

NS-3 PAVING, SAW CUTTING AND GRINDING OPERATIONS

ITD Standards and Specifications for Highway Construction, Section 203.



BMP Objectives

- Perimeter Control
- Slope Protection
- Borrow and Stockpiles
- Drainage Areas
- Sediment Trapping
- Stream Protection
- Temporary Stabilizing
- Permanent Stabilizing

Definition and Purpose

Paving, saw cutting, and grinding operations often involve the use of materials containing potentially harmful chemicals and can generate fine particles that should not be allowed to enter receiving waters.

Appropriate Applications

These procedures are implemented where paving, surfacing, resurfacing, grinding, or saw cutting, may pollute runoff or discharge to the storm drain system or watercourses.

Limitations

- Finer solids are not effectively removed by filtration systems.
- Chemicals and oils are difficult to capture.

Design Parameters

- Release agents used to coat asphalt transport trucks and asphalt spreading equipment shall be non-foaming and non-toxic.
- Place plastic materials under asphaltic concrete (AC) paving equipment while not in use, to catch and/or contain drips and leaks. See also WM-5 (Spill Prevention and Control).
- When paving involves AC, implement the following steps to prevent the discharge of grinding residue, un-compacted or loose AC, tack coats, equipment cleaners, or other paving materials:
 - Sand and gravel from new asphalt must be prevented from getting into storm drains or any surface water feature.

- Old or spilled asphalt must be recycled or disposed of as approved.
 - AC grindings, pieces, or chunks used in embankments or shoulder material must not be allowed to enter any storm drains or watercourses. Install a silt fence or inlet protection until stabilized or permanent controls are in place.
 - All broken asphalt must be collected, removed, and, when practical, recycled; otherwise, dispose of as approved.
 - During chip seal application and sweeping operations, petroleum, petroleum-covered aggregate, or fine particulates, must not be allowed to enter any storm drain or watercourses. Apply temporary perimeter controls, such as inlet protection, until all chip seal materials are completely cured and sweeping of excess is complete.
- Use care during application of seal coat, tack coat, slurry seal, and/or fog seal near drainage inlet structures and manholes. To avoid introduction of these materials into the storm drain system or sewer, apply these materials by hand sprayer or brush when working adjacent to inlets, or cover drainage inlet structures and manholes with plastic.
 - Seal coat, tack coat, slurry seal, or fog seal shall not be applied if rain is predicted to occur during the application or curing period.
 - Paving equipment parked on-site shall be parked over plastic to prevent a release to soil or groundwater.
 - Clean asphalt-coated equipment off-site whenever possible. When cleaning dry, hardened asphalt from equipment, manage hardened asphalt debris as described in WM-5 (Solid Waste Management). Any cleaning on-site shall follow NS-8 (Vehicle and Equipment Cleaning).
 - Do not wash sweepings or grindings from exposed aggregate concrete into a storm drain system. Collect and return to aggregate base stockpile or dispose of as approved.
 - If aggregate is washed on-site, allow aggregate rinse to settle. Then, either allow rinse water to evaporate in a temporary pit, as described in WM-9 (Concrete Waste Management), or dispose of as approved.
 - Do not allow saw-cut Portland Concrete Cement (PCC) slurry to enter storm drains or watercourses.

Pavement Grinding or Removal

- Residue from grinding/saw cutting operations collected and contained, shall not be allowed to flow across the pavement, and shall not be left on the surface of the pavement. See also WM-9 (Concrete Waste Management) and WM-11 (Liquid Waste Management).
- Collect pavement dig-out material by mechanical or manual methods. This material may be recycled or, if allowed in the contract documents, used as shoulder material or base material at locations approved by the Engineer.
- If dig-out material cannot be recycled, dispose of as approved by the Engineer.

- Stockpile material removed from roadways away from drain inlets, drainage ditches, and watercourses, and store consistent with WM-4 (Stockpile Management).
- Dispose or use AC grindings as approved by the Engineer. See also WM-9 (Concrete Waste Management).

Raised/Recessed Pavement Marker Application and Removal

- Do not transfer or load bituminous material near drain inlets, the stormwater drainage system, or watercourses.
- Load melting tanks with care and do not overfill. Leave approximately 6 inches from the top of the tank.
- When servicing or filling melting tanks, ensure all pressure is released before removing lids to avoid spills.
- On large-scale projects, use mechanical or manual methods to collect excess bituminous material from the roadway after removal of markers.
- Dispose of waste as approved.

Maintenance and Inspection

- Conduct inspections as required by the NPDES permit or contract specifications.
- Ensure that employees and subcontractors are implementing appropriate measures during paving, grinding or cutting operations.