

Disconnected Rooftop Drainage to Pervious Areas

Description

Disconnected rooftop drainage reduces the runoff flow rates from developed areas. The disconnection involves directing storm water runoff from rooftops towards pervious areas where it is allowed to filter through vegetation and other landscaped material and infiltrate into the soil. Use erosion control devices such as splash blocks or level spreaders at the downspout discharge point to transfer the flow from concentrated flow to sheet flow.

Disconnected rooftop drainage has the following benefits:

- Increase the time of concentration by disconnecting runoff from any structural storm water drainage systems.
- Provide water quality benefits by allowing runoff to infiltrate into the soil. Downspouts from rooftops should discharge to gently sloping, well-vegetated areas, vegetated filter strips, or bio-retention areas.

When and Where to Use It

This practice is applicable and most beneficial in low-density residential or commercial developments having less than 50 percent impervious area. Disconnection is not applicable to large buildings where the volume of runoff from the rooftops will cause erosion or degradation to receiving vegetated areas.

Cluster Development

Description

Cluster development practices concentrate development away from environmentally sensitive areas such as streams, wetlands, and mature wooded areas. The clustering of development in one area reduces the amount of roadways, sidewalks, and drives required when compared to development sprawled over the entire land area.

Install clustering and conservation of natural area practices at least to some extent on all development sites not only to reduce the impacts to natural resources by minimizing disturbance and impervious areas, but also to maintain some of the natural beauty of the site.

Reducing the amount of disturbed area and impervious area reduces the amount of runoff volume treated for water quantity and water quality control. Concentrating development away from environmentally sensitive areas will also reduce the amount of time and expenses to get federal and state permits for impacting jurisdictional waters.

Concentrate development on the flattest part of the development parcel away from environmentally sensitive areas such as steep slopes, streams, and wetlands. This reduces the impacts to these areas, and reduces the amount of earth moving necessary for the development.