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◉ **CPSM Seminars**

The Spring 2020 CPSM Seminars will be held on **April 15-16** and **May 6-7** at the Patrick Henry Building in Richmond. The formal announcement and registration instructions will be emailed out in mid-February to all individuals who have completed the online [CPSM Seminar Expression of Interest form](#). If you wish to attend one of these upcoming CPSM seminars and have not already completed this brief online form, please do so within the next two weeks to be included on the email list for the upcoming announcement & registration instructions.



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## Agency & A/E Coordination with Localities

In the “Terms and Conditions of the A/E Contract” (Form [DGS-30-018](#), attached to all A/E contracts), one of the A/E’s basic services during the design phase of a project is to coordinate with governmental authorities. Specifically, Section 42 (2) states the A/E shall “Identify and analyze requirements of governmental authorities having jurisdiction to approve the design of the project and participate in consultations with such authorities.”

There are a variety of governmental authorities. This article focuses on coordination with the local governmental authorities. Though this is a responsibility of the A/E, coordination with the locality is also the Agency’s responsibility because of their presence in the locality.

### Notice to Localities of New Construction

When a capital project with anticipated costs of \$500,000 or more in new construction is being designed, it is a requirement of the *Code of Virginia* [§ 15.2-2202.c](#) for the Agency to notify the locality in which the project will be located. Notice, including a project description and point of contact information, is given to the chief administrative officer of the locality by the Agency Project Manager at the initiation of the environmental impact report process. This occurs typically at the end of the Preliminary Design phase, and before Working Drawings are prepared. The purpose of this *Code of Virginia* requirement is to provide the locality with an opportunity to evaluate the project for consistency with local ordinances (other than building codes) and for coordination of utilities. State agencies shall use [DEB Form CO-5a](#), which can be downloaded from the DGS/DEB Forms Center, to accomplish this notice.

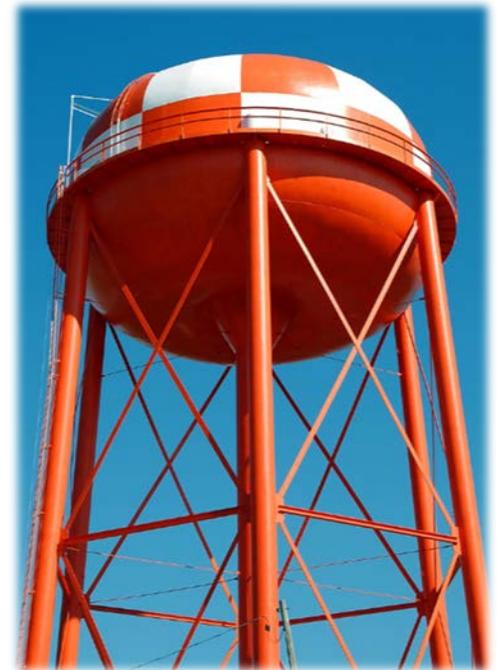
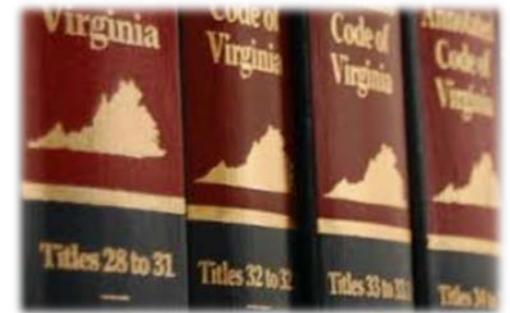
After being given Notice, the locality may request a set of the Preliminary Drawings by completing the submitted Form CO-5a and returning it to the state agency. Within 3 weeks of receiving the Preliminary Drawings, the locality must submit their comments to the Agency.

Failure of any state agency to strictly comply with *Code of Virginia* [§ 15.2-2202.c](#) will justify entry of an injunction on behalf of the locality.

State agencies are not required to give such notice to localities prior to acquisition of property.

### Existing Utilities

Coordination with localities for utilities, including water, sewer, gas, steam, electricity, etc., is another responsibility of the A/E and Agency Project Manager during the design process. The location and capacity of existing utilities that will be serving the new building’s mechanical, electrical, and plumbing systems is critical information needed for design of the building. The A/E shall coordinate with and obtain approval of the utility designs from the local utilities for both connection and service. The lack of this information and coordination may result in unfortunate surprises during construction.



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## Local Fire Service Entity

The A/E and Agency Project Manager are responsible for coordinating with the local Fire Service entity for locations of on-site hydrants and Fire Department connections. Fire lanes, fire truck size and associated turning radius, ladder reach, communication protocol and fire command centers are other topics of discussion and coordination with the local Fire Service entity.



## In-building Emergency Communication Coverage

For localities utilizing public safety wireless communications, a dedicated infrastructure shall be provided in new buildings and structures with some exceptions. The owner is responsible for the installation of radiating cable and the locality is responsible for additional equipment to make the system operable. Refer to VCC 916.



## Virginia Department of Transportation

The A/E and Agency Project Manager are responsible for coordinating with and obtaining approvals from the District Engineer of the Virginia Department of Transportation for entrances to the project site. This would include the entrance design and any required new turn lanes or transitions, as well as proposed temporary closures of streets and sidewalks specific to each phase of construction.



## Flood-Prone Areas

In accord with Executive Order 45 (2019), the state agency shall coordinate with the locality in which the building is located for compliance with locally adopted floodplain ordinances. This applies to all development, including new construction and reconstruction, on state-owned property in Flood-Prone Areas including Special Flood Hazard Areas, Shaded X Zones, and the Sea Level Rise Inundation Area. Refer to [EO-45](#) and DEB's December 2019 newsletter for further information.



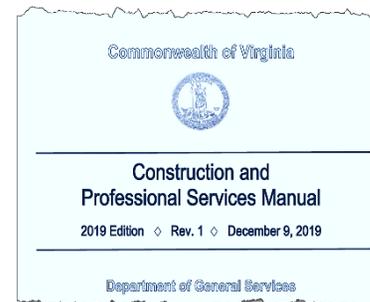
## Zoning

It should be also be noted that County, City and Town Zoning Regulations do not apply to State-Owned Property. However, Agencies and designers need to be sensitive to the existing conditions of the adjoining property owners and coordinate new projects and additions with local municipalities and utilities.



## CPSM

Refer to Sections 4.7, 5.8.3 and 5.11 in [2019 CPSM, Rev. 1](#) for more information.



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# New Construction Management and Design-Build Procedures

The Secretary of Administration (SOA), Keyanna Conner, adopted new procedures for the procurement of construction by Construction Management (CM) and Design Build (DB) methods that became effective January 1, 2020 based upon revisions to the *Code of Virginia*. Chapter 43.1 “Construction Management and Design-Build Contracting” of the *Code of Virginia* applies to all state agencies and Covered Institutions. CM and DB Procedures for Covered Institutions are addressed below. CM and DB procedures adopted by the SOA are to be followed by state agencies in the Commonwealth of Virginia, and supersede the previous procedures issued March 28, 2012.

The complete text of the [SOA’s new procedures for CM and DB](#) can be found on the DEB website, as announced in DEB Notice 010120. The procedures have been revised to reflect the current *Code of Virginia* laws, but not repeat the information that is included in the *Code of Virginia*. There is much consistency between the new procedures and the superseded procedures. However, there are also some important changes. A comparison of the new procedures with the superseded procedures yields the following primary differences:

## Procurement of Construction by CM for State Agencies

### New CM Procedures Effective 1/1/20

Reference COV [Chapter 43.1](#) “The Chapter”

Procedure for approval to use CM per Chapter 43.1

Construction value of \$26,000,000 min.

DGS Director may grant waiver to min. \$

Option for one-step selection process deleted

State in RFQ if electronic RFQ responses are acceptable

Short list of 3-5 offerors to receive RFP

If available, include qualified DSBSD-Certified Small Business

RFQ evaluation process includes 3 sim. projects in 10 years

State in RFP if electronic RFP responses are acceptable

Deleted option to increase CM self-performing above 10%

### Old (Superseded) CM Procedures

Reference COV 2.2-4301

Procedure for approval described

Construction value of \$10,000,000 min.

DEB Director may grant waiver to min. \$

One-step selection process is an option

No mention of electronic responses

Short list of 2-5 offerors to receive RFP

No mention of Small Businesses

No mention of similar projects

No mention of electronic responses

Option to increase CM self-performing



### New CM Procedures for Covered Institutions

Covered Institutions (public institution of higher education as defined in [§ 2.2-4379](#)) shall develop their own CM procedures. Because Chapter 43.1 and the SOA’s Procedures have been updated, the revised CM procedures prepared by Covered Institutions shall be submitted to DGS for review and comment prior to initiation of any new projects under consideration for procurement by CM. The CM procedures adopted by the Covered Institutions shall not require the approval or involvement of the DGS Director or DEB Director, but should be approved by the appropriate authority as directed by the Board of Visitors.

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## Procurement of Construction by DB for State Agencies

### New DB Procedures Effective 1/1/20

Reference COV [Chapter 43.1](#) “The Chapter”

Procedure for approval to use DB per Chapter 43.1

State in RFQ if electronic RFQ responses are acceptable

Short list of 3-5 offerors to receive RFP

If available, include qualified DSBSD-Certified Small Business

RFQ evaluation process includes 3 sim. projects in 10 years

State in RFP if electronic RFP responses are acceptable

### Old (Superseded) DB Procedures

Reference COV § 2.2-4306

Procedure for approval described

No mention of electronic responses

Short list of 2-5 offerors to receive RFP

No mention of Small Businesses

No mention of similar projects

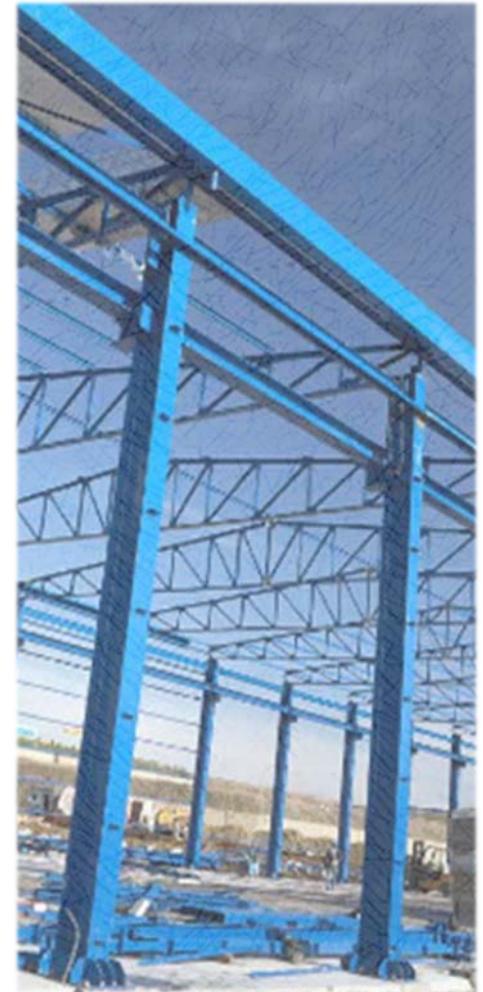
No mention of electronic responses

### DB Procedures for Covered Institutions

Covered Institutions (public institution of higher education as defined in [§ 2.2-4379](#)) shall develop their own DB procedures. Because Chapter 43.1 and the SOA’s Procedures have been updated, the revised DB procedures prepared by Covered Institutions shall be submitted to DGS for review and comment prior to initiation of any new projects under consideration for procurement by DB. The DB procedures adopted by the Covered Institutions shall not require the approval or involvement of the DGS Director or DEB Director, but should be approved by the appropriate authority as directed by the Board of Visitors.

### CM and DB Evaluation Committees’ Composition

One requirement that has not changed with the adoption of the new CM and DB Procedures is the composition of the CM and DB Evaluation Committees that are established by the Agency. In addition to the agency personnel serving on the Committee, a licensed architect or engineer from DEB is required to participate on all CM and DB Committees as a voting member. Contact the DEB Director to request assignment of a DEB representative to the Evaluation Committee created for CM or DB selection. The Agency shall also contact the Office of Attorney General to determine whether a representative from the OAG should participate. Refer to CPSM 7.0.2 for further information about building committee requirements for CM and DB selection.



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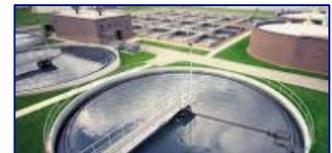
# Nonpotable Water Systems Regulated by the Virginia Plumbing Code

**Nonpotable water**; which is simply water not safe for drinking, personal, or culinary utilization is being considered as a source for lawn irrigation, fire protection, and plumbing fixture flushing in today's building systems design. Nonpotable water systems for the collection, treatment, storage, distribution, and use or reuse of nonpotable water are codified in the 2015 Virginia Plumbing Code (VPC) Chapter 13. Nonpotable water systems covered by the VPC include reclaimed water, rainwater, and gray water systems. Nonpotable water shall be permitted to serve nonpotable type fixtures and outlets in accordance with Chapter 13 in accord with VPC 602.2.1. Nonpotable water systems of any type are not required by the 2015 edition of the Virginia Construction Code (VCC).



## Definitions

- **Gray water:** Water discharged from lavatories, bathtubs, showers, clothes washers, and laundry trays.
- **Potable water:** Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the bacteriological and chemical quality requirements of the Public Health Service Drinking Water Standards or the regulations of the public health authority having jurisdiction.
- **Reclaimed water:** Reclaimed water means water resulting from the treatment of domestic, municipal, or industrial wastewater that is suitable for a water reuse that would not otherwise occur. Specifically excluded from this definition is "gray water."
- **Rainwater:** Natural precipitation, including snow melt, from roof surfaces only. Requirements for rainwater harvesting that were provided in the previous editions of the CPSM are superseded by the provisions of the VPC Chapter 13 (2019 CPSM, Revision 1, Section 6.15.1).



## VPC Chapter 13

The provisions of VPC Chapter 13 govern the materials, design, construction, and installation of nonpotable water and reclaimed water systems. Beginning with the state amendments, there are several key aspects of nonpotable water systems to keep in mind during the design process.

## State Amendments

The Virginia state amendments included in VPC Chapter 13 are numerous. Before beginning the design work for any of these nonpotable water systems, review the plumbing code requirements from the Virginia revisions to the International Plumbing Code.

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## General Requirements

The general requirements for nonpotable water systems include restrictions such as prohibited water connections, mandated storage tank design, material requirements, trenching, labeling, signage, testing and inspections, and even operation manuals. The body of the text establishes clear code guidelines for the three (3) nonpotable water system types: gray water, rainwater, and reclaimed water.

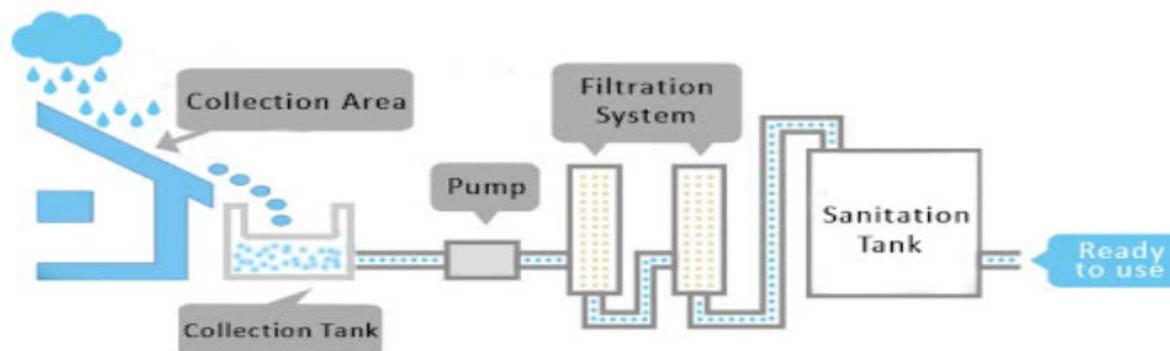
## Gray Water Nonpotable Water Systems

The VCC/VPC is applicable to the plumbing fixtures, piping or piping systems, storage tanks, drains, appurtenances, and appliances that are part of the distribution system for gray water within buildings, and to storage tanks and associated piping that are part of the distribution system for gray water outside of buildings. The plumbing code does not regulate equipment used for, or the methods of, processing, filtering, or treating gray water, that may be regulated by the Virginia Department of Health or the Virginia Department of Environmental Quality. A gray water nonpotable water systems, unless approved otherwise under the permit from the Virginia Department of Health, shall be separate from the potable water system of a building with no cross connections between the two systems except as permitted by the Virginia Department of Health. All applications of gray water reuse regardless of the reuse shall meet the minimum water quality requirements set forth in VPC Sections 1302.2.1 through 1302.2.4 through a process of disinfection and filtration.

## Rainwater Nonpotable Water Systems

The provisions of this section of the VPC govern the design, construction, installation, alteration, and repair of rainwater nonpotable water systems for the collection, storage, treatment, and distribution of rainwater for nonpotable applications. Each application of rainwater reuse shall meet the minimum water quality requirements set forth in the VPC Sections 1303.2.1 through 1303.2.4. Where the intended use or reuse application for nonpotable water requires disinfection or other treatment or both, it shall be disinfected as needed to ensure that the required water quality is delivered at the point of use or reuse. Disinfection methods vary by design, which include chlorine and ozone. Limits on both of these chemicals are prescribed in the VPC.

Rainwater harvested for reuse shall be filtered for the intended end use. Rainwater filters shall be accessible for inspection and maintenance. Filters shall utilize a pressure gauge or other approved method to indicate when a filter requires servicing or replacement. Shutoff valves installed immediately upstream and downstream of the filter shall be included to allow for isolation during maintenance. Rainwater utilized for water closet and urinal flushing applications shall be filtered by a 100 micron or finer filter.



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## Reclaimed Water Systems

Reclaimed water, water reclamation systems, reclaimed water distribution systems and allowable nonpotable reuses of reclaimed water are as defined or specified in and governed by the Virginia Water Reclamation and Reuse Regulation (9VAC25- 740). Permits from the Virginia State Water Control Board are required for such systems and reuses. Provisions of the VPC for this system is limited to the design, construction, installation, alterations, and repair of plumbing fixtures, piping or piping systems, storage tanks, drains, appurtenances and appliances that are part of the distribution system for reclaimed water within buildings and to storage tanks for reclaimed water as defined in the Virginia Water Reclamation and Reuse Regulation (9VAC25-740), and associated piping outside of buildings that deliver reclaimed water into buildings. Where conflicts occur between the VPC and the Virginia Water Reclamation and Reuse Regulation, the provisions of the Virginia Water Reclamation and Reuse Regulation shall apply unless determined otherwise by the Virginia Department of Environmental Quality and Department of Housing and Community Development (DHCD) through a memorandum of agreement.

## VPC Chapter 14

The provisions of [Chapter 14](#) govern the materials, design, construction and installation of subsurface landscape irrigation systems connected to nonpotable water from on-site [water](#) reuse systems. These systems are rare in state project design work.

## Virginia Energy Conservation and Environmental Standards (VEES)

For DEB projects required to comply with the Virginia High Performance Buildings Act (2019 CPSM, Revision 1, Section 6.1.3) , and where the Virginia Energy Conservation and Environmental Standards (VEES) is selected as the path for compliance, the 2012 International green Construction Code (IgCC) Section 706 Non-Potable Water Requirements , Section 707 Rainwater Collection and Distribution Systems, Section 708 Graywater Systems, and Section 709 Reclaimed Water Systems are not mandated by the VEES Checklist. These nonpotable systems are not required to be included in the project design for VEES approval. By definition, an on-site nonpotable water reuse system is a water system for the collection, treatment, storage, distribution and reuse of nonpotable water generated on site, including but not limited to a gray water system. These on-site nonpotable water reuse systems do not include rainwater harvesting systems. For VEES compliance, these systems are existing in place systems, not systems required for the project design.

## Summary

Nonpotable water systems for the collection, treatment, storage, distribution, and use or reuse of nonpotable water are regulated by the 2015 VPC in Chapters 13 and 14. Nonpotable water systems covered by the VPC include reclaimed water, rainwater and gray water systems, and subsurface landscape irrigation systems. Reclaimed water systems and allowable nonpotable reuses of reclaimed water are governed by the Virginia Water Reclamation and Reuse Regulation, outside the scope of the VCC. Most importantly, other than do not drink, nonpotable water systems are not required to be included in the project design for either capital outlay or VEES approval.

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## DEB Notice 010720

### Clarifications to Accessibility Standards for State-Owned Buildings and Buildings on State Owned Property: Vertical Grab Bars



**DEB Notice 010720** provides clarification to the requirement for vertical grab bars in:

- transfer showers,
- accessible tubs,
- ambulatory accessible toilet compartments, and
- wheelchair accessible toilet compartments.

This requirement applies to projects that do not have approved working drawings or an approved CO-6 as of January 7, 2020. Please view the DEB Notice for additional information.



## VCCO Update

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

- **Monique Curley** with **DGS**
- **Sylvia Dyson** with **Stafford Co.**
- **Joshua Saunders** with **DGS**

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.



VCCO training information is available on the DEB website.



## DEB Forms Update

The following revised DEB forms are now available on the [DGS Forms Center](#):

<u>Form Name</u>	<u>DGS Form #</u>	<u>Alternate ID #</u>
DEB Forms Master List	<a href="#">DGS-30-000</a>	(DEB Forms List)
Cost Review Questionnaire	<a href="#">DGS-30-198</a>	CR-2
Project Planner	<a href="#">DGS-30-199</a>	CR-1
Project Planner - Example	<a href="#">DGS-30-199 - Example</a>	CR-1 - Example

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