Built" set of drawings and specs to the "Record Copy" reproduces. This work also includes the Professional/Technical Level effort to compare the "As-Built" to the "Record Copy" for correctness.
- Construction Observation and Administration includes the Professional/Technical level effort to perform the onsite inspections/observations, job meetings, payment request evaluations and administrative functions required by the contract and the Clerical level effort to type minutes of meetings and similar functions.
- The Additional Services portion of the Worksheet is generally self-explanatory for the items listed. If those items are proposed to be provided by outside consultants/subcontractors (excludes architectural, structural, mechanical, & electrical disciplines which are considered the A/E), the subcontract negotiated amount may be marked up 10% by the A/E for A/E overhead and profit. In-house additional services should be computed using the estimated man-hours and marked up hourly rates similar to the Basic Services Fee Proposal.

### **3.2.4 Proportioning of the A/E Fee and Payments**

Payments to the Architect or Engineer for Design Phase and Construction Phase Services shall be based on the negotiated fee amount as proportioned for each phase of the project. This is not applicable to Design-Build delivery methods. The amount approved for progress payments shall be based on the University's judgment of the proportion of the work on that phase or facet which has been completed versus the work required/value of that phase or facet. The A/E fee shall be proportioned for each phase or facet of the work and shown in the A/E Contract or in the MOU.

The proportioning of the fee should account for and show the negotiated amount for the following phases or facets of work:

- Pre-design services (Additional Services such as studies and similar activities.)
- Design Phase services include
  - Schematic phase
  - Preliminary phase
  - Working drawing phase

- Bidding phase services
- Construction phase services include
  - Shop drawing/submittal reviews and administration
  - Site visits, inspections and administration
- Project closeout
  - Maintenance & Operations Manuals
  - Record Drawings
- Budgeted Reimbursable Amounts
- Additional services (itemize)

In addition to the proportional amount due for Design Phase or Construction Phase Services, the A/E shall be entitled to payment for authorized additional services performed and for authorized reimbursable costs incurred during the period.

Where the University contracts with the A/E for less than or more than the basic services indicated for the various phases, the proportioning of the fee may be adjusted accordingly and shown in the MOU.

Where a detailed breakdown of the A/E fee is not provided in the [CO-2.3](#) Fee Proposal Worksheet used for negotiations, the total negotiated A/E fee (excluding additional services and reimbursables) will be proportioned as follows:

Design Phase Services = 75% of Total Fee

Construction Phase Services = 25% of Total Fee

In consideration of the services required by the Manual, the proportioning of the A/E fee for progress payments during the various parts of the Design Phase and the Construction Phase will be as follows:

## **DESIGN PHASE SERVICES**

1. Schematic Design Phase - Value of the Schematic Phase is 20% of the Design Phase Fee. This phase is complete when outstanding issues are resolved, the schematics are approved, and the A/E is authorized to prepare Preliminaries.
2. Preliminary Plans and Specifications (Design Development Phase) - Value of the Preliminary Phase is 30% of the Design Phase Fee. However, a proportional part may be billed monthly during the development of the documents. This phase is complete when outstanding issues are resolved, the preliminaries are approved as evidenced by completion of the conditions shown on the Form HECO-5, and the A/E is authorized to prepare Working Drawings.
3. Working Drawings and Specifications (Construction Documents Phase) – Value of the Working Drawings Phase is 50% of the Design Phase Fee. However, a proportional part may be billed monthly during the development of these documents. This phase is complete when outstanding issues are resolved, all changes have been made to the documents so that they are ready for bidding, and the working

drawings and specifications are approved as evidenced by completion of the conditions shown on the Form HECO-6.

Note: The University may withhold as retainage an amount not exceeding 5% of the dollar value of progress payments for the Design Phase Fee until the Working Drawings, including all corrections required to resolve review comments, are finally completed and acceptable.

## **CONSTRUCTION PHASE SERVICES**

4. Bidding Phase - Value of this phase is 5% (maximum) of the fee amount for Construction Phase Services and is due upon award of the construction contract or rejection of bids (unless the A/E is obligated to redesign at no additional fee). Reimbursement for reproduction expenses for bidding documents would also be payable.
5. A/E Construction Period Services- Value of this phase is 90% of the Construction Phase Services fee amount. This 90% is usually prorated over the total construction period including the 30 days allowed for punch list corrections and billed monthly during the construction phase as construction progresses.
6. Project Closeout Phase – The remaining 5% of the fee (or sum as stipulated in the Contract or MOU) for Construction Phase Services is allocated to closeout and Record Drawing preparation. It shall be payable when the A/E's services for the project are fully completed and "Record" drawings and specifications are delivered to University, as set forth in [Chapter 7](#).

### **3.2.4.1 Payments to the A/E**

Payments to the A/E shall conform to the requirements in Section 21 of the Terms and Conditions of the A/E Contract, Form [CO-3a](#).

### **3.2.4.2 Payments by the A/E**

Payments by the A/E to its consultants, subcontractors and suppliers shall conform to the requirements in Section 22 of the Terms and Conditions of the A/E Contract, Form [CO-3a](#).

## **3.2.5 Determining Charges for Changes in the Scope of Work**

### **3.2.5.1 Changes to the Scope of Services**

The University shall notify the A/E in writing when a change in scope or “extra services” is required. The University and A/E shall develop a defined scope for the services and the A/E shall prepare a fee proposal for such work. A lump sum fee will normally be negotiated and agreed on and a written change order ([CO-11ae](#)) issued before the extra work is performed (e.g., changes in the plans or specifications, models, studies, etc.). In such cases, the fee negotiations will be based on the defined scope change or work to be done, the estimated technical personnel time to accomplish the work times the rates listed in the MOU, and any reimbursable expenses authorized.



When the scope cannot be defined to allow a reasonable estimate of time required, the University may authorize the additional work at the hourly rates or unit costs listed in the MOU. In such cases, the University shall establish maximum fee limits, as applicable. Work beyond the maximum fee limit shall require justification and the University's approval prior to proceeding with further additional work.

Note: Many of the revisions or requirements included in a Revision to the Manual are made to reflect changes in the [Governing Rules](#) or [Code of Virginia](#) or other requirements which must have immediate compliance.

Therefore, a revision to this Manual shall be effective on the date stipulated and shall apply to any and all projects for which an approved HECO-6 has not been issued as of the date printed on the revision.

Prior to approval of Preliminaries and issuance of the HECO-5, Revisions to the Manual can generally be incorporated in the A/E's work with little or no additional effort. If the A/E claims that incorporating the Revision into its services requires extra work, the A/E must notify the University of this claim and submit documentation to the University to clearly support such claim within 60 days of the distribution date of the Revision.

If, after the HECO-5 is issued and before the HECO-6 is issued, the A/E determines that including changes resulting from the revision will require additional work on part of the A/E, then the A/E shall, within 60 days of the distribution date of the revision, provide to the University an itemized list of the additional work required by the revision. The University shall then provide direction to the A/E and, if necessary, issue a change order for the work.

The A/E shall assure that the documents submitted for review contain the latest design requirements, the latest editions of forms, and the latest editions of the standard Instructions to Bidders and the General Conditions.

### **3.2.5.2 Hourly Rates for Changes in Work**

The University and the A/E shall at the time of fee negotiations establish and record in the MOU the nominal hourly rates for all technical personnel categories, disciplines and/or skill levels to be used to calculate A/E fees for extra services or changes in the work. The hourly rates listed shall include all markups and adjustments for taxes, insurances, benefits, overhead, profit, etc. Acceptable categories are indicated in [Section 3.2.2.2](#).

Technical activities by principals, such as Project Manager, Architect, or Engineer, are categorized for payment at the rates indicated for the technical activity or function being performed.

### **3.2.5.3 Overtime for Changes in Work**

No overtime requiring rates higher than regular rates shall be considered for payment for additional services.

#### **3.2.5.4 Invoices for Changes in Work**

Invoices or statements of expenses incurred by the A/E for reimbursables and for work authorized to be performed on an hourly rate or unit cost basis shall be rendered to the University monthly. Invoices shall be supported by a certified accounting of the time expended by date, by person, and the skill level of the work being done. (e.g., drafting would be paid for at the “drafting” rate regardless of who does the work – principal, draftsman or trainee.) Statements shall show the cost during that period and indicate the status of the authorized work. The reporting of these costs shall be in such form and detail as required by the University. The A/E’s disbursement and job records shall be subject to audit by the State for work done on a reimbursable and/or hourly or unit cost basis. The University shall notify the A/E of any defect or deficiency in the invoice including supporting data within ten (10) days after receipt of same, and payment of approved invoices, or portions thereof, shall be made within 30 days after receipt of the invoice.

#### **3.2.5.5 Audit of A/E's Records**

Any Change Order authorizing work to be performed which does not stipulate a fixed sum amount for the work shall be subject to audit by the University and/or the State Auditor for a period of three (3) years following conclusion of the Contract. Also, any authorization for payment of reimbursable expenses shall be subject to audit by the University and/or the State Auditor for a period of three (3) years following conclusion of the Contract.

### **3.2.6 Changes to A/E Contract**

Changes in the Scope of Work and/or Cost of the A/E Contract (Form [CO-3](#) and [CO-3.2](#)) will be documented through the execution of a Form [CO-11ae](#), A/E Contract Change Order. Any A/E contract change order which increases the original contract amount by more than 25% or \$50,000, whichever is greater, must have the prior approval of the University President or designee. The first Change Order which causes the cumulative total of Change Orders to exceed \$50,000 or 25% of the original Contract Price, whichever is greater, and all subsequent A/E Change Orders which increase the Contract Amount must have the prior approval of the University President or designee.

### **3.2.7 Informal Alternative Dispute Resolution**

Pursuant to [Governing Rules § 56](#) and *Code of Virginia § 2.2-514*, Alternative Dispute Resolution, the University may enter into an agreement with the A/E to submit disputes arising from the performance of this Contract for mediation and other alternative dispute resolution procedures. However, such procedures entered into by the University, the Commonwealth, or any department, institution, division, commission, board or bureau thereof, shall be non-binding and subject to *Code of Virginia § 2.2-514* as applicable. In the interest of successful completion of the project, disagreements and disputes should be resolved as soon as possible.

To assist in resolving these disputes, [Governing Rules § 53](#) shall apply and the A/E or Contractor may submit a written claim to the AVP & CFO for review.

Upon receiving the written claim the AVP & CFO will review the written materials relating to the claim and decide whether to discuss the merits of the claim. If a discussion is to be held, the AVP & CFO will contact the claimant and a mutual agreement for the manner of conducting the discussion will be decided.

The AVP & CFO will mail his decision to the claimant within 15 days after the AVP & CFO's receipt of the claim unless the time is extended by the AVP & CFO. The decision will state the reason for granting or denying the claim.

### **3.3 RESTRICTION ON PROMOTIONAL MATERIALS BY A/E AND CONTRACTOR**

The design and contract documents for construction on state-owned property are owned by the University. Therefore, use of these work products in advertising or promotional literature, or a statement that the University endorses the work product of an A/E or Contractor is prohibited without the express written permission of the University. Identifying designs or construction as the work product of an A/E or Contractor in client lists, responses to RFPs and in promotional literature through the use of photographs, renderings, drawings (not contract documents) and descriptions of project is permitted after construction is substantially complete.

## **CHAPTER 4 – CODE AND TECHNICAL REQUIREMENTS FOR ALL BUILDINGS ON STATE PROPERTY**

This Chapter has been deleted in its entirety and moved to the DCSM.

## CHAPTER 5 – PROJECT SUBMITTAL STANDARDS

### 5.0 GENERAL

There are differences between work prepared for clients in the private sector and work prepared for Virginia Tech. The University cannot limit bidding to a selected list of contractors known to do good work. Unless contractors are prequalified for the project in accordance with [Section 7.4.2](#), any licensed contractor, holding a Class A license in good standing, may bid on a Design-Bid-Build project delivery. Since the knowledge and experience of the contractors bidding on the project is an unknown, drawings and specification requirements must be clear, concise and provide thorough detailing of existing and proposed construction.

Design is the sole responsibility of the A/E. Specifications which require the contractor to provide engineering design are not acceptable unless the products specified for contractor design are closed engineered systems. Closed engineered systems include: pre-engineered buildings, manufactured mechanical equipment, prefabricated trusses, and precast and common steel structural connections. Other systems can be defined as closed engineered systems if approved by the AVP & CFO.

In order to encourage competition required in the expenditure of public funds, performance specifications that define a desired result or assembly, or reference recognized standards to define a desired result or assembly, are strongly preferred. If performance specifications are not practical, and a manufactured product must be used to define a desired result or assembly, then three manufacturers and three products shall be referenced. Do not reference both manufactured products and performance criteria because conflicts in the performance criteria and the product performance create unnecessary conflicts ([Governing Rules § 4](#)). Sole source and proprietary specifications are not allowed without prior written authorization.

#### 5.0.1 Project Identification on Documents

For projects utilizing state-authorized funds (full or partial), the University and the A/E shall include the 11 digit Project Identification Code (PC No. = University Code + Project Code + Subproject Code) on all plans, specifications, contracts, correspondence, sketches, invoices, memoranda, addenda and other documents related to the project. Where the overall project is not subdivided, show the three-digit subproject identification code number as 000. Example format: 999-99999-001. Capital Project Documents without the required identification are not complete.

The A/E shall require the Contractor to provide the Project Identification Code (PC No.) on all submittals including invoices, schedules, shop drawings, change order proposals, correspondence and other project documentation.

#### 5.0.2 Capital Project Initiation

This section has been deleted in its entirety and moved to the DCSM.

## **5.1 NON-CAPITAL OUTLAY CONSTRUCTION PROJECTS**

### **5.1.1 General**

Construction or improvement projects undertaken on University owned or leased property which are not classified as Capital Outlay projects are not required to follow the capital outlay (HECO-2, HECO-4, HECO-5, HECO-6, HECO-8 and CO-9) submittal and approval process.

### **5.1.2 Issuance of Building Permit**

This section has been deleted in its entirety and moved to the DCSM.

### **5.1.3 Issuance of Certificate of Use and Occupancy**

This section has been deleted in its entirety and moved to the DCSM.

### **5.1.4 Change in Use or Occupancy**

This section has been deleted in its entirety and moved to the DCSM.

## **5.2 GENERAL REQUIREMENTS FOR DRAWINGS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **5.3 SPECIFICATION STANDARDS**

This section has been deleted and moved to the DCSM.

### **5.3.1 Federal Specifications**

This section has been deleted in its entirety and moved to the DCSM.

### **5.3.2 Use of Current Forms**

The specifications shall include the latest published edition/revision of the General Conditions [CO-7](#), Instructions to Bidders [CO-7a](#), the Standard Bid Form format and wording, the Standard format and wording for the Notice of Invitation to Bid, and all other applicable CO Forms. The latest editions are published on the [DGS Documents and Forms Center](#) webpage and may be downloaded/printed for use and inclusion in the documents.

### **5.3.3 Project Manual/Specifications Arrangement**

This section has been deleted in its entirety and moved to the DCSM.

### **5.3.4 General Conditions of the Construction Contract**

The General Conditions of the Construction Contract, Form [CO-7](#), is a standard document required to be incorporated in the documents for all building-related construction, renovation, addition and/or repair projects for which plans and specifications are prepared. The General Conditions ([CO-7](#)) have very significant legal implications. The term “Form CO-7”, as used herein, also means the Form [CO-7DB](#)

(applicable to Design-Build contracts) and the Form [CO-7CM](#) (applicable to Construction Management contracts).

**No item of the General Conditions shall be amended or deleted or its intent changed without prior written approval of the Virginia Tech President or designee.**

The latest published edition of the General Conditions, [CO-7](#), shall be bound in the specifications or referenced. If incorporated in the bid sets by reference, a complete copy of the General Conditions shall be provided to any requestor at no charge. The Notice of Invitation to Bid and the Instructions to Bidders ([CO-7a](#)) must state where the General Conditions ([CO-7](#)) are available for inspection and from whom the prospective bidders may request and receive a copy of the General Conditions. The University Procurement Department shall be listed as the source for obtaining a copy of the General Conditions if not included in the bid documents. A complete copy of these General Conditions shall be included in the Documents attached to/referenced by the Contract Between the University and the Contractor ([CO-9](#)).

The A/E shall be familiar with the requirements and provisions of the General Conditions ([CO-7](#)) and the Instructions to Bidders ([CO-7a](#)) and shall coordinate the requirements in the Specifications with those in the [CO-7](#) and [CO-7a](#).

### **5.3.5 Supplemental General Conditions**

Supplemental General Conditions ([DGS-30-376](#)) modify, amend or delete specific portions of the General Conditions. The sample Supplemental General Conditions are fixed and shall not be modified (other than, if used, the amount of Liquidated Damages of Section 43). The changes to the General Conditions shall be set forth and labeled “Supplemental General Conditions” and shall be submitted to the University for approval.

### **5.3.6 Liquidated Damages**

The use of “Liquidated Damages” can be effective when properly implemented and administered. However, Liquidated Damages is not a penalty clause and does not guarantee that the project will be finished on time. Specifying Liquidated Damages, if approved, shall be incorporated by a Supplemental General Condition and has significant legal implications and risks for the University. If the University wishes to specify Liquidated Damages, the Project Manager shall prepare a justification for doing so and attach documentation on how the proposed amount per day was determined. The justification shall document costs that can be clearly identified and defended in court such as project management costs, rental costs, transportation costs associated with the work and the like. It shall NOT include speculative costs, such as loss of future revenue.

**Submit this information to the AVP & CFO for review and approval before incorporating Liquidated Damages in the construction documents.**

The lack of liquidated damages does not exclude evaluation or assessment of actual damages.

### **5.3.7 Special Conditions**

The “Special Conditions” establish specific requirements which are peculiar to the specific project. These include such items as: hours of work restrictions, Contractor office and storage area restrictions, coordination requirements for utility interruptions, hazardous material data sheet submittals, security procedures for construction personnel and so forth. The Special Conditions shall be included in Division 1 of the Technical Specifications.

### **5.3.8 Instructions to Bidders**

The CO-7a, Instructions to Bidders, shall be reproduced and included in the Documents without modification. The requirements and procedures delineated in the Instructions to Bidders have significant legal implications and shall not be changed without the prior written approval of the University Legal Counsel.

The persons at the University and the A/E who are responsible for advertising, receiving and opening bids for the project shall be familiar with and conform to the requirements of the Instructions to Bidders, [CO-7a](#).

### **5.3.9 Types of Specifications**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

### **5.3.10 Virginia Manufactured Products**

This section has been deleted in its entirety.

### **5.3.11 Use of Standard or Guide Specifications**

This section has been deleted in its entirety and moved to the DCSM.

### **5.3.12 Restrictive Specifications and Performance Requirements**

#### **5.3.12.1 Submittals Prior to Bid Receipt**

The A/E shall not require samples, shop drawings, or similar materials to be submitted for approval prior to receipt of bids. The specifications must contain sufficient information to describe to the contractor and bidders the performance and quality standards that will be used to evaluate the submittals.

#### **5.3.12.2 Bidder Experience**

Number of years of experience, or time in business, shall not be specified as a basis for award of contract. This applies not only to contractors, but also to suppliers of equipment.

#### **5.3.12.3 Prequalification of Special Systems**

Complex and/or sensitive systems such as locking systems and security control systems often require manufacturers with a proven history of reliable, operable equipment in special situations with minimal malfunctions, as well as subcontractors who are experienced installers of that manufacturer’s products. In such instances, the University and A/E should develop the necessary documents to prequalify the



manufacturers and/or subcontractors prior to bidding. The names of those prequalified shall be listed in the bid documents for use by all general contract bidders.

#### **5.3.12.4 Unproven Technology**

Projects for the University shall not be testing grounds for new type of materials or equipment. However, the fact that a material is newly-developed does not preclude its use if documentation of independent laboratory tests clearly show that the material will meet the applicable requirements for the project. The AVP & CFO may, where justified, authorize use of a new material, equipment or system for a particular project on a trial basis for observation/evaluation. The University will be required to closely monitor the installation for compliance with manufacturer's instructions, conduct periodic inspections and report inspection results to the AVP & CFO.

#### **5.3.13 Phraseology**

This section has been deleted in its entirety and moved to the DCSM.

#### **5.3.14 Specifications on Removable Digital Media**

This section has been deleted in its entirety and moved to the DCSM.

#### **5.3.15 Hardware Specifications and Schedules**

This section has been deleted in its entirety and moved to the DCSM.

#### **5.3.16 Product Warranties**

This section has been deleted in its entirety and moved to the DCSM.

### **5.4 COST ESTIMATES STANDARDS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

### **5.5 DESIGN INITIATIONS/PRE-DESIGN CONFERENCE**

This section has been deleted in its entirety and moved to the DCSM.

### **5.6 SCHEMATIC DESIGN/PROJECT CRITERIA**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

### **5.7 PRELIMINARY DESIGN (DESIGN DEVELOPMENT PHASE)**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **5.8 WORKING DRAWINGS (CONSTRUCTION DOCUMENTS PHASE)**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **5.9 BID FORMS AND PROCEDURES**

### **5.9.1 Instructions to Bidders**

Use the standard Instructions to Bidders, [CO-7a](#). Do not retype or modify the Instructions to Bidders, [CO-7a](#), without permission from the University Legal Counsel. Information on where bid documents can be viewed and shipping charges, if any, be should be placed in the advertisement and Notice of Invitation for Bids.

### **5.9.2 Unit Price Bids**

Unit price bids without estimated quantities shall not be requested on the bid form. Unit prices may be used only where the required quantity cannot be reasonably determined by the bidders from the documents (e.g., total length of piles required, total length of caissons, amount of rock excavation, etc.). (See additional guidance on unit price bids in [Section 6.0.7](#) of this Manual.)

In such case, an estimated quantity of the unit of construction is provided by the University (and its A/E) on the bid form; the quantity as provided on the bid form and the unit price inserted by the bidder are multiplied together to give a lump sum amount; and the lump sum amount is added with the other base bid amounts to determine the total base bid amount. (Note: The contract price will be adjusted based on actual quantities provide and approved in the work.) It is not appropriate to list small or insignificant estimated quantities for unit prices on the bid form.

### **5.9.3 Bid Form Preparation**

Bid Forms shall be prepared using the format and wording shown on the Sample Bid Form Format, [DGS-30-220](#) in the [DGS Documents and Forms Center](#). The Bid Form shall state the basis for determining the low bidder for award of the contract as shown on the Sample Bid Form. The contractor's Disqualification Statement and the Immigration Reform and Control Act of 1986 statement shall be included on each bid form. See [Section 5.10](#) of this Chapter for requirements and procedures concerning Additive Bid Items.

Inclusion or use of "Allowances" in the Bidding is not permitted. Options are to specify the work in the documents and bid competitively with the rest of the project OR procure the work separately and include the subcontractor's name and price on the Bid Form similar to the method used for "HVAC monitoring" on Standard Bid Form Format [DGS-30-220](#).

### **5.9.4 Prequalification of Contractors or Subcontractors**

Prospective bidders may be prequalified for bidding on projects. (Prequalification criteria, procedures, and appeal process requirements are provided in Chapter 7 of the Manual.)

### **5.9.5 Advertising**

The University Project Manager shall notify the A/E in writing when final working drawings and specifications have been approved. The University shall establish a time and place for receiving bids. Bid receipt dates shall be coordinated through the University Procurement Department. The A/E shall use this information in completing the Advertisement, the 'Posting' and the Notice of Invitation for Bids.

For all work in excess of \$100,000, a minimum period of 30 days shall be allowed from date of the original advertisement/Posting of Notice to the date of bid receipt unless otherwise approved by the AVP & CFO. Projects estimated to cost less than \$100,000 may be advertised for shorter periods of time such as 21 or 14 days (depending on whether more than one trade is involved) but no less than 10 days.

Requests for Proposals (RFP) may also be posted and advertised in the newspaper of general circulation in the area.

Invitations for Bid (IFB) shall be posted on [eVA](#), the Commonwealth's central electronic procurement website. In addition to posting electronically, the IFB may also be advertised in a newspaper.

The University may authorize the A/E to advertise in the newspaper in the name of, and at the expense of the University, for construction bids.

### **5.9.6 eVA Vendor Registration**

All vendors seeking to do business with the University shall be registered with eVA.

## **5.10 ADDITIVE BID ITEMS FOR DESIGN-BID-BUILD**

The A/E is responsible for the development and design of the project to meet the scope and to be within the Design-Not-to-Exceed Construction Budget identified in the A/E contract. The Work included in the Total Base Bid shall provide a complete and functional facility meeting all Code, accessibility and safety requirements. When the project cost estimate indicates that the Total Base Bid for the project scope may not be within the available funds, the University and A/E should consider what features would be negotiated out if bids are over budget and include that Work as Additive Bid Items for cost or budget control. After the University and A/E have incorporated reasonable cost containment measures in the design, Additive Bid Items may be used for budget control subject to the following limitations. (These limitations are not applicable to competitive negotiation procurements.):

- When additive bid items are used, a maximum of four (4) Additive Bid Items may be included. Such Additive Bid Items are not intended to be a pricing exercise for the bidders.
- The total cost estimate of the Total Base Bid plus all Additive Bid Items shall not exceed 120% of the 'Construction Cost' on the HECO-6 for Capital Outlay Projects or 120% of the construction Budget for Non Capital Projects.
- Additive Bid Items shall be structured to minimize additional effort necessary to prepare the bid.

- Additive bids shall not be used to provide essential elements of the project, such as connection to water supply, required lighting levels, or adequate HVAC capacity, or Work without which the building would not be habitable, functional or safe.
- The Work/Design as described in the Base Bid shall be of the level of quality required for the project. Additive bids shall not be used as a shopping list to upgrade, substitute for, or delete for credit any part of the Work included in the Base Bid.
- Only the term “Additive Bid Item” shall be used. **Use of the term ‘Alternate’ is not permitted.**
- The Work included in each Additive Bid Item shall produce a complete component which may be incorporated into the work in the Base Bid.
- Each Additive Bid Item shall be independent of other Additive Bid Items.
- None of the Additive Bid Items shall compromise the work in the Base Bid and other Additive Bid Items for compliance with Code, accessibility or safety requirements.
- Additive Bid Items shall be sequenced so the most essential Additive is listed first.
- When the project bids are received and opened, the low bidder shall be determined based on the lowest bid which combines the Total Base Bid Amount plus the total amount of the Additive Bid Items which the University in its sole discretion decides to accept/award. The sequence of affordable Additive Bid Items may be adjusted after bid opening provided the adjustments do not change the lowest bidder. When Project proposal prices are evaluated, the selected firm shall be determined in accordance with the criteria in the RFP.
- Negotiation of Additive Bid Item amounts is prohibited. Negotiations are allowed only for the Base Bid Work. If negotiations are required to allow the award of the Base Bid, the inclusion of any of the Additive Bid Items in the contract may not be considered in discussions during the negotiations, even if the negotiations of the Base Bid amount would yield sufficient savings to include an Additive Bid Item. If negotiations for Base Bid savings are sufficient to allow for the addition of an Additive Bid Item, the Additive Bid Item can be included only if it does not change the lowest bidder. Permission to negotiate with the low bidder must be obtained from the AVP & CFO.

## **5.11 PROJECT SUBMISSION REQUIREMENTS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **5.12 REVIEWS AND APPROVALS**

### **5.12.1 General**

This section has been deleted in its entirety and moved to the DCSM.

### **5.12.2 Building Official Review**

This section has been deleted in its entirety and moved to the DCSM.

### **5.12.3 Annual Permit Work**

This section has been deleted in its entirety and moved to the DCSM.

### **5.12.4 DEB Review Comments**

This section and its subsection have been deleted in their entirety and moved to the DCSM.

### **5.12.5 Re-submittals**

This section has been deleted in its entirety and moved to the DCSM.

### **5.12.6 Revised Submittals**

This section has been deleted in its entirety and moved to the DCSM.

### **5.12.7 Final Approval**

This section has been deleted in its entirety and moved to the DCSM.

### **5.12.8 Print and Release of Bid Documents:**

When authorized to advertise for bid by the approved HECO-6, other CO Forms, or by the AVP & CFO, contact the University Procurement Department to establish a bid receipt date.

#### **5.12.8.1 Advance Advertisement/Notice**

In some cases it may be advantageous to the University to advertise a project before bid documents are fully revised. In such case the procedures below shall be followed:

If advertisements are authorized to be placed in eVA before bid documents are approved for printing and release, the advertisement shall indicate: "Bid documents will be available to bidders on or about \_\_\_\_ (date) \_\_\_\_."

The bid date shall be set to allow reasonable time to complete revisions, to review and print the documents, to issue the documents, and to give bidders at least three weeks to prepare bids.

### **5.12.9 Average Review Periods for Complete Submittals**

This section has been deleted in its entirety and moved to the DCSM.

### **5.12.10 Approvals**

Approval of the submittal at any stage is dependent on the University and the A/E satisfactorily resolving the issues raised during the reviews by the UBO and other pertinent review departments. Approval of Preliminaries on any project for which a Value Engineering Study is required will be dependent on the successful resolution of the Value Engineering recommendations and the UBO review comments.

## **5.13 QUALITY CONTROL/QUALITY ASSURANCE**

This section has been deleted in its entirety and moved to the DCSM.

## **5.14 VALUE ENGINEERING (VE)**

This section has been deleted and moved to the DCSM.

### **5.14.1 Scope of VE Study**

This section has been deleted in its entirety and moved to the DCSM.

### **5.14.2 Procurement of the VE Study**

The University shall procure the services of a Value Engineering consultant using non-professional services procurement procedures. The procurement process should begin approximately 90 days prior to the anticipated date the preliminary drawings will be submitted. RFP evaluation factors shall include the experience, qualifications and expertise of each proposed team member.

The VE response to the RFP shall include the proposers list of proposed and alternate team members and their respective resumes representing their various disciplines/areas of expertise, together with the certified (CVS) team leader's qualifications and discipline shall be submitted with the proposal and approved at the time of negotiations. Changes to or substitutions to the approved VE team configuration shall be submitted in writing to the University for approval.

The typical VE Team will be composed of:

1. VE Team Leader (CVS) \*\*
2. Architect
3. Structural Engineer
4. Mechanical Engineer
5. Electrical (or Civil) Engineer
6. Typing, Clerical and Estimating support staff as necessary

\*\* The principal person responsible for pre-study work, assembling, editing and reproducing the recommendations generated by the Value Engineering Team Study. The CVS must edit and sign the final report.

### **5.14.3 Qualifications of VE Team**

This section has been deleted in its entirety and moved to the DCSM.

### **5.14.4 Information Supplied to the VE Team**

This section has been deleted in its entirety and moved to the DCSM.

### **5.14.5 Certified Value Specialist (CVS) Responsibilities**

This section has been deleted in its entirety and moved to the DCSM.

### **5.14.6 VE Report Requirements**

This section has been deleted in its entirety and moved to the DCSM.

### **5.14.7 Oral Presentation**

This section has been deleted in its entirety and moved to the DCSM.

#### **5.14.8 A/E Participation**

This section has been deleted in its entirety and moved to the DCSM.

#### **5.14.9 Criteria Challenge**

This section has been deleted in its entirety and moved to the DCSM.

#### **5.14.10 A/E Action on VE Study**

This section has been deleted in its entirety and moved to the DCSM.

### **5.15 STRUCTURAL AND SPECIAL INSPECTIONS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

### **5.16 COMMISSIONING OF HVAC SYSTEMS**

This section has been deleted in its entirety and moved to the DCSM.

### **5.17 MASTER PLANS: SITE AND UTILITY PLANS**

This section has been deleted in its entirety and moved to the DCSM.

## **CHAPTER 6 – DESIGN & PROCUREMENT CRITERIA, POLICIES & GUIDELINES**

Chapter 6 sets forth the procurement guidelines for use in developing plans and specifications for construction and renovation of state facilities. These guidelines shall be followed unless a waiver in writing is granted by the SVP & CBO.

### **6.0 DESIGN CRITERIA AND GUIDELINES**

The DCSM shall be followed for the design criteria and guidelines of buildings constructed on state-owned property. If the A/E determines that there is a valid reason for not conforming to the criteria or guides, the A/E shall request a Design Waiver per the DCSM requirements. The current version of the VUSBC and its referenced standards are applicable to all Virginia Tech buildings. If unintentional conflicts between the DCSM and other requirements or regulations occur, then the more restrictive requirement for the situation shall apply.

#### **6.0.1 University Design Standards**

The DCSM establishes the required design standards unique to Virginia Tech. The A/E shall comply with the DCSM. Waivers must be submitted to the AVP & CFO for consideration and/or approval.

#### **6.0.2 Plans, Sections and Details of Equipment or Systems**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

#### **6.0.3 Proprietary and Sole Source Procurement Procedures**

##### **6.0.3.1 Proprietary Specifications**

In general, the University's policy is to allow competitive bidding to the greatest extent practicable and to limit the proprietary procurement to only that material and/or work which has been justified and approved. From time to time, a situation arises in which only a single product will perform the required function. In such cases, Facilities personnel should forward a request through the Project Manager to the University Procurement Department fully justifying the use of the proprietary product.

Proprietary or Sole Source requirements shall not be used unless it is conclusively established that no substitute will serve the purpose. Timely submittal of the request is required to avoid delays in the work. Use of proprietary items/specifications is prohibited unless formal written approval has been requested by Facilities personnel and granted by the University Procurement Department.

##### **6.0.3.2 Proprietary Specification Language**

If proprietary specification authorization is granted, specify the item by manufacturer's name and catalog number, followed by "notwithstanding any other provision of this contract, no other product will be acceptable" or language of similar



import. When the approved proprietary product is available from the manufacturer to two or more vendors or approved installers who regularly work in the area of the project, the product may be included in the project specifications for competitive bidding.

#### **6.0.3.3 Sole Source or Franchised Vendors**

When the proprietary product is available only through a sole source provider or installer and the University Procurement Department, acting upon request of the Project Manager, determines that it is in the best interests of the University (by approval of the Sole Source Procurement Approval Request, Form [CO-18](#)), the University or Contractor shall procure the proprietary product, including installation where applicable.

The subcontract price for the sole source procurement (if purchased by the University) shall be indicated on the Bid Form and included in the Total Base Bid Amount by all bidders.

#### **6.0.4 Separate Contracts for Material and Equipment**

As an alternative to Proprietary and Sole Source Procurement Procedures, the proprietary procurement shall be deleted from the scope of the Work being bid (the project plans and specifications) and a separate contract procured by the University for such Work.

#### **6.0.5 Work That is “Not in Contract”**

Work outside of the general contract, that is Not In Contract (NIC) for bidding but is to be included in the construction, e.g., work by the University, shall be coordinated with the contract documents in one of the following ways.

##### **6.0.5.1 Contractor-Purchased/Contractor-Installed – Option 1**

(Subcontractor designated/price set by University)

Drawings and specifications must be included that describe the work including: scope of work, materials, installation, testing, and quality control. The Bid Form must include a statement that informs the General Contractor to accept the subcontract and coordinate the work as if the General Contractor had selected the subcontractor. The Bid Form shall also include the negotiated price of the subcontract to be included in the Bid. An example of this is a preselected Building Automation Systems subcontractor.

##### **6.0.5.2 Contractor-Purchased/Contractor-Installed – Option 2**

(Materials contract assigned by the University)

Drawings and specifications must be included that describe the work including: scope of work, materials, installation, testing and quality control. The Bid Form must include the price of the materials contract and a statement that informs the General Contractor of the intent to assign a specific materials contract, and directs the General Contractor to accept and install the materials and coordinate the work as if

the General Contractor had purchased the materials. An example of this is laboratory or kitchen equipment.

#### **6.0.5.3 University-Purchased/Contractor-Installed**

Drawings and specifications must be included that describe the work including: scope of work, materials, installation, testing, and quality control. The Bid Form must include a statement that informs the General Contractor of the intent to provide specific materials in a specific location, and directs the General Contractor to accept and install the materials and coordinate the work as if the General Contractor had purchased the materials. An example of this is existing or pre-purchased laboratory or kitchen equipment. The University pays the supplier directly for the materials.

#### **6.0.5.4 University-Purchased/University-Installed (or installed by University's Separate Contractor)**

The Bid Form must include a statement that informs the General Contractor of the intent to perform specific work in a specific location, and directs the General Contractor to allow the work to proceed, and coordinate the work of the University and other contractors. An example of this is medical equipment.

### **6.0.6 Approvals, Equals, and Substitutes**

#### **6.0.6.1 Approvals and/or Submittals Prior to Bidding**

The Bid Documents shall not require samples, shop drawings, or similar materials to be submitted for approval prior to receipt of bids.

#### **6.0.6.2 Approvals of Submittals**

This section has been deleted in its entirety and moved to the DCSM.

#### **6.0.6.3 Brand Names**

This section has been deleted in its entirety and moved to the DCSM.

#### **6.0.6.4 Equal Materials, Equipment or Assemblies**

This section has been deleted in its entirety and moved to the DCSM.

#### **6.0.6.5 Substitute Materials, Equipment or Assemblies**

This section has been deleted in its entirety and moved to the DCSM.

### **6.0.7 Unit Prices**

Certain aspects of construction projects, such as the depth to suitable foundation bearing for footings, piles or caissons, or the locations and amount of rock to be encountered and removed often must be estimated based on limited factual data. In such situations, to ensure fairness for the University, the Bidders and the successful bidding Contractor, estimated quantities are shown for unit pricing and determining the low bidder. A statement is included on the Bid Form stating that actual quantities will be measured for the listed work and that the Contract Price will be adjusted upward or downward by change order to reflect the actual quantities involved times the

Contractor's unit price shown on the Bid Form (unless such prices have been modified by the Contract).

#### **6.0.7.1 Implementation of Unit Prices**

Where unit prices are used to competitively bid work which may vary depending on actual conditions encountered, the following method shall be used:

1. The A/E shall provide on the Bid Form the unit price schedule to include an estimated quantity of each work task or material listed. The estimated quantities should be reasonably accurate based on the best available information and the designers experience and judgment.
2. The bidders insert the unit prices for each and extend the estimated quantity times unit price to yield a cost.
3. The extended costs are then added to the part base bids for other work to give a total base bid.
4. A statement shall be included on the Bid Form stating that the payment for work listed in the unit price schedule will be based on actual quantities of listed items required for completion of the work.

#### **Examples of Unit Price Method and Wording**

Base Bids for Parts C, D and E shall be based on the estimated quantities indicated to be provided complete and in accordance with the applicable portions of the plans and specifications. Payment amounts for each of these items will be based on the actual quantities authorized, provided and approved times the unit costs indicated by the bidder. The final contract amount shall be adjusted upward or downward based on the actual payment amounts versus the bid amounts for PARTS C, D and E.

##### **Part C. - Excavation of Additional Unsuitable Material**

Excavation of unsuitable material, where authorized or directed, below the levels required for the Work in Parts A and B and backfill with compacted material per specifications. (price per cubic yard; final amount shall be adjusted up or down based on actual quantity authorized)

Estimated quantity of 150 cubic yards @ \$ \_\_\_\_\_ per cubic yard =  
\$ \_\_\_\_\_ (A/E fills in estimated quantity to be included in bid)

Part C = \_\_\_\_\_ Dollars \$ \_\_\_\_\_

##### **Part D. - Piling (Example for Timber Piling)**

Timber piling provided complete in place in accordance with the plans and specifications (Priced per each pile at the indicated length):

40' Timber Piling                      60 ea. @ \$ \_\_\_\_\_ ea. = \$ \_\_\_\_\_

30' Timber Piling                      20 ea. @ \$ \_\_\_\_\_ ea. = \$ \_\_\_\_\_

Part D = \_\_\_\_\_ Dollars \$ \_\_\_\_\_

#### Part E. - Caissons (Example for Caisson Foundations)

Cast-in-place concrete caissons complete in place in accordance with the plans and specifications (Priced per linear foot of caisson complete and accepted for each caisson diameter):

36 inch Diameter 250 linear feet @ \$\_\_\_\_\_ / linear feet = \$\_\_\_\_\_

48 inch Diameter 175 linear feet @ \$\_\_\_\_\_ / linear feet = \$\_\_\_\_\_

Part E = \_\_\_\_\_ Dollars \$\_\_\_\_\_

If rock excavation is required, use the following:

#### Part \_\_\_\_ - Excavation of Rock Material: (Example)

Excavation of rock material, where authorized or directed, and proper disposal off-site of excess material, complete per specifications. (Price per cubic yard; final price shall be adjusted up or down based on actual quantity authorized):

Estimated quantity of \_\_\_\_ cubic yards @ \$\_\_\_\_\_ / cubic yard = \$\_\_\_\_\_

Part \_\_\_\_ = \_\_\_\_\_ Dollars \$\_\_\_\_\_

If rock excavation with backfill is required, use the following:

#### Part \_\_\_\_ - Excavation of Rock Material at Trenches: (Example)

Excavation of rock material, where authorized or directed, and proper disposal off-site of excess material and backfill with compacted trench fill material per specifications. (Price per cubic yard; final price shall be adjusted up or down based on actual quantity authorized):

Estimated quantity of \_\_\_\_ cubic yards @ \$\_\_\_\_\_ / cubic yard = \$\_\_\_\_\_

Part \_\_\_\_ = \_\_\_\_\_ Dollars \$\_\_\_\_\_

### 6.0.8 Procurement of Furnishings and Loose Equipment

Loose equipment and furnishings are generally items moveable or portable versus permanently installed. It includes such items as fire extinguishers, but not fire extinguisher (FE) cabinets; residential refrigerators; unattached residential stoves; unattached furniture; and other similar furnishings or loose equipment. The University shall purchase loose equipment using the procedures described in the Higher Ed Purchasing Manual.

### 6.0.9 Built-In Equipment

Built-in equipment comprises special purpose equipment or furnishings which are permanently built in or attached to general building construction. It includes such items as laboratory fixtures, kitchen cabinets, commercial laundry equipment, auditorium seating, stage rigging, and so forth.

Built-in equipment may be procured in the following ways provided the procurement complies with the [Governing Rules §§ 4 and 5](#):

1. Bid the built-in equipment as part of the Construction Contract.
2. Bid prior to receipt of bids on the Construction Contract where the successful bidder agrees to be assigned as a subcontractor to the Construction Contractor. That price and vendor's name are then listed on the Bid Form for inclusion in the Construction Contract bids.
3. Bid the built-in equipment to be furnished and installed as a separate contract for both procurement and installation.

## **6.1 GENERAL DESIGN STANDARDS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **6.2 CIVIL & SITEWORK DESIGN STANDARDS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **6.3 CONCRETE DESIGN STANDARDS**

This section has been deleted in its entirety and moved to the DCSM.

## **6.4 MASONRY DESIGN STANDARDS**

This section and its subsection have been deleted in their entirety and moved to the DCSM.

## **6.5 STEEL DESIGN STANDARDS (RESERVED)**

## **6.6 WOOD & PLASTICS DESIGN STANDARDS (RESERVED)**

## **6.7 THERMAL & MOISTURE PROTECTION DESIGN STANDARDS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **6.8 DOORS & WINDOWS DESIGN STANDARDS**

This section and its subsection have been deleted in their entirety and moved to the DCSM.

## **6.9 FINISHES DESIGN STANDARDS (RESERVED)**

## **6.10 SPECIALTIES DESIGN STANDARDS**

This section and its subsection have been deleted in their entirety and moved to the DCSM.

#### **6.11 BUILT-IN EQUIPMENT DESIGN STANDARDS (RESERVED)**

#### **6.12 FURNISHINGS DESIGN STANDARDS (RESERVED)**

#### **6.13 SPECIAL CONSTRUCTION DESIGN STANDARDS (RESERVED)**

#### **6.14 VERTICAL TRANSPORTATION DESIGN STANDARDS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

#### **6.15 MECHANICAL AND PLUMBING DESIGN STANDARDS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

#### **6.16 ELECTRICAL DESIGN STANDARDS**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## CHAPTER 7 – CONSTRUCTION PROCUREMENT AND ADMINISTRATION

### 7.0 GENERAL

For purposes of Code of Virginia [§ 2.2-1132](#), “construction” includes new construction, reconstruction, renovation, restoration, major repair, demolition and all similar work upon building and ancillary facilities owned or to be acquired by the Commonwealth with the exceptions stated above.

#### 7.0.1 Methods of Construction Procurement

Three methods of construction procurement are typically utilized for Commonwealth of Virginia construction projects:

- (1) Competitive Sealed Bids (Design-Bid-Build and Small Purchases): Refer to [Section 7.1](#).
- (2) Construction Management at Risk: Refer to [Section 7.2](#).
- (3) Design-Build: Refer to [Section 7.3](#).

For emergency procurement of construction services, other alternative methods of construction procurement, prequalification procedures and requirements for partial building permits on phased construction projects, refer to [Section 7.4](#).

##### 7.0.1.1 Reciprocity

This section has been deleted in its entirety.

#### 7.0.2 The Building Committee

Every capital project (regardless of funds source) shall establish a Building Committee. This requirement may be satisfied by one or more committees, dependent upon the needs and the project volume of the University. The Building Committee shall be appointed by the AVP & CFO or designee.

##### 7.0.2.1 Authority and Purpose

The Building Committee assists the AVP & CFO in interviewing and selecting architects and engineers to carry out planning, design or other professional services for the University and recommends to the AVP & CFO the best qualified A/E firm to provide those professional services. The Building Committee will be guided in accomplishing these tasks by the requirements and policies contained in [Chapter 3](#), “A/E Services”. A Building Committee shall be used by the AVP & CFO to interview and recommend a Design-Build Team or Construction Manager for a Capital Project approved for accomplishment using such procedures.

##### 7.0.2.2 Composition of Building Committees

The Building Committee shall be composed of typically no more than 8 voting members who must be employed by Virginia Tech as Faculty or Staff employees, with representation from the following areas for the project:

- a) Accredited Virginia Construction Contracting Officer (VCCO)

- b) Architect or engineer from University's Facilities Department Office of University Planning (permanent member)
- c) Technical person responsible from University's Facilities Operations Department (permanent member)
- d) The representative of the end-user's departments for the proposed new/renovated facility
- e) Other representatives as deemed appropriate by the AVP & CFO
- f) Project Manager for the proposed new/renovated facility

Committees appointed for the purpose of reviewing A/E firm qualifications and recommending an A/E for an A/E Term Contract shall include:

- a) The project management persons responsible for administering the University's construction/ renovation projects;
- b) The technical persons responsible for operation and maintenance of University facilities; and
- c) An architect or engineer from the University's Facilities Department Office of University Planning (permanent member).

#### **7.0.2.3 Qualifications of Members**

At least two members of the Building Committee must be knowledgeable of:

- a) The functional and operational requirements of the proposed building project, and
- b) The project technical requirements, and
- c) The administrative procedures for selecting design professionals, the development of a project design scope, the techniques for negotiating an A/E fee and the content and preparation of MOUs (an accredited VCCO).

### **7.0.3 Virginia Construction Contracting Officer**

The University shall use the services of the VCCO in bidding and awarding capital outlay construction contracts as described in [Section 8.4.11](#) of this Manual. Procedures stipulated in this Manual for advertisement, Invitation to Bid, Receipt of Bids, Opening of Bids and Award of Contracts shall be used.

### **7.0.4 Authorization to Advertise for Bids**

Authorization to advertise for bids is given on completion of technical reviews(s) of the project documents by the University and approval of the Project HECO-6 for Capital Projects. For non-capital projects it is recommended that the documents be reviewed by the University at the preliminary design stage (before development of working drawings) in addition to a final review of the working drawings before advertising for bid. Failure to do so puts the University at risk for change orders if bids are based on documents which do not conform to the requirements of the VUSBC of Chapters 4 and 6 of the DCSM.



### **7.0.5 Work Performed by Other than Public Contract**

Unless waived by the action wording on the approved HECO-2, agencies authorized to perform construction using University work force personnel shall submit their plans and specifications bearing the seal of the responsible architect and/or engineer for UBO review, approval, and Building Permit prior to beginning work. The format and instructions for submittals are outlined in [Chapter 5](#) of this Manual.

### **7.0.6 Small Businesses Procurement Plan**

The university is committed to increasing participation of Virginia Department of Small Business and Supplier Diversity (DSBSD) Certified (i) small businesses, (ii) small woman-owned businesses, and (iii) small minority-owned businesses. The university expects Contractors to provide for significant participation of small businesses, businesses owned by women and minorities through partnerships, joint ventures, subcontracts, or other contractual opportunities. All bids/proposals shall include a small business participation plan.

For capital projects, reporting shall be submitted through GCPay or on a form template provided upon contract award.

#### **7.0.6.1 Small Business Set Asides**

Virginia Tech does not employ the use of set asides for the procurement of construction and professional services.

##### **7.0.6.1.1 Total Construction Cost Up to \$10,000**

Virginia Tech does not employ the use of set asides for the procurement of construction and professional services.

##### **7.0.6.1.2 Total Construction Cost More Than \$10,000 Up to \$100,000**

Virginia Tech does not employ the use of set asides for the procurement of construction and professional services.

##### **7.0.6.1.3 Total Construction Cost More Than \$100,000**

Virginia Tech does not employ the use of set asides for the procurement of construction and professional services.

#### **7.0.6.2 Contract Size**

If the size of vertical or horizontal construction contracts appears to limit small business vendors from bidding on or winning such contracts, then the University may seek to unbundle the contracts to increase the pool of potential small business bidders. If the effect of reducing the size of such contracts is to cause a meaningful increase in price, a significant degradation in terms and conditions, a significant decrease in administrative efficiency or non-compliance with applicable federal contracting requirements or funding conditions, then the University shall not be obligated to so reduce the contract size. In the case of construction contracts awarded to non-small prime contractors, the prime contractor shall seek to size the subcontracts so as to enable qualified small business subcontractors to bid

effectively for such work so long as the effect of reducing the size of such subcontracts does not cause a meaningful increase in price or significant degradation in terms, conditions or other applicable contract factors. In the case of non-highway construction, where appropriate for the construction job in question, the University shall consider using a Construction Manager at Risk instead of a prime contractor in order to afford opportunities for small business contractors to bid effectively for the work in question. Nothing contained in this paragraph shall require the University to accept contractors who do not meet applicable quality, safety and performance standards.

#### **7.0.6.3 Small Business Certification**

The contractor shall provide DSBSD certification of all small business subcontractors as soon as practicable after signing of the contract.

#### **7.0.6.4 Audits**

In order to assure compliance with certification requirements and small business subcontracting plans, the University shall contractually provide for appropriate auditing of vendors and contracts. Such audits shall include the right to make on site audits at any time during the term of the applicable contract or certification.

### **7.0.7 Bonds**

#### **7.0.7.1 Bid Bond Per Governing Rules § 28**

- a. Except in cases of emergency, all bids or proposals for construction contracts in excess of \$1 million shall be accompanied by a bid bond from a surety company selected by the bidder that is authorized to do business in Virginia, as a guarantee that if the contract is awarded to the bidder, he will enter into the contract for the work mentioned in the bid. The amount of the bid bond shall not exceed 5% of the amount bid.
- b. No forfeiture under a bid bond shall exceed the lesser of (i) the difference between the bid for which the bond was written and the next low bid, or (ii) the face amount of the bid bond.
- c. Nothing in this section shall preclude the University from requiring bid bonds to accompany bids or proposals for construction contracts anticipated to be less than \$1 million.

In no case shall bonding requirements be waived for projects with a value of \$500,000 or more.

#### **7.0.7.2 Performance Bond and Labor and Materials Payment Bond**

- a. Upon the award by the university of any (i) public construction contract exceeding \$1 million awarded to any prime contractor or (ii) public construction contract exceeding \$1 million awarded to any prime contractor requiring the performance of labor or the furnishing of materials for buildings, structures, or other

improvements to real property owned by the university, the contractor shall furnish to the university the following bonds:

1. Except for transportation-related projects, a performance bond in the sum of the contract amount conditioned upon the faithful performance of the contract in strict conformity with the plans, specifications, and conditions of the contract. For transportation-related projects, such bond shall be in a form and amount satisfactory to the university.
  2. A payment bond in the sum of the contract amount. The bond shall be for the protection of claimants who have and fulfill contracts to supply labor or materials to the prime contractor to whom the contract was awarded, or to any subcontractors, in furtherance of the work provided for in the contract, and shall be conditioned upon the prompt payment for all materials furnished or labor supplied or performed in the furtherance of the work. "Labor or materials" shall include public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site.
- b. Each of the bonds shall be executed by one or more surety companies selected by the contractor that are authorized to do business in Virginia.
  - c. The bonds shall be payable to the Commonwealth of Virginia naming also the university.
  - d. Each of the bonds shall be filed with the university, or a designated office or official thereof.
  - e. Nothing in this section shall preclude the university from requiring payment or performance bonds for construction contracts below \$1 million.
  - f. Nothing in this section shall preclude the contractor from requiring each subcontractor to furnish a payment bond with surety thereon in the sum of the full amount of the contract with such subcontractor conditioned upon the payment to all persons who have and fulfill contracts that are directly with the subcontractor for performing labor and furnishing materials in the prosecution of the work provided for in the subcontract.

#### **7.0.7.3 Alternative Forms of Security Per Governing Rules § 30**

- a. In lieu of a bid, payment, or performance bond, a bidder may furnish a certified check or cash escrow in the face amount required for the bond.
- b. If approved by the university's General Counsel or his/her equivalent, a bidder may furnish to the university a personal bond, property bond, or bank or savings institution's letter of credit on certain designated funds in the face amount required for the bid, payment or performance bond. Approval shall be granted only upon a determination that the alternative form of security proffered affords protection to the university equivalent to a corporate surety's bond.

### **7.0.8 Political Contributions Prohibited During Procurement Process**

Per *Code of Virginia* [§ 2.2-4376.1](#) and [§ 2.2-3104.01](#), no bidder or offeror, including any individual who is an officer or director of such, who has submitted a bid or proposal to a state agency for the award of a public contract pursuant to the Rules Governing Procurement of Goods, Services, Insurance, and Construction by a Public Institution of Higher Education of the Commonwealth of Virginia shall knowingly provide, or make an express or implied promise to make, a contribution, gift, or other item valued over \$50 to the Governor, the Governor's political action committee, or the Governor's Secretaries, if the Secretary is responsible to the Governor for any agency with jurisdiction over matters at issue ("Governor's Associates"), during the period between the submission of the bid and the award of the public contract. Likewise, the Governor's Associates shall not knowingly accept such a contribution, gift, or other item under these circumstances. Any person who violates this shall be subject to a civil penalty of \$500 or up to two times the amount of the contribution or gift, whichever is greater. The provisions of this paragraph shall not apply to contracts with a stated or expected value of under \$5 million or contracts awarded as the result of competitive sealed bidding (as defined in [Governing Rules § 4](#)).

### **7.0.9 Debarment and Enjoinment**

[Governing Rules § 18](#) allows for contractors to be debarred from construction contracts with the Commonwealth. A contractor may be debarred or enjoined only under the circumstances and by the procedures outlined in the [DGS Debarment and Enjoinment Procedures for Construction](#). Debarment and enjoinment status of contractors and other vendors can be determined at the eVA website.

### **7.0.10 Additional Authority Classifications**

This section has been deleted in its entirety.

## **7.1 COMPETITIVE SEALED BIDDING (DESIGN-BID-BUILD)**

([Governing Rules § 4](#))

The default method for procurement of construction services is competitive sealed bidding in accordance with [Governing Rules § 4](#), and the procedures described in this chapter. Other methods of construction procurement that are often used include Construction Management at Risk (see [Section 7.2](#)) and Design-Build (see [Section 7.3](#)).

The Invitation for Bids for construction projects shall typically include the following current most standard forms:

- Table of Contents;
- [DGS-30-256](#), Notice of Invitation to Bid;
- [DGS-30-055](#), Instructions to Bidders, Form CO-7a;
- [DGS-30-272](#), Prebid Question Form;
- [DGS-30-220](#), Bid Form;

- [DGS-30-090](#), Standard Bid Bond, Form CO-10.2
- [DGS-30-054](#), General Conditions of the Construction Contract, Form CO-7;
- [DGS-30-376](#), Supplemental General Conditions, if applicable;
- [DGS-30-064](#), Contract Between Owner and Contractor, Form CO-9;
- [DGS-30-072](#), Workers Compensation Certificate of Insurance, Form CO-9a;
- [DGS-30-084](#), Standard Performance Bond; Form CO-10;
- [DGS-30-088](#), Standard Labor and Material Payment Bond, Form CO-10.1;
- [DGS-30-092](#), Change Order, Form CO-11;
- [DGS-30-200](#), Change Order Estimate (General Contractor), Form GC-1;
- [DGS-30-204](#), Change Order Estimate (Subcontractor), Form SC-1;
- [DGS-30-208](#), Change Order Estimate (Sub-subcontractor), Form SS-1;
- [DGS-30-104](#), Schedule of Values and Certificate for Payment, Form CO-12;
- [DGS-30-108](#), Affidavit of Payment of Claims, Form CO-13;
- [DGS-30-112](#), Certificate of Completion by A/E or Project Manager, Form CO-13.1;
- [DGS-30-116](#), Certificate of Substantial Completion by A/E, Form CO-13.1a;
- [DGS-30-120](#), Final Report of Structural Special Inspections, Form CO-13.1b;
- [DGS-30-136](#), Certificate of Completion by Contractor, Form CO-13.2;
- [DGS-30-140](#), Certificate of Substantial Completion by Contractor, Form CO-13.2a;
- Various other documents described in [Chapter 5](#). See the [DGS Documents and Forms Center](#) for a description and links to required forms.

### **7.1.1 Non-Capital Construction and Maintenance Reserve Project Design and Procurement Procedures**

Construction, or repair, or remodeling or renovation Work which is valued at \$3 million or less may be designed and procured by using the procedures of Sections 7.1.1.1 and 7.1.1.2. Total project costs shall not exceed \$3 million.

#### **7.1.1.1 Design Services Options**

##### **7.1.1.1.1 No Design**

Routine repair and maintenance projects typically require no design services. Examples include painting, carpet, window treatments, et cetera.

##### **7.1.1.1.2 Architecture/Engineer Services**

Professionally licensed design consultants are contracted to provide design, bidding, and construction administration. The University maintains term contracts with professionally licensed A/E services that may be utilized or a competitive selection process may be conducted to select the appropriate A/E for the project. The total cost of the project includes all A/E services provided.

### **7.1.1.2 Construction Solicitation**

#### **7.1.1.2.1 Construction Under \$10,000**

Projects valued under \$10,000 may be procured by a single bid from any properly licensed contractor.

#### **7.1.1.2.2 Term Contracts**

Term Contracts are contracts for goods and services established for a term of typically five years or more. These contracts allow for procurement of the services of skilled, licensed tradesmen in certain disciplines at a contracted hourly or unit cost rate.

#### **7.1.1.2.3 On Demand Construction**

The Facilities Department, in conjunction with the Procurement Department, establishes contracts with prequalified Class “A” General Contractors in order to quickly and competitively bid projects with a construction cost estimated under \$500,000.

#### **7.1.1.2.4 Invitation for Bids (IFB)**

IFB is a formal method of construction solicitation. The advantage of this method is that the project is opened up for competitive bid to a larger commercial market by advertisement on the state’s e-procurement system (eVA).

#### **7.1.1.2.5 Virginia Association of State College and University Purchasing Professionals (VASCUPP) Contracts and other Group Purchasing Organization (GPO) Contracts**

VASCUPP and numerous national and regional GPOs provide opportunities for cooperative procurements and cost savings for higher education institutions in Virginia. The VASCUPP and GPO contracts allow for cooperative procurement wherein any public body, cooperative purchasing organizations, public or private health or educational institutions or Universities may access VASCUPP and GPO contracts and, if authorized, is permitted to utilize the contract already established, subject to applicable law. Members of VASCUPP, as well as cooperative contracts, are found at <https://vascupp.org/index.php>.

### **7.1.2 Construction Costing More Than \$300,000: Standard Competitive Sealed Bids**

Construction, or repair or replacement in kind, or remodeling or renovation and Maintenance Reserve projects which cost more than \$300,000 may follow the same bidding procurement procedures, whether they are capital projects or noncapital projects. Projects shall be posted and advertised on the eVA Procurement System through the Commonwealth’s Department of General Services. See [Appendix H](#), which has been relocated to the DCSM, for further guidance on non-capital outlay projects. The remainder of Section 7.1 below addresses the procedures for all projects being procured using the standard competitive sealed bidding method.

### 7.1.2.1 Bid Period Activities

Preparations for bidding including the preparation of bid documents, the Invitation for Bids, the Instructions to Bidders (Form [CO-7a](#)), the Bid Form, and advertising are described in [Chapter 5](#). Prequalification procedures are described in [Section 7.4.2](#) of the Manual.

[Governing Rules § 4](#), “Competitive sealed bidding,” requires that public notice of the IFBs be posted on [eVA](#).

[Governing Rules § 4](#), “Competitive negotiation,” requires that public notice of the RFPs be posted on [eVA](#).

### 7.1.2.2 Prebid Conference

A prebid conference shall not be mandatory for projects with an estimated cost of less than \$500,000. If a prebid conference or project showing is held (whether optional or mandatory), representatives of the University and the A/E shall attend. The University will make the project location or building available to the attendees (prospective bidders) for their observation or inspection.

The A/E shall conduct such conference or showing. The agenda for the prebid conference shall include the following:

1. Introductions of A/E and University representatives
2. Summary of the Work by citing or reading portions of:
  - Notice of Invitation for Bids
  - Instructions to Bidder
  - Prebid Question Form
  - Bid Form
  - Supplemental General Conditions
  - Special Conditions
  - General Requirements
  - Site constraints, phasing requirements, or other requirements that affect the sequence or staging of the work
  - Other conditions or requirements included in the bid documents that should be called to the attention of the bidders
3. Questions from the floor - **A/E shall answer only those questions where the response is to direct the questioner’s attention to a particular portion of the bid documents.** ALL OTHER QUESTIONS SHOULD BE RECEIVED IN WRITING OR DOCUMENTED BY THE A/E AND RESPONDED TO IN WRITING IN AN ADDENDUM.
4. The A/E should issue an Addendum to include a copy of the attendees’ sign-in sheet and the questions posed with the response to each. The University and the A/E must be careful not to provide any information, instruction, or clarification to prebid attendees which is not made available to all potential bidders.

### **7.1.2.3 Addenda to the Bid Documents**

Addenda shall be issued as necessary to clarify or correct information in the bid documents, to respond to questions raised by the bidders, and/or to modify the bid receipt date. All addenda shall be approved by the University prior to issuance. The professional seal(s) of the architect(s) and engineer(s) responsible for the design are required to be signed and dated. This applies to the first page of every addendum.

**No oral explanation in regard to the meaning of the drawings and specifications shall be made and no oral instructions shall be given to the bidders prior to the receipt of bids.**

Addenda shall show the University name, the project title, the 11 digit project code, and the specific items to be modified. Addenda shall be written in a clear and concise manner. Each item shall identify the location in the documents of the item to be changed (e.g., plan sheet number and view, or specification section and paragraph number) and describe the change to be made (e.g., change dimension in Section from x'-xx" to y'-yy," or delete wording in Section 09999, paragraph 3 (b) as written and replace with the following words ".....").

**All Addenda shall be provided to the University Project Manager and UBO at the same time and via eVA as the Addenda are issued to the bidders.**

#### **7.1.2.3.1 Major Clarifications or Corrections**

Addenda to clarify or correct significant information in the Bid Documents shall be issued at least 10 days prior to the bid receipt date. Addenda which add Work to the project, which provide significant information (affecting price, time, quality or quantity) which must be considered by subcontractors and suppliers, or which contain many pages of corrections must be issued at least 10 days prior to the date set for receipt of bids or the bid date must be delayed to allow 10 days from addendum issue to bid date.

#### **7.1.2.3.2 Minor Clarifications**

Addenda which serve primarily to provide clarifications or corrections that do not require significant changes to the Bid documents and can be covered in a one page Addendum may be issued up to 6 days prior to bid date. Addenda which only delay or cancel the date for receipt of bids must be issued at least 24 hours prior to the date and time set for bid receipt.

### **7.1.2.4 Bid Receipt, Opening & Evaluation**

The receipt, opening and evaluation of bids are very important activities and the University shall follow the established rules, procedures and processes as described herein. The person receiving the bids shall be thoroughly trained and knowledgeable of the proper procedure for receiving and documenting bids. This person will be a VCCO, or a person acting under the supervision of a VCCO. The person must be focused on receiving the bids, documenting the receipt, opening the bids properly and evaluating the bid information. Failure to follow the procedures may result in bid protests, voiding the bid receipt and inviting possible legal action.



See [Appendix F](#) for further information and a Checklist for Receiving and Opening Bids.

#### **7.1.2.5 Notice of Award or Intent to Award**

Once the bid evaluation is complete, the successful low bidder has been determined, and the University has approval to award a contract, the University will post a notice of award and may also post a notice of intent to award, [CO-9.1](#). The notice of award shall be posted on the Department of General Services' website for the Commonwealth's central electronic procurement system ([eVA](#)).

#### **7.1.2.6 Provisions for Negotiation with a Low Bidder**

When the bid exceeds the approved construction budget and the conditions and right to negotiate were included in the bid documents ([Governing Rules § 15](#)), the University may negotiate with the lowest responsive and responsible bidder as outlined below. In general, bids which are less than 20% over budget can reasonably be negotiated. If the bids are more than 20% over budget, the changes required would be significant and involve design and/or scope changes.

##### **7.1.2.6.1 Authority to Negotiate**

The AVP & CFO may grant the Project Manager the authority to negotiate with the apparent low bidder after review of the bid tabulation, the specifics of the request and the justification submitted by the Project Manager.

Negotiation shall be limited to the Work included in the Total Base Bid on the bid form only. Additive bid items, if any, cannot be considered in the negotiations nor can they be incorporated in the final negotiated contract. See Section 5.10.

The A/E, as part of basic services, shall advise the University as to the functional, operational, safety and code aspects of all proposed changes in the Work. The A/E shall also advise the University of the appropriateness of the dollar value of each change. Once the negotiations are complete, the A/E shall assist the University in preparing the documentation of the negotiations and prepare any sketches, details or other modifications to the plans and specification to clarify the Work to be performed by the Contractor.

##### **7.1.2.6.2 Documentation of Revisions**

Documentation of the negotiations shall clearly identify the Work changed or deleted and the value of each change or deleted item of Work.

The Work changed or deleted is subject to approval of the AVP & CFO since this represents a change from the documents previously approved. The Project Manager shall complete a Form [CO-9b](#), Post Bid Modification, which shall become part of the contract, along with drawings and specifications.

#### **7.1.2.7 Authority to Award a Capital Outlay Project Contract**

When the apparent low responsive and responsible bidder is determined for a capital project, the University shall prepare a tabulation of bids and a Form HECO-8,

Approval to Award Contract. The SVP & CBO or a designee who is a VCCO shall have authority to approve the award of a contract to the lowest responsive and responsible bidder for capital outlay projects.

#### **Low Bid Equal to or Less Than University Estimate**

If the low bid is equal to or less than the University construction estimate on the approved HECO-6 or authorizing advertising document, the HECO-8 may be approved by the VCCO. No commitment, verbal or written, shall be made until bids have been reviewed and approval received from the VCCO to award the contract. When the HECO-8 is approved, a contract can be awarded. The Project Manager shall enter the project budget on the HECO-8 to reflect the proposed construction amount (low and additives taken), A/E fees, project inspection, equipment, other and a maximum of 5% of the contract amount as a construction contingency.

#### **Low Bid Exceeds University Estimate by 20% or Less**

If the low bid exceeds the University estimate of construction costs shown on the approved HECO-6 or authorizing advertising document by 20% or less, the University may:

- Accept the bid if funds are available within the approved total project budget; or
- Request approval from the AVP & CFO to negotiate; or
- Reject all bids.

The designated University VCCO shall sign the HECO-8 which shall show the revised project budget breakdown.

#### **Low Bid Exceeds University Estimate by More Than 20%**

If the low bid exceeds the University estimate of construction costs shown on the approved HECO-6 or authorizing advertising document by more than 20%, the University may:

- Request authority to infuse additional funds sufficient to award a contract; or
- Request authority to infuse additional funds in order to bring the funds available to within 20% of the University estimate and negotiate with the low bidder; or
- Reject all bids.

In all cases where the low bid exceeds the University construction estimate by more than 20%, the approval to award a contract, even after negotiations with the low bidder, rests with the SVP & CBO (or designee).

### **7.1.2.8 Infusion of Funds**

Approvals and processes required for the infusion of funds into a project will differ based on the source of funds.

#### **7.1.2.8.1 State-Funded Projects**

For projects utilizing state funds or a combination of state and University funds, if the University elects to infuse additional funds and accept the low bid, submit the following to DEB for approval 7 calendar days, minimum, prior to the expiration of

the Bid Bond: a revised HECO-2, the HECO-8, a copy of the bid tabulation, a copy of the Bid Form submitted by the successful low bidder, a copy of the CO-9b, Post-Bid Modification, if appropriate, and a request for DPB to approve the addition of funds and request for DEB approval to award the contract. The University shall adjust the project budget on the HECO-8 to reflect the proposed construction contract amount, A/E fees, project inspections, equipment (DO NOT change this amount) and a maximum of 5% of the construction contract amount as construction contingency. No commitment, verbal or written, shall be made until bids have been reviewed and approval received from DPB and DEB to award the contract. When the HECO-8 is approved by DEB, a contract may be awarded.

#### **7.1.2.8.2 University-Funded Projects**

For projects utilizing University funds only, if the University elects to infuse additional funds and accept the low bid, submit the request for additional funding to the Capital Assets and Financial Management (CAFM) department for approval. The University shall adjust the project budget on the HECO-8 to reflect the proposed construction contract amount, A/E fees, project inspections, equipment (DO NOT change this amount) and a maximum of 5% of the construction contract amount as construction contingency. If the additional funds needed exceed 5% of the construction contract amount, CAFM will request approval from the BOV for the additional funding. No commitment, verbal or written, shall be made until bids have been reviewed and approval received from CAFM and the BOV, if applicable, to award the contract. When the HECO-8 is approved by DEB, a contract may be awarded.

#### **7.1.2.9 Negotiation**

The University may negotiate with the lowest responsible bidder as outlined in [Section 7.1.2.6.1](#) when the low bids exceed available funds. The final negotiated price shall be entered on Form HECO-8 and, with the completed Form CO-9b, Post-Bid Modification. The project budget on the HECO-8 shall show the proposed construction contract amount (negotiated contract amount), A/E fees, project inspections, equipment and a maximum of 5% of the negotiated contract amount as construction contingency if funds are available for such contingency.

#### **7.1.2.10 Rejection of All Bids**

The University, at its sole discretion, may choose to reject all bids and not award a contract.

#### **7.1.2.11 Protest of Award or Intent to Award**

Any bidder who desires to protest the award or intent to award a Contract shall submit such protest in writing to the University, no later than 10 days after the award or the announcement posting of the intent to award, whichever occurs first. No protest shall lie (i.e., be sustained or have a basis) for a claim in which the selected bidder or offeror is not a responsible bidder. The written protest shall include the

basis for the protest and the relief sought. The University shall issue a decision in writing within 10 days of the receipt of the protest stating the reasons for the action taken. This decision shall be final unless the bidder or offeror appeals within 10 days of the written decision by instituting legal action as provided for in [Governing Rules § 50](#).

Stay of award during protest ([Governing Rules § 52](#)): An award need not be delayed for the period allowed a bidder or offeror to protest, but in the event of a timely protest, no further action to award the contract will be taken unless there is a written determination by the SVP & CBO that proceeding without delay is necessary to protect the public interest or unless the bid or offer would expire.

#### **7.1.2.12 Award of the Construction Contract**

After receipt of an approved HECO-8, the University may enter into a written contract with the contractor using the Form [CO-9](#). A copy of the Notice of Award, Form [CO-9.1a](#), shall be **publicly posted** concurrent with the notice to the Contractor that the Contractor's bid has been accepted.

#### **7.1.2.13 Refund of Deposits for Drawings and Specifications**

This section has been deleted in its entirety.

## **7.2 CONSTRUCTION MANAGEMENT AT RISK PROCUREMENT PROCEDURES**

Construction Management at Risk (CM at Risk) is an alternate construction delivery method to Competitive Sealed Bids. The University holds two contracts: a contract for professional A/E design services, and also a two-phase contract with the CM at Risk Contractor. The Construction Manager provides a Guaranteed Maximum Price (GMP) for the Construction and all related services and is "At Risk" for constructing the entire project within the agreed-upon GMP. Refer to the [DGS Documents and Forms Center](#) for required forms and for the [DGS Policy for Construction Management at Risk](#) which incorporates the requirements of the *Code of Virginia* and the procedures approved by the Virginia Tech BOV.

When using this construction delivery method, it is essential that the referenced DGS Policy is understood and followed. Critical tenets of these procedures include:

- Prior to using CM, the University shall request review and recommendations from DEB regarding the proposed procurement method. The request for review shall be submitted utilizing the CM at Risk Procurement Review Submittal Form ([DGS-30-456](#)) and shall include the University's written determination that competitive sealed bidding is not practicable or fiscally advantageous.
- The CM method is a two-step process:
  - Step 1: RFQ process resulting in a short list of between two and five offerors.
  - Step 2: RFP process.
- The criteria for selection shall be included in the RFQ and RFP.
- Prior CM at Risk experience shall not be a prerequisite for award.

- The CM contract (for preconstruction services) must be initiated no later than the completion of schematic phase of design.
- The GMP is established at the completion of working drawings.
- The CM may only self-perform 10% of the work, and, for the remaining 90% of the work, the CM must procure it by publicly advertised, competitive sealed bidding to the maximum extent practicable.
- GMP early release packages are limited to clearly identifiable, scheduled foundation/site preparation and long lead material procurement. They shall be only for work to be performed during the initial phase of the project and billable at 100% before the next phase of the project.

### **7.2.1 Guidelines for Construction Manager “At Risk” Procurement**

1. Construction Manager Selection: Selection and is structured into 2 phases: Qualification via RFQ, and Selection via RFP.
  - a. Qualification Criteria: The Project Manager/Contracts Officer shall develop a list of qualification criteria for inclusion in the Request for Qualifications (RFQ) which consists of forms [DGS-30-466](#), [DGS-30-168](#), and [DGS-30-172](#). At a minimum, the qualification criteria shall include the following:
    1. Appropriately licensed and in good standing as a Class A General Contractor in the Commonwealth of Virginia.
    2. Ability to obtain appropriate insurance coverage for the project.
    3. Appropriate bonding capacity.
    4. A listing of experience of at least three projects of similar scope, and complexity including construction cost, schedule, and owner or architect representative’s contact information.
    5. A list of at least three professional references including contact information.
  - b. Request for Qualifications: The VCCO shall issue a Request for Qualifications in accordance with the Manual and evaluate the responses to establish a short list comprised of between 2 and 5 offerors. The basis of selection shall be the University’s evaluation of which Qualification Statements demonstrate the greatest conformance with the requirements set forth in the RFQ.
  - c. The VCCO will send RFPs to the short list of 2 to 5 firms and request submission of formal proposals from them. At a minimum, all RFPs shall request the following information:
    1. A lump sum fee for Pre-construction Services in accordance with the scope of services included in the RFP.
    2. A General Conditions Fee based upon an anticipated duration set by the University detailed in a specific listing of General Conditions items and their associated cost. (See worksheet [DGS-30-468](#)).

3. An Insurance and Taxes Fee expressed as a rate (percentage) to include all insurance costs such as general liability insurance, builder's risk insurance, payment and performance bonds, and any other insurance costs that are required by the contract and any taxes such as local business licenses or other taxes that are required for the completion of the work expressed as a percentage. The Insurance and Taxes Fee is to be inclusive of all items, other than design or CM contingencies, CM Fee, or General Conditions Fee, that will be included in addition to the cost of the work in establishing the Guaranteed Maximum Price and the final contract value.
  4. A CM/GC Fee to include all home office expenses, overhead and profit during the construction phase of the Contract.
- d. The University shall NOT request budget estimates as a part of the RFP response.
  - e. Interviews: Based upon the RFQ and RFP responses, conduct interviews with those offerors deemed to be best suited based upon the qualification criteria.
  - f. Selection of the Construction Manager based upon the RFQ and RFP responses' conformance with the criteria contained within the RFP.
  - g. The CM Fee and the Preconstruction Services Fee shall be evaluated based upon the sum of those fees and not individually.
2. Construction Manager at Risk Contracts: The CM at Risk contracts are structured into two phases:
    - a. Phase 1: Pre-Construction Phase Services: These services are subject to the *Terms and Conditions for Non-Professional Services* and will be performed for a stipulated or fixed amount.
      - Use Form [CO-9CM\(1\)](#)
      - The Phase 1 contract is associated with the work of the CM at Risk prior to the start of construction activities.
    - b. Phase 2: Construction Phase Services: These services are contingent upon the CM at Risk providing an agreeable GMP to the University.
      - Use Form [CO-9CM\(2\)](#)
      - The Part 2 contract is associated with the work of the CM at Risk during the construction portion of the project.
    - c. In the event of phased permitting where the drawings and specifications are not complete for portions of the project, but where early release packages have been bid and permitted, the University shall use Form [CO-9CM \(ER\)](#) for the release of the work for those packages. Early release packages shall be established based upon approved working drawings for the work of that package . The intermediate packages shall correspond with the partial permits being issued (example: clearing & grubbing, grading, or site utilities) or shall be for long lead items that

need to proceed in order to maintain the project schedule (example: mill orders for structural steel). The early release packages are allowed provided permission has been granted by the Assistant Vice President for Capital Construction and Renovations and that the University acknowledges that if the Final GMP exceeds the approved budget (See Form [DGS-30-299](#) on the [DGS Documents and Forms Center](#)), the University shall find alternate University funds to supplement the allotted funding or identify scope of work that can be eliminated to reduce the project cost without impacting the program function or code compliance of the building. See [Appendix C](#), which has been relocated to the DCSM, for guidance in complying with this requirement.

3. If a GMP cannot be agreed upon, the Contract for Phase 1 is concluded and the University would not enter into a Phase 2 contract with the CM at Risk. At this point in the process, the documents are substantially complete; and after review and approval by the AVP & CFO, the project may be bid using standard competitive sealed bidding to the short-listed CM at Risk proposers (including the CM at Risk proposer with whom a GMP was not agreed upon). If the project is bid using standard competitive sealed bid procedures, then the construction contingency of the CM process would no longer be applicable. Allowances and contingencies are not permitted using the standard Design-Bid-Build process.

Alternatively, if factors remain that sustain the benefit of the CM at Risk process, with the approval of AVP & CFO the University may request a GMP from the other short-listed CM at Risk proposers. After unsuccessfully negotiating a GMP with the Phase 1 CM, modifications to that CM's GMP shall no longer be considered. The GMP from the second highest ranked CM at Risk proposer is then negotiated. If an acceptable GMP is not reached with that proposer, then a GMP from the third ranked CM proposer shall be negotiated, and so on. Each unsuccessful negotiation from the successive CM proposers removes that CM proposer from further consideration.

### **7.2.2 General Notes**

- \* The CM firm must be licensed in Virginia by [DPOR](#) as a Class A Contractor.
- \* Have "Pre-Construction" meeting with the UBO to coordinate the documents that will be required for the Building Permit and whether partial permits will be issued for early phases of the work.
- \* Submit documents to the UBO for review and building permit.
- \* The University is required to contract for independent structural and special inspections, paid for by the University separately from the CM contract. See [Appendix M](#), which has been relocated to the DCSM, for further information.
- \* The work must be inspected by other than the CM "AT RISK" Contractor to assure conformance with the plans and specs – usually by the University's Project Inspector.
- \* Inspections by the UBO and State Fire Marshal's Office Representatives are required.



- \* A Certificate of Occupancy is required.
- \* Must use all applicable CO Forms and Contracts for the project.
- \* Must use [DGS-30-465](#) but made project specific.

### **7.2.3 Pre-Construction Phase**

The Preconstruction Period shall include the following meetings and deliverables along with any other items indicated in the CM Contract for Pre-Construction Phase Services ([CO-9CM\(1\)](#)):

#### **Project Kick-off Meeting**

Meeting including the University project manager, A/E, CM at Risk, and other personnel as required.

The following items shall be addressed as part of the meeting:

- Status of project drawings/specifications.
- Schedule constraints.
- Key building components.
- Key site limitations or work rules related to the project.
- Project budget.
- Each team member's roles and responsibilities.

#### **Project Schedule**

With input from the University and A/E, the CM shall produce a CPM (Critical Path Method) project schedule for use by the project team during the pre-construction phase of the project. The CM shall update this schedule on a monthly basis (at a minimum) or as the project requires. The project schedule shall include:

- Key milestones.
- A construction schedule projecting the major construction activities' sequence and durations
- Activities indicating the production of design documents for the various stages of design and phases of permitting.
- The various activities related to the CM at Risk's preconstruction effort such as completion of the cost studies, solicitation of bids, and development of the GMP.
- Activities and major decisions that are the responsibility of the University.

#### **Progress Meetings**

Meetings shall be held on a monthly basis (at minimum) or as the project requires. The following items shall be addressed as part of the meeting:

- Status of project drawings/specifications
- Schedule status
- Outstanding issues related to key building components or systems.
- Any changes in site limitations or work rules related to the project.
- Project budget status
- Project savings opportunities.



#### **7.2.4 Construction Phase**

The Construction Phase shall include the above-referenced meetings and deliverables along with any other items indicated in the CM Contract for Construction Period Services ([CO-9CM\(2\)](#)).

The CM responsibilities for the construction phase services are outlined in the construction period contract ([CO-9CM\(2\)](#)) and the Construction Phase Scope of Services ([DGS-30-465](#)).

### **7.3 DESIGN-BUILD (D/B) PROCUREMENT**

Competitive Negotiation is a negotiated project delivery method that involves a commitment by the Contractor to deliver the project within a firm fixed price based on the terms of the contract and 100% design documents as amended during the negotiation process. In Competitive Negotiation, price will always be a factor in selection, although it is not the only factor. The university has the flexibility to negotiate with Offerors to arrive at a mutually agreeable Contract. Refer to the [DGS Documents and Forms Center](#) for required forms.

Design-Build is a negotiated project delivery method which combines professional architectural and engineering design services with construction services under one negotiated contract agreement. This method reduces one aspect of owner risk by assigning a single entity responsibility for all phases of a project. The following procedures will guide the procurement of all negotiated construction contracts for Design-Build Contracts.

When using this construction delivery method, it is essential that the referenced Secretary of Administration procedures are understood and followed. Critical tenets of these procedures include:

- Prior to using D/B, the University shall request review and recommendations from DEB regarding the proposed procurement method. The request for review shall be submitted utilizing the Design-Build Procurement Review Submittal Form ([DGS-30-471](#)) and shall include the University's written determination that competitive sealed bidding is not practicable or fiscally advantageous.
- The D/B method is a two-step process:
  - Step 1: RFQ Process for Selection of Best Qualified Offerors
  - Step 2: RFP Process for Selection of a Design-Build Contractor
- At the RFP stage, separate technical and cost proposals are required.
- The criteria for selection shall be included in the RFQ and RFP.
- Prior D/B or Tier III experience shall not be a prerequisite for award.

#### **7.3.1 Guidelines for Design-Build Procurement – Basic Procedure**

1. Design-Build is best suited to project types that typically have one or more of the following characteristics:
  - a. Are relatively straightforward.

- b. Incorporate integral engineering/engineered shop drawing components as primary systems in the project (ex. metal buildings, precast parking structures).
  - c. Are new construction.
- 2. The University's A/E consultant (sometimes under a term contract), or a licensed professional on the University's staff, prepares Pre-Design scope and criteria. Standard VPPA procedures are used to select the University's A/E.
- 3. The University's A/E prepares schematics, including outline technical specifications, for the University's approval, with an opportunity for the University to make changes. The completed schematic drawings and outline specifications are sometimes referred to as "Bridging Documents" or "Criteria Documents." The documents establish the minimum level of quality required for the project.

**Typical Requirements for Bridging Documents (as a minimum):**

- 1. Survey of site
- 2. Soil borings/geotechnical reports
- 3. Program describing building use and functional requirements
  - a. Various user groups/spaces
  - b. Specific operational requirements
  - c. Specific equipment demands
  - d. Square footage
  - e. Architectural restrictions
- 4. Schematic floor plans showing building dimensions
- 5. Site restrictions (access, staging area, traffic control, work hours, etc.)
- 6. Schedule constraints
- 7. Master planning documents (if available)
- 8. Any additional data that is pertinent to the project.

**STEP I Guidelines (selection of qualified offerors):**

- 1. Issue an RFQ for Design-Build Services using the standard Request for Qualifications format ([DGS-30-466](#)). Refer to [Section 7.4.2](#) for similar Prequalification procedures, with the exception that only those offerors who are deemed to be best suited based upon the qualification criteria stated in the RFQ will be issued an RFP.
- 2. Reference use of the [CO-7DB](#) as the General Conditions of the Design-Build Contract and the [CO-9DB](#) as the Contract Between University and Design-Build Contractor.
- 3. The University receives responses and qualifications from Design-Build proposers and selects between those best qualified proposers to submit technical and cost proposals. The basis of selection shall be the University's evaluation of which RFQ responses best demonstrate conformance with the requirements set forth in the RFQ.

**STEP II Guidelines (selection of Design-Build contractor):**

- 1. The University issues RFPs to the short list of the selected best qualified proposers using the standard format of the Request for Proposals for Design-Build Services

- ([DGS-30-470](#)) to request proposals from them. The RFP will contain information on the criteria for award, the University's project facility requirements, building and site criteria, site and survey data, and other available criteria documentation..
2. The standard Form of Proposal for Design-Build Services (included in [DGS-30-470](#)) shall be used for submitting the Proposal along with the small business procurement plan.
  3. The University makes a presentation to the AARB for approval of each proposed design. Alternatively, the University may wait until the Cost Proposals are opened and then submit the winning design; University's choice. The University is cautioned that waiting to present the design to the AARB creates greater risk to the University. If the University selects a design-build contractor and then the AARB requires significant modifications to or rejects the design, the University will bear the cost of redesign and the related costs of construction in order to comply with the AARB's ruling.
  4. The Committee will evaluate the Technical Proposals based on the criteria contained in the RFP. D/B offerors will be informed of any adjustments necessary to make their Technical Proposals fully compliant with the requirements of the RFP. The University may require that offerors make design adjustments necessary to incorporate project improvements and/or additional detailed information identified during design development.
  5. The offerors may amend their Cost Proposal as a result of adjustments in their Technical Proposal.
  6. The Committee shall evaluate and rank the Technical Proposals. The University will then open the cost proposals and apply the criteria for award as specified in the RFP.
  7. The Committee will make its recommendation for the selection of a design-builder based on its evaluation of the technical and cost proposals and all amendments thereto. The contract shall be awarded to the offeror who is fully qualified and has been determined to have provided the best overall proposal in response to the Request for Proposals.
  8. The University shall adhere to the following method for award:  
The Design-Build Contractor shall include a technical scoring component in addition to the low cost scoring component. The University shall use the following method to award:
    - a. Technical and cost proposals will be evaluated and ranked based on the procedures provided in the RFP.
    - b. Points shall be credited to technical proposals based upon a 100 point baseline. Each Building Committee member shall rank the technical proposals in order of preference (1 to 5, with one being the best).

Upon ranking by the Building Committee member, the points attributed shall be as follows:

- Rank #1 = 100 points
- Rank #2 = 80 points
- Rank #3 = 60 points
- Rank #4 = 40 points
- Rank #5 = 20 points

If there are fewer than five proposals, the highest rankings will be used (i.e., 1=100, 2=80, 3=60).

- c. Cost proposals shall be scored based upon a 100 point baseline. Additive or deductive points will be assigned to cost proposals as follows:
    - 20 points will be credited to a cost proposal for every 3% it is below the stated project budget (e.g., if a proposal is 12% below the stated budget, the cost score would be 180 points).
    - 20 points will be deducted for every 3% it is above the stated project budget (e.g., if a proposal is 6% above the stated budget, the cost score would be 60 points).
  - d. The scores from each of the Building Committee members shall be summed for each proposal.
  - e. The highest score will form the basis for the recommendation to the SVP & CBO for the award of the contract. Worksheet [DGS-30-390](#) is available on the [DGS Documents and Forms Center](#) for use with this scoring method.
  - f. If the Building Committee reaches consensus that the best value to the University does not align with the scores as tallied, they may prepare a written justification to the SVP & CBO with their recommended selection for contract award. This justification must present compelling evidence as to why the highest score does not represent the best value to the University.
- 6. The University shall award the contract to the offeror who is fully qualified and has been determined to have provided the best value in response to the RFP.
  - 7. The University and the awarded D/B contractor sign the contract ([CO-9DB](#)).
  - 8. The University shall notify all offerors who submitted proposals which offeror was selected for the project.
  - 9. Upon request, documentation of the process used for the final selection shall be made available to the unsuccessful proposers.

#### **7.3.1.1 General Notes**

- Builder shall be licensed as a Class A Contractor in Virginia by DPOR.
- Responsible design professionals shall be licensed in Virginia by DPOR as Architects and Professional Engineers.
- Design shall conform to the scope as authorized by the HECO-2.

- Design shall conform to the Code and Technical Requirements for All Buildings on State Property as described in the DCSM.
- Design shall conform to current VUSBC and federal handicapped accessibility standards.
- Use of all applicable CO Forms, contracts, etc. for the project, including the [CO-7DB](#) and [CO-9DB](#), is required.
- University arranges a “pre-design” meeting with the UBO to coordinate the documents that will be required for a building permit. Determine whether partial building permits will be issued.
- The University is required to contract for independent Structural and Special Inspections, paid for by the University separately from the D/B contract. See Virginia Tech’s DCSM for more information.
- The Work shall be inspected by other than the D/B Contractor, to assure conformance with the plans and specs.
- Inspections by the State Fire Marshal are required.
- Inspections by the UBO are required.
- A Certificate of Use and Occupancy is required.

At the University’s discretion a stipend for non-selected offerors as part of the RFP may be considered.

### **7.3.2 Design-Build Procurement – Prototype Building**

This section is deleted in its entirety and moved to the DCSM.

## **7.4 EMERGENCY AND ALTERNATIVE PROCUREMENT METHODS**

### **7.4.1 Emergency Construction Procurement**

In case of an emergency, a contract may be awarded without competitive sealed bidding. However, such procurement shall be made with such competition as is practicable under the circumstances. A written determination of the basis for the emergency and for the selection of the particular contractor shall be included in the contract file. As a minimum, the University shall post a written notice on eVA stating that the contract is being awarded on an emergency basis and identifying that which is being procured, the contractor selected, and the date on which the contract was or will be awarded. Refer to the [Governing Rules § 5](#) for the complete statutory requirements.

### **7.4.2 Prequalification Procedures**

An University may prequalify contractors for a particular construction project and limit consideration of bids or proposals to prequalified contractors ([Governing Rules § 14](#)). The procedures contained in this section shall be used for prequalification of contractors for a particular construction project. The University may prequalify general contractors or selected subcontractors or both. Any prequalification of contractors and/or subcontractors shall be conducted in accordance with the procedures stipulated in this

Section and [Governing Rules § 14](#), and sufficiently in advance of the bid receipt date to allow potential contractors a fair opportunity to complete the process.

#### **7.4.2.1 Objective**

For projects that will be procured via the IFB (Design-Bid-Build) method, the objective of prequalification shall be to identify as many fully qualified Offerors as possible to bid on the proposed work. For projects that will be procured via the CM at Risk or Design-Build methods, the objective of prequalification shall be to determine which Offerors' submissions demonstrate the greatest conformance with the requirements set forth in the RFQ, resulting in a "short list" of not less than 2 and not more than 5 Offerors. Prequalification is most frequently used for projects with sophisticated building systems, a unique site or constructability issue or where project scheduling or sequencing is critical.

The bar chart in Figure 7.4.2.8 depicts reasonable timeframes for elements of the prequalification process. Shorter times may be used, provided they are consistent with the intent of the minimum time specified in [Governing Rules § 14](#). The University shall advertise for the prequalification on [eVA](#). The date set for receipt of the Standard Form for Contractor's Statement of Qualifications shall be at least thirty (30) calendar days from the date of the initial [eVA](#) advertisement.

#### **7.4.2.2 Forms**

The Standard Form for Contractor's Statement of Qualifications, DGS-30-168 ([CO-16](#)), shall be the application form submitted by contractors when applying to be prequalified for a particular construction project. The [CO-16](#), when completed by interested contractors, shall address the Qualification Criteria portion of the RFQ issued for the proposed construction contract.

#### **7.4.2.3 Building Committee**

The University shall establish a committee (the Building Committee) to review the [CO-16](#) forms submitted by interested contractors and determine which, if any, of the contractors shall be prequalified. One shall be an accredited VCCO of the University, one shall be a registered architect or engineer and one shall be the project manager for the proposed project. The remaining person(s) should be state employees familiar with the design and construction industry. The A/E for the project may, at the discretion of the Building Committee, serve as an advisor to the Committee. (See [Section 7.0.2.2.](#))

#### **7.4.2.4 Denial of Prequalification**

[Governing Rules § 14](#) permits a state University to deny prequalification to any contractor only if the University finds at least one of the following:

- a. The contractor does not have sufficient financial ability to perform the contract. Evidence that the contractor can acquire a surety bond from a corporation included on the United States Treasury list of acceptable surety corporations in

the amount and type required for the project shall be sufficient to establish financial ability;

- b. The contractor does not have appropriate experience to perform the construction project in question;
- c. The contractor or any officer, director or owner thereof has had judgments entered against the contractor or any officer, director or owner within the past ten years for the breach of contracts for governmental or nongovernmental construction;
- d. The contractor has been in substantial noncompliance with the terms and conditions of prior construction contracts with a public body, without good cause. The University may not utilize this provision to deny prequalification unless the facts underlying such substantial noncompliance were documented in writing in the prior construction project file and such information relating thereto was given to the contractor at that time, with the opportunity to respond;
- e. The contractor or any officer, director, owner, project manager, procurement manager or chief financial official thereof has been convicted within the past ten years of a crime related to governmental or nongovernmental construction or contracting;
- f. The contractor or any officer, director or owner thereof is currently debarred pursuant to an established debarment procedure from bidding or contracting by any public body, agency of another state or agency of the federal government; and
- g. The contractor failed to provide to the University, in a timely manner, any information requested by the University relevant to (a) through (f) above.

The University shall deny prequalification to any contractor who does not have the requisite Virginia license issued by the Virginia Board of Contractors to perform work in Virginia pursuant to *Code of Virginia* [§ 54.1-1100](#) et seq.

#### **7.4.2.5 Written Notification**

In accordance with the [Governing Rules § 14](#), any contractor refused permission to participate, or disqualified from participation, in public contracts shall be notified in writing. Prior to the issuance of a written determination of disqualification or ineligibility, the University shall (a) notify in writing each contractor that submitted the CO-16 of the results of the evaluation (b) disclose the factual support for the determination, and (c) allow the contractor an opportunity to inspect any documents that relate to the determination, if so requested by the contractor within five (5) business days after receipt of the notice. The written notice to each contractor shall be delivered by U.S. mail.

Within ten (10) business days after receipt of the notice, the contractor may submit rebuttal information challenging the evaluation. The University shall issue its written determination of disqualification or ineligibility based on all information in possession



of the University, including any rebuttal information, within five (5) business days of the date the University received such rebuttal information.

If the evaluation reveals that the contractor should be allowed permission to participate in the public contract, the University shall cancel the proposed disqualification action. If the evaluation reveals that the contractor should be refused permission to participate, or disqualified from participation, in the public contract, the University shall so notify the contractor. The notice shall state the basis for the determination, which shall be final unless the contractor appeals the decision within ten (10) days after receipt of the notice by invoking administrative procedures meeting the standards of [Governing Rules § 55](#), if available, or alternatively by instituting legal action as provided in [Governing Rules § 54](#). If, upon appeal, it is determined that the action taken was improper, the sole relief shall be restoration of eligibility.

#### **7.4.2.6 Establishing Contractor Qualification Criteria**

Contractor experience qualification criteria shall be sufficiently general so that contractors with the qualifications and experience to satisfactorily complete the proposed project will not be arbitrarily excluded. For example, requiring a contractor to have constructed a two-story college dormitory is too restrictive. Therefore, experience criteria shall be expressed in terms related to the building's construction:

1. functional type (classroom, dining facility, maximum security prison, etc.);
2. job site access (dense urban location surrounded by multiple story buildings, open rural area, etc.);
3. height and physical size (14 stories with 4 below grade floors; 250,000 gross square feet);
4. foundation system (piles, spread footings, mat foundation, etc.);
5. structural system (reinforced cast in place concrete; structural steel; precast concrete members, etc.);
6. exterior wall system (granite panels; glass store front; brick with CMU back-up, etc.);
7. electrical service and distribution;
8. mechanical system (gas-fired package boilers; four pipe hot water/chilled water; centrifugal chiller, VAV box, etc.);
9. number of subcontractors used on a typical job;
10. roofing system (four-ply built-up; single-ply EPDM, etc.); and other similar criteria.

Qualification Criteria I, III, V and VI in the standard Qualification Criteria section of the RFQ ([DGS-30-466](#)), found on the [DGS Documents and Forms Center](#), shall not be changed without the prior written approval of the SVP & CBO. Qualification criteria for Experience (II) shall be customized to suit the particular project for which qualification is intended.



### 7.4.2.7 References

Verification of References supplied by the contractor in Sections VI: 1, 2, 3 & 5 of the [CO-16](#) shall be accomplished using the Contractor Reference Sheet found on the [DGS Documents and Forms Center](#).

### 7.4.2.8 Advertisement for Bids

The Notice of Invitation for Bids for the project shall be published on [eVA](#), Virginia's central electronic procurement website. The advertisement shall appear no less than 30 days prior to the date of bid receipt, unless otherwise approved by the Assistant Vice President for Capital Construction & Renovations. The advertisement shall state that bids will be accepted only from those contractors prequalified to bid on the project. Further, the contractor shall be a registered vendor with [eVA](#).

Task		Week:	Month 1				Month 2				Month 3				Month 4					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17
1	Prepare Questionnaire		10 days																	
2	Advertise for Qualification Statements		30 days																	
3	Receive Statements						1 day													
4	Review Statements						14 days													
5	Check References									14 days										
6	Issue Notifications										5 days									
7	Appeal Period										10 days									
8	Review of Appeal												10 days							
9	Issue Final Decision												5 days							
10	Advertise for and Receive Bids										30 days									

Figure 7.4.2.8 PREQUALIFICATION PROCESS TIMELINE CHART

## 7.4.3 Alternate Methods of Construction Procurement

### 7.4.3.1 PPEA Procurement Procedures

Virginia Polytechnic Institute and State University, [Guidelines for Projects under the Public-Private Education Facilities and Infrastructure Act of 2002 \(PPEA\)](#), approved by the BOV, March 21, 2016, includes provisions that allow the University to work with private developers to design and construct a facility. The University holds a single contract with the successful proposer for both the design and construction of the specific project. Guidelines for the PPEA (Public-Private Education Facilities and Infrastructure Act of 2002) procurement methods can be found on the [Virginia Tech Procurement](#) website. Projects utilizing PPEA must comply with the VUSBC. The University is strongly encouraged to include technical or procurement standards stated in this Manual in the Comprehensive Agreement to assure the overall quality

and lifecycle costs are in accordance with the University's goals and procurement is in accordance with the standards set by the University.

#### **7.4.3.2 Department of Purchases and Supply Managed Construction Contracts**

This section has been deleted in its entirety.

##### **7.4.3.2.1 Energy Performance-Based Contract (ESCO)**

Energy performance-based contracts may be procured by the University. State policy, guidelines, and documentation for use in ESCO procurement can be found on the [DGS Website](#). University projects utilizing an ESCO-type contract must comply with the VUSBC and are subject to inspection by the UBO.

##### **7.4.3.2.2 Cooperative Procurement Contracts**

Upon approval by the University's Director of Procurement, the university may participate in Cooperative Procurement contracts, including construction and telecommunications goods and services but excluding professional services, to effect cost savings or reduce administrative expense ([Governing Rules § 6](#)).

##### **7.4.3.2.3 Job Order Contracting (JOC)**

"Job order contracting" is defined (*Code of Virginia § 2.2-4301*) as a method of procuring construction services by establishing a book of unit prices and then obtaining a contractor to perform work as needed using the prices, quantities and specifications in the book as the basis of its pricing. The contractor may be selected through either competitive sealed bidding or competitive negotiation depending on the needs of the public body procuring the construction services. A minimum amount of work may be specified in the contract. The contract term and the project amount shall not exceed the limitations specified in [Governing Rules §§ 4 and 5](#).

##### **7.4.3.2.4 Sole Source Procurement**

Upon a determination in writing that there is only one source practicably available for that which is to be procured, a contract may be negotiated and awarded to that source without competitive sealed bidding or competitive negotiation. The written justification shall include an explanation why only one source was determined to be practicably available, identify what is being procured, the contractor selected and the date the contract was or will be awarded. Public notice should be posted on eVA on the day of contract award or the day of the decision to award, whichever occurs first ([Governing Rules § 6.E](#)).

#### **7.4.4 Partial Building Permits**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

## **7.5 CONSTRUCTION CONTRACT ADMINISTRATION**

The A/E's basic services requires the A/E to assist in the solicitation of bids, assist in bid opening, review submittals, inspect the Work, review and certify contractor payment requests, issue clarifications of the documents, issue field orders, process change orders and perform other functions associated with contract administration.

### **7.5.1 Alternate Construction Contract Administration**

The University may use the RFP process for non-professional services to secure a consultant to perform project management and/or project inspection services. The selected project management/project inspection contract must clearly identify the services to be provided by the consultant and the limits of its authority. The project manager services which relate to the construction may impact the contractor. Required interface or interaction between the contractor and the project manager must be conveyed to the contractor in the Special Conditions section of the specifications.

The A/E contract shall be modified to reflect the reduction in the A/E basic services.

### **7.5.2 Minimum Required A/E Services During the Construction Period**

The following services, described in the General Conditions of the Construction Contract, [CO-7](#), shall be provided by the A/E of record and shall not be delegated to others unless specifically approved by the AVP & CFO:

- Attend preconstruction meeting
- Provide Supplementary Instruction as required by uncovered hidden conditions
- Interpret plans & specifications
- Where the documents specify or show a means, method, sequence, technique or procedure, determine acceptability of substitute means, methods, sequence, techniques or procedures proposed by the contractor
- Provide additional details as necessary to clearly describe what is required to be constructed
- Prepare and issue or validate all field orders and all University directed and/or authorized Change orders involving any matters or items of technical nature which affect the integrity of the exterior architectural, structural or fire safety systems or which affect the integrity or operation of the mechanical, plumbing, or electrical systems.
- Clarify discrepancies in documents
- Review and approve submittals
- Reject non-conforming submittals including sprinkler shop drawings & submittals.
- Furnish approved copies of sprinkler submittals to the regional State Fire Marshal's Office.
- Verify conformance of submittals with plans and specifications

- Ensure proposed products, styles, profiles, finishes, patterns, and colors meet OUP standards and expectations
- Verify mock-up conforms with plans and specifications
- Approve or reject alternate or substitute materials proposed by contractor
- Approve or reject equipment and materials proposed by contractor
- Resolve conflicts between manufacturer installation instructions vs. plans and specifications
- Advise on acceptable procedures where installation instructions are not provided
- Approve or reject contractor's proposed modifications to structural and other building systems
- Advise the University on technical matters related to the project
- Perform required special inspections as listed in the approved HECO-6a and CO-6b.

Note: If the A/E's contract has been appropriately modified, University directed and/or authorized change orders and field orders on non-technical matters such as landscaping, finishes, colors, and similar items which do not affect the architectural appearance or the structural, fire safety, mechanical or electrical system integrity may be handled by a qualified licensed professional on the University or separate consultant's staff.

### **7.5.3 Other A/E Services During the Construction Period**

The following construction period services shall also be provided by the A/E as part of periodic site visit basic services unless specifically deleted by the A/E contract in its MOU:

- Conduct preconstruction meeting
- Confirm in writing, all verbal orders given by the A/E to the contractor and/or project inspector
- Transmit the University's orders to contractor
- Review contractor's [CO-12](#) Schedule of Values, continuation sheets, and approve for acceptable level of breakdown, acceptable allocation of costs, proper listing of 'unit price' work shown on the Bid Form, and separate listing of change order costs.
- Verify quantities of unit price work and prepare change orders as appropriate for quantities actually performed or incorporated in the Work. See [Appendix K](#) for change order procedures.
- Review proposed work plan & schedule
- Review schedule for adequate time to review submittals
- Review/recommend approval of project CPM schedule per Section 19 of the [CO-7](#), General Conditions of the Construction Contract
- Report on Contractor adherence to schedule
- Review/approve progress graph

- Approve Contractor's proposed type of temporary heat as it may affect protection of construction
- Advise the University on construction matters related to the project
- Make site visits and provide written report
- Determine progress and quality of the Work
- Recommend suspension of Work
- Inspect/spot check Work for conformance with the Contract Documents and the codes and installation/workmanship standards therein (e.g., reinforcing clearances and laps per ACI, ductwork conforming to SMACNA, wiring conforming to NEC, etc.)
- Note and report defects and deviations in the Work
- Identify to Project Inspector any specific checks or inspections to be made as the Work progresses including what to look for
- Require defective Work to be removed and redone
- Reject inferior or poor workmanship
- Reject Work which does not conform to Contract Documents requirements
- Require Contractor to make repairs or changes deemed necessary
- With The University's approval, suspend Work which depends on non-conforming Work until an acceptable correction or replacement is provided by the Contractor
- Approve repair/restoration of damaged work
- Conduct and document interim Building Official inspections as requested by PM
- Inspect roof and advise when ready for roof survey
- Approve [CO-12](#) and Schedule of Values format, content and breakdown
- Schedule and conduct monthly pay meeting
- Review [CO-12](#) pay request vs. work done & materials stored & certify amount
- Certify monthly pay requests
- Receive Contractor's affidavit of payment of claims
- Review Contractor requests/claims for extension of time
- Review Contractor claims for extras
- Verify Project is ready for substantial completion inspection prior to actual inspection
- Conduct Substantial Completion Inspection and prepare punchlist
- Complete and sign Certificate of Substantial Completion, [CO-13.1a](#)
- Conduct Final Completion Inspection
- Complete and sign Certificate of Completion, [CO-13.1](#)
- Coordinate Operation & Maintenance Manuals and other project closeout documents & submit to The University
- Prepare Record Drawings

#### **7.5.4 Construction Project Management by University or Consultant**

All Construction Project Management/Contract Administration activities not specifically required above to be performed by the A/E may be performed by the University or by the University's Project Management/Project Inspection Consultant. The University or its consultant may then perform the functions listed in [Section 7.5.3](#) above.

##### **7.5.4.1 University's Project Inspector/Clerk of the Works**

The University shall designate a specific individual to serve as inspector on every project whenever work on the project is in progress. Waiver of this requirement must be approved by the CFO. The name of the inspector shall be shown on the Form HECO-8. Where completion of a Form HECO-8 is not required, the name of the project inspector will be identified in the project file. The Project Inspector shall be knowledgeable of and have reasonably convenient access to the codes and standards referenced in the Contract Documents which stipulate the requirements for installation and workmanship on the trades involved in the Work. (e.g., ACI, SMACNA, NFPA, NEC, ICC, ASHRAE, etc.)

Persons designated to inspect work regulated by the VUSBC must be licensed Architects or Professional Engineers, persons certified in their respective areas of competence by DHCD, persons certified in their respective trade by DPOR or persons otherwise approved by the UBO as having the necessary knowledge and competence by education and experience to inspect the assigned work..

A copy of all Change Orders related to technical matters or conformance to the applicable Codes and standards along with a copy of the justification and the recommendation of the "Delegated Review Authority" shall be forwarded to the UBO for approval as to code compliance.

##### **7.5.4.2 University's Designated Representative**

The University may designate an on-site Project Manager to be the University's designated representative on the project. In such case, the Project Manager shall be the person through whom the University and the A/E generally convey written decisions and notices to the Contractor and receive information and notices from the Contractor.

The University may also delegate from the A/E to the Project Manager certain inspection, verification, acceptance, rejection, and administrative duties and authority. The scope of the Project Manager's authority is limited to that authorized by the University. The University shall provide the Contractor and the A/E information in writing defining the limits of the Project Manager's authority.

#### **7.5.5 Preconstruction Meeting**

The General Conditions of the Construction Contract (Form [CO-7](#)) requires that prior to the start of construction, and no later than 15 calendar days after the Notice to Proceed, a Preconstruction meeting shall be held. Attendees should include the University's Project Manager and Project Inspector, the A/E's Representative including

representatives of each design discipline involved in the project, Fire Marshal's Office representative, the Contractor's Project Manager and Superintendent (and Scheduler, if Contractor desires), and representatives of the Contractor's major Subcontractors. A Safety Representative from Virginia Tech Department of Environmental Health and Safety (EHS) may also be invited.

The purpose of the preconstruction meeting is to clarify and discuss the specifics related to, but not limited to, the following:

1. Persons involved from each entity and their chain of authority.
2. Names, addresses, telephone numbers, procedures and formats to be used for Requests for Information (RFI), Requests for Clarification (RFC), Requests for Proposals (RFP), shop drawing and sample submittals, and notices.
3. Contractor's proposed construction schedule.
4. The University's sequencing requirements, if any.
5. Schedule of Values and Certificate for Payment (Form [CO-12](#)) requirements and procedures.
6. Procedures for shop drawing, product data and samples submittals.
7. Procedures for mock-up review.
8. Procedures for historic elements to be salvaged and retained, repurposed, refurbished, or otherwise not demolished.
9. Procedures for handling Field Orders and Change Order Form [CO-11](#).
10. Procedures for Contractor's request for time extension, if any.
11. Construction site requirements, procedures and clarifications to include:
  - Manner of conducting the Work
  - Work site specialties such as dust and erosion control, stormwater management, project signs, clean up and housekeeping, temporary facilities, utilities, security, and traffic
  - Safety
  - Layout of the Work
  - Quality control, testing, inspections and notices required
  - Site Visits by the A/E
  - The University's Project Inspector duties
  - Running Punch List
  - As-Built Drawings
  - Known or potential hazardous materials, including Silica, Lead, Asbestos, and Mold requirements
  - Parking requirements and expectations for contractors and the A/E
12. Monthly Pay Meeting

13. Requirement for the Contractor to furnish to the University a list of hazardous materials that may be brought onto the job site. If additional material, not on the initial list, is to be brought to the job site, the University shall be given 48-hour prior notification.
14. Project Close-Out requirements and procedures.

#### **7.5.5.1 Hazardous Materials**

Prior to the start of construction, the Contractor shall furnish to the University a list of hazardous materials that may be brought onto the job site. If additional material, not on the initial list, is to be brought to the job site, the University shall be given 48-hour prior notification. When requested by the University, the Contractor shall furnish the University with material safety data sheets for any materials to be brought onto the job site.

#### **7.5.6 Monthly Pay Meeting**

The intention is that the Contractor, the University and the A/E have timely exchange of information and cooperate to accomplish the Work as required by the Contract Documents. The Contractor is responsible for managing the Work, obtaining approvals and requesting clarifications on a timely basis. The University and its A/E are responsible for making a reasonable effort to provide timely responses to the Contractor.

Section 36 of the General Conditions of the Construction Contract establishes the requirement for a monthly pay meeting which will usually be held at or near the Work site. In addition to the University, A/E and Contractor representatives, the following representatives, at a minimum, should be available to attend portions of the meeting, as applicable or necessary:

- The University's Project Inspector
- Contractor's Project Superintendent
- A/E representative of each discipline where construction work was performed for the current pay request or where work is projected to be performed in the coming month or who is projected to perform work in the coming month.

The following additional topics should be included, as a minimum, in the monthly pay meeting agenda:

1. Observations of status, quality and workmanship of work in progress
2. Validation of the Schedule of Values and Certificate for payment
3. Conformance with proposed construction schedule
4. Outstanding Requests for Information Requests for Clarification and Requests for Proposal
5. Submittals with action pending
6. Status of pending Change Orders
7. Status of Running Punch List items
8. Work proposed for coming pay period



9. Discussions of any problems or potential problems which need attention

#### **7.5.7 Other Meetings**

The A/E and/or the University may include requirements for other meetings, such as progress meetings, coordination meetings, subcontractor pre-construction meetings and/or partnering meetings, in the Contract Documents, in the Special Conditions or in Division 1 of the Specifications.

#### **7.5.8 Access to Work**

Refer to the General Conditions of the Construction Contract.

#### **7.5.9 Authority of the A/E During Construction**

Unless the University specifically designates an on-site Project Manager to act as the University representative, the A/E shall act as the representative, but not the agent, of the University during the construction phase. In the case of Design-Build contracting, the Criteria Consultant would be the designated representative. The A/E shall have authority to endeavor to secure the faithful performance by the University and Contractor of the Work under the Contract to include the following:

- Review the Contractor's submittals for conformance to the requirements of the contract documents and return copies to the Contractor with appropriate notations.
- Interpret the requirements of the drawings and specifications and issue Field Orders to the Contractor as may be required.
- Recommend to the University suspension of the Work (in whole or in part) whenever such suspension may be necessary to ensure the proper execution of the Contract.
- Reject, in writing, Work, including material, installation or workmanship, which does not conform to the requirements of the drawings and specifications.
- Determine the progress and quality of the Work, subject to the right of the University to make an overriding decision to the contrary.
- Upon request by the Contractor, the A/E shall confirm, in writing within ten (10) days, any verbal order or determination made by the A/E.

#### **7.5.10 Changes in the Work**

The A/E shall have no authority to approve or order changes in the Work which alter the design concept or which call for an extension of time or a change in the contract price. When such changes are in order, the A/E shall prepare the appropriate documents for the University's approval and issue same to the Contractor.

#### **7.5.11 University's Decisions**

The University shall have the right, but not the duty, to countermand any decision of the A/E and to follow or reject the advice of the A/E, including but not limited to acceptance of the Work, as it deems best. In those instances where the A/E has been given authority to act, the A/E shall promptly do so, but in the case of disagreement between A/E and the University, the decision of the University shall be final.

#### **7.5.12 Orders to the Contractor**

All orders from the University to the Contractor shall normally be transmitted through the A/E but may be communicated directly to the Contractor and the A/E by the University's Project Manager. The University must be aware that any order issued directly to the Contractor without first consulting with the A/E may put the University at risk.

#### **7.5.13 Construction Methods**

The A/E shall not be responsible for construction means, methods, techniques, sequences or procedures (other than those expressly specified in Contract Documents), or for safety precautions and programs in connection with the Work, and the A/E shall not be responsible for the Contractor's failure to carry out the Contractor's own responsibilities.

#### **7.5.14 Project Management Consultant**

Should the University choose to employ a different A/E or a Project Management Consultant to perform any portion of the services listed in [Section 7.5](#) above, the status, authority and responsibilities of the A/E or Project Management Consultant so employed shall be the same as that of the former A/E with regard to that service.

#### **7.5.15 Schedule of Values and Certificate for Payment**

The General Conditions of the Construction Contract, Form [CO-7](#), describe in Sections 20 and 36 the requirements for completing the Schedule of Values and Certificate for Payment, Form [CO-12](#), and for providing documentation of Work performed and for properly stored materials.

The A/E, as part of Basic Services is required to review and approve the format and breakdown of the initial Schedule of Values and to review, evaluate, verify, and approve the Contractor's monthly submittal of the [CO-12](#) documentation requesting payment. As previously described in this Chapter, the University may delete this service from the A/E Contract and assign the function and responsibility to the designated Project Manager when approved by the AVP & CFO or authorized University designee.

The procedures and requirements in Sections 20 and 36 of the General Conditions are incorporated herein by reference. The following clarifies and amplifies the specified procedures associated with the [CO-12](#).

##### **7.5.15.1 Schedule of Values**

The A/E shall require the Contractor to provide the Schedule of Values using the ASTM Uniformat II cost breakdown structure totaling the amount of the Contract broken down into a sufficient level of detail (commensurate with the size of the project) to allow the A/E to verify the work completed. If the total project has multiple floors, parts, or phases, the Contractor shall prepare appropriate schedules of values to facilitate review of and justification for payments.

Unless waived by the AVP & CFO, the University and A/E shall require the Contractor to use the [CO-12](#) spreadsheet template. This spreadsheet is available for download from the [DGS Documents and Forms Center](#) or on [GCPay](#).

The University shall submit a copy of the final approved [CO-12](#) to the AVP & CFO at project closeout. Unless its use was waived by the Director of DEB, the University shall submit the CO-12 in the electronic format described in the preceding paragraph. The electronic copy of the [CO-12](#) spreadsheets may be submitted on electronic media, or as an e-mail attachment.

#### **7.5.15.2 Payment for Stored Materials**

If the Contractor requests, or intends to request, payment for materials stored in an approved and secure manner, the Schedule of Values must indicate the amount for labor and the amount for materials, and in a supplement thereto must include an itemized list of materials for that trade or work section. The material breakdown shall be in sufficient detail to allow verification of the quantities required for the project, the quantities delivered, the Work completed, and the quantities stored on or off the site.

All off-site stored materials for which payment is being sought shall be scheduled for installation within 6 months. Off-site stored materials shall be stored within the Commonwealth of Virginia. If the Contractor requests payment for materials stored out of state, contact Virginia Tech for assistance.

Go to the [DGS Documents and Forms Center](#) for a sample format for a Supplementary Agreements for off-site storage of materials or equipment away from the general location of the Project. (See Form [DGS-30-370](#).)

#### **7.5.15.3 Required Pay Request Forms**

All requests for payment shall use page 1 of the Schedule of Values and Certificate for Payment (Form [CO-12](#)), and page 1 shall be completed, signed and submitted by the Contractor with each payment request. If the requirement to use the DEB [CO-12](#) spreadsheet template was waived, the succeeding pages of the Schedule of Values may be prepared using alternate computer programs, provided the data is reported in the same format and contains the same information.

#### **7.5.15.4 GCPay**

GCPay shall be used to process payment for all A/E, Construction and Renovations Capital Projects. The monthly fee for using this system is paid by the project General Contractor. Payment requests for General Contractors and any A/E, and all project costs (equipment, testing, moving, move coordination, etc.), shall be accounted for in this system. Training on the use of the system is available from [GCPay](#) at [www.gcpay.com](http://www.gcpay.com).

#### **7.5.15.5 Completed Work**

The “Value of Work Completed” portion of the Form [CO-12](#) shall be completed, the Contractor’s certification completed and signed and the appropriate substantiating material attached to each request for payment.

The [CO-12](#), Schedule of Values and Certificate for Payment, shall be completed, signed and submitted by the Contractor with each payment request.

#### **7.5.15.6 Payment for Labor Progress**

The labor progress for any item may be calculated based upon the estimated percentage of Work complete up through 50%. Thereafter, the evaluation of labor progress shall be based upon the effort required to complete that item or task. The material progress shall be calculated as the dollar cost of materials used in relationship to the amount estimated as necessary to complete a particular element of Work. When calculating material progress, credit shall be given for installed material as well as that stored on the site and any material stored off site which has been certified by the A/E in accordance with the General Conditions.

#### **7.5.15.7 A/E’s Certification of Payment Request**

Based on the periodic observations at the site and on the Contractor’s Schedule of Values and Certificate for Payment ([CO-12](#)), the A/E shall determine the amount owed the Contractor, shall mark the application as necessary, and shall issue the Certificate for Payment to the University with recommended amounts for payment shown.

Where the amount recommended for payment differs from the amount requested on the Contractor’s Application, a copy of the marked Schedule of Values and Certificate of Payment shall be furnished to the Contractor. The issuance of a Certificate of Payment shall constitute a representation by the A/E to the University that the Contractor is entitled to payment in the amount indicated. By issuing a Certificate of Payment (Form [CO-12](#)), the A/E shall not be responsible for making any examination to ascertain how and for what purpose the Contractor has used the monies paid on account of the contract sum.

### **7.5.16 Construction Change Orders**

Construction change orders may be necessary during the course of construction. No change order shall be issued, regardless of cost, that increases the approved scope of the project as shown on the approved HECO-2 or as set forth in the Capital Project Request or Preplanning Study without approval of the SVP & CBO (or designee).

Change orders are most commonly necessitated by unforeseen site or building conditions; errors or omissions in the contract documents; an opportunity to reduce the operating cost of the facility under construction; technology changes occurring since contract award which must be incorporated in the project; or a change in the University requirement.

All changes involving the contract price, whether decrease or increase or performance time shall be documented in an approved contract change order (Forms [CO-11](#) and [CO-11a](#)) to the construction contract. See [Appendix K](#) for Capital Projects and Non-Capital Projects Change Order instructions.

#### **7.5.16.1 Virginia Tech President's Approval**

The University may authorize changes in the construction contract. However, in accordance with [Governing Rules § 8](#), Change Orders involving an increase in contract price of more than 25% or \$50,000, whichever is greater, shall have the prior written approval of the Virginia Tech President or designee. When a change order increases the contract price and the cumulative total of change orders exceeds the original contract amount by more than 25% or \$50,000, whichever is greater, that change order and any subsequent change order that increases the contract amount shall have the prior approval of the Virginia Tech President or designee.

#### **7.5.16.2 Justification**

The University justification section of the [CO-11a](#) on all change orders shall:

1. Include a written statement by the University outlining the proposed cost sharing by the responsible design professional when the change results from an error or omission, or
2. Answer the following questions when the change is generated by a change in the University requirement:
  - (a) When was the change in University requirement known?
  - (b) If before bidding, why were the changes excluded from the bid package?
  - (c) Why can the Work not be packaged and bid separately?
  - (d) What quantitative impact will the lack of this change have on University service delivery?

#### **7.5.16.3 Copy to DEB**

For general fund (state authorized) projects, an information copy of all [CO-11](#) and [CO-11a](#) forms approved locally shall be sent to DEB (without the back-up documentation) when the approved change order is issued to the Contractor.

#### **7.5.16.4 Cumulative Amount**

The total cumulative amount for all change orders for a single contract shall not exceed the construction contingency provided on the approved HECO-8. For state-funded projects the University may request approval through DEB to DEB, DGS and DPB to infuse additional funds or to transfer funds to the contingency line item from another line item of the Total Project Budget or another Appropriation. Requests shall be submitted using the CO Forms as described below. Appropriate written justification for an increase in construction contingency shall be provided. A revised Form HECO-8 is required for any change to the construction contingency amount. If any other budget line items are affected as a result of the contingency adjustment, their new values shall be updated on the HECO-8. A revised HECO-2 is only required when requesting an infusion of additional funds, when the increase to the

budget is greater than the current approved HECO-2, or when reducing the Furnishings and Movable Equipment budget to increase the contingency amount.

#### **7.5.17 Inspection of Work**

Section 16 of The General Conditions of the Construction Contract, Form [CO-7](#), describes the requirements, responsibilities and authorities for inspection of the construction Work and for correction of deficiencies and/or defects found. The A/E as part of Basic Services is required to visit the site, observe the Work in place, observe the Work in progress and evaluate the Contractor's conformance to the requirements of the Contract Documents. As previously described in this Chapter, the University may delete this service from the A/E Contract and assign the function and responsibility to the designated Project Manager when approved by the AVP & CFO or authorized University designee.

The procedures and requirements in Section 16 of the General Conditions are incorporated herein by reference. The following clarifies and amplifies the specified procedures associated with the inspection of the Work.

##### **7.5.17.1 Inspection by A/E**

A representative of the A/E firm (or the University's professional/technical staff when design is accomplished in-house) shall be available to answer questions from the Project Inspector or in-house craftsmen and shall make visits as necessary to clarify plans and specifications. A/E response to inquiries shall be provided to the University within five (5) working days.

Appropriate representatives of the A/E or University professional technical staff shall visit the site at least twice each month to observe the progress and quality of work, to determine if the work is proceeding in accordance with the Contract documents and to review the Contractor's Application for Payment (Form [CO-12](#)). A qualified person in each design discipline of the project which had work performed during the pay period being verified or which will have work to perform during the upcoming pay period shall attend the monthly pay meeting. The MOU shall indicate the minimum number and/or frequency of site visits by the A/E.

The A/E shall provide to the University and the Contractor after each visit to the site, a written report indicating the date, time of day, weather conditions and the names of the persons representing the A/E who participated in the visit. The A/E shall inspect and check Work for compliance with the Contract Documents and the codes, installation and workmanship standards therein. Identify to the Project Inspector any specific checks or inspections to be made as the A/E inspects the Work as it progresses. The report shall advise the University of any problems that were noted and shall compare the A/E's observations of the actual progress of the Work with that reported by the Contractor.

On the basis of on-site observations, the A/E shall make every reasonable effort to guard the University against defects and deficiencies in the Work of the Contractor.

The A/E shall have the authority to inspect the Work, to note and report defective Work and deviations from the Contract Documents to the University, to reject same, and to recommend to the University the suspension of the Work when necessary to prevent defective Work from proceeding or being covered.

It is essential that the A/E and the Project Inspector work together, observe and inspect the Work, and regularly communicate to assure that work being performed conforms to the Contract Documents.

#### **7.5.17.2 University's Project Inspector/Clerk of the Works**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

#### **7.5.17.3 State Fire Marshal Inspections**

The Regional Office of the State Fire Marshal shall be responsible for the Fire Marshal inspection of new and renovated state building construction in accordance with the agreement between the University and the Department of Fire Programs.

#### **7.5.17.4 Other Inspectors**

All other inspectors and testing personnel called for in the specifications as well as inspectors from the Department of Labor and Industry shall be provided access to the project as their duties require. The University shall procure the services of independent laboratories or firms to provide the University's inspection and testing services for all structural and special inspections.

#### **7.5.17.5 Commissioning Inspection of HVAC Systems**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.17.6 Interim Building Official Inspections**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.17.7 Substantial Completion Inspections**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.17.8 Beneficial Occupancy – New Buildings, Additions & Change of Use Renovations**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.17.9 Beneficial Occupancy – Renovations with No Change of Use**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.17.10 Final Completion Inspection**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.17.11 Smoke Control Acceptance Testing**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.18 Project Close-Out**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.19 Documentation of “As Built” Conditions**

The Contractor shall be required at all times to maintain one record set of drawings and specifications in the Superintendent’s office at the project site. This set of documents shall be designated the “As Built” documents and shall be used to record any changes or deviations from the original documents. The A/E shall review this set during visits to the site, and prior to approving the monthly pay request, to assure that the Contractor is making the notations as required. The “As Built” set of documents shall be furnished to the A/E according to the Submittal Requirements in the DCSM.

#### **7.5.20 Record Drawings and Specifications**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.21 Electronic Drawings**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.22 Manually Prepared Drawings**

This section has been deleted in its entirety.

#### **7.5.23 A/E Statement of Preparation on Record Drawings and Specifications**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.24 Document Retention Requirements**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.25 Ownership of Documents**

Original drawings and specifications as prepared by the A/E for the project shall be the property of the Commonwealth of Virginia, whether the work for which they are made is executed or not. The A/E shall provide to the University at the completion of the job, the original drawings in both PDF and CADD files that conform to the Virginia Tech CADD Specification Standards, and an original copy of the specifications at the time the Record Documents are provided to the University.

#### **7.5.26 Restriction on Promotional Materials by A/E and Contractor**

The design and contract documents for construction on state-owned property are owned by the University. Therefore, use of these work products in advertising or promotional literature, or a statement that the University endorses the work product of an A/E or Contractor is prohibited without the express written permission of the University. Identifying designs or construction as the work product of an A/E or Contractor in client lists, responses to RFPs and in promotional literature through the use of photographs, renderings, drawings (not contract documents) and descriptions of project is permitted after construction is substantially complete.



#### **7.5.27 Maintenance and Operating Manuals**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.28 Start-Up/Acceptance of Mechanical and Electrical Systems**

This section has been deleted in its entirety and moved to the DCSM.

#### **7.5.29 Guarantee Period Inspection**

This section has been deleted in its entirety and moved to the DCSM.

## **CHAPTER 8 – CAPITAL OUTLAY PLANNING AND PROJECT APPROVAL**

### **8.0 GENERAL**

This chapter provides a general description of the capital outlay process and instructions on documentation required for approvals at various milestones in the Capital Outlay process. ALL capital outlay projects shall follow the approval procedures in Section 8.4.4 unless specifically waived by the Assistant Vice President for Capital Construction and Renovations (CCR) or the document authorizing initiation of the project or deviation is authorized by an entity delegated authority to do so by the Acts of Assembly, or by the University's Management Agreement with and approved by the Secretary of Administration.

Forms HECO-2, HECO-4, HECO-5, HECO-6 and HECO-8 (HECO Forms) shall be submitted to and approved in conformance with the University Management Agreement.

The authority having jurisdiction for all construction activities on university-owned property is the University Building Official.

### **8.1 CAPITAL PROJECT PLANNING/BUDGETING PROCESS:**

This section generally describes the budget process directly related to the Capital Outlay Program.

Capital projects requesting General Funds as a fund source (may also have other fund sources):

- The University develops its six (6) year plan for Capital Projects for preview by the BOV.
- DPB issues its budget Instructions (usually in February). See the [DPB website](#).
- CAFM submits the University's Capital Budget Requests (CBR) in the Performance Budgeting (PB) system, with project priorities indicated.
- Capital Project submissions are reviewed by DPB and DGS for possible inclusion in the Governor's budget based on program guidance established by the Governor.
- Capital Project submissions are reviewed and considered by the 6 Year Capital Outlay Planning Advisory Committee (6-PAC) for possible inclusion in the Governor's budget based upon program guidance established by the Governor and input from DPB and DGS.
- The Governor presents the budget to the money committees in December.
- "Part 2, Capital Project Expenses" of the Budget Bill contains those Capital Projects the Governor has selected for construction or planning in the coming biennium.
- The General Assembly considers and passes the Acts of Assembly (the Appropriations Act).
- The Governor signs the Acts of Assembly (the Appropriations Act).
- Authorization to proceed with the projects must be granted by the Governor (or designee) before any planning for or construction can begin.

- Funds are not available to be spent until July 1 of the even numbered years or until action on the Acts of Assembly (the Appropriations Act) is completed.
- Non-general fund projects are included in the University Six-Year Plan, but may also be authorized by the BOV outside of the state's capital budgeting process.

All Capital Projects (regardless of fund source) must be in compliance with Virginia Tech Policy No. 5400, University Space Management.

## 8.2 CAPITAL OUTLAY PROJECT IMPLEMENTATION PROCESS

The following generally summarizes the capital outlay project implementation process.

- University procures an Environmental Impact Report (or obtains letter from DEQ that EIR is not required for the project). Preparation and submission of an environmental impact report is required for each major state project (*Code of Virginia* [§ 10.1-1188](#)). Regulatory authority is assigned to the Virginia Department of Environmental Quality (Va. DEQ) in the *Code of Virginia* [§ 10.1-1191](#). A component of the EIR includes the review of historic architecture, archaeology, and culturally significant elements in the scope of work. Coordinate with OUP to develop an "Appendix L" or project review package for projects that qualify for this treatment. Submission requirements are described in the "Procedure for Environmental Impact Review of Major State Facilities", prepared by the Va. DEQ. [NOTE: *Code of Virginia* [§ 10.1-1190](#) provides that the State Comptroller shall not authorize payments of funds for major state projects unless the request is accompanied by written approval of the University President or designee after consideration of the comments by DEQ on the environmental impact of the facility.]
- University obtains authority to initiate a Capital Outlay Project by submitting Form HECO-2 for approval.
- Issue Notification of Initiation of Environmental Impact Report Process ([CO-2a](#)).
- University issues RFP for A/E services, interviews and selects A/E, negotiates fee, awards A/E Contract (Form [CO-3](#) and MOU). (See [Chapter 3](#).)
- University and A/E attend pre-design conference.
- A/E develops and submits Schematic design for approval. Approve schematic design and receive approval to proceed to preliminaries (Form HECO-4).
- Preview/Preliminary approvals are required from the BOV and the AARB.
- A/E develops and submits preliminary design for approval.
- Review/Final approvals are required from the BOV and the AARB.
- Conduct VE study if value of the total project cost exceeds \$5 million.
- Issue notice of availability of preliminary design to local jurisdiction (Form [CO-5a](#)).
- Obtain approval of design from BOV and AARB.
- Approve preliminary design and receive approval to proceed to working drawings (Form HECO-5).

- A/E develops and submits working drawing submittal for approval. Review working drawings design. Receive approval of working drawings using Form HECO-6 and receive approval to advertise for bids.
- Advertise/post Notice of IFB.
- Receive bids with Bid Bond, Form [CO-10.2](#). Open bids and evaluate.
- If within Budget, submit HECO-8 for approval, post Notice of Intent to Award or Notice of Award of Contract.
- If over budget but within range for negotiation, request approval to negotiate. If negotiations are successful, prepare [CO-9b](#), Post Bid Modifications to Bid.
- Use Form [CO-9](#) to Award Contract for Construction.
- Contractor submits Performance Bond using [CO-10](#) and Labor and Material Payment Bond using [CO-10.1](#).
- Submit Information for Building Permit, HECO-17. (See [Section 8.7](#).)
- For Change Orders to A/E Contract use [CO-11ae](#).
- For Change Orders to Construction Contract, use Form [CO-11](#) and [CO-11a](#).
- Submit Certificate of Use and Occupancy, Form CO-13.3, or Beneficial Occupancy, Form CO-13.5 followed by Permit Closeout, Form CO-13.4. (See [Section 8.7](#).)
- Submit Project Completion Report using Form CO-14.

### **8.3 CAPITAL OUTLAY PROJECT AUTHORIZATION:**

Capital project authorization is granted by the Commonwealth of Virginia executive and/or legislative branches as provided for in the Acts of Assembly for projects supported in whole or in part by state general funds (GF), or by the BOV through a Resolution as provided for in the University's Management Agreement approved by the Secretary of Administration for non-general (NGF) projects.

Appropriated funds will be allotted and authority given to initiate a project, subject to interim approvals, reviews, and progress reporting, upon application from the University but not before July 1 following General Assembly approval of the Biennial Budget which includes the project. In odd numbered years if a capital outlay project is added to the budget during the short session, DPB may authorize the project after the Governor and veto session action on the amended budget.

Under certain circumstances, the Governor may authorize the initiation of Capital Projects under the conditions set forth in § 4-4.01 of the General Provisions of the Acts of Assembly. A project authorized under § 4-4.01 is subject to the Capital Outlay Process, including the submission of form HECO-2 to request authorization to initiate the project.

## **8.4 PROJECT EXECUTION**

### **8.4.1 Acquisitions of Real Property**

Acquisition of the fee simple title to real estate shall be handled as a Capital Outlay Project and is governed by Virginia Tech Policy No. 5400, University Space Management, and procedurally must be in compliance with other applicable University policy and procedures as held and administered by the University Real Estate Management group.

To initiate an acquisition, submit a Form HECO-2. For projects which consist of acquisition and construction, the request to acquire the property must be submitted on a separate Form HECO-2.

### **8.4.2 Demolition**

Demolition of any building, (with a building number indicating it is part of the University inventory of facilities) regardless of size and type, shall be authorized by the BOV prior to proceeding ([Governing Rules § 2](#)). Specific instructions on the approval process are provided in the DCSM. Demolitions which are required to permit construction shall be approved before preliminary drawings are prepared. (Note: AARB and DHR approval may also be required prior to demolition.)

### **8.4.3 Temporary Facilities**

This section has been deleted in its entirety and moved to the DCSM.

### **8.4.4 Construction Projects**

Capital construction projects are generally executed as described above. (Also see the DCSM.) For state-funded projects, the 3-digit University code and the five digit project code assigned to the project in the Appropriation Act shall be the basic project identifier for the life of the project. Agencies with a blanket or umbrella appropriation; a project that will be accomplished by separate contracts at multiple locations or acquisitions at multiple locations; or a single project to be accomplished through two or more construction contracts, shall assign a 3-digit sub-project code for each undertaking. Several examples are given below. The University code, project code and sub-code shall be used on all capital outlay forms and correspondence.

### **8.4.5 Project Initiation**

Following project authorization, CCR will prepare a "Request for Authority to Initiate Capital Project, Form HECO-2" for internal approvals. For projects supported in whole or in part by general funds, approval of the HECO-2 shall also be submitted to DGS via BITS for approval by DGS/DPB prior to project initiation.

## **HECO-2: Request for Authority to Initiate Capital Outlay Project**

Purpose:	To request authority to initiate a project.
Submit:	Subsequent to release of the Appropriation Act.
Other Uses:	<ol style="list-style-type: none"><li>1. Change in "Movable Equipment &amp; Furnishings" amount,</li><li>2. Transfer money into or out of project, and</li><li>3. Infuse additional funds.</li><li>4. Scope increase or decrease by more than 5%.</li></ol>

The approved HECO-2 authorizes the University to "proceed" with the project. Subsequent submission of the Capital Outlay forms HECO-4, HECO-5, HECO-6, [CO-13](#), [CO-13.1](#) and [CO-13.2](#) are waived unless specific submittals are noted on the HECO-2. The University shall obtain a Building Permit prior to the start of the construction and shall submit [CO-13](#), [CO-13.1](#) and [CO-13.2](#) forms after the work is complete.

For state-funded projects, the Director of DGS may authorize minor increases in square footage of a project where the increase is justified (§ 4-4.01 of the Appropriation Act). The AVP & CFO shall submit a written request for such an increase to the Director of DGS stating the necessity and justification for the increase. Any request which would increase the cost of the project beyond the amount appropriated will not be considered.

For state-funded projects, the Total Project Budget breakout on the HECO-2 will reflect the results of DPB and DEB review during the budget development process. List sub-projects with sub-project numbers and fund proportioning for each on page 2 and page 3, if needed, on the HECO-2. Appropriate comments and instructions relative to changes from the figures submitted by the University with the Capital Budget Request will be provided by the DEB back to the University during or after budget development. The amount of funding shown in the equipment line on the HECO-2 will remain fixed for the life of the project unless a revised HECO-2 is submitted and approved by the DPB to adjust the equipment amount. Equipment purchases must be coordinated with and, where appropriate, procured through University Procurement. The University shall notify (using the Form [CO-2a](#)) the chief administrative officer of the county, city or town in which the University intends to undertake the capital project.

## **[CO-2a](#): Notification of Initiation of Environmental Impact Report Process**

Purpose:	To notify the chief administrative officer of the local political subdivision of the initiation of the environmental impact report process for a capital project involving new construction costing at least \$500,000.
Submit:	To the chief administrative officer concurrent with submission of a HECO-2.
Other Uses:	Not Applicable.

The intent of the notification is to enable the locality to comment on the Environmental Impact Report.

#### **8.4.6 Preplanning Studies**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.4.7 Pre-Design Conference**

The University may engage an A/E firm to prepare drawings and specifications upon receipt of the approved HECO-2. Prior to initiating design efforts, the University will conduct a Pre-Design Conference or Design Kick-off meeting to establish project design goals and requirements. Participants shall include the CCR, the A/E, the OUP and the University project manager. The agenda for the meeting shall include:

- Introductions
- Role of CCR
- Authorized Communications
- Project Scope
- Project Budget
- Proposed Design Schedule
- Required Reviews
- DCSM Design Requirements
- Commitment to the US Green Building Council's LEED standards and the Virginia Tech Climate Action Commitment
- Public Procurement Act
- Applicable Sections from the Manual and the DCSM
- Fire Safety Reviews
- Fire Protection System Design
- Clarification/Resolution of Budget Development Comments
- Waivers/Code Modifications
- Content of Review Submission
- Intent of Review Comments
- Design Approach
- Sole Source/Proprietary Specifications
- Use of Standard Procurement/Specification Forms
- Value Engineering
- Prequalification
- Other Regulatory Reviews
- Fuel Selection

The A/E shall prepare and distribute minutes of the meeting to all participants within 14 days of the meeting. Participants shall have 10 days to note any corrections to the minutes that may be necessary.

The University may proceed with the project design at the conclusion of the 10-day review period for the pre-design meeting minutes. Agreements on design direction, scope, budget, review comment agreement, etc., reached during the pre-design meeting shall be incorporated in the first review submission.

#### **8.4.8 Schematics**

The DCSM outlines the requirements for the Schematic submittal. Generally, the Schematic translates the University's written project functional, spatial and adjacency requirements into a graphic presentation of floor plans, space sizes and relationships, and exterior building elevations. For state-funded projects, the University will forward to DEB the Schematic Design Project Cost Review via a CR-2 submission (as applicable). DEB will review the CR-2 and provide feedback on the proposed project budget.

#### **HECO-4: Application for Approval of Schematics**

Purpose:	To submit and receive approval of the Schematic submittal and obtain authority to prepare Preliminaries. Use a separate HECO-4 for each sub-project submitted.
Submit:	With Schematic submittal when Schematic drawings and data are complete and ready for review.
Other Uses:	None.

#### **8.4.9 Preliminary Submittal**

The next project approval milestone for state-funded projects is the submittal of preliminary drawings with the basis of design narrative, cost estimates, and HECO-5 submission. Unless waived, the University shall arrange for a Value Engineering Study of each project with a total project cost greater than \$5 million. The study and the University's action on the study recommendations are a required part of a preliminary submittal.

For state-funded projects, the University will forward to DEB the Preliminary Design Cost Review via a CR-2 submission (as applicable). DEB will review the CR-2 and provide the approved project budget.



## **HECO-5: Application for Approval of Preliminary Drawings and Specifications**

Purpose:	To submit and receive approval of the preliminary drawings and obtain authority to prepare working drawings. Use a separate HECO-5 for each sub-project submitted.
Submit:	With the preliminary submittal when preliminary drawings and data are complete and ready for review.
Other Uses:	To make adjustments to construction, A/E, project inspection and other budget lines as project design develops.

Virginia Tech holds HECO approval authority and it performs its own schematic, preliminary and working drawings reviews and approves the HECO-4, HECO-5, and HECO-6 forms for non-general funded projects.

For Capital Outlay Projects, Virginia Tech performs its own schematic, preliminary and working drawings reviews and approves HECO-4 and HECO-5 forms. For Capital Outlay Design-Bid-Build projects, HECO-6 forms shall be approved by DEB. **A copy of these University-approved HECO forms shall be sent to the DEB.**

The University shall notify (using Form [CO-5a](#)), the chief administrative officer of the county, city or town in which the University intends to undertake the capital project that preliminary plans are available upon the request of the locality.

### **CO-5a: Notification of Availability of Preliminary Drawings**

Purpose:	To notify the chief administrative officer of the local political subdivision of the availability of preliminary drawings for a capital project involving new construction costing at least \$500,000.
Submit:	To the chief administrative officer concurrent with submission of preliminaries to DEB.
Other Uses:	Not applicable.

The purpose of the notification is to enable the locality to evaluate the project and to submit their comments to the University. Upon receipt of a request from the locality, University shall transmit a copy of the preliminary plans to the locality for comment (*Code of Virginia § 15.2-2202, C*).

### **8.4.10 Working Drawing Submittal**

Some projects (e.g., work on historic landmarks, demolitions, water and wastewater treatment plants, central heating plants, etc.) may require the review of the Department of Health, Department of Historic Resources, and Department of Environmental Quality at both preliminary and working drawing stages. The University in concert with its A/E shall be responsible for determining when these reviews are necessary and ensuring that the appropriate review Agencies receive the plans and specifications.

## **HECO-6: Application for Approval of Working Drawings and Specifications**

Purpose:	To submit and receive approval of working drawings and to receive approval to advertise a project for bids. Use a separate HECO-6 for each sub-project submitted.
Submit:	With the working drawings and when the working drawings are complete and ready for review.
Other Uses:	To make adjustments to the construction, A/E, project inspection, and other budget lines based on final project design.

Virginia Tech holds HECO approval authority for HECO-2, HECO-4, and HECO-5 forms for Capital Outlay projects. For Capital Outlay Design-Bid-Build projects, DEB review of the Working Drawings/Construction Documents and DEB approval of the HECO-6 form is required before a Building Permit is issued.

### **8.4.11 Bid Opening and Contract Award**

On the date prescribed, bids shall be publicly opened and announced as specified in [Section 7.1.2.4](#). When the apparent low responsive and responsible bidder is determined, the University shall prepare a tabulation of bids and a HECO-8, Approval to Award Contract. If the low bid is equal to or less than the University's construction estimate on the CO Form authorizing advertising (e.g., HECO-6), the HECO-8 may be approved locally by the University's designated VCCO. Submit the approved HECO-8 and the bid tabulation and bid form to DEB 7 calendar days minimum prior to the expiration of the Bid Bond.

## **HECO-8: Approval to Award Contract**

Purpose:	Authorize the award of a construction contract to the apparent low bidder.
Submit:	The approved/signed HECO-8 (signed by the designated VCCO) with the bid tabulation to the DEB via BITS 7 calendar days, minimum, prior to the expiration of the Bid Bond.
Other Uses:	To make changes in the project budget after contract award for all budget lines.

If the low bid exceeds the University construction estimate by less than 20%, and if funds are available within the approved total project budget shown on the approved HECO-6, the University may accept the bid. The designated VCCO shall sign the HECO-8 which shall show the revised project budget breakdown. Submit the approved HECO-8 and the bid tabulation and bid form as stipulated above.

If the low bid exceeds the University construction estimate by 20% or more, the University may:

- 1) request authority to infuse additional funds (see Section 7.1.2.8),
- 2) request authority to negotiate with the low bidder, or

3) reject all bids.

Authority to negotiate with the low bidder shall be requested from the AVP & CFO. Follow the procedures detailed in Manual [Section 7.1.2.6](#) to request authority to negotiate.

In all cases where the low bid exceeds the University construction estimate by more than 20%, approval to award a contract (even after negotiations with the low bidder) shall be required from the SVP & CBO (or designee).

When the HECO-8 has been approved, the University may award a contract to the low bidder.

The project budget on the HECO-8 shall reflect the contract award amount, A/E fees, supervision, equipment and a maximum of 5% of the low bid amount, or negotiated amount where negotiation with the low bidder was authorized, for the construction contingency. If during the course of construction the contingency is exhausted and additional contingency is required, the University shall submit a revised HECO-2 and a revised HECO-8 to DEB/DPB requesting approval of the additional contingency amount. The request shall identify the source of funds for the contingency increase and include an explanation as to why the additional contingency is needed.

#### **8.4.12 Building Permits and Demolition Permits**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.4.13 Change Orders to the Construction Contract**

Refer to [Section 8.7.7.1](#) for information.

#### **8.4.14 Change Orders to the A/E Contract**

Refer to [Section 8.7.7.2](#) for information.

#### **8.4.15 Building Occupancy**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.4.16 Project Close Out**

This section has been deleted in its entirety and moved to the DCSM.

### **8.5 CAPITAL OUTLAY ORDER OF PROCEDURE**

This section has been deleted in its entirety and moved to the DCSM.

### **8.6 CO FORMS CAPITAL OUTLAY SUBMISSION SUMMARY**

This section has been deleted in its entirety and moved to the DCSM.

### **8.7 CO FORM INSTRUCTIONS AND REQUIREMENTS**

This section describes the CO Forms used for construction projects – both Capital and Non-Capital and regardless of the source of funds. Any work which meets the definition of

“construction” as defined in [Governing Rules § 4](#) and which is regulated by the USBC must be authorized by a building permit (Form HECO-17). This chapter provides instructions on the forms, documentation, and approvals required at various milestones in the process. Preparation and submission of an environmental impact report is required for each major state project which costs more than \$500,000 (*Code of Virginia § 10.1-1188*). See the DCSM.

#### **8.7.1 Capital Outlay Project ‘CO’ Forms for Construction:**

In addition to these construction related CO Forms, all capital outlay projects must also follow the approval procedures in [Section 8.4](#) and the DCSM unless specifically waived by the AVP & CFO (or other delegated authority) or unless otherwise indicated in the project authorization wording on the HECO-2.

#### **8.7.2 Annual Permit Designation**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.7.3 Demolition of Buildings**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.7.4 Temporary Facilities (Other than Tents and Stages)**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.7.5 Construction Projects**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.7.6 Building Permits**

This section has been deleted in its entirety and moved to the DCSM.

#### **8.7.7 Change Orders**

Change orders to the contract may be necessary during the course of construction. Change orders are most commonly necessitated by unforeseen site or building conditions; errors or omissions in the contract documents; an opportunity to reduce the operating cost of the facility under construction; technology changes occurring since contract award which must be incorporated in the project; or a change in the University requirement. All changes to the requirements shown on the Contract Documents **MUST** be documented by a Change Order to the Contract, regardless of whether the project is ‘capital’ or ‘non-capital’. Changes to the contract amount and/or performance time shall be included in an approved contract change order, [CO-11](#). Change Orders to ‘capital’ contracts shall be justified or explained on the [CO-11a](#). Change Orders to ‘non-capital’ contracts which require the approval of the AVP & CFO shall be justified or explained on the [CO-11a](#). The University may require that the [CO-11a](#) also be used as a management tool for other ‘non-capital’ project change orders.

### 8.7.7.1 Construction Change Orders

#### CO-11/CO-11a: Contract Change Order/Justification

- Purpose:** To request and receive approval of a change in the construction contract time, amount, or both.
- Submit:** For all locally approved capital outlay project change orders, submit one copy of the CO-11 and CO-11a with the contractor back-up cost materials within 5 days after the change order is approved and signed.
- Other Uses:** Must be used to document any and all changes to a construction Contract (CO-9) using this Manual's procedures. Must also be used to document change orders to maintenance reserve and other non-capital outlay construction contracts.
- Special Conditions:** Any Change Order which changes work regulated by the Building Code, its referenced Standards, or University Design Standards must be submitted with copies of the document showing the changes to the regulated systems.

Changes involving an increase in construction contract price of more than 25% of the original contract amount or \$50,000, whichever is greater, shall have the prior written approval of the Governor or designee. When the cumulative total of change orders exceeds the original contract amount by more than 25% and \$50,000, any subsequent change order that increases the contract amount, regardless of the amount, shall have the prior approval of the Governor or designee. Prior to starting any work, submit the CO-11 and CO-11a for approval of the contract change with supporting documentation outlined in Chapter 7.

The University justification section of the CO-11a on all change orders shall:

1. include a written statement by the University outlining the proposed cost sharing by the responsible design professional when the change results from an error or omission or
2. answer the following questions when the change is generated by a change in the University's requirement:
  - a. When was the change in the University's requirement known?
  - b. If before bidding, why were the changes excluded from the bid package?
  - c. Why can the work not be packaged and bid separately?
  - d. What quantitative impact will the lack of this change have on the service delivery of the University?

### 8.7.7.2 A/E Change Orders

A/E Contract change orders may be necessary during the course of design and/or construction. Change orders are most commonly necessitated by unforeseen site or building conditions; changes in University requirements; extra services required by

the University; technology changes occurring since contract award which must be incorporated in certain types of projects; or delays in construction which are not attributable to the A/E. All changes involving the contract amount or performance time shall be included in an approved contract change order, [CO-11ae](#), and [CO-11a](#).

**[CO-11ae/CO-11a](#): Architect/Engineer Contract Change Order/Justification**

Purpose: To request and receive approval of a change in the contract time, amount or both.

Submit: For all change orders requiring the prior approval of the Virginia Tech President or designee, submit two copies of the [CO-11ae](#) and [CO-11a](#) with one copy of the A/E back-up cost material. The [CO-11a](#) shall specifically address points identified in the DCSM.

Other Uses: Used to document all changes to the A/E contract and/or MOU.

Special Conditions: None.

Changes involving an increase in the A/E contract price of more than 25% of the original contract amount or \$50,000, whichever is greater, shall have the prior written approval of the Virginia Tech President or designee. When the cumulative total of change orders exceeds the original contract amount by more than 25% and \$50,000, any subsequent change order that increases the contract amount, regardless of the amount, shall have the prior approval of the Virginia Tech President or designee. Submit the [CO-11ae](#) and [CO-11a](#) to Virginia Tech President or designee for approval of the contract change with supporting documentation indicating how the change in contract amount was determined.

The University justification section of the [CO-11ae](#) on all A/E change orders shall provide:

1. University's explanation of why the work was required.
2. An explanation of when the change in requirements (function, mission) was known.
3. An explanation of why this work was not included in the original contract negotiations.
4. If the change was for construction period services, an explanation regarding any contractor's contribution to this A/E change order.

### **8.7.8 Building Occupancy**

This section has been deleted in its entirety and moved to the DCSM.

### **8.7.9 Project Close Out**

This section has been deleted in its entirety and moved to the DCSM.

## **8.8 REPORTS**

This section has been deleted and moved to the DCSM.

### **8.8.1 Capital Outlay Progress Report**

This section and its subsections have been deleted in their entirety and moved to the DCSM.

### **8.8.2 Value Engineering Utilization Report**

#### **8.8.2.1 Reporting Requirement**

The University is required by the *Code of Virginia* [§ 2.2-1133](#) to report to the Governor and the General Assembly on or before September 15 of each year, the following:

- the number and value of the state capital projects where Value Engineering (VE) was employed;
- the identity of the capital projects for which a waiver of the requirements of *Code of Virginia* [§ 2.2-1133, B](#) was granted, including a statement of the compelling reasons for granting the waiver.

#### **8.8.2.2 Reporting Frequency**

The report is required to be submitted annually. Individual University reports are due to DEB by August 1. This data reported shall encompass the period from July 1 through June 30.

#### **8.8.2.3 General Instructions**

At least three weeks prior to the due date for the report, each University will be provided via email with a data input form to complete. The University shall edit this form to list all VE studies completed during the reporting period. The University shall also list all projects which qualified for a VE study, but for which a VE study was not prepared. The reason for not having a VE study prepared shall be provided (e.g., a waiver was granted because the project was ...). E-mail the completed report to DEB at [capout@dqs.virginia.gov](mailto:capout@dqs.virginia.gov) by the specified due date.

#### **8.8.2.4 Specific Instructions**

Refer to the data input form provided for further instructions.

## **APPENDIX A – DEB ROOFING POLICY & TECHNICAL STANDARDS FOR STATE-OWNED BUILDINGS**

This Appendix has been deleted in its entirety and moved to the DCSM.



# APPENDIX B – GENERAL GUIDE TO KEY FORM SUBMITTALS

## GENERAL GUIDE TO KEY FORM SUBMITTALS

( Please refer to the notes and abbreviations on the next page. )

12/9/2019

<b>General Project Classification:</b>	<b>Capital</b>						<b>Non-Cap</b>	<b>PPEA</b>	<b>ESCO</b>	
<b>Funding Process:</b>	<b>Pool</b>			<b>Non-Pool</b>			n/a	n/a	n/a	
<b>Construction Procurement Method:</b>	<b>DBB</b>	<b>CM</b>	<b>DB</b>	<b>DBB</b>	<b>CM</b>	<b>DB</b>	n/a	n/a	n/a	
		D, F	D	C	C, D, F	C, D		D, G	E	Refer to Note
<b>For this purpose, use Capital Outlay Form #:</b>										
Request Approval to Initiate Project or Adjust	HECO-2	HECO-2	HECO-2	HECO-2	HECO-2	HECO-2		HECO-2		A
Document Award of A/E Contract	CO-3	CO-3		CO-3	CO-3					
<b>Schematic Design Phase:</b>										
Request Design Document Approval	HECO-4			HECO-4						
Document Budget Development	CR-2	CR-2	CR-2							H
<b>Preliminary Design Phase:</b>										
Request Design Document Approval	HECO-5			HECO-5						
Document Budget Development	CR-2	CR-2	CR-2							H
<b>Request Approval of Working Drawings</b>	HECO-6			HECO-6						A
<b>Request Approval to Award Construction Contract</b>	HECO-8	HECO-8	HECO-8	HECO-8	HECO-8	HECO-8				A
<b>Construction Change Order Approval</b>	CO-11	CO-11	CO-11	CO-11	CO-11	CO-11				I
<b>Construction Change Order Justification</b>	CO-11a	CO-11a	CO-11a	CO-11a	CO-11a	CO-11a				I
<b>A/E Change Order Approval/Justification</b>	CO-11ae	CO-11ae		CO-11ae	CO-11ae					I
<b>Schedule of Values/Application for Payment</b>	CO-12	CO-12	CO-12	CO-12	CO-12	CO-12				B
<b>Document Project Completion</b>	CO-14	CO-14	CO-14	CO-14	CO-14	CO-14		CO-14		
<b>For this purpose, use Building Official Form #:</b>										
Apply for Building Permit	HECO-17	HECO-17	HECO-17	HECO-17	HECO-17	HECO-17	HECO-17	HECO-17	HECO-17	
Apply for a Certificate of Use & Occupancy	CO-13.3	CO-13.3	CO-13.3	CO-13.3	CO-13.3	CO-13.3	CO-13.3	CO-13.3		
Request Closeout of Building Permit	CO-13.4	CO-13.4	CO-13.4	CO-13.4	CO-13.4	CO-13.4	CO-13.4	CO-13.4	CO-13.4	
Request Beneficial Occupancy	CO-13.5	CO-13.5	CO-13.5	CO-13.5	CO-13.5	CO-13.5	CO-13.5	CO-13.5	CO-13.5	

NOTES	
A	HECO-2, HECO-6, and HECO-8 forms are required as identified in the chart above for approval by DEB and/or DPB.
B	Submit only copies of the project's final Schedules of Values to DEB.
C	For non-pool projects which have any State funding, Tier 3 institutions shall submit the following forms: HECO-2, HECO-8, and CO-14. (When Tier 3 authority is exercised, Building Official forms are processed by the University Building Official, with no copy to DEB.)
D	For CM, DB, and PPEA project with "early release packages", submit preliminary design documents for the complete project to DEB for review and approval to establish code compliance. (Cost estimates, fuel studies, HVAC system analyses, and checklists that are not required to determine VUSBC compliance may be excluded.) Submit working drawings to DEB for review and approval for the specific scope of work being permitted (foundation, structure, etc.) to obtain partial Building Permit.
E	Follow the ESCO contract instructions for the submission of Technical Energy Audits for DEB review
F	For Construction Management at Risk projects: For Early Release Packages: A Guaranteed Maximum Price (GMP) must be provided for the scope of the work being awarded to obtain approval of a HECO-8, and if the project is a Pool Project, either a GMP based upon working drawings for the full project or an approved "Appendix C submittal" must be provided to obtain approval of the HECO-8. For the entire project: A Guaranteed Maximum Price (GMP) based upon working drawings for the full project must be provided to obtain approval of a HECO-8.
G	HECO-2 and CO-14 forms are not required if there is no State funding of a PPEA project.
H	For pool-funded projects the CR-2 form is required for DEB Cost Review at the Schematic Design Phase. This form must be updated and resubmitted at Preliminary Design to reflect updated information from the current design.
I	If Change Order exceeds the limits requiring approval by the Governor's Designee, submit Change Order and appropriate back up to DEB. If Change Order does not require approval by DGS/DEB, acting as the Governor's Designee, then only submit an informational copy of the University-approved Change Order (without backup) to DEB.

ABBREVIATIONS USED
A/E = Architect/Engineer.
CM = Construction Management.
DB = Design-Build.
DBB = Design-Bid-Build.
DEB = Division of Engineering & Buildings.
ESCO = Energy Performance Contracts.
Tier 3 = Higher Education Capital Outlay (HECO) - Tier 3. Virginia Tech exercises this special capital outlay and building official authority.
Non-Cap = a non-capital project subject to DEB review.
PPEA = Public-Private Educational Facilities and Infrastructure Act of 2002.

## **APPENDIX C – EARLY RELEASE CODE AND BUDGET COMPLIANCE SUMMARY**

Agencies procuring projects using the CM at Risk or Design/Build construction delivery methods may request permission from the Director of DEB to start construction before the complete building design has been finished. Partial building permits may be issued to the University for early release packages such as grading, site utilities, and foundations. Prior to proceeding with Pool funded projects, the University shall demonstrate that the Preliminary design complies with the VUSBC and that supplemental University funds are available if the project budget exceeds 105% of the General Fund supported debt identified in the CBR Verification Report (See Form [DGS-30-299](#) on the [DGS Documents and Forms Center](#)). Agencies are encouraged to use this form for non-Pool funded projects.

The remaining sections (C.1 and C.2) of this Appendix have been deleted in their entirety and moved to the DCSM.

## **APPENDIX D – BASIS OF DESIGN NARRATIVES**

This Appendix has been deleted in its entirety and moved to the DCSM.

## **APPENDIX E – COST ESTIMATE REQUIREMENTS AND FORMAT**

This Appendix has been deleted in its entirety and moved to the DCSM.

## APPENDIX F – CHECKLIST FOR OPENING BIDS

### F.1 PROCEDURES FOR RECEIVING BIDS

The University shall assure that the person receiving bids, called the Bid Officer, is thoroughly trained/knowledgeable in the proper procedure for receiving and documenting bids.

- (1) On the morning bids are due, check the time on the clock, the date/time stamp, and the FAX machine in the bid receipt area to assure the times are coordinated and correct. Assure that the clock visible to bidders in the bid receipt area shows the correct time.
- (2) When bids or modifications are delivered to the bid receiving office, the bids shall be date stamped and the time noted or stamped on the envelope showing the time of receipt.
- (3) The bid receipt deadline must strictly comply with the specific time called for in the Invitation for Bids. It is suggested that the Bid Officer give a warning that the Bid Receipt Deadline is near such as **"The time is now 1:55 pm and all bids must be received by 2:00 pm."**

The Bid Officer shall be responsible for deciding when the Bid Receipt Deadline has arrived and shall announce **"The 2:00 pm deadline has arrived. All bids and bid modifications in our possession at this time are deemed to be timely. No further bids or bid modifications will be accepted."**

- (4) When multiple bids are delivered just prior to the bid receipt deadline, the Bid Officer shall accept the bids up to the deadline without taking time to note the time on each bid. After announcing that the deadline has arrived, the Bid Officer or assistant should note on those bids which were timely but not stamped that the bids were received prior to the 2:00 pm deadline.
- (5) If a bidder wishes to change the amount bid, such change must be received by facsimile, letter or written on the outside of the bid envelope before the time set for receipt of bids. Methods for modifying the bid are further described in the Instructions to Bidders, [CO-7a](#).
- (6) The bids, including any modifications, shall be kept in a locked security container by the Bid Opening Designee.

### F.2 PROCEDURES FOR OPENING BIDS

- (1) Once the University Bid Opening Designee determines that the bid opening hour has arrived, **which shall be at least 24 hours after the receipt of bids and as indicated in the Invitation for Bids, a statement should be made as to the number of bids received.** It is prudent to inquire whether any bidder has any question about the pending opening. After receiving either a negative reply or after answering questions, proceed to open the bids in alphabetical order. **Do not open work papers!**

- (2) Paragraph 4 of the Instructions to Bidders requires the Contractor to place its Contractor License Class and License Number on the envelope and on the bid documents. Para. 4(c) of the [CO-7a](#) gives instructions for action if not shown.
- (3) Prior to revealing any of the information in the bid, the Bid Opening Designee must verify that
  - the Bid Bond or Certified Check in the amount of 5% is attached where required and
  - that the Form of Proposal is signed by the bidder and
  - Bidder information complies with Item 4(b) and (c) of the Instructions to Bidders. Only then shall the other bid information be revealed. If the Bid Bond or Certified Check is not included or if the Bid is not signed, the bid shall not be read or considered.
- (4) If a modification to the bid has been received, check it to assure that it has been signed by one of the persons listed on the Bid Form as authorized to make such modifications. If the modification was not inside the envelope or written on the outside of the envelope, check the time received to assure that it was before the deadline.
- (5) After Opening the Bid envelope and checking for the information above, state the following items and record on the bid tabulation form:
  - a. Bidder/Contractor's Name
  - b. Virginia Registration No.
  - c. Work papers were \_\_\_\_ not \_\_\_\_ submitted.
  - d. Receipt of Addenda 1 through \_\_\_\_ are acknowledged.
  - e. Bid Bond or Certified Check is \_\_\_\_ not \_\_\_\_ included.
  - f. Bid Form is signed.

THEN

g. **Read Bid Information**

- Any proper Bid Modification received,
  - Part A. Building Base Bid Amount,
  - Part B - Sitework Base Bid Amount,
  - any other Parts of the Base Bid,
  - the TOTAL BASE BID AMOUNT, and
  - then any Additive Bid Item Amounts in order.
  - (days for completion if Bidder was allow to state such on the Bid Form)
- h. Any **qualification** to the requested information on the Bid Form shall be noted as the bid is read.

### F.3 AFTER BID OPENING IS COMPLETE

- (1) Keep all bids, work papers, etc. until **2 hours** after bid opening to allow the Bidders to state mistakes. **Do not open Work Papers unless low bidder claims an error!**
- (2) After two hours, return all Bid Bonds, checks, etc., to all but 3-lowest bidders. Work papers can be returned to all.
- (3) Keep bids and bid bonds or checks from 3-lowest bidders until Contract is signed.
- (4) Contact Department of Professional and Occupational Regulation, Contractor's Section, and verify Contractor Class and Registration No. of the 3 lowest bidders (and listed subcontractors, if any).
- (5) Prepare an official tabulation of bids indicating:
  - Name and Project Code of project as on the specifications
  - Time and date of bid receipt and opening
  - Exact Name, address, telephone & FAX numbers of Bidders
  - Bidder's Virginia Registration Number (or non-requirement statement).
  - All amounts bid for Base Bid(s), Parts, the Total Base Bid Amount, any Bid Modification and Additive Bid Items.
  - Completion time stated, if Bidder was given the option.
  - Acknowledgement of receipt of all addenda and number of addenda issued.
  - Whether or not sealed work papers were submitted.
  - Name of University Bid Opening Designee.

## **APPENDIX G (RESERVED)**



## **APPENDIX H – GUIDELINES FOR NON-CAPITAL OUTLAY BUILDING PROJECTS**

This Appendix has been deleted in its entirety and moved to the DCSM.

## **APPENDIX I – LIFE CYCLE COSTS AND ENERGY ANALYSIS**

This Appendix has been deleted in its entirety and moved to the DCSM.

## APPENDIX J – MISCELLANEOUS POLICIES AND MEMORANDA IMPACTING DESIGN AND CONSTRUCTION

### J.1 [Executive Order 45 \(November 15, 2019\)](#)

“Floodplain Management Requirements and Planning Standards for State Agencies, Institutions, and Property”

### J.2 [VFRIS](#) “Virginia Flood Risk Information System”

### J.3 [Executive Order 35 \(July 3, 2019\)](#)

“Advancing Equity for Small-, Women-, and Minority-, and Service Disabled Veteran-Owned Businesses in State Contracting”

### J.4 April, 1998 Joint DCR/DHCD Memorandum

“Historic Properties and the USBC”



#### COMMONWEALTH of VIRGINIA

##### Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

James S. Gilmore, III  
Governor

John Paul Woodley, Jr.  
Secretary of Natural Resources

H. Alexander Wise, Jr.  
Director

Tel: (804) 367-2323  
Fax: (804) 367-2391  
TDD: (804) 367-2386

#### Memorandum

April 2, 1998

#### Historic Properties and the USBC

Questions have been raised regarding the application of the Virginia Uniform Statewide Building Code (USBC) to historic buildings particularly as it relates to accessibility. This guidance is intended to help clarify the application of the USBC to historic buildings.

Section 3406.0 of the BOCA National Building Code, which is incorporated as part of the USBC, allows special provisions for historic buildings and reads:

The provisions of this code relating to the construction, repair, alteration, addition, restoration and movement of structures shall not be mandatory for existing buildings or structures identified and classified by the federal, state or local government authority as historic buildings, when such buildings are judged by the code official as safe and in the interest of the public health, safety, and welfare regarding any proposed construction, alteration, repair, addition and relocation.

Simply stated, when a property is listed on or eligible for the Virginia Landmarks Register or is designated a contributing building to a state, county, or city district, the building need not strictly comply with the USBC. The local code official determines the extent of the exemption from USBC requirements.

Because most historic buildings are not exempt from providing accessibility under the Americans with Disabilities Act (ADA) requirements, the ADA should be followed in planning alterations to historic buildings. The ADA offers alternative requirements for properties that cannot be made accessible without “threatening or destroying the historic significance of the property” (4.1.7 of ADAAG). Owners of such properties should contact the Department of Historic Resources (the State Historic Preservation Office) to determine if the special accessibility provisions for historic properties apply. When special provisions are warranted, this office will document justification for the allowance.

Questions pertaining to these issues should be directed to William Mills Crosby of the Department of Historic Resources or the local city, county or town USBC code official. Staff of the Division of Building and Fire Regulation at the Department of Housing and Community Development are also available for technical assistance.

*H. Alexander Wise, Jr.*  
H. Alexander Wise, Jr., Director  
Department of Historic Resources

*Warren C. Smith*  
Warren C. Smith, Director  
Department of Housing and Community Development

Petersburg Office  
10 Courthouse Avenue  
Petersburg, VA 23803  
Tel: (804) 383-1620  
Fax: (804) 383-1627

Portsmouth Office  
612 Court Street, 3rd Floor  
Portsmouth, VA 23704  
Tel: (804) 396-6707  
Fax: (804) 396-6712

Roanoke Office  
1030 Pennsar Avenue, SE  
Roanoke, VA 24013  
Tel: (540) 857-7585  
Fax: (540) 857-7588

Winchester Office  
187 N. Kent Street, Suite 203  
Winchester, VA 22601  
Tel: (540) 722-3427  
Fax: (540) 722-7523

## **APPENDIX K – CONSTRUCTION CHANGE ORDER PROCEDURE GUIDELINES**

### **K.1 OVERVIEW**

The University should require that the Contractor and A/E use the following procedures in the development of change orders to any construction project which uses the Commonwealth of Virginia General Conditions of the Construction Contract. The procedures are based on requirements of the Manual and Section 38 of the General Conditions.

Construction change orders may be necessary during the course of construction to deal with unforeseen construction conditions, user directed changes, or for other reasons. All changes involving a modification to contract scope, cost, or time for completion must be documented with a Contract Change Order ([CO-11](#)). Procedures outlined herein will generally begin once a change in the work is identified by the University, A/E, or Contractor.

### **K.2 PROCEDURE**

In order to ensure compliance with Paragraph 38 of the General Conditions, the following Change Order procedures are recommended:

1.
  - A. Where the University desires to modify the requirements of the Contract Documents to add, to delete from, or to alter the sequence or timing of the Work, the University will have the A/E prepare a Request for Proposal (RFP) to the Contractor describing the requested change and asking that the Contractor submit a price proposal for accomplishing said change in the Work.
  - B. Where the A/E determines that a change to the Contract Documents is necessary or desired, the A/E will obtain approval from the University to prepare an RFP to the Contractor describing the requested change and asking that the Contractor submit a price proposal for accomplishing said change in the Work.
  - C. Where the Contractor desires to make a substitution and/or where the Contractor desires to delete a requirement for Work described in the Contract Documents, or where the Contractor determines that the direction provided by the University or the A/E constitutes a change in the Work required by the Contract Documents, the Contractor shall prepare a price proposal for same and request that the University issue a Change Order.
  - D. Where unit prices for Work were requested in the Bid Form and included in the Contract [reference General Conditions Section 38(a)(2)], the Contractor and the A/E will agree upon the actual quantity of the Work performed and multiply by the unit price included in the contract to determine the value of such Work accepted. If the value of such Work is more than or less than the value for such Work included in the Contract Price, a Change Order will be prepared by the A/E to increase/decrease the Contract Price to reflect the Work performed and accepted.

- E. Where Work or changes in the Work are to be performed under the procedures described in General Conditions Section 38(a)(3), the A/E shall prepare a Change Order describing the Work to be performed and directing the Contractor to keep an accounting of all labor, material and associated costs of performing the Work. The Change Order shall cite General Conditions Section 38(a)(3) as the basis for determining the cost of such Work and shall identify any specific requirements or formats not specified in Section 38(a)(3) which the Contractor will be required to use. One or more subsequent Change Orders will be issued to adjust the Contract Price and/or Time and each shall cite or reference the initial Change Order authorizing such Work to be done using this method for determining price and time compensation.
2. The Contractor will send a pricing proposal for the Change Order to the A/E and University. To facilitate analysis by the University and A/E, this estimate shall be prepared using the following forms:
- [GC-1](#), General Contractor's Estimate for Change Order
- [SC-1](#), Subcontractor's Estimate for Change Order
- [SS-1](#), Sub-Subcontractor's Estimate for Change Order
- The General Contractor and each affected Subcontractor and Sub-Subcontractor must sign these forms.
3. When a mutually agreed price has been determined, the A/E shall make a written recommendation to the University for acceptance by signing the bottom of Form [GC-1](#). A statement as to how any differences were reconciled shall be provided by to the University by the A/E unless the University was an active participant in the price negotiations.
4. If the Change Order proposal is acceptable, the University shall have a Change Order prepared.
5. The A/E shall prepare the Change Order ([CO-11](#)) and the Change Order Justification ([CO-11a](#)) accompanied by a full description of the change, including drawings if applicable, and copies of the estimate sheets used to reach the mutually agreeable price. The A/E will forward Form [CO-11](#) to the Contractor for signature.
6. The Contractor will forward the signed Form [CO-11](#) to the University. All backup material must be provided with each copy of the change order.
- IMPORTANT: NO CHANGE ORDER WILL BE APPROVED IF THE LABOR, MATERIAL, AND EQUIPMENT ARE NOT ITEMIZED ON THE BREAKDOWN SHEETS (GC-1, SC-1, and SS-1).**
7. Change Order approval authorities are described in [Chapter 7](#) of the Manual and Section 38 of the General Conditions.
8. No work on any change order shall be accomplished without the written approval of the University. Any work accomplished prior to the receipt of the fully executed change order is done at the Contractors risk and will be removed at Contractor expense should the

change order not be approved. No payment for work covered by a change order shall be invoiced or paid until the fully executed change order has been received.

9. The University will distribute approved Change Orders to the A/E and Contractor.

### **K.3 CONSTRUCTION CHANGE ORDER FORMS**

Standard DGS forms and formats are available for download from the [DGS Documents and Forms Center](#).

The following Construction Change Order forms are available for download from the Forms Center:

<b>Form Number</b>	<b>Description</b>	<b>File Type</b>
<a href="#">DGS-30-092</a>	CO-11, Change Order (Construction)	Excel
<a href="#">DGS-30-096</a>	CO-11a, Change Order Justification (included w/ CO-11)	Excel
<a href="#">DGS-30-200</a>	GC-1, Change Order Estimate (General Contractor's)	Excel
<a href="#">DGS-30-204</a>	SC-1, Change Order Estimate (Subcontractor's)	Excel
<a href="#">DGS-30-208</a>	SS-1, Change Order Estimate (Sub-subcontractor's)	Excel

To view/download the latest version of these forms, visit the website listed above and enter the Form Number in the search box on the Forms Center.

Additional instructions for viewing and downloading forms are available in the Help Guide on the [DGS Documents and Forms Center](#).

# **APPENDIX L – MEMORANDUM OF AGREEMENT BETWEEN UBO AND SFMO**

## **MEMORANDUM OF AGREEMENT**

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY –  
OFFICE OF THE UNIVERSITY BUILDING OFFICIAL**

**AND**

**THE VIRGINIA STATE FIRE MARSHAL**

This memorandum of agreement is between the Virginia Polytechnic Institute and State University – Office of the University Building Official (University) and the Virginia State Fire Marshal.

The University Management Agreement with the Commonwealth of Virginia, established in accordance with Code of Virginia Title 23, Chapter 4.10, Subchapter 3 (Alternative Authority for Covered Institutions), authorizes and directs in Exhibit M, paragraph VIII that the University President, or his designee, designate a Building Official responsible for building code compliance, charged with issuing building permits for each capital project required by the Virginia Uniform Statewide Building Code (VUSBC) to have a building permit, and determining the suitability for occupancy of, and issuing certifications for, building occupancy for all capital projects requiring such certification. Paragraph VIII also requires that, prior to issuing any such occupancy certification, the Building Official ensure that the VUSBC and accessibility requirements are met for that capital project and that such capital project has been inspected by the State Fire Marshal (SFM) or his designee. This memorandum documents discussions and agreements between the parties with respect to Paragraph VIII of the University Management Agreement, and applies to Agency 208.

The University Building Official (UBO) enforces the VUSBC and the provisions of the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG) through plans and shop drawing review and comment; by field inspection by university staff and others including the Architect/Engineer of Record, Special Inspectors, and the SFM or his designees; and documents this process by issuance of Building Permits, Temporary Certificates of Occupancy, and Certificates of Occupancy; and by Project permits issued by specific individuals as authorized by the UBO.

### RESPONSIBILITIES

- A. Day to day informal communications will be between the SFM's designee and the University Review Unit (URU).
- B. Plans Reviews:
  - 1) The University is responsible for all reviews and plans and specifications in accordance with VUSBC.
  - 2) The University will provide copies of plans and any other appropriate documents to the SFM's designee prior to commencement of construction for capital projects, as requested by the SFM's designee.
  - 3) A copy of the Building Permit will be provided to the SFM's designee.
  - 4) In cases where the SFM's designee's assistance is sought for maintenance or repair work or for work done under a Non-Capital Building Permit, appropriate available documents will be provided to the SFM's designee.
- C. Inspections:
  - 1. The SFM or his designee is welcome at any time on the university grounds; arrangements for the visit should be made through communication with anyone the SFM's designee deals with in day to day business.
  - 2. URU staff will normally notify the SFM's designee when their assistance is required.
  - 3. The SFM or his designee shall be responsible for inspections to include all aspects of the VUSBC related to:
    - Fire protection and fire safety during construction
    - Fire resistance rated construction
    - Fire protection systems
    - Means of egress
    - Fire department access
  - 4. SFM inspections will be conducted in accordance with approved plans; questions regarding plan details or construction in place will be referred to the URU.
  - 5. SFM inspection reports and/or occupancy recommendations shall be addressed to the UBO and delivered to designated URU Staff. The SFM designee will provide copies of reports or recommendations to other parties only at the request of the UBO.
  - 6. On request, the SFM shall evaluate and provide advice regarding UBO/URU questions on the appropriate application of VUSBC fire safety requirements; the UBO will be the decision maker.
  - 7. Any differences of opinion or interpretation between project design and construction contractors, or university staff, and the SFM will be resolved by the SFM making a recommendation and the UBO making the final decision. Such differences should be presented by the SFM designee to the URU.



8. Recommendations for Certificates of Occupancy (CO) or Temporary Certificates of Occupancy (TCO) by the SFM designee will be in the manner and form requested by the UBO. A copy of the TCO and/or the CO will be provided to the SFM designee.
9. This MOA does not apply to maintenance inspections by the SFM or designee under the Virginia Statewide Fire Prevention Code after issuance of the TCO or CO.

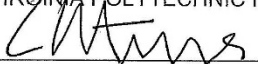
PERIOD OF AGREEMENT

This agreement is based on an exceptionally good working relationship between the parties which the parties wish to continue to the benefit of the Virginia Public.

This Memorandum of Agreement:

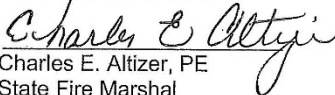
- Is effective on the date signed;
- Shall be reviewed annually on the signing date anniversary, and either modified by mutual agreement, if required; or
- Shall remain in effect until either party gives at least 60 days written notice of termination to the other.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

  
Dr. Charles W. Steger  
President

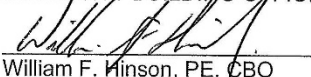
Date: 8/11/11

STATE FIRE MARSHAL

  
Charles E. Altizer, PE  
State Fire Marshal

Date: 8-14-11

UNIVERSITY BUILDING OFFICIAL

  
William F. Kinson, PE, CBO  
University Building Official

Date: 8/8/2011

## **APPENDIX M – SPECIAL INSPECTIONS**

This Appendix has been deleted in its entirety and moved to the DCSM.

## **APPENDIX N – PROJECT INSPECTION**

This Appendix has been deleted in its entirety and moved to the DCSM.

## **APPENDIX O – FORMAT FOR RFQ & RFP NEWSPAPER ADVERTISEMENTS**

This Appendix has been deleted in its entirety.

## **APPENDIX P – BUILDING PERMIT POLICY FOR CONSTRUCTION STATE OWNED BUILDINGS & STRUCTURES**

This Appendix has been deleted in its entirety and moved to the DCSM.

## APPENDIX Q – QUALITY ASSURANCE CHECKLISTS

### Q.1 DESIGN COORDINATION

- The working drawing documents submitted shall represent a reasonable and cost effective architectural and engineering solution for the scope of work and construction budget constraints in the A/E contract. All work must conform to current criteria, guides, codes and standards established by the Division of Engineering & Buildings, and shall conform to good architectural and engineering practices. Workmanship shall be neat with all lines and lettering of uniform weight and clarity for complete legibility and satisfactory reproduction.
- All elements of submittals shall be checked by the A/E and such check should be made by persons other than those preparing the materials and by professional personnel trained in that specific discipline. Submittals will be reviewed by the various disciplines in DEB for compliance with requirements and standard criteria. Errors and deficiencies shall be corrected by the A/E at no additional cost to the University.
- The A/E shall be responsible for the professional and technical accuracy and coordination of all designs, drawings, specifications and cost estimates of all disciplines and other work or materials furnished. This includes overlaying the plans either manually, by CADD or BIM to coordinate the locations of work in the various disciplines. Intersections of components of various disciplines shall be checked for conflicts and to assure that adequate space exists for the material to be installed where shown on the documents.
- The A/E shall perform a quality assurance review for both the technical accuracy and discipline coordination. Such items as section, detail, and note references to other sheets, major dimensions, and equipment locations shall be checked. Verify that all equipment is correctly identified the same way on all sheets and in the specifications.
- Sections, details, and dimensions must be in sufficient quantity, clarity and detail to allow the bidder to understand what is expected, to make takeoffs of material types and quantities, and, once hired to prepare shop drawings and execute the construction. This particularly applies to stairs, special connections for framing, typical details of system interfaces, flashings for roofs and walls, and similar building features.
- Required information may be shown on plans, details, sections, notes and/or schedules as may be appropriate.
- The A/E shall determine that all work as indicated on the drawings is fully and consistently specified.

## **Q.2 QUALITY ASSURANCE**

- The following material/checklists in this appendix provide guidance to assist the A/E in reviewing the documents and represent the information the Commonwealth expects to be shown on the drawings to clearly identify the work to be performed. The specification section numbers reflect those often used and are intended to show the types of information that should be included in the quality assurance check regardless of actual specification section numbering used by the A/E or where (which discipline's drawings) the information occurs on the drawings.
- Information may be shown or noted on plans, elevations, sections, details, schedules, tables, or notes as applicable to the particular item and the project scope of work. In general, where more than one type, size, thickness, class, strength, or characteristic is specified, the location and limits for each should be indicated on the drawings.

## **BIDDING NOTICES AND FORMS**

### **Notice of Invitation to Bid (Advertisement)**

- Project name and location shown
- Brief general description of project shown
- Specific location where bids will be received (street address, building room number and any other special information)
- Time and date for receiving bids
- Date, time and location of pre-bid conference
- Is attendance at pre-bid conference mandatory? (Should not be mandatory unless there is specific justification.)
- Where can documents be obtained?
- How much is the deposit (and shipping charge, if any) for the bid documents?

### **Bid Form**

- Does basic wording and format conform to standard bid form?
- Has Part A been properly edited for piles, caissons, and rock material?
- Has paragraph following Part B been included and properly edited?
- Have quantities been shown for Parts C, D, and E?
- Has rock excavation been adequately addressed? Estimated quantity shown?
- Have Additive Bid Items been clearly defined on the Bid Form?
- Have Additive Bid Items been clearly described/shown on the drawings?
- Has the contract award statement from the Standard Bid Form been copied verbatim to the project Bid Form?
- Are there any subcontracts which have been procured separately which will be included in this contract?
- Has wording from Standard Bid Form been used to include this work?
- Has A/E filled in the number of calendar days or the required substantial completion date in the space provided for use by ALL bidders?
- Has the climatological data source to be used been indicated?

### **Supplemental General Conditions**

- Are Supplemental General Conditions required?
- Have Supplemental General Conditions been approved by the DEB Director?
- Does wording of Supplemental General Conditions conform to Sample Format?

### **Have the following forms been included?**

- Notice of Invitation to Bid
- Instructions to Bidders (CO-7A)
- Pre-bid Question Form
- Bid Form
- The current Commonwealth of Virginia General Conditions of the Construction Contract (CO-7)
- Supplemental General Conditions, if applicable
- Contract Between Owner and Contractor (CO-9)
- Workers Compensation Insurance Certificate (CO-9a)
- Standard Performance Bond (CO-10)
- Standard Labor and Material Payment Bond (CO-10.1)
- Standard Bid Bond (CO-10.2)
- Change Order blank (CO-11)
- Change Order Estimate (General Contractor) (GC-1)
- Change Order Estimate (Subcontractor) (SC-1)
- Change Order Estimate (Sub-subcontractor) (SS-1)
- Schedule of Values and Certificate for Payment (CO-12)
- Affidavit of Payment of Claims (CO-13)
- Certificate of Completion by Architect/Engineer (HECO-13.1) and Certificate of Partial or Substantial Completion by Architect/Engineer (HECO-13.1a).
- Final Report of Structural & Special Inspections (HECO-13.1b)
- Certificate of Completion by Contractor (HECO-13.2) and Certificate of Partial or Substantial Completion by Contractor (HECO-13.2a).
- Special Inspections List (CO-6b)
- List of Drawings
- Submittal Register Format
- Special Requirements for Low Slope Roofing Membranes (DGS-30-326)

### **DIVISION 0 AND DIVISION 1**

- Do Special Conditions conflict with the General Conditions?
- Have special conditions or requirements affecting the Contractor's Work been described in the Special Conditions?-
- Do submittal requirements conflict with Section 24 of the General Conditions?
- Have requirements for temporary facilities been specified?
- Are there any special construction phasing requirements or sequencing of Work? Have these been specified?
- Are there any special limits on Contractor access to the work or site? Have these been specified?
- Are there any special limits on Contractor hours of work?



- Are there any special requirements for giving notices to the University?

The remaining sections (DIVISION 2 through DIVISION 16) of this Appendix have been deleted in their entirety and moved to the DCSM.

## **APPENDIX R (RESERVED)**

## **APPENDIX S – DEB ELECTRONIC DOCUMENT REVIEW (EDR) PROCESS DOCUMENT SUBMITTAL REQUIREMENTS**

This Appendix has been deleted in its entirety and moved to the DCSM.

## **APPENDIX T (RESERVED)**

## **APPENDIX U (RESERVED)**

## **APPENDIX V – VIRGINIA ENERGY CONSERVATION AND ENVIRONMENTAL STANDARDS (VEES)**

This Appendix has been deleted in its entirety and moved to the DCSM.

# **VIRGINIA TECH CONSTRUCTION AND PROFESSIONAL SERVICES MANUAL**

## **Summary of Changes from the DGS/DEB CPSM, 2019 Edition, Revision 1**

### **Overall Document Text**

- Where applicable, sections from the Code of Virginia (in the DGS CPSM) are replaced with appropriate sections in the Governing Rules.
- Where applicable, “University” replaces “Agency” or “Owner” the Commonwealth of Virginia in text.
- Where applicable, authority has been changed from DEB to the appropriate University official.
- Adjusted text to be generic.

### **Chapter 1 – Introduction**

#### **1.0 General**

- Introduced Virginia Tech versions of the Construction and Professional Services Manual (the Manual) and the Design and Construction Standards Manual (DCSM).
- Introduced the authority of the Senior Vice President and Chief Business Officer (SVP & CBO) for the content and execution of the Manual and of the Associate Vice President and Chief Facilities Officer (AVP & CFO) for content and execution of the DCSM.
- Removed references to the Construction and Professional Services Manual - 2019 for Architects and Engineers (A/E Manual).
- Added Freedom of Information Act and Conflict of Interest to the list of sections from the *Code of Virginia*.

1.0.1 – Introduced the legislation, agreement, and rules enabling Virginia Tech autonomy for procurement and some of the Virginia Tech Facilities Department standards.

1.1.2 – Added the requirement for immediate compliance to revisions of the Manual as of the date printed on the revision. As needed, revisions will reflect changes in the *Code of Virginia* or Governing Rules.

1.3.1 – Moved Figure 1.3.1 to Appendix B and updated to reflect Virginia Tech HECO authority.

1.3.2 – Introduced the Governing Rules as the guide for procuring non-professional services for specific non-capital work.

1.5 – Added HECO forms to table. Removed “where to find” column from table.

### **Chapter 2 – Definitions**

#### **2.2 Definitions and Abbreviations**

- Added:

A/E, A/E Change Order, APSPM, Associate Vice President and Chief Facilities Officer (AVP & CFO), Auxiliary Buildings, Board of Visitors (BOV), Building Information Tracking System (BITS), CCR, Certificate of Occupancy, Clerk of the Works, CM/GC, CO, Commonwealth of Virginia (Commonwealth), Construction Contract, Contract, CPI-W, CVS, DCSM, Determinations & Findings (D&F), DHR, DPOR, E&G Buildings, EHS, Forms, GCPay, Governing Rules, HECO, Higher Ed Purchasing Manual, Interior Designer, Major Capital

Project, Manual, Office of University Planning (OUP), Payment and Material Bonds, Performance Bonds, Pre-proposal Conference, Qualifications Statement, Restructuring Act, RFQ, SDV, Senior Vice President and Chief Business Officer (SVP & CBO), Universal Design, University, University Building Official (UBO), University Contracting Officer

- Changed:

Addendum, Agency, Competitive Sealed Bidding, Minority-owned Business, Nonprofessional Services, Notice, Pre-bid Conference, Services, Small Business, VCCO, VPPA, Women-owned Business

- Removed:

A/E Manual, Agency Contracting Officer, Agency Head, Agency Manual, Agency Representative, Building Official, Chief Facilities Officer, Contractor Contingency, Design Contingency, Owner's Construction Contingency

### **Chapter 3 – Architectural and Engineering Services**

3.1.1.2.1 – Added a section requiring the A/E to carry professional liability insurance.

3.1.1.2.2 – Added a section placing responsibility for design errors and omissions on the A/E.

3.1.2 – Added responsibility of procurement department to assure that the University conforms to the policies and procedures required for procuring contracts.

3.1.2.2 – Referred to the Higher Ed Purchasing Manual instead of the Agency Procurement and Surplus Property Manual.

3.1.4 – Added comment that sample RFP formats are available from the VT Procurement Division.

3.1.5.2 – Removed publication of notices in a newspaper of general circulation from the list of methods of notice.

3.1.6 – Removed evaluation criteria list. Added GCPay or form template reporting requirement for professional services. Removed all subsections.

3.1.8.2 – Removed micro business requirements.

3.1.8.4 – Increased Term A/E Contract fee limits. Removed Set Asides. Removed requirement to advertise and procure A/E design services individually. Removed project costs in examples of Term A/E Contracts.

3.1.10 – Added A/E requirement to retain all documents relative to the contract for three years after final payment.

3.2.2.7 – Removed size specifications for interior designer presentation materials.

3.2.7 – Removed DEB Dispute Hearing Panel process.

### **Chapter 4 – Code and Technical Requirements for All Buildings on State Property**

Entire chapter relocated from the Manual to the DCSM.

### **Chapter 5 – Project Submittal Standards**

Sections relocated to the DCSM:

5.0.2, 5.1.2, 5.1.3, 5.1.4, 5.2, 5.3, 5.3.1, 5.3.3, 5.3.9, 5.3.11, 5.3.13, 5.3.14, 5.3.15, 5.3.16, 5.4, 5.5, 5.6, 5.7, 5.8, 5.11, 5.12.1, 5.12.2, 5.12.3, 5.12.4, 5.12.5, 5.12.6, 5.12.7, 5.12.9, 5.13, 5.14, 5.14.1, 5.14.3, 5.14.4, 5.14.5, 5.14.6, 5.14.7, 5.14.8, 5.14.9, 5.14.10, 5.15, 5.16, 5.17



5.3.10 – Removed section on Virginia-based products.

5.10 – Allowed for the affordable Additive Bid items to be adjusted after bid opening provided that such action does not change the lowest bidder. Increased limit to exceed total cost estimate from 110% to 120%. Assigned negotiating authority to the AVP & CFO. Allowed for Additive Bid items to be included if negotiations for Base Bid savings are sufficient to allow the addition and it does not change the lowest bidder.

## **Chapter 6 – Design & Procurement Criteria, Policies & Guidelines**

Sections relocated to the DCSM:

6.0.2, 6.0.6.2, 6.0.6.3, 6.0.6.4, 6.0.6.5, 6.1, 6.2, 6.3, 6.4, 6.7, 6.8, 6.10, 6.14, 6.15, 6.16

6.0.3.3 – Removed requirement to procure sole source item and specify use prior to advertising a project for bids.

## **Chapter 7 – Construction Procurement and Administration**

Sections relocated to the DCSM:

7.3.2, 7.4.4, 7.5.17.2, 7.5.17.5, 7.5.17.6, 7.5.17.7, 7.5.17.8, 7.5.17.9, 7.5.17.10, 7.5.17.11, 7.5.20, 7.5.21, 7.5.23, 7.5.24, 7.5.27, 7.5.28, 7.5.29

7.0 – Removed much of the information about DEB standards and responsibility.

7.0.1.1 – Removed Reciprocity section.

7.0.2.2 – Set a maximum of 8 voting members for the Building Committee. Removed the mention of a DEB member on the Building Committee. Added member requirements for A/E recommendation committee.

7.0.2.3 – Removed option for a committee of one person if contract amount is below \$10,000.

7.0.5 – Removed language about agency requirement for compliance with building codes and standards and obtaining a Building Permit.

7.0.6 – Changed the reporting for Executive Order 35 compliance for Capital Outlay projects to GCPay or a form template provided upon contract award. Removed the target goal of 50% subcontracting to small businesses for Capital Outlay construction solicitations.

7.0.6.1 – Removed the Small Business Set Asides section and subsections. Added the language “Virginia Tech does not employ the use of set asides for the procurement of construction and professional services.”

7.0.7 – Established requirement for bid bonds for all construction contracts exceeding \$1 million. Retained University right to require bid bonds for contracts of lesser amounts. Added section on alternative forms of security.

7.0.10 – Removed Additional Authority Classifications section.

7.1.1 – Changed from Small Project Procurement Procedures to Non-Capital Construction and Maintenance Reserve Project Design and Procurement Procedures. Added Design Services and Construction Solicitation subsections.

7.1.2 – Changed Maintenance Reserve project cost from \$100,000 to \$300,000.

- 7.1.2.2 – Changed project cost requirement from \$100,000 to \$500,000.
- 7.1.2.3 – Removed requirement to send bid addenda to DEB and the State Fire Marshal's Office.
- 7.1.2.5 – Change header to Notice of Award or Intent to Award.
- 7.1.2.6 – Increased over budget limit from 10% to 20%.
- 7.1.2.6.1 – Removed DEB written requirements for authority to negotiate with low bidders.
- 7.1.2.7 – Changed the exceedance over the low bid from 10% to 20%.
- 7.1.2.8 – Added subsections to specify steps required for infusion of funds for State-Funded and University-Funded projects.
- 7.1.2.12 – Added the receipt of an approved HECO-8 form prior to the University entering into a written contract.
- 7.1.2.13 – Removed Refund of Deposits section.
- 7.2 – Removed determination of a High Risk Contract. Added requirement for early release packages. Removed prior DEB experience from the "not a prerequisite for award" tenet.
- 7.2.1 – Changed evaluation committee to VCCO.
- 7.2.2 – Required inspections by the UBO and State Fire Marshall's Office.
- 7.3 – Removed determination of a High Risk Contract.
- 7.3.1 – Removed cost basis only method of design-build contracts (award based on lowest price). Removed the quantity of proposers. Clarified committee responsibilities and steps in the guidelines for selection of the Design-Build contractor.
- 7.4.2.1 – Removed reference to newspaper advertising.
- 7.4.2.3 – Removed requirement for five people on the Building Committee. Removed requirement for a licensed architect or engineer from DEB for the "Design-Build" and "CM at Risk" procedures.
- 7.4.2.8 – Removed reference to newspaper advertising.
- 7.4.3.2 – Removed Department of Purchases and Supply Managed Construction Contracts section.
- 7.4.3.2.1 – Added UBO inspection.
- 7.4.3.2.2 – Replaced section on Purchases & Installation of Facility-Related Equipment with section on Cooperative Procurement Contracts.
- 7.4.3.2.4 – Added Sole Source Procurement section.
- 7.5.2 – Added requirements for A/E to provide supplemental instructions, meet OUP standards and specifications, and verify that mock-ups conform with plans and specifications.
- 7.5.5 – Added procedures for mock-up review and procedures for historic elements to preconstruction meeting list. Added two items to the construction site requirements: known or potential hazardous materials, and parking requirements and expectations for A/E and contractors.
- 7.5.15.2 – Added requirement for Contractor to contact VT if payment for materials stored out-of-state is required.
- 7.5.17.1 – Added requirement for A/E to respond to University inquiries within five working days.
- 7.5.22 – Removed Manually Prepared Drawings section.

## **Chapter 8 – Capital Outlay Planning and Project Approval**

Sections relocated to the DCSM:

8.4.3, 8.4.6, 8.4.12, 8.4.15, 8.4.16, 8.5, 8.6, 8.7.2, 8.7.3, 8.7.4, 8.7.5, 8.7.6, 8.7.8, 8.7.9, 8.8, 8.8.1

8.1 – Added statement that non-general fund projects may be authorized by the BOV outside of the state capital budgeting process. Added statement that all Capital Projects must be in compliance with VT Policy No. 5400, University Space Management.

8.2 – Added review of historic architecture, archaeology, and culturally significant elements to the components of the EIR. Removed requirement to contact DEB to establish a bid date. Clarified approvals required by the BOV and AARB.

8.3 – Clarified General Assembly, Governor, and BOV authorizations for Capital Projects.

8.4.1 – Added Virginia Tech Policy No. 5400 requirement.

8.4.2 – Added note that AARB and DHR approval may be required prior to demolition.

8.4.5 – Added “For state-funded projects” qualifier.

8.4.7 – Reassigned the responsibility of preparing and distributing the minutes to the A/E.

8.4.9 – Clarified Virginia Tech HECO approval authority for HECO-4, HECO-5, and HECO-6 forms for non-general fund projects.

8.4.10 – Clarified Virginia Tech HECO approval authority for HECO-2, HECO-4, and HECO-5 forms for Capital Outlay projects. Clarified DEB requirements for Capital Outlay Design-Bid-Build projects. Removed requirement to schedule bid dates with DEB.

8.4.11 – Increased low bid overage limit from 10% to 20%. Removed requirement to contact DEB prior to rejecting bids. Added link to section 7.1.2.8 for infusion of funds.

## **Appendices**

Appendices relocated to DCSM:

A, C, D, E, H, I, M, N, P, S, V

Appendix B – Changed from Reserved to DGS/DEB CPSM Figure 1.3.1, General Guide to Key Form Submittals.

Appendix C – Sections C.1 and C.2 have been relocated to the DCSM.

Appendix L – Changed DEB to UBO.

Appendix Q – Sections DIVISION 2 through DIVISION 16 have been relocated to the DCSM.