

## SANITARY SEWER LANDSCAPING GUIDELINES

Both visual and physical vehicular access to public sanitary sewer manhole covers shall be a top priority. All planting and irrigation design shall take into consideration both viable visual and physical access from the closest travel lane to the manhole cover to provide for maintenance purposes. The landscape area between the manhole and the street shall be left open, providing a clear vehicle maintenance access lane width of not less than 16 feet (4.9 m). This lane shall not contain shrubs, trees, boulders, river rock or swales. Trees trunks must be at least 16 feet (4.9 m) from a manhole, and sufficiently distant so that the ultimate canopy will not overhang the access lane or overhang an area within 10 feet (3.0 m) of the manhole cover. The manhole elevation must be a minimum of 2 inches (50 mm) above the finished grade and shall under no circumstances be buried under landscaping or surface materials (decomposed granite, etc.).

In most cases, a wide (2' (600 mm)+/-) concrete collar will be present around the manhole frame and cover. If a concrete collar is not present, it will be added as part of the landscaping project.

All public sanitary sewer lines will be shown on all project plans, including landscaping plans. The intent of the planting plan shall be to keep all parts of trees a minimum of 10 feet (3.0 m) from the outside surfaces of the involved sewer lines. Where limited right-of-way or other setbacks are prohibitive, the following rules shall apply:

1. The depth of the sanitary sewer line shall be noted on the drawings at each manhole or cleanout. In areas where the sanitary sewer line is greater than 8 feet (2.4 m) deep, the Landscape Architect may select certain non-deep rooted trees to be placed within the 10-foot (3.0 m) to 16-foot (4.9 m) setback area, as shown on Detail WWM 111. However, prior written approval from Pima County Wastewater Management (PCWWMD) is required.
2. In areas where the sewer line is less than 8 feet (2.4 m) deep, no tree or deep-rooted shrub shall be placed within the 10-foot (3.0 m) to 16-foot (4.9 m) setback limits. In certain situations, the Landscape Architect may be able to use root barriers or other approved methods to locate deep-rooted trees within the 10-foot (3.0 m) to 16-foot (4.9 m) setback but only with prior written approval from the PCWWMD.
3. Contact PCWWMD for a list of the latest approved native shrubs and trees and their associated setbacks from a sanitary sewer.

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Traffic circles are not recommended near or surrounding manholes. If a traffic circle is to be built around a manhole, the following requirements must be adhered to:

1. All posts, fencing, and other manmade physical impediments shall be easily and quickly removable by one person without the need for specialized or heavy equipment.
2. Curbing shall be mountable curb.
3. An area between the manhole and the street shall be left open, providing a straight drive-in vehicle maintenance access lane with a width of not less than 12 feet (3.6 m), with 16 feet (4.9 m) preferred. This access lane shall extend to the center of the manhole cover.
4. Deep rooted trees or other aggressive root vegetation shall be avoided. It will be necessary to provide complete (sides and bottom) root barriers for any plants that have the potential to develop root growth of a breadth and depth that will reach any portion of the sanitary sewer system. Landscaping should be limited to flowers, grasses, shrubs, and other small plants that can either be driven over or removed easily and quickly in the event that the sanitary sewer must be accessed with sanitary sewer maintenance vehicles, personnel and associated equipment or dug up and repaired.
5. No obstruction or vegetation shall be placed within a 3-foot (900 mm) radius of the center of the manhole cover opposite the access lane.
6. The area within a 3-foot (900 mm) radius of the center of the manhole shall be level asphalt, concrete, or brick pavement that can withstand heavy trucks. Loose material such as rock, gravel, or landscape pavers shall not be used in the access area. The alignment of the access strip(s) shall be chosen such that a large maintenance vehicle can be set up over the manhole without blocking the intersection. PCWMD shall be consulted on the alignment of the access strip(s) before finalizing the traffic circle design.
7. Vegetation shall be positioned such that its mature size shall not encroach on the access strip(s) or the area within a 3-foot (900 mm) radius of the center of the manhole cover.
8. Drainage shall be directed away from the manhole cover.

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A registered landscape architect shall stamp and sign a certification declaring that the project landscaping plan complies with the above standards and that all trees and plants included in the project will not develop root systems that will reach sewer structures within the project limits, nor will any vegetation, at planting or at maturity, interfere with viable visual and vehicular access to manholes. This certification shall appear on the landscaping plans cover sheet or the project plans cover sheet.

The Municipality having jurisdiction over the involved street/roadway shall be responsible for maintaining all plants and trees placed by the project to comply with the setback and access requirements at all times.

Pima County Wastewater Management reserves the right to take whatever action (cutting, trimming, removal, etc.) is deemed necessary to achieve viable visual and vehicular access to sewer structures. Repair and/or replacement of the disturbed landscaping, whether in medians or in traffic circles, shall be the responsibility of the Municipality having jurisdiction for the involved street/roadway.

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