



Division of Engineering & Buildings DEB Newsletter

#84

Spring
2025

2025 CPSM Issued March 17, 2025

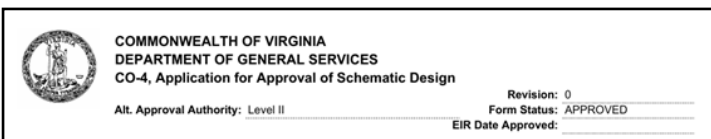
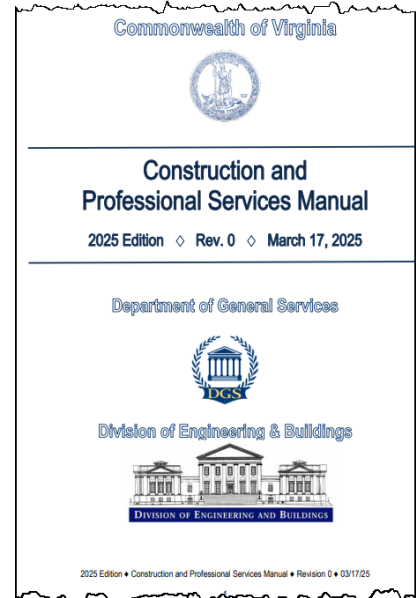
The 2025 edition of the [Construction and Professional Services Manual](#) (Rev. 0) was issued on March 17, 2025. A PDF of the current [CPSM](#) edition along with [DEB Notice 031725](#) summarizing the significant changes from the prior Manual version are both available on the [DEB website](#).

CPSM changes were made to reflect recent legislative changes, updated legal interpretations and administration initiatives, and to improve communication and business operations. Because some changes are a result of changes to the *Code of Virginia*, these changes require immediate compliance. Therefore, a CPSM revision is effective on the date issued for all projects that do not have an approved CO-6 or working drawings approved by DEB. See CPSM Section 3.2.5.1 for how these changes impact A/E services and contracts.

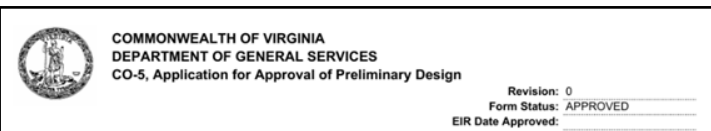
Some of the more notable changes to the CPSM are summarized in this article.

Capital Projects – Forms CO-4, CO-5, and CO-6 Required for CM at Risk Projects

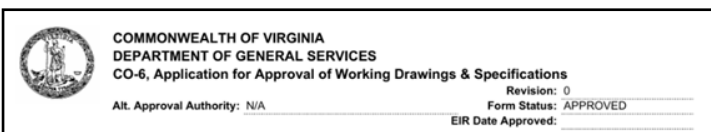
As a result of improvement to the capital outlay process, Forms CO-4, CO-5, and CO-6 are now required for capital projects that have been approved to proceed with construction management at risk as the construction procurement method. Concurrently with the submittal to DEB of technical documents for review, submit the applicable CO form into BITS (CO-4 for Schematic Design, CO-5 for Preliminary Design, and CO-6 for Working Drawings). Those forms will be approved by DEB after the technical review is complete and approved, and the funding has been authorized to proceed to the next phase.



Form CO-4: Application for Approval of Schematic Design



Form CO-5: Application for Approval of Preliminary Design



Form CO-6: Application for Approval of Working Drawings & Specifications

1

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Also in this issue:

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Figure 1.3.1 was updated to reflect this change- refer to the two columns under the CM heading below

GENERAL GUIDE TO KEY FORM SUBMITTALS <small>(Please refer to the notes and abbreviations below.)</small>														3/17/2025
General Project Classification: Funding Process: Construction Procurement Method:	Capital								Non-Cap	PPEA		ESCO		Refer to Note
	Pool				Non-Pool				ALL	Capital	Non-Cap	Capital	Non-Cap	
	DBB	IOC	CM	DB	DBB	IOC	CM	DB						
For this purpose, use Capital Outlay Form #:														
Request Approval to Initiate Project or Adjust Document Award of A/E Contract	CO-2	CO-2	CO-2	CO-2	CO-2	CO-2	CO-2	CO-2		CO-2		CO-2		A
Schematic Design Phase:														
Request Design Document Approval	CO-4	CO-4	CO-4		CO-4	CO-4	CO-4							M
Document Budget Development	CR-2	CR-2	CR-2	CR-2										
Preliminary Design Phase:														
Request Design Document Approval	CO-5	CO-5	CO-5		CO-5	CO-5	CO-5							M
Document Budget Development	CR-2	CR-2	CR-2	CR-2										
Request Approval of Working Drawings	CO-6	CO-6	CO-6		CO-6	CO-6	CO-6							A
Request Approval to Award Construction Contract	CO-8	CO-8	CO-8	CO-8	CO-8	CO-8	CO-8	CO-8				CO-8		A
Construction Change Order Approval	CO-11	CO-11 JOC	CO-11	CO-11	CO-11	CO-11 JOC	CO-11	CO-11	CO-11/CO-11 JOC/CO-11a/CO-11a JOC	CO-11	CO-11	CO-11	CO-11	L
Construction Change Order Justification	CO-11a	CO-11a JOC	CO-11a	CO-11a	CO-11a	CO-11a JOC	CO-11a	CO-11a	CO-11a			CO-11a	CO-11a	L
A/E Change Order Approval/Justification	CO-11ae	CO-11ae	CO-11ae		CO-11ae	CO-11ae	CO-11ae					CO-11ae		L
Schedule of Values/Application for Payment	CO-12	CO-12	CO-12	CO-12	CO-12	CO-12	CO-12	CO-12				CO-12		B
Document Project Completion	CO-14	CO-14	CO-14	CO-14	CO-14	CO-14	CO-14	CO-14				CO-14		
For this purpose, use Building Official Form #:														
Apply for Building Permit	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	CO-17	E
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	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	CO-13.4	CO-13.4	CO-13.4	CO-13.4	J
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	CO-13.5	CO-13.5	CO-13.5	CO-13.5	

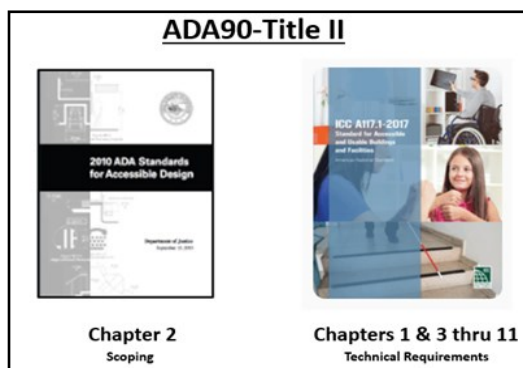
Revised Construction Management at Risk & Design-Build Procurement Procedures

Effective December 17, 2024, the new procurement procedures for both Construction Management at Risk (CM) and Design-Build (DB) were adopted and signed by the Secretary of Administration. Links to the new procedures are available on the DEB website and are also included in the CPSM. When creating the Building Committee for CM or DB evaluation and selection, the Agency shall contact DEB for assignment of the licensed professional engineer or architect provided by the Division of Engineering and Buildings as required in the procedures.

Accessibility

ADA90-Title II is the compliance path for accessibility in state-owned buildings and structures and consists of 2010 ADA Standards for Accessible Design (2010 ASAD) chapter 2 for scope of work and Standards for Accessible and Usable Buildings and Facilities (ICC A117.1-2017) chapters 1 and 3 through 11 for technical standards. Because it is more advantageous to those with disabilities, the following accessibility clarifications have been made to the CPSM:

- The scope of work for recreational facilities is further defined by ICC A117.1-2017, Chapter 10
- Requirements specifically identified for new buildings and facilities in ICC A117.1-2017 shall also apply to renovations of existing buildings and facilities that alter the layout or replace elements of construction that affect the agency program
- Exceptions to accessibility requirements for rooms that provide program support for private offices do not apply
- Enhanced classroom acoustics compliant with ICC A117.1-2017 shall be provided in rooms with a volume of 20,000 cubic feet or less and intended for educational purposes



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DEPARTMENT OF GENERAL SERVICES

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Quick Links

- [BITS](#)
- [Budget Development](#)
- [CPSM](#)
- [CPSM & VCCO Training](#)
- [DEB Contacts](#)
- [DEB Home Page](#)
- [DEB Notices](#)
- [Documents & Forms](#)
- [Electronic Document Review \(EDR\)](#)
- [Permits & Certificates](#)

The DEB Newsletter is a quarterly publication of the Department of General Services' Division of Engineering & Buildings. Prior Newsletter issues are available on the [DEB Newsletter](#) webpage.

To subscribe, visit the self service [DEB Newsletter](#) [Subscription](#) webpage.

Construction or Renovation of Projects Located in a Floodplain

Because Executive Order 45 (November 15, 2019) "Floodplain Management Requirements and Planning Standards for State Agencies, Institutions, and Property" has been rescinded and the process for obtaining approval to build in a floodplains has been revised, DGS/DEB is no longer tasked with granting variances for construction in a floodplain. The owning



Agency shall obtain approval from the Department of Conservation and Recreation (DCR) to allow such construction or renovation and shall submit a copy of the approved permit to DEB as part of the preliminary submittal.

Marking of Walls and Partitions that Require Protected Openings or Firestopped Penetrations

To clearly communicate to the contractor the specific wording for identification of all walls or partitions that require protected openings or fire stopped penetrations, the working drawings shall now designate the specific language and hourly ratings that shall be provided on each of the applicable walls or partitions by the contractor.

Guards on Roofs

To assure the safety of those who access a roof, the CPSM clarifies that new guards provided on roofs shall be permanently affixed to the building structure. Additionally, for reroofing projects, existing guards that are not presently attached to the building shall also be permanently affixed to the building structure.

Mechanical and Plumbing

Because of the possibility of cross-contamination when pipes are not properly identified and because the requirement to properly identify pipes is not in the 2021 Virginia Plumbing Code, labeling of pipes is now required in accord with the CPSM

In an effort to limit Legionella growth, the circulation loop temperature setpoint for the deactivation of the domestic water circulation system pump shall be in accord with the guidance from the Centers for Disease Control and Prevention (CDC).



In order to have a means of providing water to essential facilities during municipal water outages, the CPSM now requires a means to connect and pressurize an alternate water supply source (such as a water tanker) to the building



ANSI/ASHRAE Addendum h to
ANSI/ASHRAE Standard 15-2016

Safety Standard for Refrigeration Systems

To better address toxic and flammable refrigerants (such as type 2L), refrigerant concentration volume calculations shall comply with the 2022 edition of ASHRAE 15 *Safety Standard for Refrigerant Systems.*

Life Cycle Cost Analysis

To validate energy source and technology for domestic water heating, these systems are to be included in the Schematic and Preliminary basis of design narratives and require a life cycle cost study for energy analysis.

Because the intent is to design and construct robust 50-year buildings for the Commonwealth of Virginia and for consistency in evaluating building systems, 30 years is now the period to be used for energy-related life cycle cost studies for all systems.

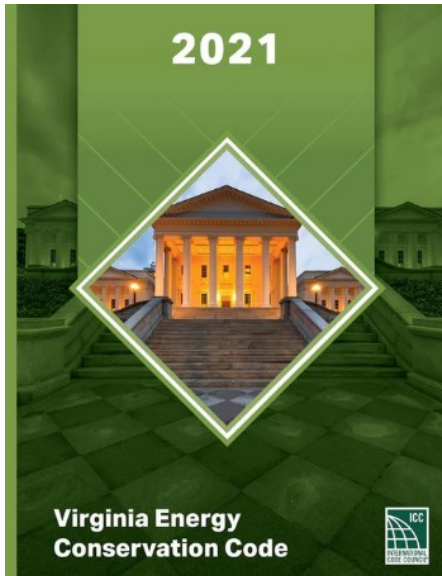
Approved by the ASHRAE Standards Committee on September 14, 2018; by the ASHRAE Technology Council on September 28, 2018; and by the American National Standards Institute on October 1, 2018.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely documented, consensus action on requests for change to any part of the standard. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE website (www.ashrae.org) or in paper form from the Senior Manager of Standards.

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE website (www.ashrae.org) or from ASHRAE Customer Service, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305. E-mail: orders@ashrae.org; Fax: 478-539-2129; Telephone: 404-424-6400 (worldwide); or toll free 1-800-527-4753 (for orders in US and Canada). For reprint permission, go to www.ashrae.org/permissions.

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Virginia Energy Conservation Code (VECC)

To confirm compliance with the 2021 VECC, when HVAC control sequences are to be performed for systems using an equipment manufacturer's packaged controls, those sequences shall be identified in the working drawings.

Commissioning of Building Systems

To clearly identify early in the design process which systems (such as plumbing, electrical, HVAC, and building envelope energy performance) are to be commissioned, those systems requiring commissioning shall be identified in the Schematic and Preliminary basis of design narratives.



Federal Investment Tax Credits

Due to potential changes to the Federal Investment Tax Credit and because the application process occurs after the system is operational, the CPSM was modified to clarify terminology and to require that the investment tax credit application documents are submitted with the project closeout documents.

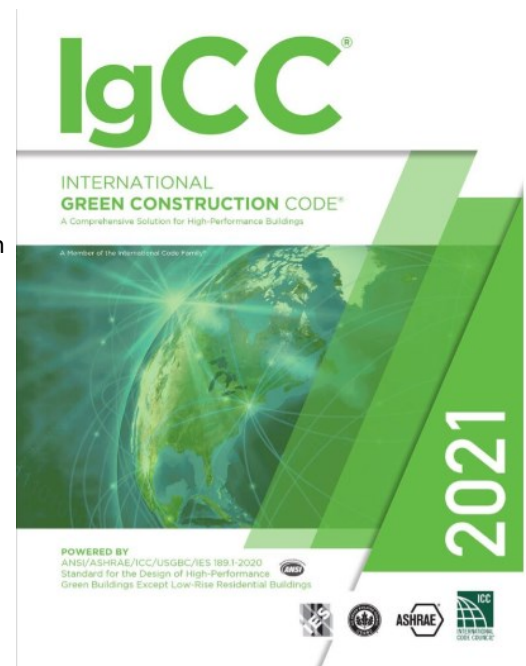
High Performance Buildings Act (HPBA)

To clarify that the mandatory provisions of VEES are applicable to all three (3) compliance paths for the HPBA, both the specific wording for the compliance paths (LEED, Green Globes, VEES/IgCC) and the compliance path applications in Appendix V *Virginia Energy Conservation and Environmental Standards* have been updated.

To assist agencies in meeting deadlines for initial and annual energy reports due to the Governor and to DEB, submission due dates for specific operating periods (2022 through 2028) have been identified.

To clarify the calculations provided for site hardscape that is not covered by solar energy systems, a site plan to accompany the calculations is required to be submitted to DEB.

To make the HPBA compliance paths LEED, Green Globes, and VEES/IgCC comparable for on-site renewable energy requirements, compliance with IgCC Section 701.4.1 *On-site renewable energy systems* is no longer required.

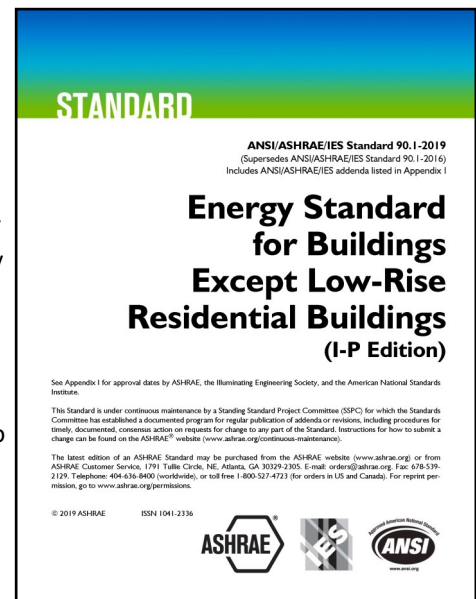


Rare Gems in the Virginia Energy Conservation Code



ASHRAE 90.1, *Energy Standard for Buildings Except Low-rise Residential Buildings*, is one of the two compliance paths (the other being the VECC itself) for the Virginia Energy Conservation Code. Within ASHRAE 90.1 there are two compliance paths that are rare gems. Rare because they are not often used. Gems because they can save money and provide design flexibility when complying with energy code requirements.

The first gem is ASHRAE 90.1, Section 6.1.1.3.1, *Alterations to HVAC in Existing Buildings*, for direct replacement for existing equipment. A direct replacement is when existing equipment is replaced with new equipment that has the same configuration, capacity, flows, and mode of operation. The goal of Section 6.1.1.3.1 is to ensure that when replacing HVAC equipment, the new equipment does not degrade the energy performance of the building, and that the installation of the new equipment does not require extensive modifications to other systems, equipment, or elements of a building. Section 6.1.1.3.1 lists specific ASHRAE 90.1 sections that apply to new equipment that is installed as a direct replacement for existing equipment, without requiring compliance with all requirements of the standard. For instance, when applying Section 6.1.1.3.1 to the replacement of an indoor air handler, the ASHRAE 90.1 provisions for exhaust air energy recovery are not applicable. This prevents extensive modifications to duct systems and modifications to the building to accommodate larger equipment when a direct replacement of equipment occurs, that would otherwise be needed if full compliance with the code was required. If the intent is to use this compliance path, consult with DEB to confirm that the work is a direct replacement of existing equipment.



The second gem is ASHRAE 90.1, Section 5.6, *Building Envelope Trade-Off Compliance Path*. The *Building Envelope Trade-Off Compliance Path* uses an energy simulation program to determine acceptable trade-offs. This path involves more work because it is necessary to prepare the energy simulation. However, it does provide design flexibility beyond what is offered by the Prescriptive Building Envelope Compliance Path. For example, this path can be useful when compliance with an ASHRAE 90.1 prescriptive envelope provision cannot be achieved. It can also be used as a tool to optimize the envelope construction cost by reducing the energy performance of one envelope element and improving the energy performance of another envelope element when the result is a lower total cost. Section 5.6 cannot be used to make trade-offs between the building envelope and any other systems that are regulated by ASHRAE 90.1. If this is the intent, then the ASHRAE 90.1 Energy Cost Budget Method or the Performance Rating Method performance path must be utilized.

Permitting Requirements for Temporary Structures

Each year, users of state-owned properties throughout the Commonwealth seek to erect structures on a temporary basis for special events of all kinds. Section 3103 *Temporary Structures* of the [2021 Virginia Construction Code](#) defines a temporary structure as one that is erected for a period of **less than 180 days**. It further states that such structures (with few exceptions) shall not be erected, operated, or maintained for any purpose without obtaining a permit from the building official. The permitting process is outlined in Section 4.19.3.3 of the [2025 Construction and Professional Services Manual](#).



Temporary structures fall into four main categories: **Tents, Stages, Amusement Devices,** and **Other Structures** (e.g. bleachers, towers, etc.) The Agency is responsible for submitting a CO-17TMP - Building Permit for a Temporary Structure - in BITS for each proposed structure. This can be done prior to obtaining a project code, with "PND" or "PEND" entered for the project and sub-project code in the form. To ensure that all permits can be processed in a timely manner, submissions shall be made at least 10 days prior to the intended use.

The Agency is also responsible for submitting relevant supporting documentation to DEB in conjunction with the permit request. All documentation shall be sent directly to BOForms@dgs.virginia.gov. At the time of permit processing, a project number will be assigned and a project created in BITS by DEB personnel. Typical criteria and documents required for the different categories of temporary structures are summarized below.

TENTS

1. Tents over 900 SF in horizontal area and tents of any size with more than 50 occupants are required to have a permit per VCC Section 108.2 Item 4. This includes single tents over 900 SF as well as multiple smaller tents with an aggregate area over 900 SF when the tents are not separated from each other by at least 12 feet. If a tent is used for cooking purposes, it shall be separated by at least 20 feet from all other tents and structures. Note that if a tent needs to be located closer than 20 feet to an existing building, additional requirements may apply. See Section 3103.8.2 Exception 2 of the [2021 International Fire Code](#).
2. Provide a site plan showing the proposed location of the tent(s) with respect to buildings, roads, walkways, etc. Include dimensions from all adjacent structures. Aerial photos may be used as a basis for site plans.
3. Indicate the maximum occupant load in the tent on the CO-17TMP form. Based on the proposed function and furniture layout, VCC Table 1004.5 is used to calculate the maximum number of occupants allowed inside the tent.
4. Provide a tent layout drawing showing the proposed use of the tent (furniture layout, equipment, etc.) If the tent will be enclosed by sidewalls on one or more sides, show the location of the marked exits on the layout drawing. Identify the locations and method of tent anchorage to the ground (sometimes this is provided on a separate diagram). Most tents are anchored by ground stakes, 55-gallon water barrels, or 500-lb concrete blocks.
5. Provide a flame certificate for the tent fabric.



STAGES

1. All stages greater than four inches tall are required to have a permit, regardless of location or use. The only exceptions are for mobile, trailer-mounted stage units such as Stageline products and for stages provided and used exclusively by a hired performer (i.e. not rented or provided by the Agency). Both of these scenarios, however, are uncommon.

2. Provide a site plan showing the proposed stage location. If the stage is located outside, include dimensions from all adjacent structures and show buildings, roads, walkways, etc. If it is located inside a building, show the stage on a basic floor plan with enough context to convey the means of egress from the space.

3. Indicate the maximum occupant load on the stage. This number is typically specified by the user based on the anticipated number of people on the stage at any given time.

4. Provide a stage layout drawing showing the proposed use of and access to the stage (furniture layout, equipment, etc.) If the stage is taller than 30 inches, graphically show the location of the required guard rails on the drawing per VCC Section 1015. Note that this section limits openings within guard rails to 4 inches, which is a common oversight with temporary stages. Two-rail guards are not acceptable.

5. If the stage will be accessed by any members of the public (e.g. students, staff, or special guests, etc.), ADA access shall be shown on the layout drawing such as a ramp with a 1:12 maximum slope or a wheel chair lift. If the stage is limited to "paid performers" (a hired band, camera operator, technician, etc.) then ADA access is not required to be provided.

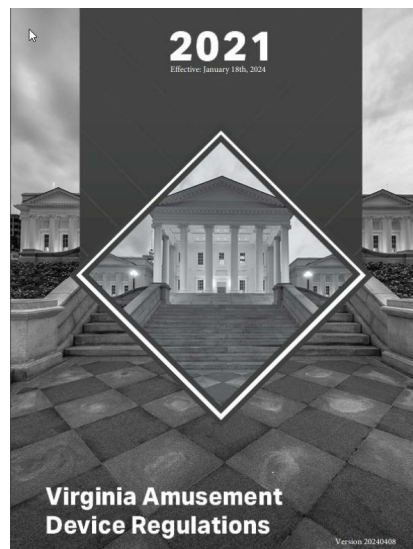
6. If the stage will have a fabric skirt around the perimeter, provide a flame certificate.

7. Provide stage product data from the manufacturer (e.g. Wenger, Bil-jax, StageRight, etc.) Most stages are closed systems which are provided and erected by a rental company. If, however, an Agency specifies a custom stage that is fabricated onsite, signed and sealed documents will need to be submitted to DEB.

AMUSEMENT DEVICES

1. The Virginia Administrative Code (VAC) 13VAC5-31-75 *Local building department* subsection K makes the Department of General Services (acting through the Division of Engineering and Buildings) responsible for issuing permits for amusement devices erected on state-owned property throughout the Commonwealth.

2. A separate CO-17TMP permit for each proposed amusement device is required unless a device is specifically exempt by Section 13VAC5-31-30 of the [2021 Virginia Amusement Device Regulations](#).



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3. Provide a site plan showing the proposed amusement device location with respect to buildings, roads, walkways, etc. Ensure that sufficient clearance is provided as required by the manufacturer. If it is located inside a building, show the device on a basic floor plan with enough context to convey the means of egress from the space.
4. Provide proof of liability insurance for the supplier/operator of the device.
5. Provide an owner's operating manual for each amusement device.
6. Provide a completed [CO-17TMP Attachment One](#) form (with the exception of the project code since it may be unknown at the time of submission). In order to complete this form, the Agency will need to know the serial number of the amusement device as well as the name and contact information of the qualified amusement device inspector. Only amusement devices with **valid certificates of inspection** will be considered for use on state-owned property.

OTHER STRUCTURES (BLEACHERS, TOWERS, ETC.)

Agencies are advised to consult with their DEB Lead Reviewer for submission requirements on all other types of temporary structures. More complex structures often require multi-disciplinary review and may involve a more developed set of documents which are sealed by a registered design professional.

Paperless Progress: Embracing DocuSign for Faster Agreements



DEB began using DocuSign in February of 2023 in order to distribute letters to agencies so that DEB could enhance our efficiency and improve communication. DocuSign is a leading electronic signature platform that offers numerous benefits:

Convenience - Sign or review documents from anywhere, at any time, using any device with internet access.

Speed - Reduce the time it takes to sign and return documents, accelerating our processes and improving service delivery.

Security - DocuSign uses advanced encryption and authentication methods to ensure your documents are safe and secure.

Environmental Impact - By going digital, paper usage is reduced, contributing to a more sustainable future. DEB believes that this transition to DocuSign has greatly benefited our collaboration and streamlined our processes.

The majority of DocuSign documents will be sent to your agency from either Paula Shifflett or Jonathan Galeas. You will receive an email notification from DocuSign with a link to the document that needs your signature or review. If you are expecting an email from DEB but it has not shown up in your inbox, please check your spam or junk folder. Follow the simple instructions to review and sign the document electronically, if necessary. Once signed, you will receive a confirmation email, and a copy of the signed document will be automatically sent to all relevant parties. If you need assistance or have any concerns, please do not hesitate to contact DEB at capout@dgs.virginia.gov or call 804-786-3581.

Job Opportunities

DEB is currently looking for qualified applicants for the following positions:

- **State Review Mechanical Engineer - EE006**
- **State Capital Outlay Reviewer — Coming Soon**
- **Business Operations Specialist — Coming Soon**

For more information check the [DGS Job opportunities](#) on [Jobs.Virginia.gov](#)



New Employees of DEB

Jernelle Shaw joined the team as a Business Operational Specialist in February. A graduate of Norfolk State University, Jernelle has focused on streamlining processes and coordinating projects to enhance operational efficiency. With a background in logistics, Jernelle brings a practical understanding of project execution, logical problem solving, and ensuring timely deliverables. Her experience contributes to the DEB's commitment to maintaining smooth operations across various projects.

VCCO Updates

The following individuals recently passed the Virginia Construction Contracting Officer (VCCO) certification examination:

- Jacob Compton (Department of Wildlife Resources)
- Ryan Taylor (Department of Military Affairs)
- Diane Fischer (Department of General Services)
- Christy Sharpe (Virginia Community Colleges System)
- Sharon Plymire (Department of General Services)
- Anna Mackenstadt (Virginia Commonwealth University)
- Sara Shrader (Jamestown-Yorktown Foundation)
- Ted Alt (Virginia Tech)
- Adrienne Moats (Valley Community Services Board)
- Ellen Pittenger (Virginia Museum of Fine Arts)
- Tyler Girsham (Stafford County Department of Utilities)
- Libbie Hudson (Norfolk State University)

Virginia Construction Contracting Officers are state and local government employees who have completed the necessary training and successfully passed a multi-part examination focused on state procurement law, policy and procedures. VCCOs perform several key functions in delivering projects including the procurement of professional services; the receipt, opening and review of bids; and in some cases the approval of CO-8 forms for recommending the award of construction contracts.

DEB Forms Updates

The form listings below identify the forms that have been added or revised and describes the forms.



DEPARTMENT OF
GENERAL SERVICES

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Form Name	DGS Form #	Version
DEB-Forms Master List	<u>DGS-30-000</u>	02/25
Schedule of Values and Certificate for Payment	<u>DGS-30-104</u>	02/25
Project Planner	<u>DGS-30-199</u>	03/25

