

STORMWATER FACILITY STRATEGY: Green Gutters

Green gutters help capture and slow stormwater runoff within very narrow and shallow landscaped areas along a street's edge.



SOURCE: NEVUE NGAN ASSOCIATES

Green gutters are very narrow, landscape systems along street frontages that capture and slow stormwater flow. Typically less than three feet wide, green gutters most resemble planters in that they are confined by vertical curbs and have a flat-bottom profile. Unlike typical planters, however, green gutters are designed to be very shallow with little or no water retention. While infiltration of stormwater is a possibility, the primary purpose of using green gutters is to provide a site design measure using strip of landscaping to help filter out pollutants and slow the flow of water.

The most promising use of green gutters is along excessively wide streets that do not require, or need, on-street parking. In many cases, simply narrowing a residential or commercial street's travel lanes can yield room for a green gutter application.

Green gutters have other benefits besides filtering stormwater pollutants from roadways.

They also introduce more green space along streets that lack landscaping. Furthermore, these narrow strips of green help provide a landscape buffer between auto traffic and pedestrians, resulting in a more desirable and potentially safer condition for people.

Green gutters are a new design strategy, and there are not yet any projects built to date. However, there are multiple conditions in San Mateo County where green gutters would be suitable.

The main disadvantage of using green gutters is that they require a fairly long footprint in order to adequately filter and slow stormwater. In addition, they most likely will not meet sizing requirements needed for compliance with C.3 Stormwater Technical Guidance, so they are most applicable for the types of retrofit projects that do not trigger compliance with C.3 regulations. Even with these limitations, there are abundant opportunities in San Mateo County to implement green gutter projects.



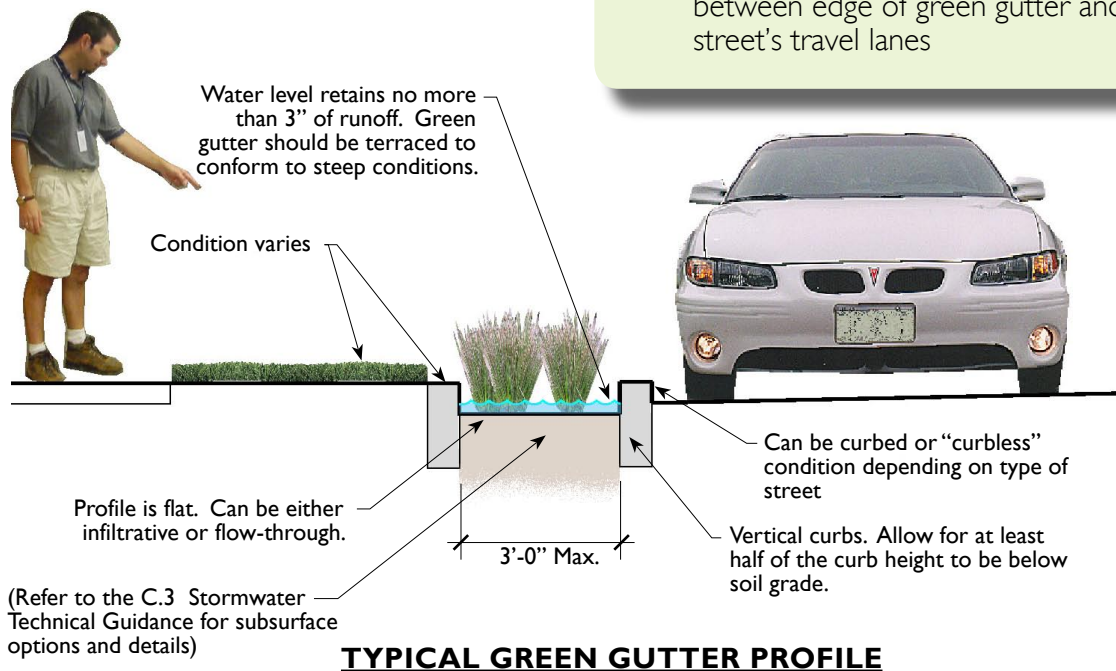
SOURCE: NEVUE NGAN ASSOCIATES

Figure 2-91: Green gutters can often be installed parallel to an excessively wide travel lane. Dashed lines show where a green gutter could be added.



SOURCE: NEVUE NGAN ASSOCIATES

Figure 2-92: This wide shoulder space can be converted to have both a green gutter and a bike lane.



Good Places for Green Gutters:

- Residential, commercial, and arterial street frontages that have oversized wide travel lanes or "dead space" between travel lanes and the sidewalk zone

Why Choose Green Gutters:

- Can often significantly "green" a street with minimal investment
- Can be inexpensive to build depending on the local land use context
- Can help create a more walkable street environment by providing a green buffer between auto traffic and the sidewalk

Potential Constraints:

- Require a long, continuous space to effectively slow and filter stormwater pollutants
- Are very shallow and do not retain large amounts of runoff
- Most likely cannot be designed to meet C.3 stormwater treatment requirements
- Can sometimes conflict with bike travel if adequate space is not allowed between edge of green gutter and a street's travel lanes