

4.9 Combining Permeable Paving with Stormwater Treatment



Figure 4-22: The City of Menlo Park used permeable concrete for parking stalls and standard paving in the drive aisles in this public parking lot.

Best Uses

- Parking areas
- Sidewalks
- Pathways

Advantages

- Flow attenuation
- Provides detention
- Removes sediment
- Increases time of concentration

Limitations

- Needs periodic cleaning by vacuuming, not by sweeping or blowing.
- Removes dissolved solids, metals, nutrients
- Use in lightly trafficked areas only
- Higher installation costs

Pervious paving is considered a site design measure, and its use can help reduce the size of treatment measures, but it is not considered a stormwater treatment measure comparable to a vegetated swale, bio-retention area or structural treatment device, due to the limitations mentioned above. Consequently, it is recommended that pervious paving be used in conjunction with a vegetated swale, bio-retention area or similar treatment measure to at least provide treatment of the surface flows that exceed the pavement's infiltration capacity. In addition, it is recommended to avoid or minimize the amount of runoff flowing onto pervious pavement from impervious surfaces to avoid overloading its capacity.

Design and Sizing Guidelines

Refer to Section 4.7, Pervious Paving technical guidance, for this information. Refer to Sections 6.1, Vegetated Swales, and 6.6, Bio-retention Areas, for this information.

Maintenance

Refer to Section 4.7, Pervious Paving technical guidance, for this information. Refer to Sections 6.1, Vegetated Swales, and 6.6, Bio-retention Areas, for this information.

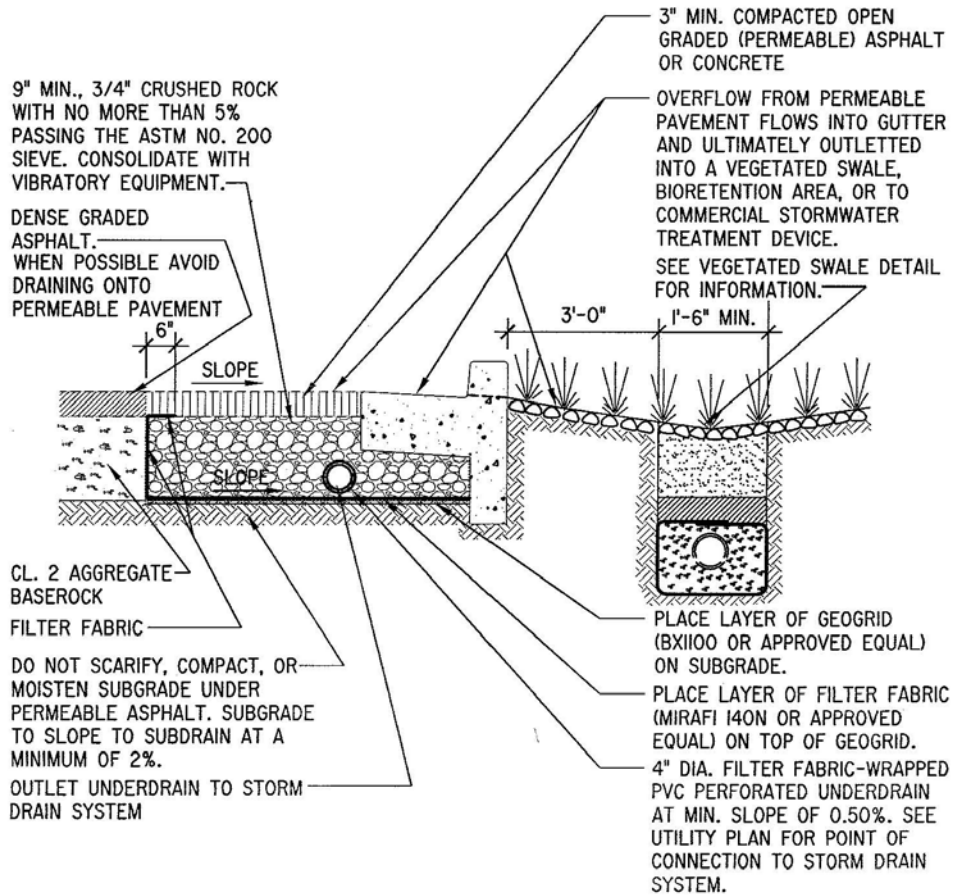


Figure 4-23: Permeable Pavement Drainage and Overflow