

**KANSAS DEPARTMENT OF TRANSPORTATION
 SPECIAL PROVISION TO THE
 STANDARD SPECIFICATIONS, 1990 EDITION**

Note: This Special Provision is generally written in the imperative mood. The subject, "the Contractor", is implied. Also implied in this language are "shall", "shall be", or similar words and phrases. The word "will" generally pertains to decisions or actions of the Kansas Department of Transportation.

SECTION 904

EROSION AND POLLUTION CONTROL

Page 697, Section 904. Delete this Section and replace with the following:

SECTION 904

TEMPORARY EROSION AND POLLUTION CONTROL

1.0 DESCRIPTION.

Furnish, install, maintain, and remove temporary erosion and pollution control devices as required during the construction of the project.

BID ITEM	UNIT
Temporary Berm	meter
Temporary Slope Drain	meter
Temporary Ditch Check	meter
Temporary Ditch Check (Straw or Hay Bales Only)	meter
Temporary Slope Barrier	meter
Temporary Slope Barrier (Silt Fence Only)	meter
Temporary Sediment Basin	cubic meter
Temporary Inlet Sediment Barrier	Each
Sediment Removal (SET PRICE)	cubic meter
Seed (*)	kilogram
Fertilizer (N-P ₂ O ₅ -K ₂ O)	kilogram
Mulching	hectare
Erosion Control (*)	square meter
Seeding (TPWPC)	Lump Sum
Water Pollution Control(Soil Erosion)(SET PRICE)	Lump Sum

* Type

Note: Bid items "Seeding (TPWPC)" and "Water Pollution Control (Soil Erosion)" will only be used on projects with less than two hectares of erodible surface.

2.0 MATERIALS.

(a) Furnish materials conforming to the requirements specified in the Materials Division.

Seeds	Section 2100
Fertilizers	Section 2100
Mulching	Section 2100
Erosion Control	Section 2100
Silt Fence	Section 2100

(b) Temporary Slope Drain.

Furnish material that will carry water down slope. The material may be metal pipe, plastic pipe, or flexible rubber pipe.

The Project Engineer will accept the material for temporary slope drain on the basis of condition, and visual inspection of the installed drain.

(c) Straw or Hay Bales.

Furnish wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.

The Project Engineer will accept the straw or hay bales on the basis of visual inspection.

3.0 CONSTRUCTION REQUIREMENTS.

(a) Permits.

KDOT (or the City, or the County) will obtain a National Pollutant Discharge Elimination System (NPDES) permit for a project with *two hectares or more of erodible surface* (including offsite state furnished borrow areas). For Contractor furnished borrow areas, the Contractor is responsible for complying with all applicable rules and regulations and for obtaining all required permits.

Before any construction activities begin on the project, the Contractor (and subcontractors, if any) will certify that he understands the terms and conditions of the general NPDES permit. KDOT has developed a Storm Water Pollution Prevention Plan (SWPPP) that complies with the terms and conditions of the NPDES permit. The Contractor will comply with the requirements of KDOT's SWPPP.

A NPDES permit is not required for a project with *less than two hectares of erodible surface*. The Contractor is not required to certify understanding of the NPDES permit; nor is he

required to submit an erosion control schedule. However, the Contractor will comply with the concepts for erosion and pollution control presented in KDOT's SWPPP.

(b) Storm Water Pollution Prevention Plan.

KDOT's SWPPP includes Standard Specifications and Special Provisions and Plan sheets pertaining to temporary erosion and pollution control, inspection and maintenance reports (completed by KDOT), and the Contractor's erosion control schedule (see below).

Before any construction activities begin on the project, the Contractor, and any subcontractor who will implement any measures identified in the SWPPP, will certify that he understands the terms and conditions of the general NPDES permit. KDOT will furnish the certification form. The completed certification will be filed with the SWPPP.

Submit to the Engineer a schedule for the implementation and maintenance of erosion and pollution control work during the various phases of construction. Submit the schedule before the preconstruction conference, before any work on the project is done. No work on the project will be allowed until the Engineer has approved the schedule. Submit a schedule that contains, as a minimum, the following information:

(1) A site description, including:

- the nature of the activity,
- intended sequence of major construction activities,
- the total area of the site,
- the area of the site that is expected to undergo excavation,
- a site map, with:
 - area of soil disturbance,
 - outline of areas which will not be disturbed,
 - location of major structural and non-structural controls,
 - areas where stabilization practices are expected to occur.

(2) A description of controls:

- erosion and sediment controls, including:
 - stabilization practices for all areas disturbed by construction,
 - structural practices for all drainage/discharge locations,
 - other controls, including:
 - waste disposal practices which prevent discharge of solid materials into water in the U.S.,
 - measures to minimize offsite tracking of sediment by construction vehicles,
 - measures to ensure compliance with state or local waste disposal, sanitary sewer, or septic system regulations,
 - description of the timing, during the construction, of when the measures will be implemented, including permanent erosion control items when required in the contract.

(3) Acknowledgment that State and Local requirements have been included in the plan.

(4) A description of maintenance procedures for control measures identified in the plan.

Use temporary erosion and pollution control measures to control erosion resulting from the construction of the project.

Use temporary erosion and pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment.

Coordinate temporary erosion and pollution control measures with the construction of permanent erosion control features to provide continuous erosion control. Schedule construction of drainage structures and permanent erosion control features as soon as practical.

Initiate temporary erosion and pollution control measures as soon as practical, within 14 days after construction activities have temporarily or permanently ceased on a portion of the project site. Exceptions to this requirement are as follows:

If implementations of erosion and pollution control measures are precluded by snow cover, such measures will be undertaken as soon as practical.

If construction activities will resume on the portion of the project site within 21 days, temporary erosion and pollution control measures do not have to be initiated.

In arid regions (average annual rainfall of less than 250 mm), during seasonal arid conditions, the implementation of erosion and pollution control measures will be as soon as practical, but do not have to be initiated within 14 days.

The Engineer will limit the surface area of erodible earth material exposed by clearing and grubbing, by excavation, by borrow, and by embankment operations. The Engineer will limit the exposed erodible earth material according to the Contractor's capability and progress in keeping with the approved schedule. The surface area of erodible earth material exposed at one time will not exceed 70,000 m² per equipment spread, unless approved in writing by the Engineer.

When on site or state furnished off-site borrow areas are to be excavated below the ground water elevation, construct a permanent berm around the borrow area to prevent storm water runoff from entering the excavated area.

Restrict construction operations in rivers, streams, and other water impoundments to those areas which must be entered for the construction of temporary or permanent structures. If the Contractor's operations require a temporary stream crossing, install the crossing as shown on the Plans; the Contractor will be responsible for any necessary permits required. When no longer required, promptly remove all falsework, piling, or other obstructions caused by the construction. Avoid frequent fording of live streams with construction equipment.

Accomplish temporary erosion and pollution control through the use of berms, slope drains, ditch checks, slope barriers, sediment basins, seeding and mulching, and erosion control blankets. These measures may be taken at any time of the year.

Install and maintain temporary erosion and pollution control devices as shown on the Plans, or as dictated by weather conditions, actual site conditions, construction procedures, and as directed by the Engineer. If temporary erosion and pollution control is not implemented and maintained according to the approved schedule, all work on the project will cease until conditions are brought back into compliance, as determined by the Engineer.

(c) Temporary Berms.

Use temporary berms to divert storm runoff to stabilized slopes or temporary slope drains. Construct temporary berms to the approximate dimensions shown on the Plans. Compact the berms using a dozer track, grader wheel, or other equipment.

(d) Temporary Slope Drains.

Use temporary slope drains to carry storm runoff down fill slopes. Construct the inlet end to channel storm runoff into the temporary slope drain. Provide some means of dissipating the energy of the water at the outlet end of the temporary slope drain.

(e) Temporary Ditch Checks.

Unless otherwise shown on the Plans or in the Contract, the type of material (straw or hay bales, or silt fence) used for the temporary ditch checks will be determined by the Engineer. Before constructing temporary ditch checks, obtain the Engineer's decision on the type of material to use. Construct temporary ditch checks as shown on the Plans.

When deposits reach approximately one-half the height of the temporary ditch check, remove and dispose of the accumulated sediment.

(f) Temporary Slope Barrier.

Unless otherwise shown on the Plans or in the Contract, the Contractor may use either straw or hay bales, or silt fence to construct the temporary slope barrier.

(1) Temporary Straw or Hay Bales.

Place the temporary straw or hay bales as shown on the Plans. When deposits reach approximately one-half the height of the bale, remove and dispose of the sediment.

(2) Temporary Silt Fence.

Erect the silt fence as shown on the Plans. When hydraulic and sediment loading dictate, supplement the geotextile silt fence with a support fence.

Space posts a maximum of 2.4 m when using a support fence. Space posts a maximum of 1.5 m for self-supported installations. Drive the posts a minimum of 600 mm into the ground. Reduce the post spacing and drive the posts deeper in the ground in low areas and soft, swampy ground.

Remove and dispose of sediment deposits when the deposit approaches one-third the height of the silt fence.

(g) Temporary Sediment Basins.

Before constructing the temporary sediment basin, clear the area of all vegetation. Construct the temporary sediment basin with a wide cross-section and a minimum grade. Construct the temporary sediment basin as shown on the Plans. Dispose of excess excavated material.

When deposits reach approximately one-third the depth of the structure, remove and dispose of the accumulated sediment.

(h) Temporary Inlet Sediment Barrier.

Erect the silt fence, and chicken wire backing, as shown on the Plans.

Remove and dispose of sediment deposits when the deposit approaches one-third the height of the silt fence.

(i) Fertilizer, Seed, and Mulch.

Prepare the seedbed, fertilize, seed, and mulch according to the requirements of Division 900. Apply the temporary fertilizer, seed, and mulch at the rates shown on the Plans.

(j) Erosion Control.

Place erosion control according to the requirements of Division 900.

(k) Seeding (TPWPC).

The item of "Seeding (TPWPC)" is to be used only if the project has less than two hectares of erodible surface. If this item is used, fertilize, seed, and mulch all exposed erodible earth.

Prepare the seedbed, fertilize, seed, and mulch according to the requirements of Division 900. Apply the temporary fertilizer, seed, and mulch at the rates shown on the Plans.

(l) Water Pollution Control (Soil Erosion).

The item of "Water Pollution Control (Soil Erosion)" is to be used only if the project has less than two hectares of erodible surface. If this item is used, use the necessary erosion and pollution control devices to control soil erosion on the project.

(m) Maintenance and Removal of Temporary Erosion and Pollution Control Devices.

Maintain the integrity of the temporary erosion and pollution control devices as long as they are necessary to contain sediment runoff. Inspect the temporary erosion and pollution control devices immediately after each rainfall. Inspect the temporary erosion and pollution control devices at least daily during prolonged rainfall. Correct any deficiencies immediately.

When directed by the Engineer, remove the temporary devices. After removal of the temporary erosion and pollution control devices, remove and dispose of the silt accumulation. Grade and fertilize, seed, and mulch the bare areas.

4.0 MEASUREMENT AND PAYMENT.

The Engineer will measure temporary berms, temporary slope drains, temporary ditch checks, and temporary slope barriers by the meter complete in place. Temporary sediment basins will be measured by the cubic meters excavated to construct the basin. The Engineer will measure each temporary median inlet sediment barrier. Sediment removal will be measured by the cubic meters of sediment removed. The Engineer will measure temporary fertilizer, seed, and mulch as provided in Division 900. Erosion control will be measured as provided in Division 900.

"Seeding (TPWPC)" will be measured as a complete unit, no measurement of area will be made. "Water Pollution Control (Soil Erosion)" will be measured on an extra work basis.

"Sediment Removal" will be paid at the set Contract price. "Water Pollution Control (Soil Erosion)" will be paid for on an extra work basis according to the Standard Specifications, except that no change order will be required prior to starting work. Payment for "Water Pollution Control (Soil Erosion)", not to exceed the amount set in the Contract, may be made without prior approval. The Engineer will obtain prior approval before making payment for this item in excess of the set Contract price.

Other items of temporary erosion and pollution control will be paid at the Contract unit prices.

Payment for the various items of erosion and pollution control will be full compensation for the specified work. Contract unit prices will govern regardless of overruns or underruns of the estimated quantity.

03-21-97 BD(ES) (SV)

000904001	Temporary Slope Drain	LNFT 90M-151-R*	ACCP
000904002	Temporary Ditch Check	LNFT 90M-151-R4	ACCP
000904003	Temporary Slope Barrier	LNFT 90M-151-R4	ACCP
000904004	Seeding (TPWPC)	LSUM 90M-151-R4	ACCP
000904005	Water Pollution Control (Soil Er)	LSUM 90M-151-R4	ACCP
000904006	Temp. Inlet Sediment Barrier	EACH 90M-151-R4	ACCP