

## DESIGN DETAILS: Dealing With Sediment



SOURCE: NEVUE NGAN ASSOCIATES

**Figure 5-40:** A sediment forebay within a stormwater curb extension.



SOURCE: NEVUE NGAN ASSOCIATES

**Figure 5-41:** A small, 18 inch wide sediment forebay at the entry curb cut of a street stormwater planter.



SOURCE: NEVUE NGAN ASSOCIATES

**Figure 5-42:** A 3x3 foot concrete pad is used as a sediment forebay for a large street rain garden. The plant material acts as a dam allowing debris to settle on the pad for regular removal.

In sheet flow situations, sediment and other debris drop out evenly along the length of the stormwater facility. This can reduce the need for frequent removal of sediment from within the facility. However, when curb cuts are used and runoff enters a stormwater facility as concentrated flow, so too does the debris load. The value of using sediment forebays depends highly on how much sediment debris the street typically produces. Some stormwater facilities may not need a sediment forebay at all. Other stormwater facilities, particularly those located on streets that have high traffic loads or substantial leaf drop, would most likely benefit from having a sediment forebay and a regular maintenance schedule to clear debris from it.

Sediment forebays help define a space at the entry of a stormwater facility for sediment and debris to collect and be periodically removed. Providing this space can help reduce maintenance by trapping sediment before it is transported into established landscape areas. The goal of a sediment forebay is to minimize the amount of sediment to be transported, not to completely eliminate it.

Ultimately, a sediment forebay should be sized and designed so that it is seamlessly integrated into the landscape area. The design of a sediment forebay can be as simple as leaving a small, shallow-graded, non-planted area right after the entry curb cut. It is recommended that the sediment forebay be mulched with pea gravel to minimize erosion. High density planting located on the downstream side of a sediment forebay can help act as a containment dam for sediment and debris.