



HANOVER COUNTY

Office of the Fire Marshal



Office (804) 365-6195
Fax (804) 537-5488

13326 Hanover Courthouse Road
P.O. Box 470 Hanover, VA 23069

fmo@hanovercounty.gov
Dispatch (804) 365-6140

COMMERCIAL/MULTI FAMILY

SITE PLAN CHECK LIST

STANDARD NOTES

All Buildings - Landscaping around existing or proposed

Fire Protection Equipment note:

The following shall be added to the general and landscaping notes on plan set:

"No landscaping shall be placed within a three-foot radius of any fire hydrant, fire pump test header, fire department connection for fire protection systems, or fire suppression system control valve. Landscaping shall of a type that will not encroach in the three-foot radius on maturity if the material."

All buildings - should have "Knox Box" note:

The following shall be added to the general notes on plan set:

"An approved key box shall be provided for the proposed building in accordance with the Virginia Statewide Fire Prevention Code (2015), Code, section 506.1. The required forms and installation instructions for the key box can be obtained from Hanover Fire and EMS, Office of the Fire Marshal, at 804-365-6140."

Two or more story Buildings – Hydrant Note:

The following shall be added to the general notes on plan set:

"During the construction of any structure or building, permanent fire hydrants shall be installed and in service prior to the use of combustible materials in construction being commenced on any floor above the first or ground floor level. Fire hydrants shall be maintained accessible to firefighting apparatus at all times. (2 or more story buildings)"

Buildings with Sprinkler Systems - Acceptance Note:

The following shall be added to the general notes on plans for buildings equipped with an automatic fire sprinkler system and/or standpipe system on plan set:

"Approval of site plan does not include the design of the fire sprinkler system underground piping from backflow prevention device to one foot above finish floor level. Prior to installation, shop drawings and a separate permit application shall be submitted through the department of building inspections for review and approval"

SITE ACCESS

Fire Apparatus Access Roads

Provide details as to the method to be used as access to all exterior points of the building from within 150 feet of an approved emergency fire apparatus access roadway. See The Virginia Statewide Fire Prevention Code (2015), section 503.1.1 for code information and exceptions.



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Fire apparatus access roads shall have an unobstructed width of not less than 20 feet, exclusive of shoulders, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches. The Virginia Statewide Fire Prevention Code (2015), section 503.2.1.

The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access. The Virginia Statewide Fire Prevention Code (2015), section 503.1.2.

Traffic calming devices shall be prohibited unless approved by the fire code official. The Virginia Statewide Fire Prevention Code (2015), section 503.4.1.

The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. The Virginia Statewide Fire Prevention Code (2015), section 503.6.

Where bollards are used to secure fire lanes from other traffic, the bollards shall be removable, weigh not more than 25lbs each and be non-locking. The Virginia Statewide Fire Prevention Code (2015), section 503.5.

Buildings or facilities having a gross building area of more than 62,000 square feet (124,000 w/sprinklers) shall be provided with two separate and approved fire apparatus access roads. The Virginia Statewide Fire Prevention Code (2012), appendix D104.2

Fire access roads shall be constructed of an all-weather surface and the minimum road design weight bearing capacity for emergency fire apparatus travel shall be 75,000 pounds. The road design shall be confirmed upon completion of its construction by a geotechnical report. The geotechnical report shall be submitted to the Hanover Fire & EMS Department – Office of the Fire Marshal, prior to the issuance of a certificate of occupancy. A note to this effect shall be placed in the general notes section of the plan. The Virginia Statewide Fire Prevention Code (2012), appendix D102.1

Where high piled combustible storage is proposed, add a note to the plan to that effect. Show the required building access components. The Virginia Statewide Fire Prevention Code (2015), section 3206.6.

Fire Lane Markings (*See Attached Details*)

The approximate location of all required fire lane signs and curb / street marking shall be indicated on the plan. Fire lanes that are between twenty and twenty-six feet in width shall be posted and marked on both sides of the roadway. The location of and method of marking fire lanes shall be clearly indicated on the submitted plan set.



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Aerial Access

Buildings or portions of buildings or facilities exceeding thirty foot in height above the lowest level of fire department vehicle access shall be provided with an aerial fire apparatus access road. The aerial fire apparatus access road shall be a minimum of twenty-six feet unobstructed clear width in the immediate vicinity of the building. Overhead obstructions in form of utility or power lines shall not be located within the aerial fire apparatus access roadway. At least one aerial fire apparatus access roadway shall be located a minimum of fifteen feet and a maximum of thirty feet from the building and positioned parallel to one entire side of the building. The Virginia Statewide Fire Prevention Code (2012), appendix D105. Buildings or facilities exceeding 30 feet or three stories shall have at least two means of fire apparatus access for each structure. The Virginia Statewide Fire Prevention Code Section (2012), appendix D104.1.

Turning Radius

The minimum turning radius to be provided for emergency fire apparatus to travel, including cul-de-sacs, shall have at least a 48-foot radius. The turning radius shall be demonstrated on the plan by template. The Virginia Statewide Fire Prevention Code (2012), appendix D103.3

Emergency fire apparatus access roadways and fire lanes in excess of 150' dead end shall be provided with an approved turn-round. Dimensions of the approved turn-around shall be in accordance with The Virginia Statewide Fire Prevention Code (2012), figure D103.1 All dimensions of the turn-round shall be shown on the plan. The Virginia Statewide Fire Prevention Code (2012), appendix D103.4

WATER / HYDRANT INFORMATION

Minimum Required Fire Flow

The minimum required fire flow for protection purposes shall be submitted to the Office of the Fire Marshal. Refer to the Virginia Statewide Fire Prevention Code (2012), appendix B105 for exceptions allowed for sprinkler protected buildings. Refer to The Virginia Statewide Fire Prevention Code (2012), appendix B104, B104.1, B104.2 and B104.3 for the calculation process and allowances. The correct format and calculation sheet can be obtained from the Office of the Fire Marshal.

Water Flow Test Data

Provide computer generated water flow test data verifying the required water flow for fire protection is available at the site. The water flow test results and graph, showing water flow in gallons per minute down to 20 psi., shall be emailed to Matt Rice and not included on the Plan Set in accordance with The Virginia Statewide Fire Prevention Code (2012), appendix B105.2 and table B105.1. Contact Hanover County Public Utilities at (804)365-6024 prior to and to schedule the testing.

Hydrants

An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrive on site. The Virginia Statewide Fire Prevention Code (2015), section 3312.1.



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The submitted plan shall clearly indicate the location all required or existing fire hydrants after determining the number and distribution of fire hydrants. The Virginia Statewide Fire Prevention Code (2012), appendix C, Table C105.1.

Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet. See the Virginia Statewide Fire Prevention Code (2012), appendix D103.1 and figure D103.1 "Minimum clearance around a fire hydrant"

Parking stalls or other obstructions, as indicated in The Virginia Statewide Fire Prevention Code (2015), section 507.5.4 and 507.5.5, shall not be placed in front of the access to fire hydrants, fire pump test headers, fire department sprinkler system connections, fire department standpipe connections or fire protection system control valves.

Fire hydrants are required to be located within 400 feet of non-sprinklered buildings and 600 feet of sprinklered buildings, of all parts of the building. The Virginia Statewide Fire Prevention Code (2015), section 507.5.1.

Hydrants across four (4) lane roads, railways or roads with an AADT of more than 30,000 shall not be counted toward required hydrants. The Virginia Statewide Fire Prevention Code (2015), section 507.5.1 and The Virginia Statewide Fire Prevention Code (2012), appendix table C105.1.

FDC's

FDC locations shall be approved by the fire code official. FDC's shall be located as to not impede fire department operations. Virginia Construction Code (2015), section 912.2.

The dedicated fire hydrant for the FDC cannot be counted toward the normal hydrants required for fire flow.

The dedicated fire hydrant shall be within 100 feet of the FDC. The Virginia Statewide Fire Prevention Code (2012), section 507.5.1.1

All FDC's shall provide a minimum 2 – 2.5 inch Siamese connection with National Standard Threads. Four (4) inch Storz connections are acceptable for buildings requiring large flows or that have access issues. Storz connections shall be angled 30 degree downward. Virginia Construction Code (2015) section 912.4.

Bollards installed in accordance with the Statewide Fire Prevention Code Section 312 may be required where either the FDC or the dedicated fire hydrant is determined to be subject to vehicle impact. The Virginia Statewide Fire Prevention Code (2015) – section 507.5.6 and Virginia Construction Code (2015) section 912.4.3.

The fire code official is authorized to require locking caps on fire department connections for water-based fire protection systems. The Virginia Statewide Fire Prevention Code (2015), section 912.4.1.