

Tree Systems

Tree systems encompass several practices including tree trenches, tree cells, and the use of structural soils. Tree practices that receive stormwater mimic certain physical, chemical, and biological processes that occur naturally and help to manage stormwater in the subsurface environment. Tree systems provide a broad range of environmental, aesthetic, and community benefits.

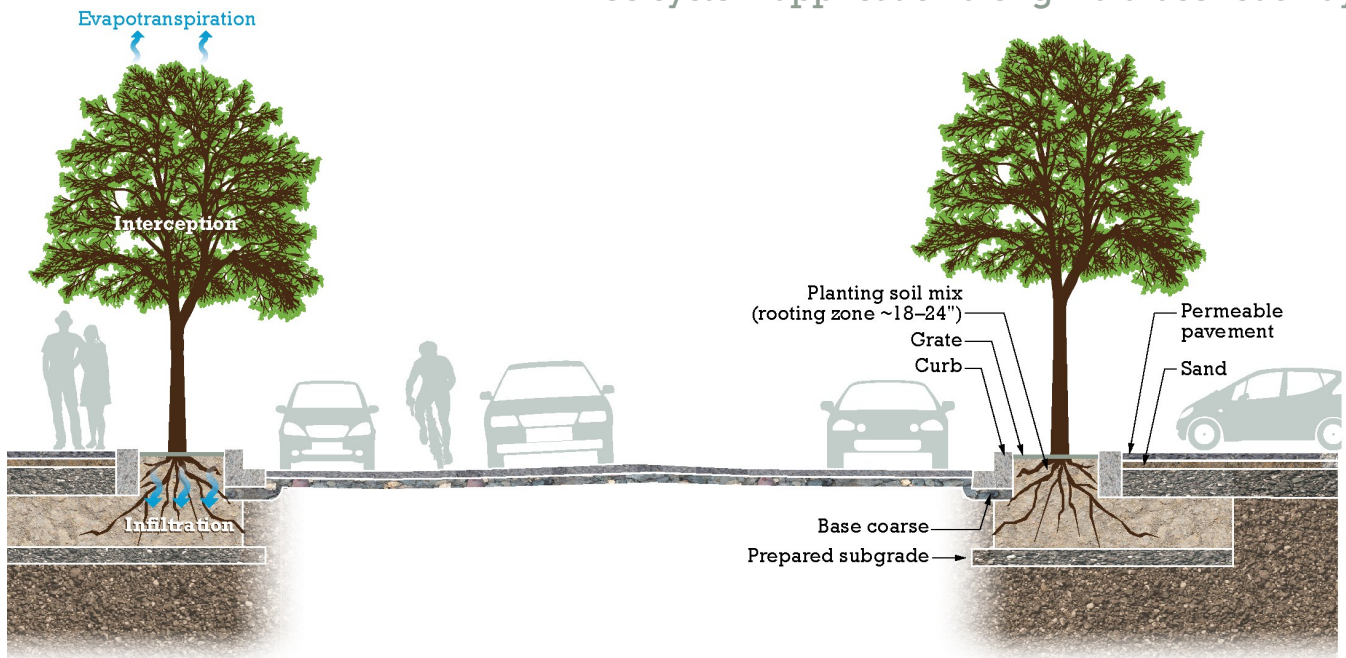
COMMUNITY

- Enhances neighborhood aesthetics
- Reduces noise and glare
- Increases pedestrian safety
- Improves air quality
- Increases canopy cover
- Requires minimal surface footprint

CLEAN WATER

- Improves water quality
- Reduces stormwater runoff
- Manages stormwater in the subsurface environment
- Promotes stormwater evapotranspiration
- Uptakes nutrients

Tree system application along multi-use roadway



Potential Applications




- Residential/suburban and ultra-urban areas
- Method to manage runoff volume
- Complement to other GSI techniques such as permeable pavers
- Tree practices are an ideal and potentially important BMP in urban retrofit situations where existing stormwater treatment is absent or limited

Residential	Limited
Commercial	Yes
Arterial	Yes
Alleys	No

ADDITIONAL CONSIDERATIONS

Capital Cost	Medium
Maintenance	Medium
Summer/Winter Performance	High
Community Benefit	High

Limitations

-  Requires adequate underground rooting space
-  Underground and above-ground utility conflicts must be evaluated
-  Requires careful selection of tree species

Tree systems create attractive thoroughfares for pedestrians and a more walkable city.



The structural component of the tree system profile allows installation of this compact GSI facility under structural roadway sections.



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