

Where standard ditches have insufficient capacity for the 10-year runoff, a storm sewer system shall be provided. Open channels may be considered in lieu of a storm water system, if their construction can be accomplished without creating a hazard or condition detrimental to the appearance of the subdivision.

- b. An acceptable easement shall be provided from all drainage outfalls to a natural watercourse, as opposed to a swale (See 24 VAC 30-92-10* for definitions). The Department normally accepts and maintains only that portion of a drainage system that falls within the limits of the dedicated right of way for a street. The Department's responsibility to enter drainage easements outside of the dedicated right of way shall be limited to undertaking corrective measures to alleviate problems that may adversely affect the safe operation or integrity of the roadway. In the event drainage to a natural watercourse is not accomplished or is interrupted, an acceptable agreement from the governing body may be considered as an alternative to providing an easement to a natural watercourse, provided the agreement acknowledges that the Department is neither responsible nor liable for drainage from the roadway.
- c. Curb drop inlets – the spread of water on the pavement shall be limited to the width of one-half of the travel lane and the gutter width (if any) in each direction or 8 to 10 feet from the face of curb, whichever is less, for a rainfall intensity of 4 inches per hour.
- d. Where the roll-top or mountable curb and gutter section is used, drop inlets must be spaced so that the 10-year frequency gutter flow does not exceed a four inch depth at the face of curb.
- e. Storm Sewers should be designed to convey the 10-year runoff without surcharge; however, the system should be designed for the 50-year runoff and checked for the 100 year runoff in situations where it would be necessary to prevent flooding of interstate highways, underpasses or other depressed roadways where ponded water can only be removed through the storm sewer system.
- f. Storm Sewer System Pipe sizes – 15" pipe or equivalent elliptical shape shall be considered the minimum acceptable size. 12" or equivalent size may only be used as the initial pipe in a system or as a lateral line when necessary, provided there is 50 ft or less between access points.
- g. Access points – Generally, distance between points of access in storm sewer trunk lines shall be limited, based on pipe diameter, to:

12" pipes,	50 feet
15" to 42" pipes,	300 feet
48" and larger pipes,	800 feet

* Rev. 3/09