

901 - STORMWATER POLLUTION MANAGEMENT

901.1 DESCRIPTION

Design, implement, inspect and maintain appropriate Best Management Practices (BMPs), in accordance with Sections 901 and 902 of the Standard Specifications except as modified herein, to minimize or eliminate erosion, sediment and other pollutants in stormwater runoff from the project.

Stormwater Pollution Management Bid Item	Units
Water Pollution Control Manager	Each
SWPPP Inspection	Each

901.2 GENERAL REQUIREMENTS

Take all measures necessary including, but not limited to, the installation, maintenance and removal of temporary erosion and pollution control BMPs as required during the construction of the project to prevent erosion and pollution on the project and project related borrow areas in accordance with the requirements of the Kansas Department of Health and Environment (KDHE) National Pollution Discharge Elimination System (NPDES) Stormwater Runoff from Construction Activities General Permit (herein after referred to as Construction General Permit), City Ordinances, and the Stormwater Pollution Prevention Plan (SWPPP) developed for the project.

a. Permits

Owners or operators of construction activities which may disturb one (1.0) or more acres of soil or are part of a larger common plan of development or sale which may disturb a cumulative total of one (1.0) or more acres of soil must obtain a Construction General Permit and other local permits as required. Where such permits are required, the Owner will provide the Contractor with a Stormwater Pollution Prevention Plan (SWPPP) which has been prepared by the Engineer or other qualified professional. The Contractor shall comply with all requirements of such permits and the SWPPP, and shall enforce compliance with such requirements by all Subcontractors.

If a Construction General Permit is not required for a project, the Engineer may waive certain documentation and record-keeping provisions of this specification. The Contractor is required to comply with all other provisions in this specification and is required to install such measures for erosion and pollution control as may be called for in the plan or ordered by the Engineer.

b. Installation, Maintenance, and Removal of BMPs

(1) **Installation:** Install erosion and pollution control BMPs as shown on the plans. Do not perform any land disturbance until erosion and pollution control BMPs are in place and approved by the Engineer. As approved by the Engineer, installation of BMPs may occur simultaneously with the clearing and grubbing operations. Install BMPs to establish perimeter control of the project in areas where it is anticipated that storm water runoff will leave the project.

(2) **Maintenance:** All installed erosion and pollution control BMPs shall be maintained in a manner that preserves their effectiveness until all Construction General Permit requirements are met. If any BMP in place does not provide adequate protection, at any time during the project, alternate BMPs to provide effective control shall be provided. The obligation to conduct formal inspections and complete an associated report, as required in Subsection titled "SWPPP Inspections" of this special provision, does not limit or otherwise modify the Contractor's obligation to monitor and maintain temporary erosion and pollution control BMPs daily.

(3) Any deficiencies noted shall be corrected by the Contractor prior to the next anticipated rain event or within 7 calendar days of the inspection, whichever occurs first, despite weather conditions that make it difficult (but not impossible) to perform corrections. The Contractor shall receive no additional time for making corrections unless approved by the Engineer.

(4) Removal: Completely remove BMPs from the site when they are no longer needed, unless approved by the Engineer to remain in place for permanent stabilization or biodegradation. After removing BMPs, remove and dispose of accumulated sediment and permanently stabilize disturbed areas.

c. Storm Water Pollution Prevention Plan (SWPPP)

Projects disturbing 1 or more acres shall have a SWPPP in accordance with the Construction General Permit. Projects disturbing less than 1 acre, neither Construction General Permit coverage nor a SWPPP will be required. Even though a SWPPP is not required, the Contractor is required to comply with the City Ordinances and utilize appropriate BMPs to minimize stormwater pollution.

Prior to the Pre-construction conference, the Contractor shall provide the following SWPPP components for approval by the Engineer:

- (1) A detailed schedule of work to include phasing; overall job completion; and timing, duration, and sequencing of erosion and pollution control BMPs.
- (2) Written recommendations to amend or modify the Erosion and Sediment Control Plans to meet the Contractor's method of operations. The Contractor shall also advise the Engineer of any omissions or deficiencies they find in the SWPPP.
- (3) The City's Contractor Certification Form for discharge of stormwater runoff from construction activities.
- (4) Certification of KDOT's Construction Stormwater Training for designated Environmental Inspector and Water Pollution Control Manager.
- (5) Contractor shall indicate the following additional BMPs, as applicable, to minimize or eliminate contamination of stormwater runoff:
 - (i) Equipment and vehicle washing area;
 - (ii) Chemical, fuel and material storage area(s);
 - (iii) Construction entrance(s)
 - (iv) Stockpile(s)
 - (v) Dewatering
 - (vi) Location and type of waste management including but not limited to: solid (scrap material, product/shipping material, food containers and cups, etc); sanitary (portable toilet); paints, solvents, and cleaning compounds; concrete washout

A copy of the SWPPP shall be retained and available onsite. Copies of SWPPP inspections, as detailed in Subsection titled "SWPPP Inspections" of this special provision, shall be retained within the SWPPP.

The SWPPP shall be maintained to reflect modifications and amendments to the plans until all Construction General Permit requirements are met. During the progress of the job, the effectiveness and performance of the BMPs used shall be monitored and additional modifications and amendments proposed as needed. A daily rainfall log, kept by the contractor, shall be in the SWPPP notebook for the duration of the project. Update the SWPPP Erosion and Sediment Control Plans as work progresses to show changes due to revisions in work schedules or sequence of construction, or as directed by the Engineer. Update the Erosion and Sediment Control Plans to reflect BMPs that have been installed or removed. Once all Construction General Permit requirements are met, or at the Engineers request, the Contractor shall submit the SWPPP to the City.

d. Water Pollution Control Manager

A Water Pollution Control Manager (WPCM) will be required for all projects disturbing 1 or more acres. The WPCM will visit the Project during normal work hours on a frequent basis and in no instance less than once per week once construction activities commence and until all Construction General Permit requirements are met or the Engineer assumes responsibility. The WPCM shall

thoroughly review the project and SWPPP documentation during these site visits to ensure the Contractor's compliance with this specification and with the Construction General Permit. In addition, the WPCM shall:

- (1) Have the authority to supervise all work performed by the Contractor and subcontractors that involves stormwater requirements or affects stormwater compliance;
- (2) Have the responsibility to order Contractor employees and subcontractors to take appropriate corrective action to comply with stormwater requirements, including requiring any such person to cease or correct a violation of stormwater requirements and to order or recommend such other actions or sanctions as necessary to meet stormwater requirements;
- (3) Be familiar with the SWPPP;
- (4) Be responsible for updating the SWPPP to accurately reflect the BMPs in use, any BMP maintenance performed and any additional modifications and amendments on the Project.
- (5) Be the point of contact for the City regarding stormwater compliance;
- (6) Attend the pre-construction conference and scheduled weekly project progress meetings between the City and Contractor
- (7) Have obtained KDOT's Construction Stormwater Training certifications within forty-eight months prior to beginning construction activities and maintain these certifications current for the duration of the project;
- (8) Be responsible for reviewing and signing inspection reports within 3 days after receiving such reports, acknowledging awareness of any deficiencies and ensuring the correction of all deficiencies.
- (9) Maintain and monitor an active email account capable of receiving electronic communications including inspection reports, photos and other documents relevant to stormwater compliance.

The WPCM may, when practical, perform SWPPP Inspections according to subsection titled "SWPPP Inspections" of this special provision. Immediately notify the Engineer in writing if the designated WPCM is replaced. The replacement WPCM shall comply with the above requirements. The notification shall include training certificates and contact information for the replacement WPCM.

e. SWPPP Inspections

SWPPP inspections shall be performed for all projects disturbing 1 or more acres. SWPPP inspections shall be performed by the Contractor's Environmental Inspector. The Environmental Inspector shall have completed KDOT's Construction Stormwater Training within forty-eight months prior to beginning construction activities and maintain a current certification for the duration of the project. Where practical, the WPCM may also serve as Contractor's Environmental Inspector.

The Contractor's Environmental Inspector shall perform an inspection of the temporary erosion and pollution control BMPs such that a minimum of one Inspection (either routine or post-rainfall) is performed within every 14-day period.

Complete post-rainfall SWPPP Inspections no later than the end of the next business day following the occurrence of a qualifying rainfall event. Determine the need for a post-rainfall SWPPP Inspection according to the following:

1. Determine rainfall totals from local weather station reports (ie Stormwatch) of daily rainfall totals or from regularly scheduled on-site rain gauge monitoring.
2. Observe and record rainfall totals on each business day at a minimum. Rainfall occurring on nonbusiness days may be collected and measured on the subsequent business day. If no measurement is made (i.e. on a weekend or holiday) record 'n/a'. If no rainfall is received record 0.0 inches.
3. A SWPPP inspection is required whenever a rainfall total of 0.5 inches or greater is recorded for a single observation.

4. A SWPPP inspection is required whenever 0.5 inches or more is measured in two consecutive observations when the first observation is less than 0.5 inches. "n/a" as directed above is not considered to be an observation. A measurement of 0.0 inches is considered to be an observation.

Inspections shall continue at this frequency once construction activities commence and until all Construction General Permit requirements are met or the Engineer assumes responsibility. Document the SWPPP inspections on the City's inspection form titled "Stormwater Construction Site Inspection Report" (City's Inspection Form). The Contractor's Environmental Inspector shall sign the report.

Submit, via email, completed and signed copies of City's Inspection Form to the Engineer and Contractor's WPCM within 24 hours of the inspection. The WPCM shall review and sign the City's Inspection Form, and retain in the SWPPP within 3 calendar days of receipt. The WPCM's signature acknowledges awareness of all reported deficiencies and corrective actions required to be taken prior to the next anticipated rain event or within 7 calendar days of the inspection, whichever occurs first.

f. Maximum Areas Of Disturbance At One Time

Limit the erodible earth material exposed by clearing and grubbing, excavation, borrow and embankment operations according to the capability and progress, and in keeping with the approved schedule. Existing vegetation shall be preserved or retained as long as practical and the time period for soil areas to be without permanent surface or vegetative cover shall be minimized. DO NOT clear and grub areas unless meaningful work toward the completion of the project will actively be performed in the exposed area (or portions of the exposed area) within 7 calendar days on exposed steep slope areas (40% or greater) or within 14 calendar days for all other exposed areas.

Unless requested in writing from the Contractor, and approved in writing by the Engineer, or specified otherwise on the plans, do not exceed 750,000 square feet (17.2 acres) of surface area of erodible earth material at one time.

Disturbed areas which have been graded, stabilized and restricted from access will not count toward the 750,000 square feet limit.

g. Stabilization Of Disturbed Areas

Immediately initiate placement of appropriate erosion control BMPs in any exposed steep slope areas where construction activities have permanently or temporarily ceased, and will not resume for a period exceeding 7 calendar days. For vegetative cover areas, in addition to seeding, watering, mulching, and any other required activities related to the planting and establishment of vegetation, utilize other appropriate erosion control BMPs such as erosion control blankets and turf reinforcement mats.

Immediately initiate stabilization on areas that have been disturbed after construction activities have permanently ceased on that portion of the project site. Immediately initiate temporary stabilization BMPs on areas that have been disturbed after construction activities have temporarily ceased on that portion of the project site if construction activities will not resume for a period exceeding 14 calendar days. Temporary stabilization may include establishment of vegetation, geotextiles, mulches or other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb the area. This stabilization must be completed within 14 calendar days.

h. Construction Near Or In Water Bodies

Restrict construction operations near or in water bodies to those areas essential for the construction of temporary or permanent structures. When no longer required, promptly remove all falsework, piling, temporary crossings and other obstructions caused by the construction.

Minimize the duration of time over which area is disturbed. Once begun, construction shall proceed expeditiously to completion. Use temporary erosion and pollution control BMPs to prevent contamination of adjacent water bodies including the use of turbidity curtains, as approved by the

Engineer. Immediately initiate stabilization on areas that have been disturbed after construction activities have ceased on that portion of the project site.

Where practical, do not store equipment or materials (including soil stockpiles) within 50 feet of water bodies. Avoid storing equipment or materials (including soil stockpiles) in flowlines of ditches or other drainage courses. Where such storage is necessary, obtain the Engineer's written approval and include in the SWPPP appropriate BMPs for the storage area.

Temporary channels used to divert flow shall be constructed as shown in detail and shall be stabilized immediately.

Contractor shall not ford live streams with equipment, but shall use temporary stream crossing as detailed in the plans.

i. Borrow Areas

When borrow or plant sites are outside the project limits, Contractor shall obtain all required permits and clearances required for compliance.

j. Dewatering

During pumping or dewatering activities, a manufactured device, or other BMP that provides equal or better performance, for filtering sediments from water shall be provided as approved by the Engineer. Repair and/or replace as necessary to maintain function and integrity.

k. Sediment Removal

Accumulated sediment shall be removed when it exceeds the volumes specified for any particular BMP or when ordered by the Engineer. Sediments removed shall be mixed with other onsite materials and incorporated into project fills, spread loosely across the site, or hauled offsite as necessary. Sediments shall be located and stabilized to prevent erosion of sediment. Sediments hauled offsite shall be dewatered first or hauled in a water tight truck. When hauled offsite, Contractor shall obtain all required permits and clearances required for compliance.

l. Chemical And Waste Controls

(1) Solid Waste: Trash and debris shall be contained and hauled offsite for proper disposal.

Floating debris, found in any waterbody on or adjacent to the construction site, shall be removed immediately regardless of source.

(2) Sanitary Waste: Portable facilities shall be properly anchored and not be placed within 20 feet of any storm water inlet.

(3) Chemicals: Shall be stored onsite in their original container. Materials stored outside shall be in closed and sealed water-proof containers and located outside of drainageways or areas subject to flooding.

(4) Leak Prevention: All equipment used onsite shall be free of leaks. No fueling, servicing, maintenance, or repair of equipment shall be done within 50 feet of a water body. Onsite fuel tanks shall be in good condition, free of leaks or drips, painted brightly for visibility, and monitored daily. All fuel tanks, including mobile trailers, shall be protected by a secondary containment system or earthen berm sized to contain 110% of the full tank volume.

(5) Concrete Washout: Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, etc, shall be contained and not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out shall be designated on site, such that discharges during concrete washout shall be contained in a small area where waste concrete can solidify. If the washout facility is not within view from the pour location, signage will be required to direct the truck drivers.

(6) Spill Reporting and Management: In case of a spill notify the following in accordance with KDHE under part 10 of the Construction General Permit:

U.S. EPA National Response Center:

(24 hours a day) (800) 424-8802

Kansas Division of Emergency Management: (KDEM)

(24 hours a day) (785) 291-3333

Website: www.ksready.gov

KDHE Spill Report Hotline: (24 hours a day) (785) 296-1679

Spills that pose an immediate threat to public safety or contamination of a water body shall be reported immediately to the Overland Park Fire Department at 911 in addition to the afore mentioned emergency spill contacts.

Notify the Engineer in writing within 24 hours of any chemical, sewage or other material spill which is required to be reported to the KDHE under part 10 of the Construction General Permit. The notification shall include at a minimum the material spilled, location of the spill, and a description of containment or remediation actions taken. This notice to the Engineer does not relieve the Contractor of responsibility to report to the KDHE or to any other agency.

If it is safe to do so, Contractor shall stop the source of any spills or leaks and shall contain spills immediately with an appropriate BMP, earthen berm, sawdust, sand, kitty litter, rags or other absorbents. Contractor shall have the tools, equipment, and supplies necessary for spill response onsite at all times and ready for immediate use. All spills shall be cleaned up and disposed of in accordance with applicable federal, state, and local regulations.

901.3 COMPLIANCE DISINCENTIVE ASSESSMENT

In case of failure on the part of the Contractor to follow a requirement in this special provision; Part 7, Part 10, and Part 11 of the Construction General Permit, (or equivalent provisions in the event section numbers change in any future Permit), the Contractor shall pay the City a stipulated disincentive, not a penalty, to compensate the City for the probable and presumptive loss to the City for the Contractor's breach of its obligation under this special provision, according to the amount specified in the following schedule:

<u>Deficiency</u>	<u>Amount</u>
Failure to perform and/or document an inspection as required in Subsection titled "SWPPP Inspections" of this special provision. (CGP 7.2.10). Each failure is counted as one deficiency.	\$250.00 each
Failure to correct a documented BMP deficiency prior to the next anticipated rain event, or within 7 calendar days, whichever occurs first (CGP 7.2.10). Each failure is counted as one deficiency.	\$250.00 per calendar day for each
Failure to maintain the SWPPP to include, but not limited to, required documentation, rainfall log, updates, and modifications to site conditions and BMPs (CGP 7.3). Each omission is counted as one deficiency.	\$50.00 each

The Stormwater Compliance Disincentive Assessment will be deducted from contract funds. The disincentive assessment(s) are in addition to federal and state statutory penalties and fines that are allowed against the Contractor under the Clean Water Act and other environmental laws for violation of those laws.

Nothing in this special provision prevents KDHE, EPA, or both from assessing penalties and fines against the Contractor because of the Contractor's failure to comply with applicable laws,

regulations, ordinances, Construction General Permit, other permits, the SWPPP, governmental administrative compliance orders or corrective orders for the Project, or a combination thereof.

901.4 MEASUREMENT AND PAYMENT

(1) "Water Pollution Control Manager" shall be measured per each calendar week (Sunday through Saturday) at the contract unit price that the Contractor provides a WPCM in accordance with this special provision. Each week will be measured only once, regardless of the number of site visits or time spent performing WPCM duties.

(2) "SWPPP Inspection" shall be measured per each inspection performed in compliance with this special provision at the contract unit price. No direct payment shall be made for follow up visits to verify corrective actions have been completed for reported deficiencies as they are considered subsidiary.

(3) No measurement or payment will be made for dewatering as the use of such BMPs shall be subsidiary to other bid items.