

## BMP C106: Wheel Wash

<b>Purpose</b>	Wheel washes reduce the amount of sediment transported onto paved roads by motor vehicles.
<b>Conditions of Use</b>	When a stabilized construction entrance (see <a href="#">BMP C105</a> ) is not preventing sediment from being tracked onto pavement. <ul style="list-style-type: none"><li>• Wheel washing is generally an effective BMP when installed with careful attention to topography. For example, a wheel wash can be detrimental if installed at the top of a slope abutting a right-of-way where the water from the dripping truck can run unimpeded into the street.</li><li>• Pressure washing combined with an adequately sized and surfaced pad with direct drainage to a large 10-foot x 10-foot sump can be very effective.</li><li>• Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer with local sewer district approval.</li><li>• Wheel wash or tire bath wastewater should not include wastewater from concrete washout areas.</li></ul>
<b>Design and Installation Specifications</b>	Suggested details are shown in <a href="#">Figure 4.1.2</a> . The Local Permitting Authority may allow other designs. A minimum of 6 inches of asphalt treated base (ATB) over crushed base material or 8 inches over a good subgrade is recommended to pave the wheel wash. <p>Use a low clearance truck to test the wheel wash before paving. Either a belly dump or lowboy will work well to test clearance.</p> <p>Keep the water level from 12 to 14 inches deep to avoid damage to truck hubs and filling the truck tongues with water.</p> <p>Midpoint spray nozzles are only needed in extremely muddy conditions.</p> <p>Wheel wash systems should be designed with a small grade change, 6-to 12-inches for a 10-foot-wide pond, to allow sediment to flow to the low side of pond to help prevent re-suspension of sediment. A drainpipe with a 2- to 3-foot riser should be installed on the low side of the pond to allow for easy cleaning and refilling. Polymers may be used to promote coagulation and flocculation in a closed-loop system. Polyacrylamide (PAM) added to the wheel wash water at a rate of 0.25 - 0.5 pounds per 1,000 gallons of water increases effectiveness and reduces cleanup time. If PAM is already being used for dust or erosion control and is being applied by a water truck, the same truck can be used to change the wash water.</p>

## Maintenance Standards

The wheel wash should start out the day with fresh water.

The wash water should be changed a minimum of once per day. On large earthwork jobs where more than 10-20 trucks per hour are expected, the wash water will need to be changed more often.

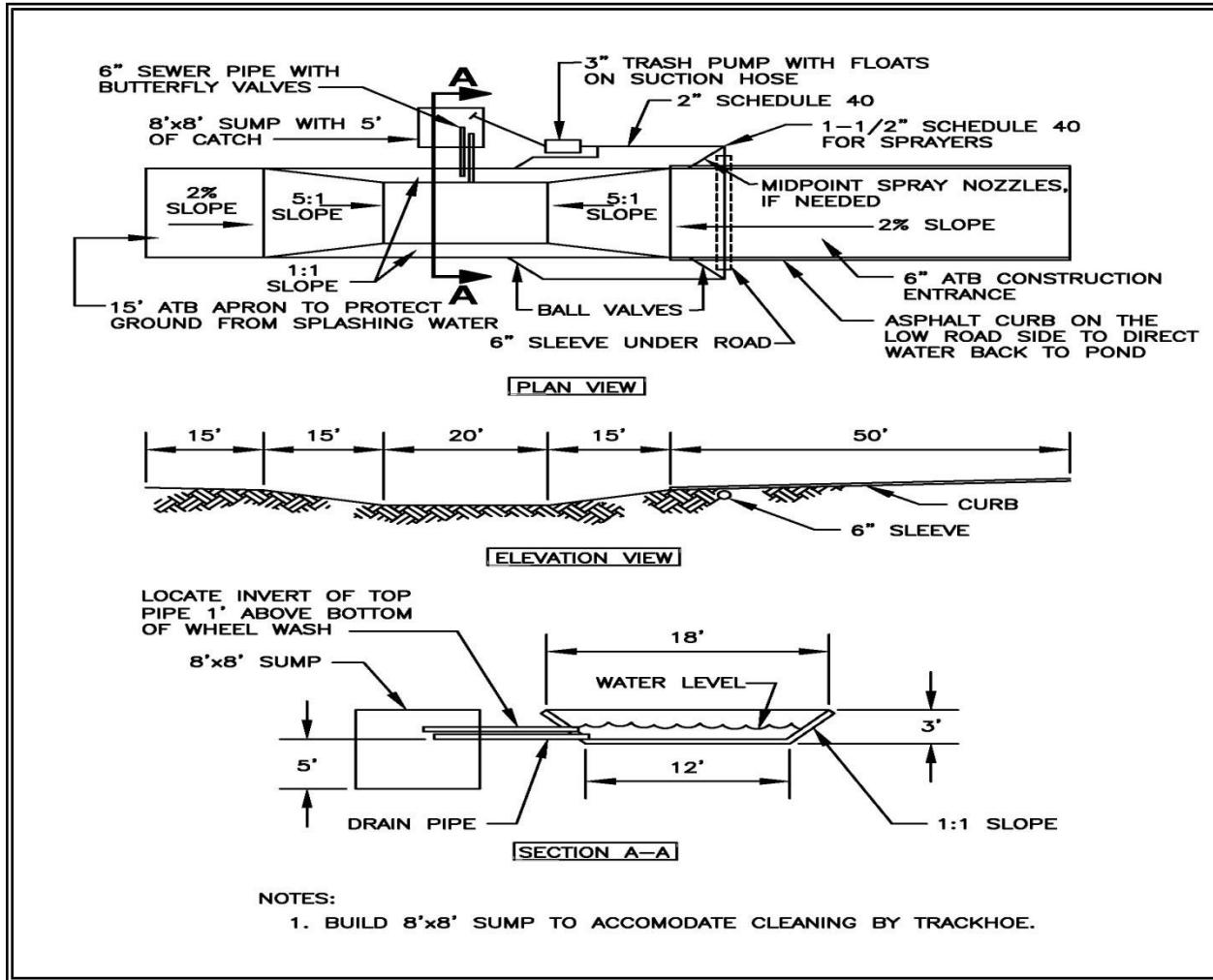


Figure 4.1.2 – Wheel Wash

Notes:

1. Asphalt construction entrance 6 in. asphalt treated base (ATB).
2. 3-inch trash pump with floats on the suction hose.
3. Midpoint spray nozzles, if needed.
4. 6-inch sewer pipe with butterfly valves. Bottom one is a drain. Locate top pipe's invert 1 foot above bottom of wheel wash.
5. 8 foot x 8 foot sump with 5 feet of catch. Build so the sump can be cleaned with a trackhoe.
6. Asphalt curb on the low road side to direct water back to pond.

7. 6-inch sleeve under road.
8. Ball valves.
9. 15 foot. ATB apron to protect ground from splashing water.