Fairfax County 2024 MS4 Program Plan and Annual Report

Appendix P4

Roadways SOP's - Roadways and Parking Lots Construction

VSMP Permit Number VA0088587
9-30-2024

Department of Public Works and Environmental Services
POLICIES AND PROCEDURES Memorandum No.: MSMD18-03

SUBJECT: Roadway and Parking Lot Construction and Maintenance

Effective: 3/27/2018 Revised: 6/18/2019 Approval:

I. Purpose

Asphalt, concrete, and pervious surfaces are provided and maintained by the County for vehicular and pedestrian access over County right-of-ways (ROW) and within County facilities. If not handled properly, pollutants associated with the construction and maintenance of these have the potential to negatively impact water quality. This Roadway and Parking Lot Construction and Maintenance standard operating procedure (SOP) has been designed to provide County personnel and contractors a set of standard procedures that must be followed to prevent negative impacts to surface waters. This SOP was developed to focus on specific activities related to roadway and parking lot construction and maintenance that are undertaken by County personnel and/or contractors on County property. This SOP shall be considered the primary pollution prevention guidance document for projects that are not being conducted under a formal stormwater pollution prevention plan (SWPPP) or similar pollution prevention plan required by a specific permit or regulation.

This SOP will satisfy the following MS4 permit section:

> "*IB2c: Roadways. Streets, roads, and parking lots maintained by the permittee shall continue to be operated and maintained in a manner to minimize discharge of pollutants, including those pollutants related to deicing or sanding activities.*
>
> 1) *No later than 12-months after the effective date of this state permit, the permittee shall develop and maintain an accurate list of permittee maintained roads, streets and parking lots that include the street name, the miles of roadway not treated by BMPs, and miles of roadway treated with BMPs*
> 2) *No later than 36-months after the effective date of this state permit, the permittee shall develop and implement written protocols for permittee maintained road, street, and parking lot maintenance, equipment maintenance and material storage designed to minimize pollutant discharge.*
> 3) *Materials utilized for deicing and sanding activities shall remain covered from precipitation until application.*
> 4) *The permittee shall not apply any deicing agent containing urea or other forms of nitrogen or phosphorous to parking lots, roadways, and sidewalks or other paved surfaces."*

II. Responsible Parties

1. *Maintenance and Stormwater Management Division (MSMD)* – provides repairs and maintenance at 10635 West Drive, Central Maintenance Facility (CMF), and Dulles Materials Facility (DMF). MSMD also leads snow removal activities for most public facilities not managed by Fairfax County Public Schools, Solid Waste Management, or Fairfax County Park Authority.
2. *Fairfax County Public Schools (FCPS)* – provides surface construction, repair and maintenance at all County school facilities. A list of these locations is maintained by FCPS.
3. *Fairfax County Park Authority (FCPA)* - provides surface construction, repair and maintenance of parking lots, access roadways, and trails at County park facilities. A list of park facilities is maintained by FCPA.
4. *Facilities Management Division (FMD)* – provides pavement marking, asphalt and concrete pavement repair and asphalt pavement construction overlay at various County facilities with the assistance of contractors.
5. *Solid Waste Management (SWM)* - provides surface construction and repair at the County's Solid Waste facilities.
6. *Utilities Design and Construction Division (UDCD)* – provides construction of roadway, sidewalk, trail, intersection improvement and traffic calming projects throughout the County.
7. *Wastewater Management (WWM)* – provides surface construction, repair, and maintenance at County facilities and within VDOT ROWs with in-house support as well as assistance of contractors. A list of these locations is maintained by WWM at Noman Cole Plant and Freds Oak Facility, and includes the Noman Cole Treatment Plant Facility, Freds Oak Facility, Sanitary Sewer Pumping Stations/access roads and sewer repairs within VDOT right-of-ways.
8. Other departments/agencies that perform construction and maintenance activities at facilities they operate include *Department of Vehicle Services (DVS)*.
9. Parking lot and roadway construction, large repair projects, and surface painting operations at some facilities are outsourced to contractors, with the expectation that contracted services will be consistent with services provided by the County.

III. General Procedures

1. Ensure spill response material/equipment is readily available when work activity requires the use of paints, chemicals, or other material that could harm human health or the environment.
2. Provide for protection of storm drain inlets when working in close proximity and there is a potential for a discharge to a storm drain as the result of a spill or a precipitation event.
3. Ensure that material safety data sheets (MSDS) are available for all materials used during surface repair and maintenance activities. MSDS should be readily available and accessible to all County and contractor personnel handling chemicals or other potentially harmful materials.
4. To the extent possible, construction and maintenance activities should only be scheduled and conducted during dry weather. All possible precautions should be used to avoid conducting potential pollution generating construction and maintenance activities immediately before or during times when precipitation is likely.
5. During periods of construction and/or maintenance, the work area should be routinely inspected for signs of spills, leaks, trash accumulation, illicit discharges from the site, build up of sediment, or other conditions that may result in the discharge of pollutants from the site to the storm drainage system.

6. To the extent possible, broom sweep or vacuum all surfaces periodically to keep the work area clean and free from pollutants. Hosing down surfaces should be avoided unless the area is completely contained so that all drainage is directed to the sanitary sewer.

IV. Asphalt Surface Repair and Maintenance

1. Store mixed asphalt material under cover and protected from precipitation and extreme temperatures.
2. Reduce the amount of asphalt material stored onsite. When possible, purchase only the amount of material necessary to complete a project.
3. If bulk material storage is necessary, locate storage area outside of the drainage conveyances and away from storm drain inlets.
4. Minimize the amount of water used when conducting asphalt cutting, grinding, or milling. Water should only be used in amounts necessary to control dust or provide lubrication, and should never be used in amounts that would result in a flow that could discharge to the storm drainage system.
5. All sediment and debris resulting from cutting, grinding, milling, or other repair and maintenance should be contained, swept up, and disposed of properly. Refer to the *Street Sweeping SOP* for additional guidance as needed.
6. Promote use of only asphalt-based products for sealcoat or similar treatment applications where possible. The use of coal tar-based products should be discouraged at any County facility to the greatest extent possible.
7. Apply sealants or other liquid surface treatments with care, avoiding misapplication to a storm drain or other non-asphalt surface. When conditions require application adjacent to a storm drain inlet, consider the use of an impervious inlet cover to prevent unintended spray into the storm drain.

V. Surface Painting/Striping

1. When removing old paint, contain the removed paint to the extent possible and dispose as appropriate. If there is a potential to encounter lead-based paint, additional precautions not outlined in this SOP may be required.
2. When using high pressure water to remove old paint, protect nearby inlets to prevent the discharge of waste paint, sediment, or other pollutants into the storm drainage system. Use perimeter control around the work area to collect removed paint and dispose as appropriate.
3. When surface grinding or sand blasting to remove paint, sweep up paint debris immediately. If water is used for grinding, minimize the amount of water to prevent a discharge to the storm drainage system.
4. To the extent practicable, use thermoplastic markings instead of paint for all surface striping.
5. All paint should be stored inside and protected from precipitation.
6. To the extent practicable, handle paint in a contained area, under cover from precipitation. If secondary containment is not available, use temporary structural best management practices to protect storm drain inlets and prevent the discharge of paints in the event of a spill.
7. Apply paint at an appropriate rate to prevent excess paint from running off the site.
8. In the event of a spill, containment material should be deployed to contain the spill and prevent paint from entering the storm drain.
9. Dispose of all waste material in an appropriate manner. Excess latex and water based paint that is not able to be used elsewhere can be allowed to dry, under cover from precipitation, and disposed of as solid waste. Refer to product information for specific requirements for disposal.

Leftover oil based paints and solvents must be disposed of as hazardous waste according to federal and state environmental regulations; these materials may not be disposed of at the County's household hazardous waste facilities. For assistance in arranging hazardous waste disposal, call the County's Solid Waste Management Program.

10. Paint equipment should be washed after use in a designated wash area that is plumbed to a sanitary sewer, or approved containment structure.

VI. Concrete Surface Repair and Maintenance

1. Store dry concrete material inside, under cover from precipitation.
2. Minimize the amount of concrete material stored onsite. If possible, purchase only the amount of concrete material needed for a particular job.
3. Identify storm drain inlets located in the vicinity of the work site. Storm drain inlets should be protected with a barrier if the work is in close proximity to the inlets and there is a reasonable chance for material to discharge to the inlet as the result of a spill or precipitation event.
4. To control dust, "wet" cutting methods should be used when practicable. Minimize the amount of water used when conducting cutting to prevent a discharge to the storm drain system. Saw cut slurry should be contained and properly disposed. Using a vacuum to contain slurry in the saw cutting process is an effective way to ensure that pollutants are not allowed to enter storm drains or other stormwater infrastructure.
5. Remove demolished concrete or related debris and dispose in a landfill facility as appropriate. Dry cleanup methods (broom and shovel) should be used to manage concrete debris to the extent practicable.
6. A concrete washout should be clearly established and identified at any location where concrete is to be mixed or poured. The concrete washout should be constructed with an impervious material and in a manner that would prevent washout material from discharging to the storm system.
7. Excess material that cannot be used at another location or project can be discharged into the designated concrete washout facility, if adequate capacity exists, where it should be allowed to dry and then be disposed as construction waste.

VII. Low Impact Development (LID) Considerations

1. Prior to conducting any construction or maintenance work, locate and identify any LID within the project area (examples may include pervious or porous pavement, rain gardens, and vegetated islands). Contact MSMD for assistance in identifying these areas at County facilities.
2. Clearly delineate porous pavement, pervious pavers, and similar surfaces that are not easily distinguishable from traditional surfaces, to increase awareness of these surfaces.
3. Surface vacuuming should be performed on a routine basis and in the event of a spill of any material that may clog pore spaces. While sweeping may be effective, it can lead to clogging of pores with sediment and other granular material.
4. Do not locate staging areas, equipment, or material storage areas on top of porous pavement.
5. Take future maintenance requirements into consideration when constructing porous pavements. Porous surfaces should not be intermingled with traditional surfaces where separate maintenance practices are not physically possible.

VIII. Contractor Coordination

1. Provisions of this SOP should be incorporated into contracting agreements, primarily through the inclusion in contract technical specifications. Project specific requirements for the proper

handling of roadway and parking lot construction and maintenance materials should be included in project work orders, when not clearly included in contract technical specifications.

2. Requirements of this SOP and any additional project specific requirements shall be discussed with contractors in project contract discussions, pre-construction meetings, or through other similar avenues to ensure that contractors are instructed on the details of this SOP.
3. To the extent possible, contractors should consider the use of asphaltic based sealants instead of coal-tar based sealants on County projects.

IX. Training Requirements

1. All employees engaged in roadway and parking lot construction and maintenance shall be trained in the proper use and handling of asphalt and concrete materials, paints, and other related materials and equipment. The training should include the technical aspects of the construction and maintenance activity as well as the pollution prevention measures included in this SOP.

X. VPDES Permitted Facilities

Stormwater discharges associated with industrial activity that are authorized by a Virginia Pollutant Discharge Elimination System (VPDES) Industrial Stormwater Permit are authorized to discharge through the MS4. Those County facilities that hold a VPDES Industrial Stormwater Permit shall follow the conditions established under that permit, including development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). When possible, VPDES Industrial Stormwater Permit holders and Stormwater Planning Division shall review appropriate SOPs, Best Management Practices (BMPs) and guidelines for inclusion in the facility's SWPPP with final approval by the site's director.

Significant updates or changes to this SOP will be distributed to representatives from all applicable County agencies for approval. For any questions, please contact

John Burke, Ecologist III
Stormwater Maintenance Division
10635 West Dr.
Fairfax, VA 22030
Office: 703.877.2879
Mobile: 202.308.8695
John.burke2@fairfaxcounty.gov