

Continued from inside

- Create planting shelves (raised terraces) along the basin to support native trees and shrubs. Be sure planting shelves do not block flow of stormwater along the basin length.
- To preserve visibility, do not plant trees or shrubs that will encroach into travel lanes. A tree canopy may extend over a parking area at a min height of 8'-9', or travel lanes at 14'.

Materials

- Use 4"-8" rock as an inlet apron around curb cuts to reduce erosion.
- Spread 2"-4" layer of organic or rock mulch across basin, including bottom and slopes.

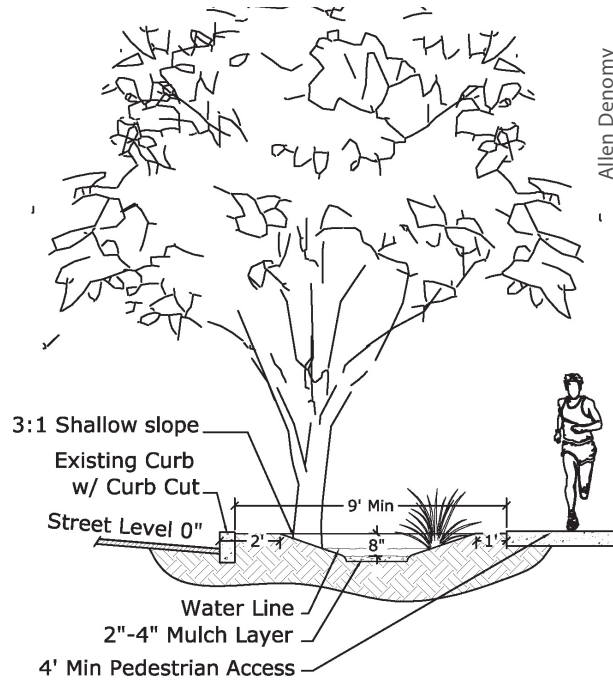
Maintenance

- It is the adjacent property owner's responsibility and liability to maintain the right-of-way.
- Observe basin during rain events to evaluate function and make adjustments.
- Periodically remove accumulated trash.
- Add organic mulch to maintain maximum ponding depth of 8" (or designed depth) from street surface (annually).
- If rock mulch is used, remove plant debris from mulch surface (1-2 times per year).
- Remove accumulated sediment from bottom of basin to retain designed depth. In areas with high sediment loads consider using sediment traps (see handout GI-2).
- Check apron, slopes, edges etc. for erosion and repair/reinforce as needed (annually).
- Prune vegetation to preserve visibility and prevent obstruction of travel lanes and pedestrian pathways.
- Remove undesirable and invasive plants (weeds) on a regular basis.

Adapting the practice to your site

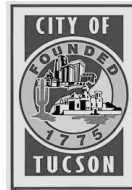
- In ROW areas without on-street parking, reduce step-out zone to a minimum of 6".

- If utilities cross the ROW perpendicularly, use these areas as raised pathways for pedestrians to cross the ROW between basins.
- If no or very little pedestrian access across the ROW is needed, consider making basins into an elongated swale to increase stormwater capacity.



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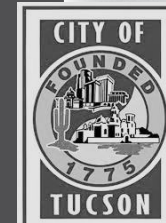
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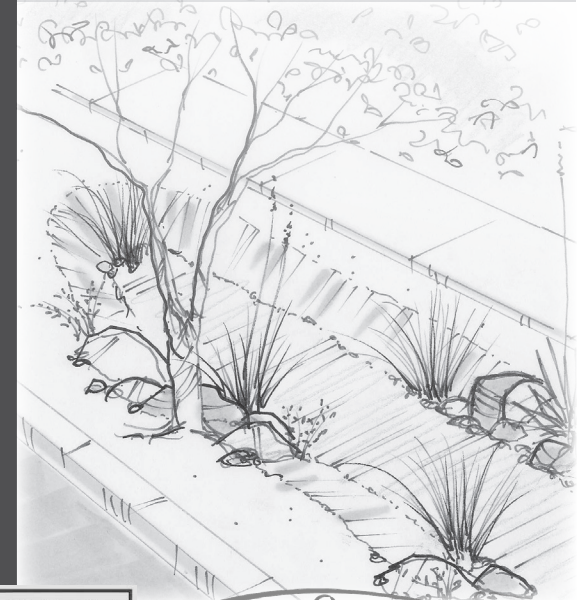
A green infrastructure practice developed by Watershed Management Group in coordination with City of Tucson Department of Transportation.

GI-4

Green Infrastructure for Public Right-of-ways

A back-of-curb practice: Shallow-sloped Basin

Purpose: To collect and infiltrate stormwater from curb cuts from city streets within the right-of-way. Shallow slopes can increase pedestrian safety in high use areas.

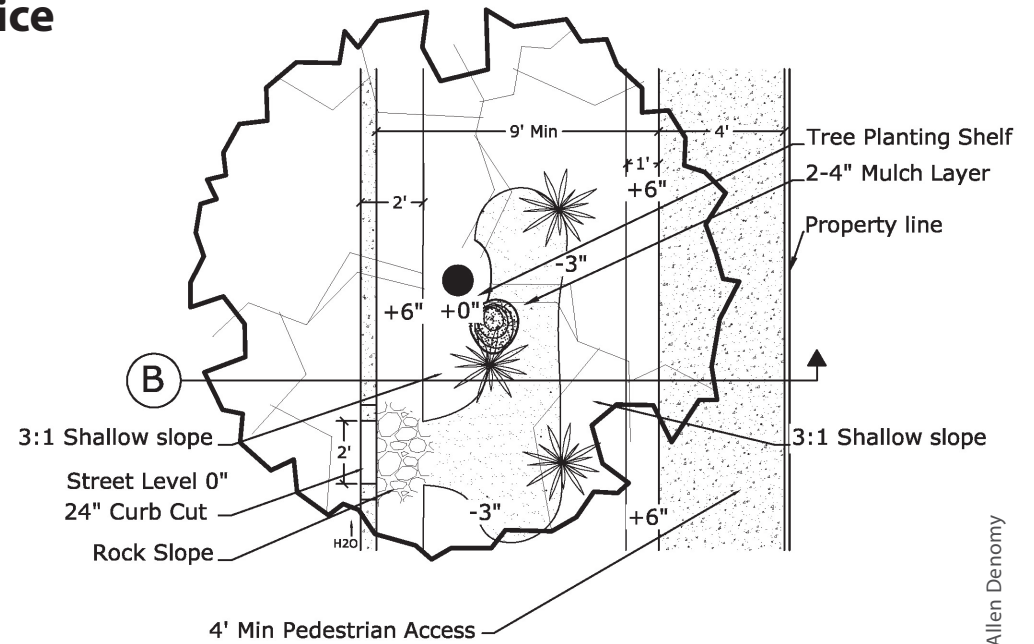


Shallow-sloped basin, A back-of-curb practice

One option for using curb cuts in areas with wide (9' or wider) earthen areas between curb and sidewalk is to create basins with shallow slopes that are not lined with rock. These basins are similar in structure and function to basins with rock-lined edges (see handout GI-3), the main difference being the use of sloping sides. Gently sloping sides are generally safer for pedestrian environments and do not require being lined with rock.

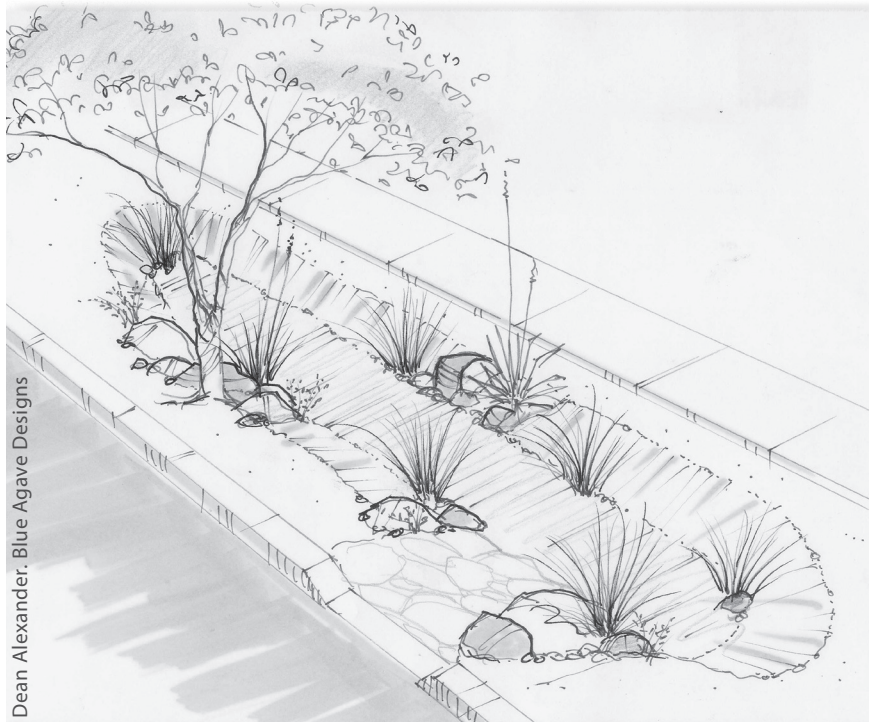
Site selection

- Follow site selection guidelines for curb cuts (see handout GI-2) and vegetation (see handout GI-1).
- Width of earthen area between the curb and sidewalk/path must be at least 9' wide in areas with on-street parking (8' without parking).
- Avoid streets with slopes greater than 5%.
- Maintain setbacks from above- and below ground utilities as required.
- Maintain setbacks from drive ways and street corners to maintain visibility.



Design and construction

- Excavate bottom of basin up to 12" below the surface of the street and backfill with 2"-4" of mulch. Basins must not allow standing water deeper than 8". Excavating deeper and backfilling with mulch allows greater stormwater capacity. The top of the mulch must be at least 2" below the curb cut inlet).
- Basins should be no longer than 20' in length, with 5' spacing between successive basins.
- Maximize the area of level bottom within site constraints to maximize stormwater infiltration.
- In areas with on-street parking, preserve an 18" step-out zone of slightly sloped (1% toward basin) soil or gravel next to curb to allow passengers to step in and out of vehicles.
- Preserve a 1' slightly sloped (1% toward basin) area next to pedestrian pathway or sidewalk.
- If sidewalks are not present, preserve a minimum 4' pedestrian pathway sloped 1% toward the basin in the right-of-way (ROW).
- Curb cut should be both the inlet and the overflow outlet of the basin. To achieve this, the bottom of the curb cut should be at least 4" below any other point along the edge of the basin. This step is imperative to ensure that overflow exits back onto the street and not onto adjacent properties. The more a site is sloped, the shorter the basin must be to maintain these levels.



Continued on back

Green infrastructure is a constructed feature that uses natural processes to provide environmental services.

Center Median with Water Harvesting - A Conceptual Drawing

Standard design details developed by Watershed Management Group in coordination with the City of Tucson to incorporate stormwater harvesting and native plantings in streetscape improvements.



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