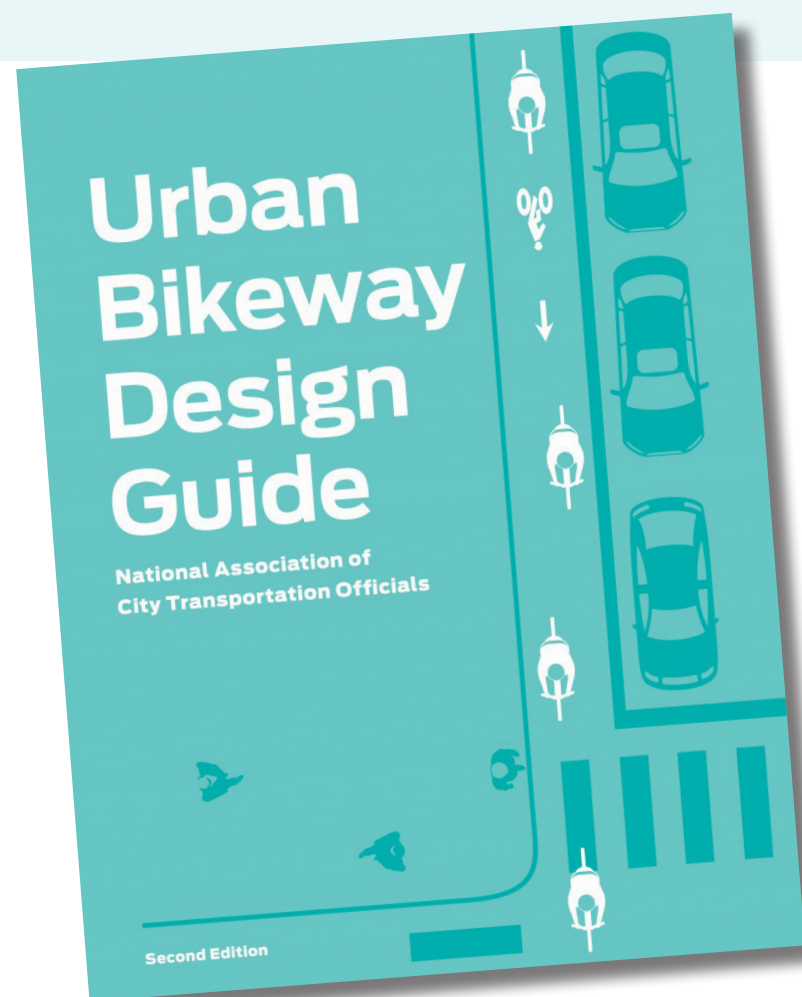


# URBAN BIKEWAY DESIGN GUIDE: GREEN INFRASTRUCTURE



Information on this board adapted from the Urban Bikeway Design Guide, published by Island Press.

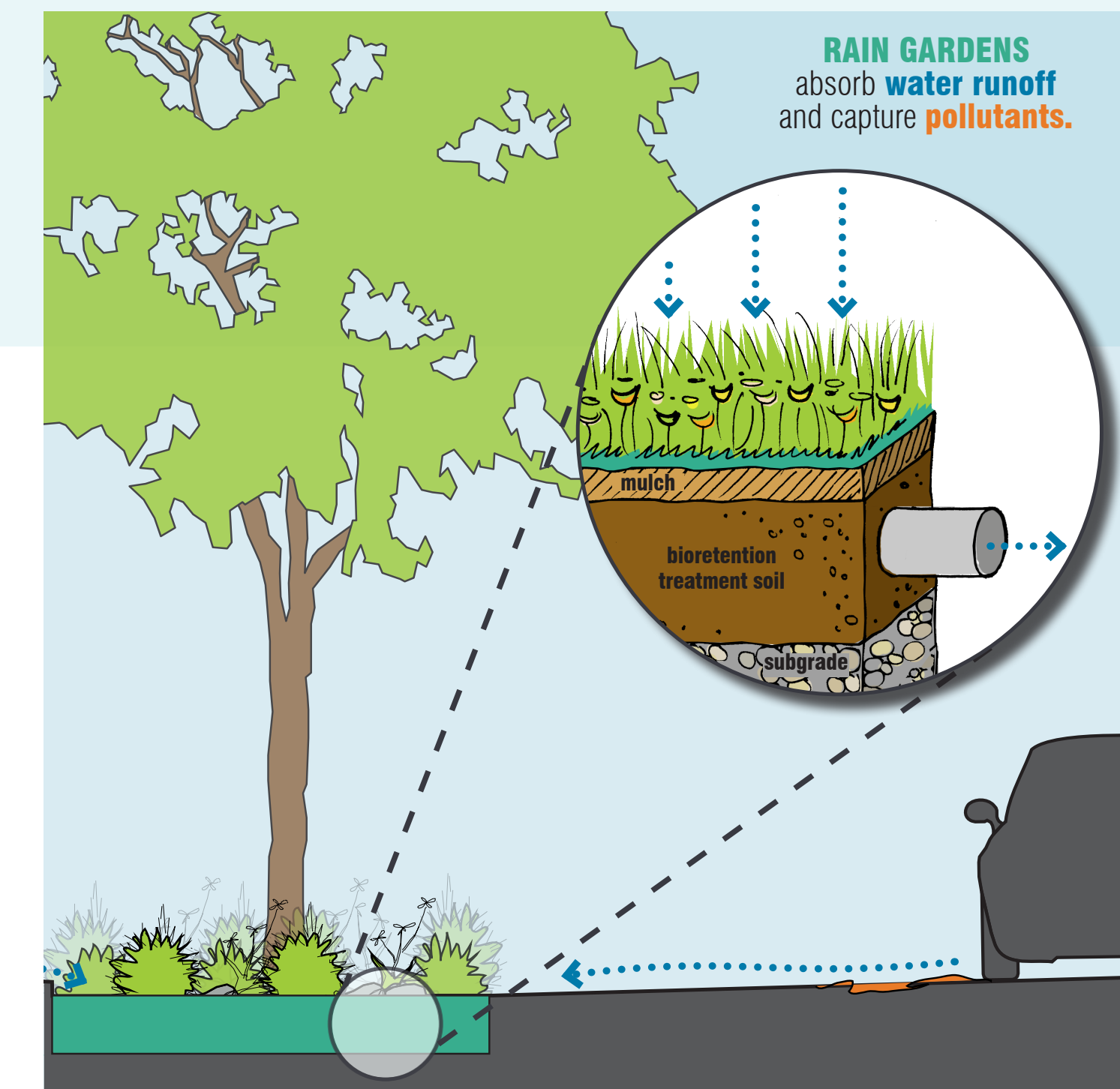
<https://nacto.org/publication/urban-bikeway-design-guide/>

## DESCRIPTION

- Green infrastructure is a planning and design approach to managing stormwater, the urban heat island effect, health, and air quality based on ecosystem network models.
- Separated bikeways and bicycle boulevards present an opportunity to integrate stormwater treatment facilities with complete streets.

## BENEFITS

- Provides an ecological and aesthetic enhancement of traditional traffic speed & volume control measures
- Provides a more pleasant environment for bicycling, walking or sitting.
- Improves drainage, reduces sewer costs, and minimizes the risk of basement flooding.
- Improves street crossings because of reduced vehicle volume and speed and/or reduced crossing distance.
- Improves air quality, reduces the urban heat island effect, and can provide habitat connectivity by increasing urban green space.
- Reduces motor vehicle speeds along the corridor when used as curb extensions, edge islands, medians, and other speed management treatments.
- Reduces motor vehicle volumes along the corridor when used as diverters, closures, and other volume management treatments.
- Can use non-transportation funding sources, such as stormwater management or sewer treatment money, when needed improvements are prioritized along bicycle boulevards and separated bikeways.



Above: Graphic from the Dectoto Green Streets, City of Union City, CA

### Required Features

Plantings shall not impede sightlines or block signs or other traffic control devices.

### Recommended Features

- Infiltration basins should drain a storm event within 30 hours and may not be appropriate in areas with high water tables.
- Some green street features, such as pervious pavers, may not be appropriate along bicycle lanes

### Maintenance

- Inspect swales periodically, especially after major storm events.
- Remove sediment and trash, clean and repair inlets, curb cuts, check dams, and outlets as needed.
- Maintain side slopes to prevent erosion and provide proper drainage.

### Optional Feature:

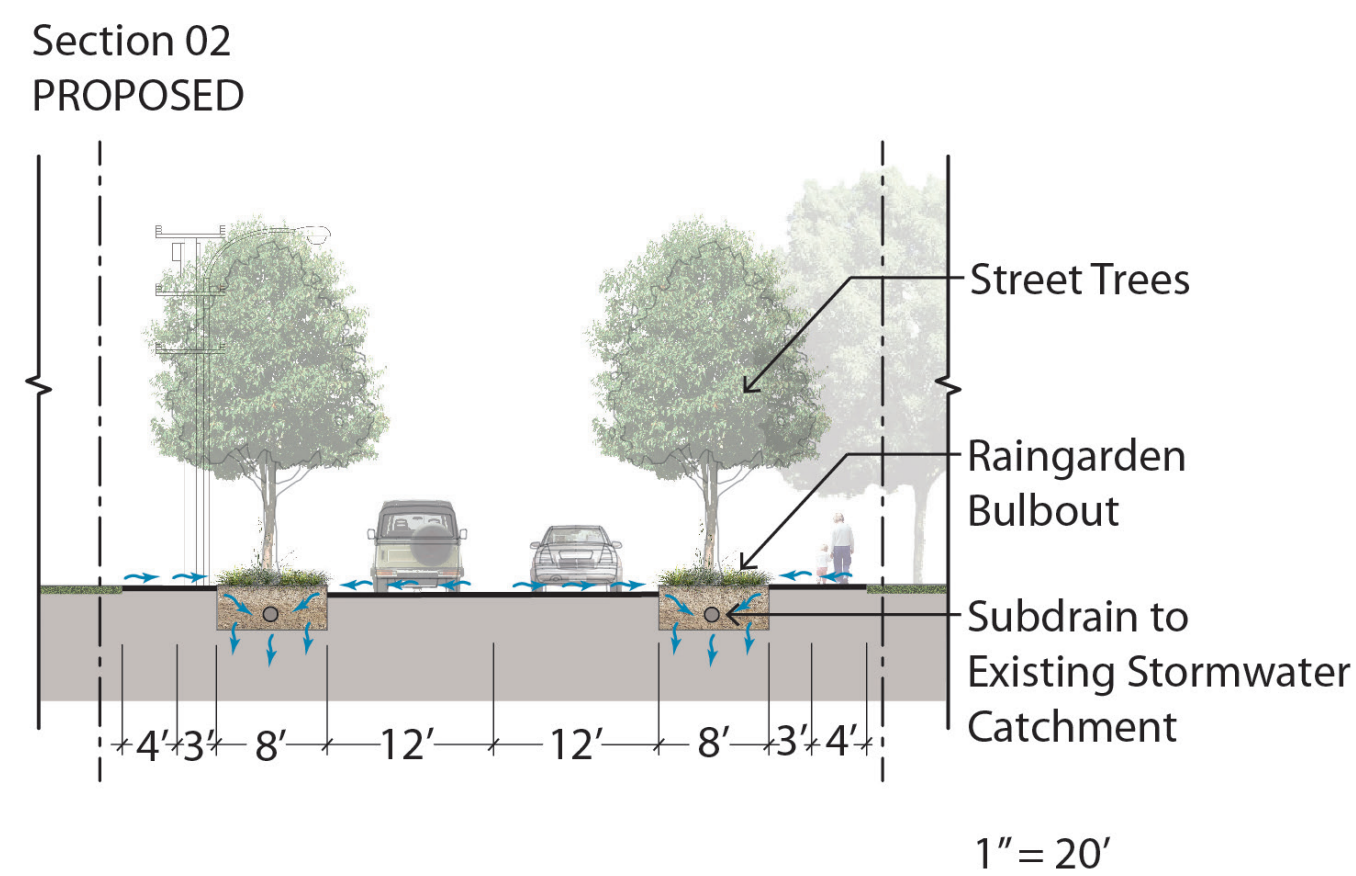
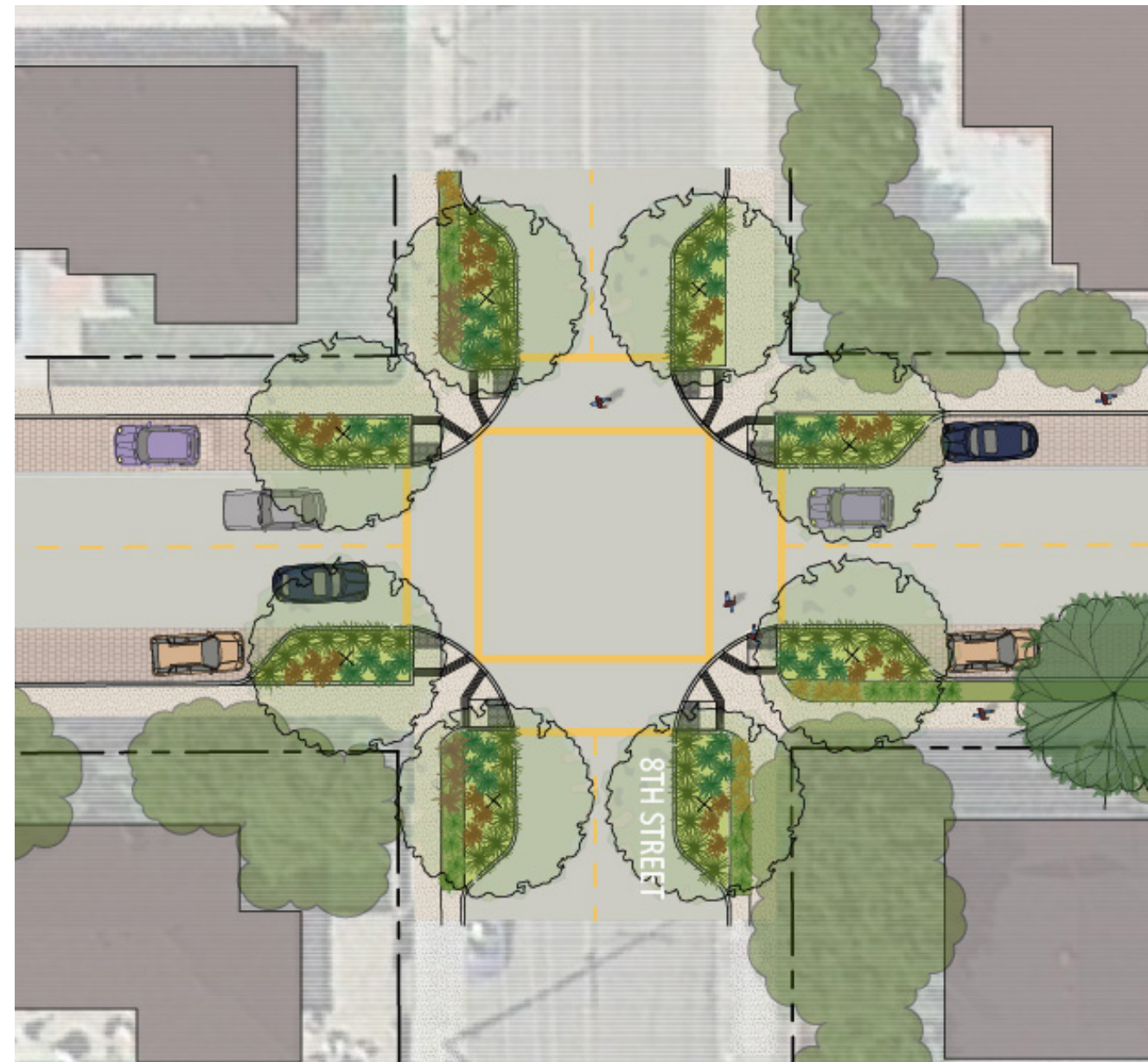
Neighborhood associations or community groups may assist with maintenance.

Plants used in green street treatments should be selected to the local environment. Design should consider local conditions such as freezing, salt spray, flooding, and drought as well as pollutant and debris accumulation. Swales at the base of hills may incorporate a sediment collection area to reduce damage.



# EXAMPLE COMPLETE STREET PROJECTS *with* STORMWATER TREATMENTS

Union City, CA



Portland, OR



Photo by Sarah Sutton



Photo by Sarah Sutton



Photo by Sarah Sutton



Photo by Sarah Sutton

Russellville, AR

