

APPENDIX M

Special Provisions (Specification Modifications)



SPECIFICATIONS REVISIONS

LIST, PAGE NUMBERS AND LINKS to SPECIAL PROVISION COPIED NOTES (SPCNs) and SPECIAL PROVISIONS (SPs)

[◀ BACK TO TABLE OF CONTENTS – page T-0](#)

VDOT web file users (“pdf”) may obtain usage guidelines and other information by downloading the accompanying “zip” file (compressed WORD® files).

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



SPECIFICATIONS REVISIONS

**COMPILED SPECIAL PROVISION COPIED NOTES (SPCNs)
& SPECIAL PROVISIONS (SPs)**

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



{Excerpt from VDOT Special Provision Copied Notes (SPCNs) page 1-1}

(c100b0b-0702) **OPERATIONS BY STATE FORCES** - The Contractor is hereby advised that State Forces will furnish materials for and perform certain items of work, indicated on the plans to be performed by State Forces, throughout the life of this contract. The Department will perform its operations in such a manner as to minimize interference with the Contractor's operations, and the Contractor shall coordinate his activities with the Department in order to prevent unnecessary interference.

In the event the plans provide for seeding operations to be performed by State Forces, such operations will include areas used for stockpiling of topsoil, approved borrow pits and waste areas and will include Department furnished and applied lime, fertilizer, seed and mulch. The Contractor shall prepare the areas to be seeded in accordance with Section 603.03(b) of the Specifications, the cost of which shall be included in the price bid for other items. The Contractor shall coordinate with and notify the Department at such time as each area is ready for seeding operations; thereafter, the Department will assume the responsibility for completing and maintaining such areas. The Contractor will be responsible for all repairing or replacing of any work damage by his use of improper materials or construction methods or because of any damage inflicted by other than normal construction activities. Such corrective work shall be performed at the Contractor's expense. Areas outside the limits of construction, other than those approved by the Department, which are disturbed by the Contractor, shall be restored and seeded at the Contractor's expense.

8-1-91, Reissued 7-9-02 (SPCN)

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 1-93 to 1-95}

S106A2B-0105

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 106—CONTROL OF MATERIAL

September 30, 2004

SECTION 106—CONTROL OF MATERIAL of the Specifications is amended as follows:

Section 106.01—Source of Supply and Quality Requirements is amended as follows:

The last sentence of the first paragraph is replaced with the following:

The Contractor's statement shall be electronically submitted by use of Form C-25 and shall be identified by the complete state project number, and all items or component materials shall be identified by the specific contract item number and the specification reference shown in the Contract.

Section 106.03—Local Material Sources (Pits And Quarries) is amended as follows:

The fourth paragraph is replaced with the following:

Local material pits and quarries shall not be opened or reopened without authorization by the Engineer. The Contractor shall submit for approval a site plan, including, but not limited to, (1) the location and approximate boundaries of the excavation with a slope gradient of 3:1 or greater; (2) procedures to minimize erosion and siltation; (3) provision of environmentally compatible screening; (4) restoration; (5) cover vegetation; (6) other use of the pit or quarry after removal of material, including the spoil pile; (7) the drainage pattern on and away from the area of land affected, including the directional flow of water and a certification that all receiving channels shall comply with Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations; (8) location of haul roads and stabilized construction entrances if construction equipment will enter a paved roadway; (9) constructed or natural waterways used for discharge; (10) a sequence and schedule to achieve the approved plan and; (11) the total drainage area for temporary sediment traps and basins shall be shown. Sediment traps are required if the runoff from a watershed area of less than three acres flows across a disturbed area of 10,000 square feet or greater. Sediment basins are required if the runoff from a watershed area of three acres or more flows across a disturbed area of 10,000 square feet or greater. The Contractor shall design, construct, and maintain the sediment trap or basin to accommodate the anticipated sediment loading from the land-disturbing activity. The Contractor shall certify that the sediment trap or basin design is in compliance with the Virginia Erosion and Sediment Control Regulations, all local, state, and federal laws and Section 107.14. Once a sediment trap or basin is constructed, the dam and all outfall areas shall be immediately stabilized.

The eighth paragraph is amended to replace the second sentence with the following:

The Department will withdraw approval for the use of the site and may cause the Contractor to cease all contributing operations and direct his efforts toward corrective action or may perform the work with state forces or other means as determined by the Engineer.

Section 106.04—Disposal Areas is amended as follows:

The third paragraph is replaced with the following:

Prior to VDOT approving a disposal area, the Contractor shall submit a site plan. The plan shall show (1) the location and approximate boundaries of the disposal area, (2) all procedures to minimize erosion and siltation, (3) haul roads including all stabilized construction entrances if construction equipment will enter a paved roadway, (4) provision for environmentally compatible screening, (5) restoration of and permanent cover vegetation in accordance with the Roadside Development Sheet for the area following the deposit of material, (6) the drainage pattern on and away from the area affected, including constructed or natural waterways used for drainage and calculations to determine the need for channel improvements if the natural channel will not accommodate the 2-year storm or the man-made channel will not accommodate the 10-year storm in accordance with the Virginia Erosion and Sediment Control Regulations, (7) the streams or tributaries receiving the discharge, (8) a sequence and schedule to complete the work, and (9) total drainage area for temporary sediment traps or basins. Sediment traps are required if the runoff from a watershed area of less than three acres flows across a disturbed area of 10,000 square feet or greater. Sediment basins are required if the runoff from a watershed area of 3 acres or more flows across a disturbed area of 10,000 square feet or greater. The Contractor shall design, construct and maintain the sediment trap or basin to accommodate the anticipated sediment loading from the land disturbing activity. Costs for applying seed, lime, fertilizer, and mulch, reforestation, drainage, erosion and siltation control, regrading, haul roads, and screening for disposal areas and pits shall be included in the contract price bid for the type of excavation or other appropriate items. The Contractor shall certify that the sediment trap or basin design is in compliance with the Virginia Erosion and Sediment Control Regulations, all local, state, and federal laws and Section 107.14. Once the sediment trap or basin is constructed, the dam and all outfall areas shall be stabilized immediately.

The fifth paragraph is amended to replace the second sentence with the following:

The Department will withdraw approval for the use of the site and may cause the Contractor to cease all contributing operations and direct efforts toward corrective action or may perform the work with state forces or other means determined by the Engineer.

Section 106.04 (c) Organic Materials is replaced by the following:

- (c) **Organic materials** such as tree stumps and limbs (not considered merchantable timber), roots, rootmat, leaves, grass cuttings, or other similar materials shall be chipped or shredded and used on the project as mulch, given away, sold as firewood or mulch, burned at the Contractor's option if permitted by local ordinance, or disposed of at an approved facility licensed to receive such materials. Organic material shall not be buried in state rights of way or in an approved disposal area.

Section 106.04 (e) Inorganic Materials is amended to delete the third paragraph.

Section 106.04 (g) Disposal Areas is amended to add the following:

- (g) **Other materials** such as antifreeze, asphalt (liquid), building forms, concrete with reinforcing steel exposed, curing compound, fuel, hazardous materials, lubricants, metal, metal pipe, oil, paint, wood or metal from building demolition, or similar materials shall not be disposed of at an approved disposal area but may be disposed of at a landfill licensed to receive such material.

Section 106.07 (c) Plant Inspection is amended to replace the third paragraph with the following:

The Contractor shall furnish, install, maintain, and replace, as conditions necessitate, testing equipment specified by the appropriate ASTM, AASHTO method or VTM being used and provide necessary office equipment and supplies to facilitate keeping records and generating test reports. The Contractor's technician shall maintain current copies of test procedures performed in the laboratory. The Contractor shall calibrate or verify all balances, scales and weights associated with testing performed as specified in AASHTO R 18. The Contractor shall also provide and maintain an approved test stand for accessing truck beds for the purpose of sampling and inspection. The Department may approve a single laboratory to service more than one plant belonging to the same Contractor.

Section 106.08—Storing Materials is amended to add the following paragraph:

Chemicals, fuels, lubricants, bitumens, paints, raw sewage, and other harmful materials as determined by the Engineer shall not be stored within any floodplain. Chemicals, fuels, and lubricants, when stored out of doors, shall have an impoundment around each separate storage container or one impoundment around several storage containers of a volume sufficient to hold the maximum chemical, fuel, or lubricant the container(s) is capable of holding. The impoundment shall be lined with an impervious liner and shall have a release valve which shall be kept closed during all operations but may be opened to release rain water following storm events provided no chemical, fuel, or lubricant has contaminated the rain water.

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 1-96 to 1-97}

S107A0B-0702

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS FOR
SECTION 107.08 RAILWAY-HIGHWAY PROVISIONS

June 24, 1992cc
Reissued July 9, 2002

Rte. _____ Project _____

SECTION 107.08 of the Specifications is amended as follows:

Section 107.08 is amended to include the following:

The Contractor shall notify the _____ of
the _____ Railway Company,

_____ (City or Town) _____ (State) _____ (Zip)

_____ at least _____ hours before starting any work on or over the Railway
(Telephone No.) _____ (No.)

right-of-way. A vertical clearance above the highest rail of at least _____ feet
and a horizontal clearance from the centerline of the track of at least _____ feet
shall be maintained, unless otherwise authorized by the Railway Company. The approximate
number and type of trains per day per track is a follows:

Track	_____	_____	_____	Track	_____	_____	_____
Track	_____	_____	_____	Track	_____	_____	_____
Track	_____	_____	_____	Track	_____	_____	_____

Upon starting work a slow order of _____ will be in effect.

The following Railway utilities are known to be on the Railway's right of way:

The Contractor shall promptly notify the Railway's duly authorized representative as noted above
of any loss, damage, injury or death arising out of or in connection with the project work
performed on or over the Railway right-of-way.

Section 107.08 (a) is amended to include the following:

The Contractor shall coordinate all construction operations on or over railway right-of-way with
the Railway Company and make all arrangements for necessary flagger and watchperson
service. Any flaggers or watchpersons required by the Railway Company for the safety of railway
operations, because of work being performed by the Contractor or incidental thereto, will be
provided by the Railway Company. No work shall be undertaken on or over the Railway right-of-
way until the watchpersons or flaggers are present at the project site.

Flagger or watchperson service will be required whenever work is accomplished _____

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



within _____ feet of the railroad's track or whenever any machinery or heavy equipment encroaches within _____ feet of the track. Also, flagger or watchperson service will be required whenever construction activities endanger the railroad signal and communication facilities. The jacking or boring of pipes or utility lines under the track will also require flagger service.

Contractor shall provide flaggers with a heated shelter and suitable sanitation facility.

To procure or terminate flagger or watchperson services, the Contractor shall notify in writing,

Name _____
Title _____
Address _____
Telephone No. _____

On projects that will require these services for longer than a 30 day duration, it will require the posting of the position in accordance with union regulations. Consequently, it will require _____ days before a flagger can be assigned to the project. To terminate the service, it is necessary to allow _____ weeks from the receipt of such notification.

For flagger or watchperson services of less than _____ days duration, you must provide a _____ day advance notification. For termination of this service, allow _____ days from the receipt of the notification.

The Department has estimated that _____ hours of flagging service will be required for this project. If the Department is required to reimburse the Railway Company for cost of flagging service in excess of the cost associated with the established hours, the amount of excess will be deducted from monies due the Contractor.

Sections 107.08 (c) 1. and 107.08 (c) 2. are replaced by the following:

Contractor's Public Liability and Property Damage Insurance: With respect to operations performed by the contractor, this insurance shall provide coverage with a combined single limit of not less than _____ each occurrence for bodily injury and/or property damage liability. This insurance shall include explosion, collapse, and underground hazard coverage. If the Contractor subcontracts any portion of the work, the Contractor shall also secure insurance protection in its own behalf under its Public Liability and Property Damage Insurance policies of cover any liability imposed on him by law for damages because of bodily injury and/or property damage liability as a result of work undertaken by the subcontractor(s). A certificate of insurance shall be provided to the railway company as evidence that the Contractor has in full force and effect the insurance coverage hereinbefore specified. Said certificate shall provide railway company with at least 30 days advance written notice of any material change in or cancellation of the required policies.

Railroad Protective Liability Insurance: With respect to the operations the Contractor or any of its subcontractors perform, the Contractor must provide in the name of the railway company a policy providing coverage with a combined single limit of _____ each occurrence and _____ aggregate for bodily injury and property damage. This policy shall be written on the ISO/RIMA Form of Railroad Protective Insurance or its equivalent. The original of the policy shall be submitted to the Department for the railway company's approval and retention.

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 1-98 to 1-100}

S107D1B-0307

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 107—LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

March 27, 2007

SECTION 107—LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC of the Specifications is amended as follows:

Section 107.13 Responsibility For Damage Claims is replaced by the following:

The Contractor shall indemnify and save harmless the State, the Board, and its officers, agents, and employees, as well as the city, town, county, or other municipality in which the work is performed and their officers, agents, and employees, from suits, actions, or claims brought for or on account of any injuries or damages received or sustained by any person, persons, or property resulting from or arising out of the work performed by the Contractor, or by or in consequence of any neglect in safeguarding the work, through the use of unacceptable materials in the construction or the improvement, or resulting from any act or omission, neglect, or misconduct of the Contractor; or by or on account of any claims or amounts recovered by infringement of any patent, trademark, or copyright. The Commissioner may retain as much of the monies due the Contractor under and by virtue of his Contract as the Commonwealth considers necessary to ensure that a fund will be available to pay a settlement or judgment of such suits, actions, or claims. If no monies are due, the Contractor's surety will be held until all such claims and actions have been settled and suitable evidence to that effect has been furnished the Board. Any extension of time granted the Contractor, in which to complete the Contract shall not relieve him or his surety of this responsibility.

It is not intended by any of the provisions of any part of the Contract to create the public or any member thereof as a third party beneficiary hereunder or to authorize anyone not a party to the Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the Contract.

The Contractor shall comply with all requirements, conditions, and terms of the Contract, including but not limited to, environmental permits, commitments identified within the Contract, and applicable environmental laws. The Contractor shall not cause damage, except as allowed under the terms of the contract, or as allowed under applicable permits or laws, to the Commonwealth's air, water, or other natural resources, or cause damage to adjacent or off-site property.

When any act, omission, or other action of the Contractor occurs, which violates the requirements, conditions or terms of the Contract, and affects the health, safety, or welfare of the public or the Commonwealth's natural resources, the Engineer will direct the Contractor to take prompt action to repair, replace, or restore the damage or injury within a reasonable time frame established by the Engineer. If the Contractor fails to make such repair, replacement, or restoration within the established time frame, the Engineer will have the damage or injury repaired, replaced, or restored and will deduct the cost of such repair, replacement, or restoration from monies due the Contractor.

If the Department determines by its own investigation that injury or damage has occurred as a result of work performed or neglected by the Contractor, the Department may suspend the Contractor from future bidding or initiate debarment in a manner consistent with state law, and Department regulations and policies. Injury is defined as harm or impairment to persons or natural resources. Damage is defined as the loss or harm resulting from injury to person or property. In addition, the Department may recover either (i) the loss or damage that the Department suffers as a result of such act, omission or other action or (ii) any liquidated damages established in such contract plus (iii) reasonable

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



attorney's fees, expert witness fees, staff salaries, and equipment charges associated with any investigation.

Upon a finding against the Contractor by the Department, the Contractor shall be responsible for and shall reimburse the Department for all expenses associated with the injury or damage. Expenses include, but are not limited to: investigating the act, omission or other action, financial penalties incurred by the Department as a result of the injury or damage, salary and expenses incurred by employees or consultants of the Commonwealth, road user expenses as determined by the Department due to damage or loss of use of the project area, attorney fees, and expert witness fees. The Department may deduct the reimbursement of expenses from any payments owed the Contractor.

Upon determination by the Department of egregious or repetitious acts, omissions or other actions related to injury or damage to person or property, the Contractor shall be responsible for and shall reimburse the Department for all expenses associated with the investigation as shown herein, and the Department will impose other appropriate actions, as permitted by law, policy and Specifications, such as but not limited to, suspension of work, removal from the bidders' list, or debarment.

Once determination is made that injury or damage has resulted in an action against the Contractor, the Contractor shall have the right of appeal through the Director of Planning and the Environment.

Should any cost remain in dispute after appeal to the Director of Planning and the Environment, resolution shall be handled in accordance with the requirements of Section 105.16 of the Specifications.

Section 107.14(a) Erosion and Siltation is amended as follows:

The first paragraph is amended to replace the second sentence with the following:

Erosion and siltation control measures shall be applied to areas where erodible material will be exposed by any land disturbing activity associated with project construction, including clearing or grubbing, but not limited to local material sources, stockpiles, disposal areas, and haul roads and shall be functional before land-disturbing activities take place.

The fourth paragraph is replaced with the following:

For projects that disturb 10,000 square feet or greater of land or 2,500 square feet or greater in Tidewater, Virginia, the Contractor shall have within the limits of the project during land disturbance activities, an employee certified by the Department in Erosion and Sediment control who shall inspect erosion and siltation control devices and measures for proper installation and operation immediately after each rainfall, at least daily during prolonged rainfall, and weekly when no rainfall event occurs and promptly report their findings to the Inspector. Failure of the Contractor to maintain a certified employee within the limits of the project will result in the Engineer suspending work related to any land disturbing activity until such time as a certified employee is present on the project. Failure on the part of the Contractor to maintain appropriate erosion and siltation control devices in a functioning condition may result in the Engineer notifying the contractor in writing of specific deficiencies. Deficiencies shall be corrected immediately. If the Contractor fails to correct or take appropriate actions to correct the specified deficiencies within 24 hours after receipt of such notification, the Department may do one or more of the following, require the Contractor to suspend work in other areas and concentrate efforts towards correcting the specified deficiencies, hold progress estimates, or proceed to correct the specified deficiencies and deduct the entire cost of such work from monies due the Contractor.

Section 107.14(b) Pollution 1. Water is amended as follows:

The second paragraph is replaced with the following

Construction discharge water shall be filtered to remove deleterious materials prior to discharge into state waters. Filtering shall be accomplished by the use of a standard dewatering basin or a dewatering bag. Dewatering bags shall conform to the requirements of Section 245 of the Specifications. During specified spawning seasons, discharges and construction activities in spawning areas of state waters shall be restricted so as not to disturb or inhibit aquatic species that are indigenous to the waters. Neither water nor other effluence shall be discharged onto wetlands or breeding or nesting areas of migratory waterfowl. When used extensively in wetlands, heavy equipment shall be placed on mats. Temporary construction fills and mats in wetlands and flood plains shall be constructed of approved nonerodible materials and shall be removed by the Contractor to natural ground when the Engineer so directs.

The sixth paragraph is amended to add the following:

Stabilization of the streambed and banks shall occur immediately upon completion of work or if work is suspended for more than 15 days.

The eighth paragraph is amended to add the following:

Stabilization of the streambed and banks shall occur immediately upon completion of work or if work is suspended for more than 15 days.

The ninth paragraph is replaced with the following:

Temporary bridges or other minimally invasive structures shall be used wherever the Contractor finds it necessary to cross a stream more than twice in a 6 month period, unless otherwise authorized by water quality permits issued by the Army Corps of Engineers, Virginia Marine Resources Commission or the Virginia Department of Environmental Quality for the contract.

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) page 1-103 to 1-104}

S107F1B-0105

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
STORM WATER POLLUTION PREVENTION PLAN**

June 2, 2004

INTRODUCTION

The Storm Water Pollution Prevention (SWPP) Plan, also referred to as the Erosion and Sediment Control (ESC) Plan, Storm Water Management (SWM) Plan and related Road and Bridge Specifications and Standards contained within all contract documents, are required for all land-disturbing activity of 10,000 square feet or greater (2,500 square feet or greater in Tidewater Virginia).

In addition, if the land-disturbing activity is 1 acre or greater, a VPDES Construction Permit is required. The requirements of this permit are satisfied by the Contractor's compliance with the SWPP Plan terms and conditions.

The Contractor and/or Subcontractor shall be responsible for reading, understanding, and complying with the terms and conditions of the SWPP Plan as follows (where identified below, Subcontractor(s) shall comply with this special provision as their duties include ESC/SWM related contract items):

I. PROJECT IMPLEMENTATION RESPONSIBILITIES

The Contractor and/or Subcontractor is responsible for the installation, maintenance, inspection, and ensuring the functionality of all erosion and sediment control measures on a daily basis and all other stormwater and pollutant runoff control measures identified within the plans, specifications, permits, and contract documents.

The Contractor and/or Subcontractor shall take all reasonable steps to minimize or prevent any stormwater or non-stormwater discharge, which has a reasonable likelihood of adversely affecting human health, public and/or private properties.

II. CERTIFICATION REQUIREMENTS

In addition to satisfying the personnel certification requirements contained within 107.14(a), the Contractor and Subcontractor shall each certify their activities by adequately completing, signing, and submitting Form C-45 VDOT SWPP Plan Contractor and Subcontractor Certification Statement to the Engineer prior to commencing any project related land-disturbing activities, both on-site and off-site.

III. OFF SITE REQUIREMENTS

The Contractor and/or Subcontractor shall develop erosion and sediment control plan(s) and stormwater management plan(s) for submission and acceptance by the Engineer prior to usage of any support facilities, off-site borrow and disposal areas, construction materials or equipment storage areas, and other industrial storm water discharge directly related to the construction process. Such plans, upon acceptance, will become a part of and subject to the overall project plan, VPDES Construction Permit, and contract requirements.

IV. REPORTING PROCEDURES

A. Inspection Requirements

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



The Contractor and/or Subcontractor are responsible for conducting inspections in accordance with the requirements of Section 107.14(a). The Contractor and/or Subcontractor shall document such inspections by completion of form C-107 (a) and (b) (Construction Runoff Control Inspection Form and Continuation Sheet) in strict accordance with directions contained within the form.

B. Unauthorized Discharge Requirements

The Contractor and/or Subcontractor shall not discharge into state waters sewage, industrial wastes, other wastes or any noxious or deleterious substances or otherwise alter the physical, chemical, or biological properties of state waters and make them detrimental to the public health, animal or aquatic life, the use of such waters for domestic or industrial consumption, for recreation or for other uses.

1. Notification of discharges or noncompliance

The Contractor and/or Subcontractor shall quickly notify the Engineer upon the discovery of or potential of any unauthorized, unusual, extraordinary, or non-compliant discharge from the construction activity, but in any case not later than 24 hours after said discovery.

2. Detailed report requirements for discharges or noncompliance

The Contractor and/or Subcontractor shall submit to the Engineer within 5 days of the discovery of the discharge a written report describing details of the discharge to include its volume, location, cause, and any apparent or potential effects on private and/or public properties or endangerment to public health, as well as steps being taken to eliminate the discharge. A completed form C-107 (a) and (b) shall be used for such reports.

C. Plans, Changes, and Deficiencies

1. Contractor SWPP Plans

The Contractor shall provide SWPP Plans that document the location and description of potential pollutant sources such as vehicle fueling, storage of fertilizers or chemicals, sanitary waste facilities, construction and waste materials etc. prior to any such pollutant sources being brought onto the project site. Such documentation shall include a description of the controls to reduce, prevent and control pollutants from these sources including spill prevention and response. The Contractor shall submit such documentation in accordance with Section 107.14(b)1 to the Engineer and, thereby, immediately becoming a component of the project SWPP Plan and subject to all corresponding requirements contained therein.

The Contractor shall ensure that plans are kept onsite at all times in accordance with Section 105.06.

2. Changes and Deficiencies

The Contractor and/or Subcontractor shall report to the Engineer when any planned physical alterations or additions are made to the construction activity or deficiencies in the project plans or contract documents are discovered that could significantly change the nature or increase the quantity of the storm water pollutants discharged from the construction activity.

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) page 1-105}

S107G0B-1103

C-45
7-1-03

VDOT
Stormwater Pollution Prevention (SWPP) Plan
Contractor and Subcontractor Certification Statement

Order No.: _____ Project Number: _____

Route: _____ Contract ID. #: _____

I certify under penalty of law that I understand the terms and conditions of the project contract, plans, permits, specifications and standards related to erosion and sediment control and stormwater management requirements as approved by the Virginia Department of Conservation and Recreation and the general Virginia Pollutant Discharge Elimination System (VPDES) Construction Permit (if applicable to this project) issued by the Virginia Department of Environmental Quality that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification as described in the bid document and off-site support activities.

Signature: _____

Name: _____

Title: _____

Contracting Firm: _____

Address: _____

Phone Number: _____

Address/Description of Site: _____
(Include off-site areas)

Certified on this date: _____

(Note: This form must be returned with performance and payment bonds)

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



{Excerpt from VDOT Special Provision (SPs) pages 2-37 to 2-41}

S242A0B-1203

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 242—FENCES

August 20, 2003

SECTION 242—FENCES of the Specifications is amended as follows:

242.02—Detail Requirements is replaced by the following:

Steel posts and braces for standard fence and chain link fence may be fabricated from pregalvanized material in lieu of galvanization after fabrication provided ends and other areas of exposed metal are satisfactorily repaired using a material conforming to the requirements of Section 233 of the Specifications.

- (a) **Chain Link and Pedestrian Fences:** Fabric material shall be 9-gage core, new, and shall conform to the following:
1. **Galvanized wire fabric for use in chain link fence** shall be hot dip galvanized after weaving in accordance with the requirements of AASHTO M181, Type I Class D, and for use in pedestrian fence shall be hot dip galvanized after weaving in accordance with the requirements of AASHTO M181, Type I Class C.
 2. **Aluminum alloy wire fabric** shall conform to the requirements of AASHTO M181, Type III.
 3. **Aluminum coated wire fabric** shall conform to the requirements of AASHTO M181, Type II.
 4. **Coated wire fabric**
 - a. **Vinyl coated wire fabric** shall conform to the requirements of AASHTO M181, Type IV, Class A or Class B, except that vinyl coated may be No. 9 gage overall, including coating, provided that the core wire has a minimum zinc coat weight of 0.30 ounces per square foot and a minimum breaking strength of 1290 pounds force.
 - b. **Other conforming organic polymer-coated wire fabric** shall conform to the requirements of ASTM F 668 Class 1, Class 2a or 2b
 5. **End, corner, and gate posts** shall be one of the following:
 - a. welded or seamless steel galvanized pipe conforming to the requirements of ASTM F1083, Schedule 40
 - b. roll formed steel sections shall conform to the requirements of ASTM F1043 Group IIA Type A
 - c. aluminum alloy pipe conforming to the requirements of ASTM F 1043 Group IB.

- d. galvanized pipe conforming to the requirements of ASTM F 1043 Group IC with Type B external coating and Type D internal coating
 - e. vinyl or other conforming organic polymer-coated pipe conforming to the requirements of ASTM F 1043 Group IA with Type A external and internal coatings
 - f. vinyl or other conforming organic polymer-coated pipe conforming to the requirements of ASTM F 1043 Group IC with Type B external coating and Type D internal coating
6. **Line Posts** shall be one of the following:
- a. steel H-columns shall conform to the requirements of ASTM F1043 Group III, Type A
 - b. round galvanized steel pipe conforming to the requirements of ASTM F1083, Schedule 40
 - c. roll formed C-sections shall conform to the requirements of ASTM F1043 Group IIA, Type A
 - d. aluminum alloy H-columns conforming to the requirements of ASTM B221, alloy 6063-T6
 - e. aluminum alloy pipe conforming to the requirements of ASTM F 1043 Group IB
 - f. galvanized pipe conforming to the requirements of ASTM F 1043 Group IC with Type B external coating and Type D internal coating
 - g. vinyl or other conforming organic polymer-coated pipe conforming to the requirements of (a)5.e. or (a)5.f. herein
7. **Braces** shall be one of the following:
- a. welded or seamless steel galvanized pipe conforming to the requirements of ASTM F1083, Schedule 40
 - b. roll formed steel sections shall conform to the requirements of ASTM F1043 Group IIA, Type A.
 - c. aluminum alloy pipe conforming to the requirements of ASTM F 1043 Group IB.
 - d. galvanized pipe conforming to the requirements of ASTM F 1043 Group IC with Type B external coating and Type D internal coating
 - e. vinyl or other conforming organic polymer-coated pipe conforming to the requirements of (a)5.e. or (a)5.f. herein
8. **Gates** shall be complete with hinges, latches, stops, and other necessary fittings. Gate frames shall be fabricated and coated with the same material as the adjoining fence framework and fabric.
9. **Aluminum alloy post surfaces that will be in contact with concrete and up to 1 inch above concrete** shall be uniformly coated with an aluminum impregnated

caulking compound or a solvent asphalt fiber filled and aluminum pigmented coating conforming to the requirements of ASTM D 2824 Type III. Care shall be taken to prevent voids in the coating and the smearing of visible surfaces of concrete or posts, except as otherwise noted herein.

10. **Tension wire** shall conform to one of the following:

- a. Aluminum coated tension wire shall meet the requirements of AASHTO M181
- b. Zinc coated tension wire shall meet the requirements of AASHTO M181, Class 1.
- c. vinyl coated tension wire shall meet the requirements of AASHTO M181 Class A or Class B. The minimum weight of the zinc coating shall be 0.40 ounces per square foot. The breaking strength of the core wire shall meet the requirements of AASHTO M181 for tension wire.
- d. Other conforming organic polymer-coated tension wire shall be 0.177 inch in diameter and conform to ASTM F 1664. The breaking strength of the core wire shall meet the requirements of AASHTO M181 for tension wire.

11. **Fittings** shall be fabricated and coated with the same material as the fence framework and fabric

(b) **Barbed Wire Fence, Woven Wire Fence and Lawn Fence:**

1. **Barbed wire** shall conform to one of the following:

- a. ASTM A121, Coating Type Z, Coating Class 3 Design Number 12-4-5-14R
- b. ASTM A121, Coating Type Z, Design Number 15-4-5-16R except that the tensile strength of the line wire shall be at least 475 pounds per strand and the zinc coating shall be at least 0.70 ounces per square foot.
- c. Single strand oval shaped wire having a diameter of at least 0.08 inch in its least dimension but not more than 0.135 inch in its greatest dimension and a tensile strength of at least 1150 pounds; wire shall have four barbs of 14-gage wire and a zinc coating of at least 0.30 ounces per square foot.
- d. Vinyl and other polymer-coated barbed wire shall conform to ASTM F 1665 Type I.

2. **Woven wire fence fabric** shall conform to the requirements of AASHTO M279. Standard FE-W1 shall conform to Design No. 1047-6-11, Class 3 or No. 1047-6-12 1/2, Grade 125, Class 3. Standard FE-W2 shall conform to Design No. 1047-12-11, Class 3 or No. 1047-12-12 1/2, Grade 125, Class 3.

3. **Lawn Fence** shall be the type shown on the plans, a similar type that will match the existing fence, or as desired by the landowner and approved by the Engineer.

4. **Wood post and braces:**

- a. **Species of wood:** Posts and braces for standard fence shall be Southern pine, Ponderosa pine, Douglas fir, Western hemlock, larch, or white or red cedar as defined in AASHTO M168. Locust may be used for woven wire farm fence and barbed wire fence.

- b. **Cutting requirements:** Round or square posts and braces shall be cut from live growing trees.
- c. **Seasoning:** Posts and braces shall be sufficiently air seasoned in an approved manner for a suitable length of time under favorable climate conditions or otherwise conditioned as part of the treating process to permit adequate penetration of preservative without damage to the wood.
- d. **Peeling:** Posts and braces shall have the inner bark removed to the extent defined by the SPIB. Knots and projections shall be cut or shaved smooth and flush with the surrounding surface of the unit.
- e. **End finish:** Butt ends of posts shall be sawn square.
- f. **Dimensions:** Posts shall not vary from the length specified on the plans by more than 1 inch. Thickness dimensions shall be undressed dimensions and shall not vary from the dimensions shown on the plans by more than 1/4 inch.
- g. **Straightness:** Wood posts and braces shall be free from bends in more than one place and free from short or reverse bends. The straightness of the post or brace shall be such that a straight line from the center of the tip to the center of the butt shall not depart from the center of the post by more than 2 percent of the length.
- h. **Grading for square posts and braces:** Grading shall conform to the requirements of (b)4.a. herein.
- i. **Preservative treatment:** Posts and braces, except cedar and locust, shall be treated with a preservative in accordance with section 236 except that waterborne preservatives shall not be used in the treatment of posts and braces to be erected in marshy areas. Oil-borne preservatives shall not be used where the posts and braces will come into contact with salt water.

Cutting and trimming of the ends shall be performed prior to treatment.

- 5. **Metal posts and braces:** Post anchor plates shall have a surface area of at least 16 square inches. Posts shall be in accordance with the following:
 - a. **Steel posts and braces** shall be galvanized and shall conform to the requirements of Section 233 of the Specifications.
 - b. **Galvanized pipe** conforming to the requirements of (a)5.d. herein.
- 6. **Gates** similar in type to those that exist may be substituted for gates shown on the plans or standard drawings if preferred by the landowner and approved by the Engineer.
- 7. **Brace wire** shall be 9 gage and shall conform to AASHTO M279 No 9 Grade 60 Class 3.

(c) **Temporary Silt Fences, Geotextile Fabric, Silt Barriers, and Filter Barriers:**

- 1. **Geotextile fabric** shall conform to the requirements of Section 245.

2. **Posts for temporary silt fences** shall be a nominal 2 1/2 by 2 1/2 inch or a 3-inch diameter No. 2 Southern pine, a nominal 2 by 2 inch oak, or steel having a weight of at least 1.25 pounds per linear foot and a length of at least 5 feet.
3. **Supports for temporary filter barriers** shall be a nominal 1 by 2 inch or 1 1/2 inch diameter No. 2 Southern Pine or oak, or steel having a weight of at least 1.00 pound per linear foot and a length of at least 2.5 feet.

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 2-42 to 2-43}

S244A0B-0503

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 244—ROADSIDE DEVELOPMENT MATERIALS

January 27, 2003cc

SECTION 244—ROADSIDE DEVELOPMENT MATERIALS is amended as follows:

Section 244.02 - Detail Requirements is amended as follows:

Section 244.02(d) Fertilizers is replaced with the following:

1. **Fertilizer for seeding, sodding, sprigging, and plugging** shall have a guaranteed 1-2-1 ratio and a 15-30-15 analysis with a minimum 30% of the nitrogen from either a slow release or slowly soluble source with the remainder of the nitrogen from urea or ammonium nitrate. The following types of slow release or slowly soluble nitrogen fertilizers can be used: urea formaldehyde (UF){ureaform, methylene urea, and methylene diurea/dimethylene triurea}, isobutylidene diurea (IBDU), sulfur coated urea (SCU) and polycoated urea (PCU). Urea formaldehyde products shall have a minimum activity index of 40%. The IBDU minimum "size guide number" (SGN) shall be 230. All UF and IBDU products shall indicate the slow release/slowly available nitrogen source on the fertilizer analysis label as Water Insoluble Nitrogen (WIN). The polycoated and sulfur coated ureas shall have a minimum of 3 month release duration for the total product. The phosphorous content of the fertilizer shall be triple superphosphate or diammonium phosphate. The potassium content of the fertilizer shall be potassium chloride commonly known as muriate of potash. All slow release or slowly soluble fertilizers can be applied with a hydraulic seeder except for SCU.

The fertilizer shall be uniform in composition, free flowing, and suitable for application with approved equipment. The fertilizer shall be delivered to the project in bags or other convenient containers, each fully labeled, and shall conform to all applicable state and federal laws and regulations. Additional nutrients shall be added only when specified. All fertilizer shall be subject to testing by the Virginia Department of Agriculture and Consumer Services. The Department reserves the right to reject fertilizer materials that do not meet these specifications or to be compensated in accordance with the requirements of the Virginia Fertilizer Law. Other fertilizer products and rates may be substituted with approval from the Engineer.

2. **Fertilizer for planting plants** shall have a guaranteed 1-2-1 ratio and a 15-30-15 analysis with a minimum of 30% of the nitrogen from either a slow release or slowly soluble source with the remainder of the nitrogen from urea or ammonium nitrate. The following types of slow release or slowly soluble nitrogen fertilizers can be used: urea formaldehyde (UF){ureaform, methylene urea, and methylene diurea/dimethylene triurea}, sulfur coated urea (SCU) and polycoated urea (PCU). Urea formaldehyde products shall have a minimum activity index of 40%. The polycoated and sulfur coated ureas shall have a minimum of 3 month release duration for the total product. All slow release or slowly soluble fertilizers shall be applied as a dry surface application as shown in Volume II of the landscape section of the VDOT Road and Bridge Standards.

A copy of the material safety data sheet (MSDS) shall be provided to VDOT for each type of fertilizer supplied with each fertilizer delivery. Any fertilizer delivery that is not accompanied by the appropriate MSDS will be rejected. The fertilizer shall be uniform in composition, free

flowing, and suitable for application with approved equipment. Fertilizer shall be delivered to the project in original bags or other convenient containers, each fully labeled, and shall conform to all applicable state and federal laws and regulations. Additional nutrients shall be added only when specified. All fertilizer shall be subject to testing by the Virginia Department of Agriculture and Consumer Services. Other fertilizer products and rates may be substituted with approval from the Engineer.

Section 244.02(e) Lime is replaced with the following:

Lime shall be agricultural grade ground limestone. Agricultural grade pulverized or pelletized lime products may be substituted at no additional cost to the Department.

The material source shall be registered with and approved by the Virginia Department of Agriculture and Consumer Services in accordance with the Virginia Agricultural Lime Law and shall conform to the requirements of Section 240. All lime shall be subject to testing by the Virginia Department of Agriculture and Consumer Services. Other lime products may be substituted with approval from the Engineer.

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 2-44 to 2-48}

S245A1B-0604

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 245—GEOSYNTHETICS

April 6, 2004c

SECTION 245—GEOSYNTHETICS of the Specifications is completely replaced by the following:

245.01—Description.

These specifications cover artificial fiber textile products to be used in transportation construction work.

245.02—Detail Requirements.

Geosynthetics shall include a label that clearly shows the manufacturer or supplier name, style name, and roll number. The shipping document shall include documentation to meet the requirements of Section 245.03.

Each geosynthetic roll shall be wrapped or otherwise packaged in such a manner as to protect the geosynthetic, including the ends of the roll, from damage due to shipment, water, sunlight, and contaminants. The protective wrapping shall be maintained during periods of shipment and storage.

During storage, geosynthetics rolls shall be elevated off the ground and adequately covered to protect them from the following: site construction damage, precipitation, extended ultraviolet radiation including sunlight, chemicals that are strong acids or strong bases, flames including welding sparks, temperatures in excess of 160⁰ F, and other environmental condition that may damage the physical property values of the geosynthetic. Geosynthetics that are not properly protected may be subject to rejection.

245.03—Testing and Documentation.

Each geosynthetic material provided to the project shall be tested by the Contractor for the material properties specified herein within 24 months of submission. Test results reported from AASHTO's National Transportation Product Evaluation Program – Laboratory Results of Evaluations on Geotextile and Geosynthetics may be used. The Contractor shall provide certification of the material in accordance with the requirements of AASHTO M 288 Section 4, Certification, and copies of the test results. The Contractor's testing, however, will not be the sole basis for acceptance.

The Department shall sample and test the geosynthetics for acceptance to verify conformance with this specification. Sampling shall be in accordance with ASTM D 4354, using the section titled, "Procedure C - Sampling for Purchaser's Specification Conformance Testing." In the absence of the Department's testing, acceptance may be based on manufacturer's certifications as a result of testing by the manufacturer of quality assurance samples obtained using the procedure for Sampling for Manufacturer's Quality Assurance (MQA) Testing. A lot size shall be considered to be the shipment quantity of the given product, or a truckload of the given product, whichever is smaller.

All property values, with the exception of apparent opening size (AOS) and Panel Vertical Strain, in these specifications represent minimum average roll values (MARV) in the weakest principal direction (i.e., average test results of any roll in a lot sampled for conformance or quality assurance testing shall meet or exceed the minimum values provided herein). Values for AOS and Panel Vertical Strain represent maximum average roll values.

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



Perform tests in accordance with the methods referenced in this specification for the indicated application. The number of specimens to test per sample is specified by each test method. Geotextile product acceptance shall be based on ASTM D 4759. Product acceptance is determined by comparing the average test results of all specimens within a given sample to the specification MARV.

(a) **Geotextile Fabric for Use in Silt Fences, Silt Barriers or Filter Barriers**

Geotextile shall function as a vertical; permeable interceptor designed to remove suspended soil from overland water flow. Fabric shall filter and retain soil particles from sediment-laden water to prevent eroding soil from being transported off the construction site by water runoff. Fabric shall contain ultraviolet inhibitors and stabilizers to provide at least 6 months of expected, usable construction life at a temperature of 0 degrees F to 125 degrees F. The tensile strength of the material after 6 months of installation shall be at least 50 percent of the initial strength.

Physical Property	Test Method	Requirements
Filtering Efficiency	VTM-51	75% (min)
Flow Rate	VTM-51	0.2 gal/sq. ft/minute (min)

In addition to these requirements the geotextile shall meet the requirements of AASHTO M 288 for Temporary Silt Fence Property Requirements, Table 6 for Grab Strength and Ultraviolet Stability.

(b) **Geotextile for Use as Riprap Bedding Material**

Geotextile shall meet the requirements of AASHTO M 288 for Separation Geotextile Properties Table 3 for Apparent Opening Size and Ultraviolet Stability and Geotextile Strength Property Requirements, Table 1, Class 2 for grab strength and puncture strength.

(c) **Geotextile Fabric for Use in Drainage Systems (Drainage Fabric)**

Drainage fabric shall be nonwoven, clog resistant, suitable for subsurface application, and stable both thermally and biologically.

The geotextile shall retain at least 75 percent of its ultimate strength when subjected to substances having a pH of a minimum of 3 and a maximum of 12 for a period of 24 hours.

Physical Property	Test Method	Requirements
Permittivity	ASTM D 4491	0.5 sec ⁻¹ (min)
Apparent Opening Size (AOS)	ASTM D 4751	No. 50 sieve (max)

In addition to these requirements, the geotextile shall meet the requirements of AASHTO M 288 Strength Requirements, Table 1, Class 3 for grab strength.

(d) **Geotextile for Use in Stabilization**

Geotextiles used in saturated and or unstable conditions to provide the functions of separation and reinforcement.

1. **Subgrade Stabilization Fabric**

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



Physical Property	Test Method	Requirements
Apparent Opening Size (AOS)	ASTM D 4751	No. 20 sieve (max)

In addition to this requirement, the geotextile shall meet the requirements of AASHTO M 288 for Strength Property Requirements, Table 1, Class 3 for Grab Strength, Tear Strength and Puncture Strength.

2. **Embankment Stabilization Fabric – up to 6 feet high**

Physical Property	Test Method	Requirements
Apparent Opening Size	ASTM D 4751	No. 20 sieve (max)
Seam Strength	ASTM D 4632	90% Specified Grab Strength

In addition to this requirement, the geotextile shall meet the requirements of AASHTO M 288 for Strength Property Requirements, Table 1, Class 1 for Grab Strength, Tear Strength and Puncture Strength.

(e) **Prefabricated Geocomposite Pavement Underdrain**

Prefabricated geocomposite pavement underdrain shall consist of a polymeric drainage core encased in a non-woven filter fabric envelope having sufficient flexibility to withstand bending and handling without damage. Prefabricated geocomposite pavement underdrain shall conform to the following:

- (1) **Core:** The drainage core shall be made from an inert, polymeric material resistant to commonly encountered chemicals and substances in the pavement environment, and shall have a thickness of not less than 3/4 inch.

Physical Properties	Test Method	Requirements
Compressive Strength Panel Vertical Strain & Core Area Change	ASTM D 1621/D 2412	40 psi(min) @ 20% deflection
Panel Vertical Strain & Core Area Change @ 22.7 psi	ASTM D 6244	10% for core area & panel height (max)
Water flow rate (after 100 hours @ 10 psi normal confining pressure gradient of no more than 0.1)	ASTM D 4716	15 gal/min/ft width for 12" specimen length) (min)

The core shall retain at least 75 percent of its ultimate strength when subjected to temperatures of 0° and 125°F respectively for a period of 24 hours.

- (2) **Filter Fabric:** Geotextile shall be bonded to and tightly stretched over the core. Geotextile shall not sag nor block the flow channels, have equivalent life of the core material and conform to the requirements of Section 245.03(c).

(f) **Geocomposite Wall Drains**

Geocomposite wall drains may be used as an alternative to porous backfill when permitted by the Engineer. Geocomposite wall drains will not be permitted for use with

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



walls considered critical by the Engineer. Critical walls shall include walls over 15 feet in height and walls supporting bridge abutments or other structures on spread footings.

Prefabricated geocomposite wall drain shall consist of a polymeric drainage core encased in a non-woven filter fabric envelope having sufficient flexibility to withstand bending and handling without damage. Geocomposite wall drains shall conform to the following:

- (1) **Core:** The drainage core shall be made from an inert, polymeric material resistant to commonly encountered chemicals and substances in the roadway.

Physical Property	Test Method	Requirements
Compressive Strength @ 20 % deflection	ASTM D 1621/ D 2412	40 psi (min)
Water flow rate (after 100 hours at 10 psi normal confining pressure and gradient of no more than 0. 1)	ASTM D 4716	15 gal/min/ft width (for 12" specimen length) (min)

The core shall retain at least 75 percent of its ultimate strength when subjected to temperatures of 0° and 125° F for a period of 24 hours.

- (2) **Filter Fabric:** Geotextile shall be bonded to and tightly stretched over the core. Geotextile shall not sag nor block the flow channels, have equivalent life of the core material and conform to the requirements of section 245.03(c).

(g) **Geomembrane Moisture Barrier**

Geomembrane moisture barrier shall be resistant to biological attack. Geomembrane shall be constructed out of PVC, have a thickness of 30 mils and shall meet the requirements of the PVC Geomembrane Institute 1197 material specification for PVC Geomembrane or shall conform to the following requirements:

Physical Property	Test Method	Requirements
Thickness	ASTM D 5199	30 mils (min)
Tensile (1 inch strip)	ASTM D 882	130 kip/ft (min)
Tear (Die C)	ASTM D 1004	200 lbf (min)
Puncture	ASTM D 4833	620 lbf (min)

(h) **Dewatering Bag:**

A non-woven geotextile sewn together to form a bag that can be used in lieu of a dewatering basin for the purpose of filtering out suspended soil particles. The bag shall be capable of accommodating the water flow from the pump without leaking at the spout and seams.

Physical Property	Test Method	Requirements
Grab Strength @ Elongation < 50%(CRE/Dry)	ASTM D 4632	250 lbs (min)
Seam Strength	ASTM D 4632	90% Specified Grab Strength
Puncture	ASTM D 4833	150 lbs (min)

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



Mullen Burst	ASTM D 3786	450 psi (min)
Flow Rate	ASTM D 4491	.189 ft ³ /sec/ft. (min)
Permittivity	ASTM D 4491	1.2 sec ⁻¹ (min)
UV Resistance	ASTM D 4355	70% at 500 hrs (min)
AOS	ASTM D 4751	100 sieve (max)

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 3-1 to 3-5}

(c301a0b-0503) **SECTION 301.02—PROCEDURES** is amended to replace the first paragraph with the following:

If approved by the Engineer, the Contractor may clear and grub to accommodate construction equipment within the right of way up to 5 feet beyond the construction limits at his own expense. The Contractor shall install erosion and siltation control devices prior to beginning clearing or grubbing operations and such devices shall be functional before upland land-disturbing activities take place.

1-27-03 (SPCN)

(c302a0b-0702) **SECTION 302.03—PROCEDURES** is amended to add the following:

The Contractor shall be responsible for anticipating and locating underground utilities and obstructions in accordance with the requirements of Section 105.07 of the Specifications.

When construction appears to be in close proximity to existing utilities, the trench(es) shall be opened a sufficient distance ahead of the work or test pits made to verify the exact locations and inverts of the utility to determine if changes in line or grade are required for the new work.

4-5-02 (SPCN)

(c302b1b-0604) **SECTION 302—DRAINAGE STRUCTURES** of the Specifications is amended as follows:

Section 302.03(a) 2.g.—Backfilling is amended to delete the first, fourth, fifth, sixth, and seventh paragraphs, and to add the following:

Class I backfill material shall be crusher run aggregate size no. 25 or 26, Aggregate Base Material Size 21A or 21B, or Flowable Fill.

Regular backfill material outside of the neatlines of the Class I areas shown on the Standard Drawings shall be regular excavation conforming to Section 303. Regular and classified backfill shall be placed in uniform layers not more than 6 inches in thickness, loose measurement, before compaction. Each layer of Class I and regular backfill material shall be thoroughly compacted as specified in Section 303.04(g) with the exception that Class I backfill material shall be placed and compacted at a moisture content of optimum to plus 2 percentage points of optimum. Class I backfill material shall be thoroughly compacted under the haunches of pipe culverts. Each layer of Class I and regular backfill material shall be compacted by rolling, tamping with mechanical rammers, or hand tamping with heavy metal tampers with a face of at least 25 square

inches. If vibratory rollers are used in the backfill operations, vibratory motors shall not be activated until at least 3 feet of backfill has been placed and compacted over the pipe. Backfill and compaction shall be advanced simultaneously on both sides of the pipe. The fill above the top of the Class I backfill shall be completed as specified for embankment construction.

Field density determinations will be performed in accordance with the requirements of VTM-1, VTM-10 or other methods approved by the Engineer.

Concrete pipe with a height of cover greater than that shown in the Standard PC-1 table for Class V pipe shall be Special Design pipe with Method "A" bedding and backfill in accordance with the requirements of Standard PB-1.

Section 302.03(b) 1.b.—Standard precast drainage units is replaced with the following:

Pipe openings in precast drainage units shall not exceed the outside cross sectional dimensions of the pipes by more than a total of 8 inches regardless of the placement of the pipes, the angles of intersection, or the shapes of the pipes. Pipe openings shall be formed, drilled, or neatly cut.

Section 302.03(b) 1.c.—Standard precast drainage units is replaced with the following

The Contractor shall use brick, masonry block, other standard masonry units, or clean, durable, and sound local stone in conjunction with mortar to fill the void between the pipe culverts and the precast drainage structures. Stone or masonry units, areas of the pipe openings, and exterior walls of pipe shall be thoroughly wetted and then bonded with mortar by standard masonry practice in such a manner as to provide a contiguous masonry connection between the precast drainage structures and the pipe culverts. The remaining exterior and interior voids shall be filled with mortar and shaped to the contour of the precast structure.

Section 302.04—Measurement and Payment is amended to delete the eleventh, twelfth and thirteenth paragraphs and replace the fifth, fourteenth and fifteenth paragraphs with the following:

Pipe shall be paid for at the contract unit price per linear foot. This price shall include excavating, when not paid for as Minor Structure Excavation, sheeting, shoring, dewatering, disposing of surplus and unsuitable material and restoring existing surfaces. The upper 4 inches of bedding material and the Class I backfill material within the neatlines shown for each foundation type on the Standard PB-1 Drawings shall be included in the price for the related pipe. When unit prices for extended pipelines are not specified, the unit price for new pipe of the same size shall apply. When not a pay item, the cost of the temporary relocation of a stream to facilitate the installation of the pipe shall be included in the price for the pipe. The cost of fittings, anti-seepage collars and anchor blocks shall be included in the price for the pipe.

Cast in place box culverts will be measured in cubic yards of concrete and pounds of reinforcing steel and will be paid for at the contract unit price per cubic yard of concrete and per pound of reinforcing steel. These prices shall include excavating, when not paid for as Minor Structure Excavation, sheeting, shoring, dewatering, waterproofing, disposing of surplus and unsuitable

material, restoring existing surfaces, the upper 6 inches of bedding material within the neatlines shown on the Standard PB-1 Drawings and all necessary work to key the bottom slab into an existing rock foundation. When not a pay item, the cost of the temporary relocation of a stream to facilitate the installation of the structure shall be included in the price for the concrete and steel.

If the Contractor elects to furnish and install precast box culverts or precast arches, payment will be made for the original quantities shown on the plans for cast-in-place units. No additional compensation will be made for casting, prestressing, or shipping precast units or performing additional work, such as waterproofing, epoxy coating, or joint sealing, required as a result of the substitution.

Precast box culverts will be measured in linear feet along the centerline of the barrel from face of curtain wall to face of curtain wall and will be paid for at the contract unit price per linear foot. This price shall include designing, casting, reinforcing, excavating, when not paid for as Minor Structure Excavation, sheeting, shoring, dewatering, installing, waterproofing, sealing joints, anchoring, disposing of surplus and unsuitable material, restoring existing surfaces, the upper 6 inches of bedding material within the neatlines shown on the Standard PB-1 Drawings, fittings and providing buffer zones and porous backfill for multiple lines. When not a pay item, the cost of the temporary relocation of a stream to facilitate the installation of the structure shall be included in the price for the box culvert.

Section 302.04 - Measurement and Payment is amended to delete the following Pay Items and Pay Units:

Pay Item	Pay Unit
Bedding material, aggregate No. ()	Ton
Class I backfill material	Cubic yard or Ton
Class II backfill material	Cubic yard or Ton

1-20-04 (SPCN)

(c302b2b-1106) **SECTION 302—DRAINAGE STRUCTURES** of the Specifications is amended as follows:

Section 302.01—Description is replaced with the following:

This work shall consist of installing pipe culverts, endwalls, box culverts, precast concrete and metal arches, storm drains, drop inlets, manholes, spring boxes, junction boxes, and intake boxes and removing and replacing existing structures in accordance with the requirements of these specifications and in conformity with the lines and grades shown on the plans or as established by the Engineer.

Section 302.03(a) 2.g.—Backfilling is amended to delete the first, fourth, fifth, sixth, and seventh paragraphs, and to add the following:

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



Class I backfill material shall be crusher run aggregate size no. 25 or 26, Aggregate Base Material Size 21A or 21B, or Flowable Fill.

Regular backfill material outside of the neatlines of the Class I areas shown on the Standard Drawings shall be regular excavation conforming to Section 303. Regular and classified backfill shall be placed in uniform layers not more than 6 inches in thickness, loose measurement, before compaction. Each layer of Class I and regular backfill material shall be thoroughly compacted as specified in Section 303.04(g) with the exception that Class I backfill material shall be placed and compacted at a moisture content of optimum to plus 2 percentage points of optimum. Class I backfill material shall be thoroughly compacted under the haunches of pipe culverts. Each layer of Class I and regular backfill material shall be compacted by rolling, tamping with mechanical rammers, or hand tamping with heavy metal tampers with a face of at least 25 square inches. If vibratory rollers are used in the backfill operations, vibratory motors shall not be activated until at least 3 feet of backfill has been placed and compacted over the pipe. Backfill and compaction shall be advanced simultaneously on both sides of the pipe. The fill above the top of the Class I backfill shall be completed as specified for embankment construction.

Field density determinations will be performed in accordance with the requirements of VTM-1, VTM-10 or other methods approved by the Engineer.

Concrete pipe with a height of cover greater than that shown in the Standard PC-1 table for Class V pipe shall be Special Design pipe with Method "A" bedding and backfill in accordance with the requirements of Standard PB-1.

Section 302.03(b) 1.b.—Standard precast drainage units is replaced with the following:

Pipe openings in precast drainage units shall not exceed the outside cross sectional dimensions of the pipes by more than a total of 8 inches regardless of the placement of the pipes, the angles of intersection, or the shapes of the pipes. Pipe openings shall be formed, drilled, or neatly cut.

Section 302.03(b) 1.c.—Standard precast drainage units is replaced with the following

The Contractor shall use brick, masonry block, other standard masonry units, or clean, durable, and sound local stone in conjunction with mortar to fill the void between the pipe culverts and the precast drainage structures. Stone or masonry units, areas of the pipe openings, and exterior walls of pipe shall be thoroughly wetted and then bonded with mortar by standard masonry practice in such a manner as to provide a contiguous masonry connection between the precast drainage structures and the pipe culverts. The remaining exterior and interior voids shall be filled with mortar and shaped to the contour of the precast structure.

Section 302.04—Measurement and Payment is amended to delete the eleventh, twelfth and thirteenth paragraphs and replace the fifth, fourteenth and fifteenth paragraphs with the following:

Pipe shall be paid for at the contract unit price per linear foot. This price shall include excavating, when not paid for as Minor Structure Excavation, sheeting, shoring, dewatering, disposing of surplus and unsuitable material and restoring

existing surfaces. The upper 4 inches of bedding material and the Class I backfill material within the neatlines shown for each foundation type on the Standard PB-1 Drawings shall be included in the price for the related pipe. When unit prices for extended pipelines are not specified, the unit price for new pipe of the same size shall apply. When not a pay item, the cost of the temporary relocation of a stream to facilitate the installation of the pipe shall be included in the price for the pipe. The cost of fittings, anti-seepage collars and anchor blocks shall be included in the price for the pipe.

Cast in place box culverts will be measured in cubic yards of concrete and pounds of reinforcing steel and will be paid for at the contract unit price per cubic yard of concrete and per pound of reinforcing steel. These prices shall include excavating, when not paid for as Minor Structure Excavation, sheeting, shoring, dewatering, waterproofing, disposing of surplus and unsuitable material, restoring existing surfaces, the upper 6 inches of bedding material within the neatlines shown on the Standard PB-1 Drawings and all necessary work to key the bottom slab into an existing rock foundation. When not a pay item, the cost of the temporary relocation of a stream to facilitate the installation of the structure shall be included in the price for the concrete and steel.

If the Contractor elects to furnish and install precast box culverts or precast arches, payment will be made for the original quantities shown on the plans for cast-in-place units. No additional compensation will be made for casting, prestressing, or shipping precast units or performing additional work, such as waterproofing, epoxy coating, or joint sealing, required as a result of the substitution.

Precast box culverts will be measured in linear feet along the centerline of the barrel from face of curtain wall to face of curtain wall and will be paid for at the contract unit price per linear foot. This price shall include designing, casting, reinforcing, excavating, when not paid for as Minor Structure Excavation, sheeting, shoring, dewatering, installing, waterproofing, sealing joints, anchoring, disposing of surplus and unsuitable material, restoring existing surfaces, the upper 6 inches of bedding material within the neatlines shown on the Standard PB-1 Drawings, fittings and providing buffer zones and porous backfill for multiple lines. When not a pay item, the cost of the temporary relocation of a stream to facilitate the installation of the structure shall be included in the price for the box culvert.

Section 302.04 - Measurement and Payment is amended to delete the following Pay Items and Pay Units:

Pay Item	Pay Unit
Bedding material, aggregate No. ()	Ton
Class I backfill material	Cubic yard or Ton
Class II backfill material	Cubic yard or Ton

1-5-05 (SPCN)



(c303a0b-0702) **AGGREGATE MATERIAL** shall be the size specified conforming to Section 203 of the Specifications. The aggregate shall be placed at locations shown on the plans or as directed by the Engineer. Aggregate material will be measured in units of tons for the size specified in accordance with Section 109 of the Specifications. Payment will be made at the contract unit price per ton, which bid price shall be full compensation for furnishing, placing, and shaping and compaction, if required.

Payment will be made under:

Pay Item	Pay Unit
Aggregate Material (Size)	Ton

5-23-95, Reissued 7-9-02 (SPCN)

(c303c0b-1103) **SECTION 303.06(e) EROSION CONTROL ITEMS** of the Specifications is amended to include the following:

16. **Dewatering basin** will be measured and paid for at the contract unit price per each. This price shall include furnishing, installing, maintaining, and when no longer required, removing the dewatering basin, backfill and site restoration.

Payment will be made under:

Pay Item	Pay Unit
Dewatering basin	Each

4-5-02 (SPCN)

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 3-18 to 3-19}

S303A0B-0702

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
TURBIDITY CURTAIN**

August 4, 1993c
Reissued July 9, 2002

I. DESCRIPTION

This work consists of installation, maintenance and removal of a turbidity curtain, including all necessary cables, weights and floats in accordance with this provision and in reasonably close conformity with the lines, grades and details shown on the plans or established by the Engineer. The curtain shall be provided as a temporary measure to minimize the drift of suspended material during construction of the project.

II. MATERIALS

The curtain shall be synthetic fabric coated with suitable elastomeric or polymeric compound; having high resistance to weathering, hydrocarbons, fresh and salt water, and temperature extremes. The fabric shall be impervious or pervious as shown in the contract. Pervious is defined as 20% of the fabric material allowing the passage of water. The fabric shall have a tensile strength of not less than 200 pounds per square inch when measured lengthwise or crosswise. The curtain shall form a continuous vertical and horizontal barrier for the entire width and length of each section. Seams, if required, shall be either vulcanized welded or sewn and shall develop the full strength of the fabric.

Floatation shall be flexible, buoyant units contained in a floatation sleeve or collar attached to the curtain. Buoyancy provided by the floatation units shall be sufficient to support the required width of the curtain and maintain a freeboard of at least 3 inches above the water surface level, to a minimum of one foot above the bottom or a maximum ten foot depth at all stages of water levels.

Load lines shall be fabricated into the top and bottom of the curtain. The top load line shall consist of woven webbing or vinyl sheathed steel cable and shall have a break strength in excess of 10,000 pounds. The bottom loadline shall consist of a chain incorporated into the bottom hem of the curtain of sufficient weight to serve as ballast to hold the curtain in a vertical position. Additional anchorage shall be provided if necessary. The load lines shall have suitable devices, which develop the full breaking strength for connecting to load lines in adjacent sections.

The Contractor shall submit working drawings to the Engineer for review in accordance with Section 105.02 of the Specifications.

III. INSTALLATION

The curtain shall be placed at the locations shown on the plans and in accordance with the approved working drawings. The Contractor shall maintain the turbidity curtain in order to insure the continuous protection of the waterway.

The depth of the curtain shall be such that it shall extend from the water surface to no less than one foot above the bottom, or no more than ten feet depth for the entire length of curtain at all stages of water level.

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



When the curtain is no longer required as determined by the Engineer, the curtain and related components shall be removed in such a manner as to minimize turbidity. The curtain and related components shall become the property of the Contractor and shall be removed from the project.

IV. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Turbidity curtain will be measured in linear feet from edge of the curtain along the support cable. Turbidity curtain will be paid for at the contract unit price per linear foot, which price shall be full compensation for furnishing, installing, maintaining and removal of all materials necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
Turbidity Curtain (Type)	Linear Foot

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) page 3-21}

S303C1B-0105

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
EROSION CONTROL MULCH**

March 15, 2004

I. DESCRIPTION

This work shall consist of furnishing and applying mulch as a temporary erosion control treatment on slopes exposed to the elements but not at final grade during the period from December 1 to March 1 for periods of up to 30 days prior to final grading, or to areas to receive stabilization or paved surfaces within six months, in accordance with this provision and as directed by the Engineer.

II. MATERIALS

Mulch shall conform to the requirements of Section 244.02(g)1. of the Specifications.

III. PROCEDURES

Mulch shall be applied to exposed slopes requiring mulch, or to areas to be stabilized or paved, within 48 hours after performance of grading operations. Straw or hay mulch shall be applied on bare slope areas at the rate of approximately 3 tons per acre (1.24 lbs per square yard). Straw or hay mulch shall be applied at a uniform thickness in such a manner that not more than 10 percent of the soil surface will be exposed. Straw or hay mulch shall be anchored to the slope surface by one of the following methods: spraying with cellulose fiber mulch at the rate of 750 pounds per acre (0.15 pound per square yard); disking or punching the mulch partially into the soil; using approved netting; or using other materials or methods approved by the Engineer. The Contractor may use more than one method on the same project.

IV. MEASUREMENT AND PAYMENT

Erosion control mulch will be measured in square yards or acres of surface area, complete-in-place, and will be paid for at the contract unit price per square yard or acre of surface area. This price shall include furnishing and applying mulch; and maintaining mulched areas until placement of the final soil retention covering, seeding or paving.

Payment will be made under:

Pay Item	Pay Unit
Erosion control mulch	Square yard or acres

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 3-22 to 3-23}

S303D0B-0702

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
NO PLAN AND MINIMUM PLAN CONCEPT

April 14, 1998
Reissued July 9, 2002

I. DESCRIPTION

This work shall consist of the construction or reconstruction of the roadway in accordance with this provision and in reasonably close conformity with the lines, grades and typical sections shown or established by the Engineer.

This work shall include clearing and grubbing; excavation within the area of the typical section(s), construction of embankments and shoulders, construction of connections with intersecting roads, streets and entrances, both public and private, and the construction of all ditches and channels within the area of the right-of-way or easements. Unless otherwise specified, this work shall include the removal and disposal of existing road surface material, abandoned pipe culverts and minor structures. The existing road surface material shall be salvaged and used for maintenance of traffic, except when the Engineer determines that this condition is impractical.

II. MATERIALS AND TESTING

Testing on this project will be in accordance with the policy for testing on no plan and minimum plan projects in Sections 207 and 208 of the Specifications and the Material Division's Manual of Instructions.

III. CONSTRUCTION METHODS

The Contractor shall perform all construction or reconstruction activities in accordance with the applicable requirements of the Specifications, except as otherwise specified herein or on the plans.

The roadway centerline shall be in accordance with the centerline shown on the plans or established by the Engineer. The grade shall generally follow that shown on the plans. In the absence of a grade line on the plans, the proposed grade shall generally follow the existing grade as directed by the Engineer. The approximate depth of centerline cuts and fills shall be obtained from the plans, except that at certain locations and at the discretion of the Engineer, a minimum number of centerline grade stakes may be furnished by the Department whereby the approximate depth of centerline cuts and fills may be obtained therefrom. Slope tolerances specified in the Specifications are waived; however, all disturbed slopes shall be uniformly grooved or rough graded as directed by the Engineer.

The roadbed shall be shaped and worked until it is smooth and free from large clods or other material unfit for use in the roadbed. Sharp breaks in the roadbed shall be eliminated and the final grade shall be compacted. The maximum gradient on all connections with intersecting roads, streets and entrances shall not exceed 10 percent, unless otherwise noted on plans or directed by the Engineer. Ditchlines shall be graded to facilitate drainage and to prevent the impoundment of water.

Excess material from slides, ditches and channels, slopes or drainage easements, and unsuitable material cut from below grade, which cannot be used to flatten fill slopes within the right-of-way or easements, shall be disposed of by the Contractor in accordance with Section 106.04 of the Specifications.

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.



The construction or clean out of ditches or channels extending beyond the roadway right-of-way, the removal and disposal of slide material and the removal and disposal of unsuitable material required to be removed from below subgrade will be classified as extra excavation.

IV. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Grading will be paid for at the contract lump sum price, which price shall be full compensation for mobilization when not specified as a separate bid item; for the cost of clearing and grubbing; for all regular excavation; for construction of embankments, grading of unpaved shoulders and ditches and channels; for allaying of dust when not specified as a separate bid item; for removal and disposal of excess or unsuitable material above grade; and for removal and disposal of existing minor structures and roadway surface materials.

When specified as a bid item, extra excavation will be measured in cubic yards in accordance with Section 109.01 and will be paid for at the contract unit price per cubic yard; which price shall be full compensation for performing the required excavation and disposing of material in accordance with Section 106.04 of the Specifications or as directed by the Engineer. When not specified as a contract bid item, extra excavation will be paid for at the unit price of _____ per cubic yard.

Items of work not specified herein will be measured and paid for in accordance with the applicable Sections of the Specifications.

Payment will be made under:

Pay Item	Pay Unit
Grading	Lump Sum
Extra Excavation	Cubic Yard

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 3-24 to 3-27}

S303E3B-1106

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 303—EARTHWORK

September 19, 2005

SECTION 303—EARTHWORK of the Specifications is amended as follows:

Section 303.03-Erosion and Siltation Control is replaced by the following:

Erosion and siltation shall be controlled through the use of the devices and methods specified herein or as is otherwise necessary. The Department reserves the right to require other temporary measures not specifically described herein to correct an erosion or siltation condition.

Erosion and siltation control devices and measures shall be maintained in a functional condition at all times. Temporary and permanent erosion and siltation control measures shall be inspected after each rainfall and at least daily during periods of prolonged rainfall. Deficiencies shall be immediately corrected. The Contractor shall make a daily review of the location of silt fences and filter barriers to ensure that they are properly located for effectiveness. Where deficiencies exist, corrections shall be made immediately as approved or directed by the Engineer.

When erosion and siltation control devices and measures and methods function by using wet storage, sediments shall be removed when the wet storage volume has been reduced by 50 percent. Sediments shall be removed from dewatering basins when the excavated volume has been reduced by 50 percent. Sediments shall be removed from all other erosion and siltation control devices and measures and methods when capacity, height or depth has been reduced by 50 percent. Removed sediment shall be disposed of in accordance with Section 106.04. Sediment deposits remaining in place after the device is no longer required shall be dressed to conform with the existing grade, prepared, and seeded in accordance with the requirements of Section 603.

Geotextile fabric that has decomposed or becomes ineffective and is still needed shall be replaced. In addition, temporary erosion and sediment control devices except brush silt barriers shall be removed within 30 days after final site stabilization or after the temporary devices are no longer needed as determined by the Engineer.

- (a) **Earth Berms and Slope Drains:** The top of earthwork shall be shaped to permit runoff of rainwater. Temporary earth berms shall be constructed and compacted along the top edges of embankments to intercept runoff water. Temporary slope drains shall be provided to intercept runoff and adequately secured to prevent movement. Slope drains may be flexible or rigid but shall be capable of being readily shortened or extended. A portable flume shall be provided at the entrance to temporary slope drains.
- (b) **Incremental Seeding:** Cut and fill slopes shall be shaped and topsoiled where specified. Seed and mulch shall be applied in accordance with the requirements of Section 603 as the work progresses in the following sequence:
 - 1. Slopes whose vertical height is 20 feet or greater shall be seeded in three equal increments of height. Slopes whose vertical height is more than 75 feet shall be seeded in 25-foot increments.

2. Slopes whose vertical height is less than 20 but more than 5 feet shall be seeded in two equal increments.
3. Slopes whose vertical height is 5 feet or less may be seeded in one operation.

Seeding operations in all earth or land-disturbed areas where grading or grubbing operations have occurred shall be initiated within 48 hours after attaining the appropriate grading increment or upon suspension of grading operations for an anticipated duration of greater than 15 days or upon completion of grading operations for a specific area.

- (c) **Check Dams:** As an initial item of work, required check dams shall be constructed at 25-foot intervals, unless otherwise shown on the plans, below the outfall end of drainage structures.

Synthetic checkdams recorded in the Department's Approved Products List may be substituted for Standard EC-4, Rock Check Dams, Type II with the approval of the Engineer at no additional cost to the Department. Synthetic checkdams shall be installed in accordance with the manufacturer's recommendation.

- (d) **Baled Straw Silt Barriers:** Baled straw silt barriers may be substituted for temporary filter barriers with the approval of the Engineer in noncritical areas, such as pavement areas and rock locations where filter barriers cannot be installed in accordance with the plans and specifications, and locations where the Engineer determines that streams and water beds will not be affected.

- (e) **Temporary Silt Fences, Geotextile Fabric Silt Barriers, and Filter Barriers:**

1. **Temporary silt fences:** Fences shall be erected at locations shown on the plans or determined by the Engineer. Geotextile fabric used for silt fences shall be provided and posts shall not be spaced more than 6 feet apart. Posts shall be uniformly installed with an inclination toward the potential silt load area of at least 2 but not more than 20 degrees. Attaching fabric to existing trees will not be permitted.

Fabric shall be firmly secured to the post or wire fence. The bottom of the fabric shall be entrenched in the ground in a minimum 6-inch by 6-inch trench. Temporary silt fence may also be entrenched using a slicing method with a minimum of 8 inches sliced into the ground. Fabric may be spliced only at support posts and with an overlap of at least 6 inches. The top shall be installed with a 1-inch tuck or reinforced top end section. The height of the finished fence shall be a nominal 29 inches.

2. **Geotextile fabric silt barriers:** Existing fences or brush barriers used along the downhill side of the toe of fills shall have geotextile fabric attached at specified locations as shown on the plans. The bottom of the fabric shall be entrenched in the ground in a minimum 6-inch by 6-inch trench and the top shall be installed with a 1-inch tuck or reinforced top end section. Temporary fabric silt barriers may also be entrenched using a slicing method with a minimum of 8 inches sliced into the ground.

Brush barriers shall be installed prior to any major earth-disturbing activity and trimmed sufficiently to prevent tearing or puncturing fabric. Fabric shall be fastened securely to the brush barrier or existing fence. A 6-inch overlap of fabric for vertical and horizontal splicing shall be maintained and tightly sealed.

3. **Temporary filter barriers:** Barriers shall consist of geotextile fabric and shall be securely fastened to wood or metal supports that are spaced at not more than 3-foot intervals and driven at least 12 inches into the ground. At least three supports shall

be used. The bottom of the fabric shall be entrenched in the existing ground in a minimum 4-inch by 4-inch trench.

Temporary filter barriers may also be entrenched using a slicing method with a minimum of 6 inches sliced into the ground. The top of the fabric shall be installed with a 1-inch tuck or reinforced top end section. The height of the finished temporary filter barrier shall be a nominal 15 inches.

Temporary filter barriers shall be installed at temporary locations where construction changes the earth contour and drainage runoff as directed or approved by the Engineer

After removal and disposal of the temporary silt fence, geotextile fabric silt barrier, and temporary filter barrier, the area shall be dressed and stabilized with a permanent vegetative cover or other approved permanent stabilization practice approved by the Engineer.

- (f) **Sediment Traps and Sediment Basins:** Sediment traps are required if stormwater runoff from less than three acres flows across a disturbed area of 10,000 square feet or more. Sediment basins are required if stormwater runoff from three or more acres flows across a disturbed area of 10,000 square feet or more. Once a sediment trap or basin is constructed the dam and all outfall areas shall be stabilized immediately.

Section 303.04(h) Embankments is amended to replace the twelfth paragraph with the following:

When geotextile for embankment stabilization is required it shall be placed as shown on the plans. Geotextile shall be spliced by sewing double stitched seams with stitching spaced 1/4 inch to 1/2 inch apart or as shown on the plans.

Section 303.04(h) Embankments is amended to replace the eighteenth paragraph with the following:

Field density determinations will be performed in accordance with AASHTO T191, modified to include material sizes used in the laboratory determination of density, with a portable nuclear field density testing device or by other approved methods. When a nuclear device is used, density determinations for embankment material will be related to the density of the same material tested in accordance with VTM 1 or VTM 12 and a control strip will not be required.

Section 303.05(a) Finished grade of subgrade is replaced with the following:

- (a) **Finished grade of subgrade** shall conform to the requirements of Section 305.03(c).

Section 303.06(a)4. Minor Structure Excavation is amended to replace the third paragraph with the following:

If embankment is placed prior to installation of a minor structure, excavation of the embankment area will not be measured for payment unless the Contract requires placement of the embankment prior to the installation of the minor structure.

Section 303.06(e) - Erosion Control Items is amended as follows:

Section 303.06(e)4. is replaced by the following:

- 4. **Check dams** will be paid for at the contract unit price per each. This price shall include furnishing, excavating, constructing, maintaining, and removing check dams when no longer required.

Synthetic checkdams may be substituted for Type II Rock Checkdams (Standard EC-4) at no additional cost to the Department.

Section 303.06(e)5. Temporary silt fences is amended to replace the last sentence with the following:

This price shall include furnishing, installing, and maintaining the silt fence, including wire reinforcement and posts; removing and disposing of these materials and dressing and stabilizing the area.

Section 303.06(e)6. Geotextile fabric is amended to replace the last sentence with the following:

This price shall include the trimming the brush barrier; furnishing, installing, maintaining, removing the fabric and dressing and stabilizing the area.

Section 303.06(e)7. Temporary filter barriers is amended to replace the next to the last sentence with the following:

This price shall include furnishing, installing, and maintaining the filter barrier, including filter barrier material and posts; removing, disposing of these materials and dressing and stabilizing the area.

Section 303.06(e)12. Sediment basins is replaced with the following:

Sediment traps and basins will be measured in cubic yards of sediment basin excavation and will be paid for at the contract unit price per cubic yard. This price shall include excavation, maintenance, and backfill or removing to original ground when no longer needed.

Section 303.06(e) Erosion Control Items is amended to add the following:

- 16. **Dewatering basin** will be measured and paid for at the contract unit price per each. This price shall include furnishing, installing, maintaining, and when no longer required, removing the dewatering basin, backfill and site restoration.

Section 303.06 Measurement and Payment is amended to add the following pay items:

Pay Item	Pay Unit
Dewatering basin	Each

Section 303.06 Measurement and Payment is amended to delete the following pay item:

Pay Item	Pay Unit
Silt settlement basin	Each

*These SPECIFICATIONS REVISIONS are subject to change on short notice. Please use the pages with the revised dates listed in the PRINT PAGE KEY.



{Excerpt from VDOT Special Provision Copied Notes (SPCNs) pages 6-1 to 6-2}

(c603a0b-0206) **SECTION 603.03—PROCEDURES** of the Specifications is amended as follows:

Section 603.03 (c) Applying Fertilizer is amended to replace the first paragraph with the following:

- (c) **Applying Fertilizer:** When dry fertilizer is used, it shall be applied uniformly to the seeding areas at the time of seeding at the rate of 300 pounds of fertilizer per acre (approximately 45 pounds of nitrogen per acre or 1.0 pound of nitrogen per 1,000 square feet) or as directed by the Engineer. All slow release and slowly soluble fertilizer may be applied through a hydraulic seeder except for Sulfur Coated Urea (SCU). The method of application for all fertilizer products shall be approved by the Engineer prior to applying the fertilizer. When applied in liquid form or mixed with water, fertilizer shall provide the same value of nutrients per acre as specified for dry fertilizer. Fertilizer applied in liquid form shall be constantly agitated during application.

Section 603.03 (d) Applying Seed is amended to add the following:

Temporary Seeding shall consist of applying seed, fertilizer, and mulch in accordance with the rates specified in the plans or Section 603.03 of the Specifications to stabilize areas on which it is anticipated grading operations will be suspended for durations greater than 15 days. Where temporary seeding is required or directed by the Engineer, the cost for removal of vegetation once grading operations resume shall be included in the price of seeding.

6-10-04 (SPCN)

{Excerpt from VDOT Special Provision Copied Notes (SPCNs) page 4-43}

S414A0B-0807

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 414—RIPRAP

December 20, 2006

SECTION 414—RIPRAP of the Specifications is amended as follows:

Section 414.03(e)—Erosion Control Stone is replaced by the following:

(e) Culvert Outlet Protection:

1. **Class 1** material shall be soil stabilization mats conforming to the requirements of sections 244 and 606.
2. **Class 2,3, & 4** material shall be stone conforming to the requirements of (a) herein for weight and shall be placed in a manner to present an irregular or rough surface.

Section 414.04—Measurement and Payment is amended to replace **Erosion Control Stone** with the following:

Culvert outlet protection will be measured in square yards of surface area for the class specified and will be paid for at the contract unit price per square yard. This price shall include excavating, backfilling, preparing the surface, furnishing and installing geotextile bedding material when required, overlaps, repair work, excavating and backfilling toe-ins, and placing the required material.

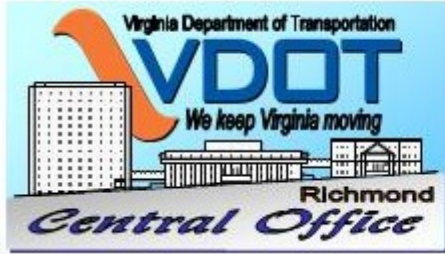
These prices shall include geotextile bedding material when required and when not a separate pay item, The price bid shall include preparing the surface, furnishing and installing geotextile bedding material, overlaps, repair work, and excavating and backfilling toe-ins.

Payment will be made under:

Pay Item	Pay Unit
Culvert outlet protection (Class, st'd)	Square yard

*These SPECIFICATIONS REVISIONS are subject to change on short notice.
Please use the pages with the revised dates listed in the PRINT PAGE KEY.





VIRGINIA DEPARTMENT OF TRANSPORTATION
Scheduling and Contract Division
Specifications Section



The **ROAD AND BRIDGE SPECIFICATIONS REVISIONS** were updated August 24, 2006.

These are the latest approved and processed special provisions and special provision copied notes for advertisements from September 2006 thru February 2007.

The major changes in this update (8-24-06) are mainly for the **November 2006 advertisement** forward. September and October proposals already developed should not be affected. Eventually, the goal is to post regular changes to the Revisions for a specific advertisement month on or near the beginning of the PAC Committee Review (**CUT-OFF DATE** column 4, approximately 4 months prior to the advertisement). Occasionally, much shorter notice may be necessary.


Please refer to the month-to-month "Pick Lists" to determine what may be used for each month's advertisement. These are included in the posted files and linked in the Table Of Contents. Each month's list has a naming convention of :

Spec book year/Advertisement month/Advertisement year (Example: 2002 English/November/2006 = _02NOV06.doc)

The "PDF" files on the [VDOT Website](#) have all the month-to-month "Pick Lists" included at the end of the document.

These SPECIFICATIONS REVISIONS are subject to change for any month on short notice. Please check the [Specifications Team Site](#) or the [VDOT Website](#) for the date of the latest changes.

"PDF" and Word@(zipped) format files may be found on the [VDOT Website](#) when the Web versions are completed by the Specifications section. They will be posted at <http://www.virginiadot.org/business/const/spec-default.asp>

NOTE: The most convenient location for VDOT employees to obtain an individual special provision or special provision copied note in Word@ format is from the [Specifications Team Site](#) at <http://insidevdot/sites/SanC/specs/default.aspx?&PageView=Shared> via "  .

ALL **2002** BOOK REVISIONS (English) are on the VDOT Network at <\\0501COITD1\Const\Public\Specifications\MENU\RVLATEST\2002\02TOC.doc>

ALL **1997** BOOK REVISIONS (Metric) are on the VDOT Network at <\\0501COITD1\Const\Public\Specifications\MENU\RVLATEST\1997\97TOC.doc>

Server Locations

The Public Server at <\\0501COCONST\public\CNSP\DOCS> has been updated with a new WinZip@ file for the CNSP Program "Docs" folder titled "**082406RV.zip**".

The Spec_2 file at [\\0501COITD1\Spec_2\CTTB- REVISIONS TO SPEC BOOK](#) has been updated for the **PLAN REVIEW** and **ESTIMATING** sections' use.

Paper Distribution

Those receiving paper copies will receive them when printing has been completed. Paper copies are limited to only select personnel determined by the Specifications Section.

NOTE: This distribution was accomplished using a distribution list titled "**VDOT Specifications Revisions Recipients**" located in the Department's Microsoft Outlook Global Address Listing. We are attempted to reach as many as possible of those who will have to build or administer contracts directly to give them a "heads-up" on what they may have to work with in the near future. This list was basically compiled using a combination of existing Outlook global distribution lists and job titles found using the Outlook search feature. If anyone is missed they will be added to the list promptly as we are informed. Those working in the design or any of the earlier preliminary engineering stages will, for the most part, be notified through their division information/management sections (i.e. L&D - Engineering Services) that disseminate such information into instructions applicable to their individual needs. However, if any would like to be added to this distribution list please request this by E-Mail to: <mailto:David.Gayle@VDOT.Virginia.gov>.



SCHEDULING and CONTRACT DIVISION SPECIFICATIONS SECTION

Welford King - State Specifications Engineer 804.786.2859 <mailto:Welford.King@VDOT.Virginia.gov>
Contact David Gayle, L.S. 804.786.4175 <mailto:David.Gayle@VDOT.Virginia.gov> **for inquiries regarding this message.**
