

**Oak Park Conservancy District  
Stormwater Best Management Practices (BMPs)  
Site Planning and Design Practices (SPD's)**

SPD-02.1

**Activity: Parking Lot Design**

**PLANNING CONSIDERATIONS:**

Planning:  
Required

Training:  
Required

Recommended Personnel Involvement:  
Town Engineer  
Developers



**Target Pollutants**

Significant ♦

Partial ♦

Low or Unknown ♦

Sediment ♦   Heavy Metals ♦   Nutrients ♦   Oxygen Demanding Substances ♦   Toxic Materials ♦  
Oil & Grease ♦   Bacteria & Viruses ♦   Floatable Materials ♦   Construction Waste ♦

**Description**

To reduce the amount of runoff volume in parking lot designs, infiltration swales and vegetation incorporation to reduce paved surfaces may occur. These two alternatives would provide water quality benefits to the parking lot design.

Reduced paved surfaces increases the amount of sediment-laden runoff that can be filtered through vegetation and settlement provided by swales. Vegetation acts as a sponge where runoff is concerned. Leaves, stems and branches intercept rainwater which then evaporates. Depending on the type of vegetation, some may even encourage infiltration (deep-rooted prairie plants).

While vegetation increases the amount of sediment-laden runoff captured and evaporated, swales enable sediment to settle out producing a cleaner runoff for the environment.

**Suitable Applications**

- To compensate overly generous parking ration requirements.
- Lots desiring minimum stall dimensions.
- To use the most space-efficient stall configuration for a site.

**Approach**

- Pavement Reduction can be established in 3 main ways:
1. Changing Municipal Codes.
  2. Reducing stall dimensions.
  3. Promoting shared parking lots.

<b>Activity: Parking Lot Design</b>	<b>SPD-02.1</b>
<b>Installation Procedures</b>	<ul style="list-style-type: none"> <li>➤ Avoid compaction by not driving on areas during construction.</li> <li>➤ Loosen soils in planting areas to a depth of 24 inches, to a maximum compaction of 85% standard proctor density.</li> </ul>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>➤ Planted areas must be weeded monthly during the first two to three years. After initial years, once or twice a growing season will be sufficient.</li> <li>➤ Water regularly during dry spells.</li> <li>➤ Irrigation should be two inches per week maximum.</li> <li>➤ Push street snow away from swales during winter seasons to avoid road sand accumulation.</li> </ul>
<b>Inspection Checklist</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Plants are watered regularly during dry weather.</li> <li><input type="checkbox"/> Weeds are under control.</li> </ul>