

Volume Control Practice	Pretreatment Measures
Bioretention Facility	<ul style="list-style-type: none"> <li>● Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility.</li> <li>● Vegetated filter strip, grass-lined channel, or sump must be installed upstream of the facility to filter out settleable particle and floatable materials.</li> <li>● Where inflow velocities are greater than 3 ft/s, a vegetated filter strip or rock outlet protection must be installed to prevent erosion and distribute flows across the facility.</li> <li>● Vegetated portions of the contributing drainage area must be stabilized.</li> </ul>
Bioswale	<ul style="list-style-type: none"> <li>● Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility.</li> <li>● Vegetated portions of the contributing drainage area must be stabilized.</li> </ul>
Constructed Wetlands	<ul style="list-style-type: none"> <li>● Where inflow velocities are greater than 3ft/s, rock outlet protection should be provided to prevent erosion and distribute the flows into the facility.</li> <li>● Vegetated portions of the contributing drainage area must be stabilized.</li> </ul>
Drywell	<ul style="list-style-type: none"> <li>● Filter screens must be installed on all roof drains directed toward the facility.</li> <li>● For facilities that include inflow pipes, sump shall be installed at manhole immediately upstream of facility.</li> </ul>
Green Roof	<ul style="list-style-type: none"> <li>● No Pretreatment measures required.</li> </ul>
Infiltration Trench	<ul style="list-style-type: none"> <li>● Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility.</li> <li>● Vegetated filter strip, grass-lined channel, or sump must be installed upstream of the trench to filter out settleable particle and floatable materials.</li> <li>● Where inflow velocities are greater than 3 ft/s, a vegetated filter strip or rock outlet protection must be provided to prevent erosion and distribute flows across the facility.</li> <li>● Vegetated portions of the contributing drainage area must be stabilized.</li> </ul>
Permeable Pavement	<ul style="list-style-type: none"> <li>● Vegetated filter strip, grass-lined channel, or sump must be installed upstream of the facility to filter out settleable particle and floatable materials.</li> <li>● Vegetated portions of the contributing drainage area must be stabilized.</li> </ul>
Storage Below Detention Basin Outlet	<ul style="list-style-type: none"> <li>● Where inflow velocities are greater than 3 ft/s, rock outlet protection should be provided to prevent erosion and distribute the flows into the facility.</li> <li>● Vegetated portions of the contributing drainage area must be stabilized.</li> </ul>
Vegetated Filter Strip	<ul style="list-style-type: none"> <li>● Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility.</li> <li>● Vegetated portions of the contributing drainage area must be stabilized.</li> </ul>
Water Reuse System	<ul style="list-style-type: none"> <li>● Filter screens must be installed on all roof drains directed toward the facility.</li> <li>● For facilities that include inflow pipes, sump shall be installed at manhole immediately upstream of facility.</li> </ul>

1. A porosity of 0.36 shall be used to calculate volume in CA-1 or CA-7 gradation, 0.25 for CA-16 (volume above underdrain credited at 50%)
2. Storage calculated using average-end method between surface elevation and elevation of overflow grate/check dam.
3. Porosity of 0.25 shall be used to calculate volume in growing media (volume above underdrain at 50%)
4. Surface storage only if check dams are installed.



TECHNICAL GUIDANCE MANUAL

7/1/15

VOLUME CONTROL PRETREATMENT MEASURES

STD. DWG. NO.16

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