



Florida Department of Transportation

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GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

July 30, 2024

Cathy Kendall
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: 104
Proposed Specification: **1040400 Prevention, Control, and Abatement of Erosion and Water Pollution.**

Dear Ms. Kendall:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Jason Russell to match changes in FDM Chapter 251 and 908.

Please review and transmit your comments, if any, within two weeks (10 business days). Comments should be sent via email daniel.strickland@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at (850) 414-4130.

Sincerely,

Signature on File

Daniel Strickland, P.E.
State Specifications Engineer

DS/jb

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION.
(REV 5-23-24)

ARTICLE 104-4 is deleted and the following substituted:

104-4 Materials for Temporary Erosion Control.

Meet the following requirements:

Temporary Sod.....Section 570

Geotextile Materials*Section 985

*Use products listed on the Department's APL.

For materials that are part of the permanent work, meet the testing requirements of the applicable permanent materials.

For materials not part of the permanent work, no testing is required; acceptance will be based on visual inspection.

Use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project.

~~For geotextile fabrics, use a product on the Approved Product List (APL) meeting the requirements of Section 985.~~

ARTICLE 104-5 is deleted and the following substituted:

104-5 Preconstruction Requirements.

Prior to the Preconstruction Conference, submit ~~an~~ a site-specific Stormwater Pollution Prevention Plan (SWPPP) and the associated Erosion and Sediment Control Plan meeting the requirements ~~or~~ and special conditions of all permits authorizing project construction. If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the ~~project's~~ Contractor's site-specific Erosion and Sediment Control Plan will be governed by 7-1.1, 7-2.2, 7-8.1, 7-8.2, and Section 104.

When a ~~DEP~~ NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities permit (CGP) is ~~issued~~ required, the Contractor's SWPPP and the associated Erosion and Sediment Control Plan shall be prepared to accompany the Department's Stormwater ~~Pollution Prevention Plan~~ Runoff Control Concept. ~~Ensure the~~ The SWPPP and Erosion and Sediment Control Plan ~~includes procedures to control off-site tracking of soil by vehicles and construction equipment and a procedure for cleanup and reporting of non-storm water discharges, such as contaminated groundwater or accidental spills~~ must meet all of the requirement of the NPDES CGP, specifically Part 4. Do not begin any soil disturbing activities before receiving the Engineer's written ~~approval~~ acknowledgement of the SWPPP and Erosion and Sediment Control Plan, ~~and~~ including the required signed certification statements.

Failure to sign and submit any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements is considered a violation of the ~~DEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities~~ NPDES CGP.

Prepare a site-specific SWPPP and the associated Erosion and Sediment Control Plan in accordance with the planned sequence of operations and present it in a format acceptable to the Department. The SWPPP and Erosion and Sediment Control Plan shall describeinclude, but not be limited to, the following items or activities:

1. For each phase of construction operations or activities, supply the following information:

- a. A Site Plan with Llocations of all erosion control devices best management practices
- b. Types of all erosion control devices
- c. Estimated time erosion control devices will be in operation
- d. Monitoring schedules for maintenance of erosion control devices
- e. Methods of maintaining erosion control devices
- f. Dewatering plan
- g. Locations of all stored fuel or other containmentspetroleum products, pollutants, chemicals, concrete washouts, sanitary waste, or other hazardous waste
- h. Spill prevention and response measures and disposal and removal methods
- i. Submit any changes to the Erosion and Sediment Control Plan within seven calendar days

2. The name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.

~~3. Submit for approval the Erosion and Sediment Control Plans meeting paragraphs 3a, 3b, or 3c below:~~

~~a. Projects permitted by the Southwest Florida Water Management District (SWFWMD), require the following:~~

~~Submit the Erosion and Sediment Control Plan to the Engineer for review and to the appropriate SWFWMD Office for review and approval. Include the SWFWMD permit number on all submitted data or correspondence.~~

~~The Contractor may schedule a meeting with the appropriate SWFWMD Office to discuss the Erosion and Sediment Control Plan in detail, to expedite the review and approval process. Advise the Engineer of the time and place of any meetings scheduled with SWFWMD.~~

~~Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from both SWFWMD and the Engineer.~~

~~b. Projects permitted by the South Florida Water Management District or the St. Johns River Water Management District, require the following:~~

~~Obtain the Engineer's approval of the Erosion and Sediment Control Plan.~~

~~Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from the Engineer.~~

~~c. Projects authorized by permitting agencies other than the Water Management Districts or projects for which no permits are required require the following:~~

~~The Engineer will review and approve the Contractor's Erosion and Sediment Erosion Control Plan.~~

Do not begin construction activities until the SWPPP and the associated Erosion and Sediment Control Plan receives written ~~approval~~ acknowledgement from the Engineer.

ARTICLE 104-6 is deleted and the following substituted:

104-6 Construction Requirements.

104-6.1 Limitation of Exposure of Erodible Earth: Do not allow the surface area of erodible earth that clearing and grubbing operations, excavation and filling operations, or other earth disturbing activities to exceed 750,000 square feet without specific prior written approval by the Engineer. This limitation applies separately to clearing and grubbing operations and excavation and filling operations.

The Engineer may further limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide additional erosion or pollution control measures to prevent contamination of any surface waters, wetlands, or groundwater or to prevent detrimental effects on property outside the project limits or damage to the project.

104-6.2 Incorporation of Erosion and Sediment Control Devices: Incorporate permanent erosion and sediment control devices into the project at the earliest practical time. Complete the installation of temporary erosion and sediment control devices prior to the commencement of any ~~earthwork~~ earth disturbing activities. Use temporary erosion and sediment control devices found in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual) to control erosion and sediment generated by construction operations, to correct unforeseen conditions during construction, and to control erosion and sediment prior to the incorporation of permanent erosion and sediment control devices. An electronic version of the E&SC Manual can be found at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/FLerosionSedimentManual.shtm>.

104-6.3 Scheduling of Successive Operations: Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing such that grading operations can be incorporated immediately thereafter. Schedule and perform grading operations so that permanent erosion control devices can follow immediately thereafter if conditions on the project permit.

104-6.4 Details for Temporary Erosion and Sediment Control Devices:

104-6.4.1 General: Use temporary erosion, sediment and water pollution control devices found in the E&SC Manual. These devices consist of, but are not limited to, temporary sod, rolled erosion control products, sediment containment systems, runoff control structures, sediment barriers, inlet protection systems, silt fences, turbidity barriers, and chemical treatment. For design details for some of these devices, refer to the E&SC Manual. Perform installation, inspection, maintenance, and removal of all temporary erosion and sediment control devices in accordance with applicable permits, manufacturer's directions, and the Contract Documents.

104-6.4.2 Temporary Sod: The Engineer may designate certain areas of sod constructed in accordance with Section 570, as a temporary erosion control device. Do not use

seed as a temporary erosion control device. The Engineer may waive the turf establishment requirements of Section 570 for areas of temporary sod that will not be a part of the permanent construction.

104-6.4.3 Runoff Control Structures: Construct runoff control structures in accordance with the details shown in the Contract Documents.

104-6.4.4 Sediment Containment Systems: Construct sediment containment systems in accordance with the details shown in the Contract Documents. Clean out sediment containment systems as necessary in accordance with the Contract Documents.

104-6.4.5 Sediment Barriers: Provide and install sediment barriers according to details shown in the Contract Documents or, as directed by the Engineer to protect against downstream accumulation of sediment. Sediment Barriers include, but are not limited to synthetic bales, silt fence, fiber logs and geosynthetic barriers. Reusable barriers that have had sediment deposits removed may be reinstalled on the project as approved by the Engineer.

104-6.4.6 Silt Fence:

104-6.4.6.1 General: Furnish, install, maintain, and remove silt fences, in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents.

104-6.4.6.2 Materials and Installation: Use a geotextile fabrie-material made from woven or nonwoven fabric, meeting the physical requirements of Section 985 according to those applications for erosion control.

Choose the type and size of posts and wire mesh reinforcement (if required). Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective silt fence that controls sediment in accordance with the Contract Documents.

Erect silt fence at upland locations and at temporary locations shown in the Contract Documents or where continuous construction activities change the natural contour and drainage runoff. Do not attach silt fence to existing trees unless approved by the Engineer.

104-6.4.6.3 Inspection and Maintenance: Inspect all silt fences in accordance with any applicable permit. If the project does not have a permit, inspect within 24 hours after each rain event and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, repair or replace silt fences in accordance with the Contract Documents or as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately 1/2 the height of the silt fence or as directed by the Engineer. Shape any remaining sediment deposits to conform with the finished grade and prepare the area for turf in accordance with Section 570.

104-6.4.7 Floating Turbidity Barriers and Staked Turbidity Barriers: Furnish, install, maintain, and remove floating turbidity barriers in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents. The Contractor may need to deploy turbidity barriers around isolated areas of concern (such as, seagrass beds, coral communities) both within as well as outside the project limits. The Engineer will identify such areas. Place the barriers prior to the commencement of any work that could impact the area of concern. Ensure that the type of barrier used and the deployment and maintenance of the

barrier will minimize dispersion of turbid waters from the project. The Engineer may approve alternate methods or materials.

Install and maintain turbidity barriers to avoid or minimize the degradation of the water quality of the surrounding waters and minimize damage to areas where the floating barriers are installed.

104-6.4.8 Inlet Protection System: Furnish and install inlet protection systems as shown in the Contract Documents.

104-6.4.9 Rolled Erosion Control Products (RECPs):

104-6.4.9.1 General: Install RECPs in locations where temporary protection from erosion is needed. Two common applications are described below.

1. Use RECPs composed of natural or synthetic fiber mats, plastic sheeting, or netting as protection against erosion, when directed by the Engineer, during temporary pauses in construction caused by inclement weather or other circumstances. Remove the material when construction resumes.

2. Use RECPs as erosion control blankets, at locations shown in the Plans, to facilitate plant growth while permanent grassing is being established. For the purpose described, use non-toxic, biodegradable, natural or synthetic woven fiber mats. ~~Install erosion control blankets capable of sustaining a maximum design velocity of 6.5 ft/sec as determined from tests performed by Utah State University, Texas Transportation Institute or an independent testing laboratory approved by the Department. Submit to the Engineer, certified test reports from the manufacturer showing that the erosion control blankets meet the requirements of this Specification. Certification must be attested, by a person having legal authority to bind the manufacturing company. Also, furnish two 4 by 8 inch samples for product identification. The manufacturers test records shall be made available to the Department upon request.~~ Leave the material in place, as installed, to biodegrade.

104-6.4.10 Chemical Treatment: Provide chemical treatment in accordance with the Contract Documents. Chemical treatment may be used to clarify turbid or sediment laden water that does not meet state water quality standards or to supplement other erosion and sediment control devices to aid in their performance. The contractor must provide the required toxicity testing information in accordance with the Contract Documents to the Engineer for review and acceptance prior to using any chemical treatment on the project site.

104-6.5 Removal of Temporary Erosion Control Devices: In general, remove or where applicable, incorporate into the soil any temporary erosion control devices upon incorporation of the permanent erosion control devices into the project. The Engineer may direct ~~that~~ temporary devices to be left in place.

ARTICLE 104-7 is deleted and the following is substituted:

104-7 Maintenance of Erosion and Sediment Control Devices.

104-7.1 General: Provide routine maintenance of permanent and temporary erosion and sediment control devices, at no expense to the Department, until the project is complete and accepted. If reconstruction or replacement of erosion and sediment control devices is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion and sediment control devices, improper installation, lack of maintenance, excessive wear, design-life exceedance or failure by the Contractor to install permanent erosion control devices as scheduled, the Contractor shall repair or replace such erosion control devices at no expense to the

Department. If reconstruction of permanent or temporary erosion and sediment control devices is necessary due to factors beyond the control of the Contractor, the Department will pay for replacement under the appropriate Contract pay item or items.

Inspect all erosion and sediment control devices at least once every seven calendar days and within 24 hours of the end of a storm event that is 0.50 inches or greater. Maintain all erosion and sediment control devices as required ~~in by~~ the ~~Stormwater Pollution Prevention Plan, the~~ Contractor's SWPPP and associated Erosion and Sediment Control Plan, and if applicable, as specified in the ~~State of Florida Department of Environmental Protection Generic Permit for Stormwater Discharge from Large and Small Construction Activities~~ NPDES CGP.

ARTICLE 104-10 is deleted and the following substituted:

104-10 Basis of Payment.

Prices and payments will be full compensation for all work specified in this Section, including ~~construction~~ phased installation and routine maintenance of temporary erosion control devices throughout the life of the Contract.

Any additional costs resulting from compliance with the requirements of this Section, other than construction, routine maintenance, and removal of temporary erosion control devices, will be included in the Contract unit prices for the item or items to which such costs are related. Temporary sod used as a temporary erosion control device in accordance with 104-6.4.2 will be paid for under Section 570.

Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent operations. The Contractor shall include these costs in the Contract prices for grading items.

In case of repeated failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the Department's own forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress estimate.

Payment will be made under:

- | | |
|-------------------|--|
| Item No. 104- 1- | Artificial Coverings/ Rolled Erosion Control Products - per square yard. |
| Item No. 104- 6- | Slope Drains (Temporary)/ Runoff Control Structures - per foot. |
| Item No. 104- 7- | Sediment Basins/ Containment Systems - each. |
| Item No. 104- 9- | Sediment Basin/ Containment system Cleanouts - each. |
| Item No. 104- 10- | Sediment Barriers - per foot |
| Item No. 104- 11- | Floating Turbidity Barrier - per foot. |
| Item No. 104- 12- | Staked Turbidity Barrier - per foot. |
| Item No. 104- 18- | Inlet Protection System - each. |
| Item No. 104- 19- | Chemical Treatment - per square yard. |
| Item No. 104- 20- | Chemical Treatment (floc logs, drums of product) - each. |

PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION.

(REV 5-23-24)

ARTICLE 104-4 is deleted and the following substituted:

104-4 Materials for Temporary Erosion Control.

Meet the following requirements:

Temporary Sod.....Section 570

Geotextile Materials*Section 985

*Use products listed on the Department’s APL.

For materials that are part of the permanent work, meet the testing requirements of the applicable permanent materials.

For materials not part of the permanent work, no testing is required; acceptance will be based on visual inspection.

Use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project.

ARTICLE 104-5 is deleted and the following substituted:

104-5 Preconstruction Requirements.

Prior to the Preconstruction Conference, submit a site-specific Stormwater Pollution Prevention Plan (SWPPP) and the associated Erosion and Sediment Control Plan meeting the requirements and special conditions of all permits authorizing project construction. If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the Contractor’s site-specific Erosion and Sediment Control Plan will be governed by 7-1.1, 7-2.2, 7-8.1, 7-8.2, and Section 104.

When a NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities permit (CGP) is required, the Contractor’s SWPPP and the associated Erosion and Sediment Control Plan shall be prepared to accompany the Department’s Stormwater Runoff Control Concept. The SWPPP and Erosion and Sediment Control Plan must meet all of the requirement of the NPDES CGP, specifically Part 4. Do not begin any soil disturbing activities before receiving the Engineer’s written acknowledgement of the SWPPP and Erosion and Sediment Control Plan and the required signed certification statements.

Failure to sign and submit any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements is considered a violation of the NPDES CGP.

Prepare a site-specific SWPPP and the associated Erosion and Sediment Control Plan in accordance with the planned sequence of operations and present it in a format acceptable to the Department. The SWPPP and Erosion and Sediment Control Plan shall include, but not be limited to, the following items or activities:

1. For each phase of construction operations or activities, supply the following information:

a. A Site Plan with locations of all erosion control devices best management practices

- b. Types of all erosion control devices
 - c. Estimated time erosion control devices will be in operation
 - d. Monitoring schedules for maintenance of erosion control devices
 - e. Methods of maintaining erosion control devices
 - f. Dewatering plan
 - g. Locations of all stored fuel or other petroleum products, pollutants, chemicals, concrete washouts, sanitary waste, or other hazardous waste methods
 - h. Spill prevention and response measures and disposal and removal methods
 - i. Submit any changes to the Erosion and Sediment Control Plan within seven calendar days
2. The name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.

Do not begin construction activities until the SWPPP and the associated Erosion and Sediment Control Plan receives written acknowledgement from the Engineer.

ARTICLE 104-6 is deleted and the following substituted:

104-6 Construction Requirements.

104-6.1 Limitation of Exposure of Erodible Earth: Do not allow the surface area of erodible earth that clearing and grubbing operations, excavation and filling operations, or other earth disturbing activities to exceed 750,000 square feet without specific prior written approval by the Engineer. This limitation applies separately to clearing and grubbing operations and excavation and filling operations.

The Engineer may further limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide additional erosion or pollution control measures to prevent contamination of any surface waters, wetlands, or groundwater or to prevent detrimental effects on property outside the project limits or damage to the project.

104-6.2 Incorporation of Erosion and Sediment Control Devices: Incorporate permanent erosion and sediment control devices into the project at the earliest practical time. Complete the installation of temporary erosion and sediment control devices prior to the commencement of any earth disturbing activities. Use temporary erosion and sediment control devices found in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual) to control erosion and sediment generated by construction operations, to correct unforeseen conditions during construction, and to control erosion and sediment prior to the incorporation of permanent erosion and sediment control devices. An electronic version of the E&SC Manual can be found at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/FLERosionSedimentManual.shtm>.

104-6.3 Scheduling of Successive Operations: Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing such that grading operations can be incorporated immediately thereafter. Schedule and perform grading operations so that permanent erosion control devices can follow immediately thereafter if conditions on the project permit.

104-6.4 Details for Temporary Erosion and Sediment Control Devices:

104-6.4.1 General: Use temporary erosion, sediment and water pollution control devices found in the E&SC Manual. These devices consist of, but are not limited to, temporary sod, rolled erosion control products, sediment containment systems, runoff control structures, sediment barriers, inlet protection systems, silt fences, turbidity barriers, and chemical treatment. For design details for some of these devices, refer to the E&SC Manual. Perform installation, inspection, maintenance, and removal of all temporary erosion and sediment control devices in accordance with applicable permits, manufacturer's directions, and the Contract Documents.

104-6.4.2 Temporary Sod: The Engineer may designate certain areas of sod constructed in accordance with Section 570, as a temporary erosion control device. Do not use seed as a temporary erosion control device. The Engineer may waive the turf establishment requirements of Section 570 for areas of temporary sod that will not be a part of the permanent construction.

104-6.4.3 Runoff Control Structures: Construct runoff control structures in accordance with the details shown in the Contract Documents.

104-6.4.4 Sediment Containment Systems: Construct sediment containment systems in accordance with the details shown in the Contract Documents. Clean out sediment containment systems as necessary in accordance with the Contract Documents.

104-6.4.5 Sediment Barriers: Provide and install sediment barriers according to details shown in the Contract Documents or as directed by the Engineer to protect against downstream accumulation of sediment. Sediment Barriers include, but are not limited to synthetic bales, silt fence, fiber logs and geosynthetic barriers. Reusable barriers that have had sediment deposits removed may be reinstalled on the project as approved by the Engineer.

104-6.4.6 Silt Fence:

104-6.4.6.1 General: Furnish, install, maintain, and remove silt fences, in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents.

104-6.4.6.2 Materials and Installation: Use a geotextile material made from woven or nonwoven fabric, meeting the physical requirements of Section 985 according to those applications for erosion control.

Choose the type and size of posts and wire mesh reinforcement (if required). Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective silt fence that controls sediment in accordance with the Contract Documents.

Erect silt fence at upland locations and at temporary locations shown in the Contract Documents or where continuous construction activities change the natural contour and drainage runoff. Do not attach silt fence to existing trees unless approved by the Engineer.

104-6.4.6.3 Inspection and Maintenance: Inspect all silt fences in accordance with any applicable permit. If the project does not have a permit, inspect within 24 hours after each rain event and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the

silt fences are properly located for effectiveness. Where deficiencies exist, repair or replace silt fences in accordance with the Contract Documents or as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately 1/2 the height of the silt fence or as directed by the Engineer. Shape any remaining sediment deposits to conform with the finished grade and prepare the area for turf in accordance with Section 570.

104-6.4.7 Floating Turbidity Barriers and Staked Turbidity Barriers:

Furnish, install, maintain, and remove floating turbidity barriers in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents. The Contractor may need to deploy turbidity barriers around isolated areas of concern (such as, seagrass beds, coral communities) both within as well as outside the project limits. The Engineer will identify such areas. Place the barriers prior to the commencement of any work that could impact the area of concern. Ensure that the type of barrier used and the deployment and maintenance of the barrier will minimize dispersion of turbid waters from the project. The Engineer may approve alternate methods or materials.

Install and maintain turbidity barriers to avoid or minimize the degradation of the water quality of the surrounding waters and minimize damage to areas where the floating barriers are installed.

104-6.4.8 Inlet Protection System: Furnish and install inlet protection systems as shown in the Contract Documents.

104-6.4.9 Rolled Erosion Control Products (RECPs):

104-6.4.9.1 General: Install RECPs in locations where temporary protection from erosion is needed. Two common applications are described below.

1. Use RECPs composed of natural or synthetic fiber mats, plastic sheeting, or netting as protection against erosion, when directed by the Engineer, during temporary pauses in construction caused by inclement weather or other circumstances. Remove the material when construction resumes.

2. Use RECPs as erosion control blankets, at locations shown in the Plans, to facilitate plant growth while permanent grassing is being established. For the purpose described, use non-toxic, biodegradable, natural or synthetic woven fiber mats. Leave the material in place, as installed, to biodegrade.

104-6.4.10 Chemical Treatment: Provide chemical treatment in accordance with the Contract Documents. Chemical treatment may be used to clarify turbid or sediment laden water that does not meet state water quality standards or to supplement other erosion and sediment control devices to aid in their performance. The contractor must provide the required toxicity testing information in accordance with the Contract Documents to the Engineer for review and acceptance prior to using any chemical treatment on the project site.

104-6.5 Removal of Temporary Erosion Control Devices: In general, remove or where applicable, incorporate into the soil any temporary erosion control devices upon incorporation of the permanent erosion control devices into the project. The Engineer may direct temporary devices to be left in place.

ARTICLE 104-7 is deleted and the following is substituted:

104-7 Maintenance of Erosion and Sediment Control Devices.

104-7.1 General: Provide routine maintenance of permanent and temporary erosion and sediment control devices, at no expense to the Department, until the project is complete and accepted. If reconstruction or replacement of erosion and sediment control devices is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion and sediment control devices, improper installation, lack of maintenance, excessive wear, design-life exceedance or failure by the Contractor to install permanent erosion control devices as scheduled, the Contractor shall repair or replace such erosion control devices at no expense to the Department. If reconstruction of permanent or temporary erosion and sediment control devices is necessary due to factors beyond the control of the Contractor, the Department will pay for replacement under the appropriate Contract pay item or items.

Inspect all erosion and sediment control devices at least once every seven calendar days and within 24 hours of the end of a storm event that is 0.50 inches or greater. Maintain all erosion and sediment control devices as required by the Contractor's SWPPP and associated Erosion and Sediment Control Plan, and if applicable, as specified in the NPDES CGP.

ARTICLE 104-10 is deleted and the following substituted:

104-10 Basis of Payment.

Prices and payments will be full compensation for all work specified in this Section, including phased installation and routine maintenance of temporary erosion control devices throughout the life of the Contract.

Any additional costs resulting from compliance with the requirements of this Section, other than construction, routine maintenance, and removal of temporary erosion control devices, will be included in the Contract unit prices for the item or items to which such costs are related. Temporary sod used as a temporary erosion control device in accordance with 104-6.4.2 will be paid for under Section 570.

Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent operations. The Contractor shall include these costs in the Contract prices for grading items.

In case of repeated failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the Department's own forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress estimate.

Payment will be made under:

- Item No. 104- 1- Artificial Coverings/ Rolled Erosion Control Products - per square yard.
- Item No. 104- 6- Slope Drains (Temporary)/ Runoff Control Structures - per foot.
- Item No. 104- 7- Sediment Basins/ Containment Systems - each.
- Item No. 104- 9- Sediment Basin/ Containment system Cleanouts - each.
- Item No. 104- 10- Sediment Barriers - per foot

Item No. 104- 11- Floating Turbidity Barrier - per foot.
Item No. 104- 12- Staked Turbidity Barrier - per foot.
Item No. 104- 18- Inlet Protection System - each.
Item No. 104- 19- Chemical Treatment - per square yard.
Item No. 104- 20- Chemical Treatment (floc logs, drums of product) - each.