



DPS

Montgomery County
Department of Permitting Services

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WATER RESOURCES TECHNICAL POLICY

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WRTP-8

SAFE PLACEMENT OF SURFACE FED STORMWATER MANAGEMENT (SWM) PRACTICES

For years, design professionals have incorporated surface fed SWM practices into development layouts. However, with the introduction of Environmental Site Design to the Maximum Extent Practicable (ESD to the MEP) and the requirement for treatment of smaller drainage areas, the number and types of surface fed practices being incorporated into sites has increased dramatically. When these measures are located adjacent to certain site features such as paths, sidewalks, parking spaces, ball fields, paved courts or other areas used by pedestrians it is especially important for the design professional to be aware of pedestrian safety.

This document provides guidance for horizontal and vertical placement of surface fed facilities, with the goal of providing increased safety for pedestrians. Example practices include rain gardens, landscape infiltration, structural bio-filters, micro-bioretenion and infiltration trenches. The following should be considered when establishing the grades and location of these facilities. In some cases, additional barriers may need to be incorporated into the design as outlined below.

Establishment of safe placement depends on many factors such as proximity to site features, side slopes, depth, and type of required maintenance so each situation will be different.

1) Practices with Side Slopes \leq 3h:1v

a) Adjacent to Pedestrian Uses

A practice located adjacent to pedestrian uses such as sidewalks or bike paths must have a flat area of sufficient width to create a safe refuge between the edge of pavement and the top of the slope of the practice. A minimum separation of 3 feet should be considered. In cases where a 3-foot flat area cannot be achieved the design should incorporate a wall or fence of sufficient height to create a barrier between the pavement edge and the top of the slope.

b) Adjacent to Parking Spaces

A practice located adjacent and parallel to a parking space must have a flat area of sufficient width to allow drivers and passengers to safely open the door and enter and exit the vehicle before encountering the top of slope. A minimum separation of 3 feet from face of curb to top of slope must be provided. In cases where a 3-foot flat area cannot be achieved the design should incorporate a wall or fence of sufficient height to create a barrier between the parking space and the top of the slope. The barrier should not interfere with car doors.

2) Practices with Side Slopes Steeper than 3h:1v (includes vertical and stepped walls)

a) Adjacent to Pedestrian Uses

With some practices design may vary as the depth of the practice increases. In general, a wall or fence of sufficient height to keep a pedestrian from tripping or falling into the practice must be incorporated into the design. When the drop from top of wall to the surface of the facility is 24" or greater the design must incorporate a barrier.



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b) Adjacent to Parking Spaces

The first consideration when a parallel parking space is adjacent to the wall of the practice is the area available for drivers and passengers to enter and exit the vehicle. After adequate separation to a wall has been provided the same consideration as summarized above should be given to the incorporation of a fall prevention barrier.

This document does not establish guidance for practices located in public rights-of-way. Nothing in this document is intended to supersede or contradict federal, state or other local requirements. Although this document identifies specific site considerations related to parking spaces and other pedestrian uses, it is ultimately the design professional's responsibility to ensure safe placement of all practices and incorporate design to mitigate impacts and create a safe transition between stormwater treatment practices and other site features. Barriers, if included, must not interfere with stormwater management inspection and maintenance activities.