



**Phase II SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s), GP-02-02
STORMWATER MANAGEMENT PROGRAM ANNUAL REPORT (SWMPAR) TABLE**

Regulated MS4: NEW YORK STATE BRIDGE AUTHORITY SPDES Permit Number: NYR20A511

Annual Report Table for year ending: March 9, ____2006 (Year 3) X 2007 (Year 4) ____ 2008 (Year 5)

Information about how to complete the follow tables is in the instruction section. Please complete the tables electronically, if possible. Send two completed **hard copies** (an original and a photocopy) of this Annual Report Table, the MCC form and any attachments to the DEC Central Office (MS4 Permit Coordinator, 625 Broadway, Division of Water - 4th Floor, Albany, NY 12233-3505). **DO NOT SUBMIT REPORTS IN THREE-RING BINDERS.**

Minimum Control Measure 1. Public Education and Outreach

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

<p>Permit Reference IV.C.1.a, b: Plan and conduct an ongoing public education and outreach program to ensure the reduction of all pollutants of concern in stormwater discharges to the maximum extent practicable (MEP).</p> <ul style="list-style-type: none"> • <i>Explain the program, including activities and materials used</i> • <i>Identify the personnel or outside organization conducting the activity.</i> • <i>Indicate activities planned for next year.</i> 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>Prepared a storm water information webpage to provide information to the public on storm water related issues.</p>	<p>Webpage established in year 4; to be updated in year 5.</p>
<p>The storm water information repository was created with fliers, magazines, brochures, videos and literature.</p>	<p>The storm water information repository was created for the period between March 2006-2007; the repository updated will be continued in year 5.</p>
<p>Conducted in-house storm water training sessions.</p>	<p>In-house storm water training sessions conducted. Training will be conducted on at least an ongoing basis.</p>

Additional Techniques	Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)
NYS Bridge Authority performed routine roadway and plaza cleanups.	Routine cleanups performed between March 2006-March 2007. Additional cleanups to be performed in year 5.
NYS Bridge Authority personnel participated in in-house training.	Approximately 1 session was held for NYS Bridge Authority employees for the period between March 2006-2007; approximately 9 employees attended; task to be continued in year 5 and on an ongoing basis.
Explain any changes or additions to the Permit Referenced Activities / Techniques, Measurable Goals and / or Scheduled Dates above and provide a reason(s) for the change: N/A	

Minimum Control Measure 2. Public Involvement/Participation

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

<p>Permit Reference IV.C.2.c.iii.: Design and conduct a public involvement / participation program.</p> <ul style="list-style-type: none"> Describe activities that the MS4 has/will undertake to provide program access to interested individuals and to gather needed input. Indicate activities planned for next year. 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>	
<p>The NOI was prepared and made available for public review in November of 2006 at the NYS Bridge Authority’s Office of the Chief Engineer.</p>	<p>The NOI was completed in November 2006; the fifth year SWMPAR will be prepared for the year 5 reporting year and made available for public comment.</p>	
<p>NYS Bridge Authority held its annual public meeting on the Year 4 SWMPAR on May 17, 2007.</p>	<p>Task will be continued in year 5.</p>	
<p>NYS Bridge Authority designated William J. Moreau as the storm water contact person to answer any questions in reference to the SWMPAR or any storm water related issues.</p>	<p>The storm water contact person was established in the period between March 2006-March 2007; contact person and information to be updated if necessary in year 5.</p>	
<p>NYS Bridge Authority performed routine roadway and plaza cleanups.</p>	<p>Performed between March 2006 – March 2007. Additional cleanups to be performed in year 5.</p>	
<p>Permit Reference IV.C.2.a, f: Develop procedures to provide public notice about and access to documents and information in a manner that complies with state and local public notice requirements. <i>Describe procedures below and state the methods used to publicize the AR public presentation.</i></p>		
<p>Public notice of this Annual Report and associated public meeting were announced. The Draft SWMPAR was made available at the Office of the Chief Engineer.</p>		
<p>Permit Reference IV.C.2.e: Public presentation of; f: summary of comments received on; and g: intended response to comments on the SWMPAR.</p>		
<p>Attendees included NYS Bridge Authority staff and members of the public; approximately ___ persons in attendance. Meeting consisted of a brief presentation of the Phase II storm water program, a summary of the draft SWMPAR and was followed by an open discussion of the Authority’s Year 4 accomplishments. Generally, the comments received were supportive of the program.</p>		
<p>Comments on Annual Report Meeting <input checked="" type="checkbox"/> No public comments received on Annual Report. ___ Comments received. Attach summary of comments and intended responses.</p>	<p>Date of Annual Report Meeting: Thursday, May 17, 2007</p>	<p>Approximate Date of Meeting Next Year: January 2008</p>
<p>Additional Techniques</p>	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>	
<p>Explain any changes or additions to the Permit Referenced Activities / Techniques, Measurable Goals and / or Scheduled Dates above and provide a reason(s) for the change: N/A</p>		

Minimum Control Measure 3. Illicit Discharge Detection and Elimination (IDDE)

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

<p>Permit Reference IV.C.3.a: Develop, implement and enforce a program to detect, identify and eliminate illicit discharges, including illegal dumping, into the MS4.</p> <ul style="list-style-type: none"> <i>Explain the activities and procedures used to meet this requirement this year and planned for next year.</i> <i>Revise as procedures are updated.</i> <i>Identify personnel or outside organization conducting the activities</i> 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p> <ul style="list-style-type: none"> <i>Example measurable goals: number of illicit discharges detected; number of illicit discharges eliminated.</i>
<p>Illicit discharges are prohibited and are identified as necessary to appropriate personnel.</p>	<p>Task performed on an ongoing basis.</p>
<p>NYS Bridge Authority security performed visual screening for illicit discharges and follow up inspections for illicit discharges as part of normal daily security patrols.</p>	<p>Performed daily for the period between March 2006-2007; task will be continued in year 5; no potential illicit discharges were detected and eliminated during that time period.</p>
<p>NYS Bridge Authority crews performed surveillance to prevent illegal dumping.</p>	<p>Task to be performed on an ongoing basis.</p>
<p>NYS Bridge Authority crews performed catch basin visual screening as part of routine catch basin cleaning and maintenance.</p>	<p>10% catch basins were cleaned in the period between March 2006-2007 and will continue in year 5 and on an ongoing basis.</p>
<p>NYS Bridge Authority maintained illegal dumping signs.</p>	<p>NYS Bridge Authority maintained and inspected all existing “NO DUMPING” signs for the period between March 2006-2007; signs to be maintained and inspected in year 5 and on an ongoing basis.</p>
<p>100% of concrete truck washouts were inspected.</p>	<p>Inspections of concrete trucks performed as necessary.</p>
<p>Toll plaza surveillance for leaking tanker trucks was performed; leaking trucks are prohibited from crossing until the leak is corrected.</p>	<p>Surveillance performed on an ongoing basis.</p>
<p>Septic holding tanks were inspected; fill tanks are pumped out to prevent overflow.</p>	<p>Task to be performed on an ongoing basis.</p>

<p>Permit Reference IV.C.3.b: Develop and maintain a map showing the location of all outfalls and the names and location of all waters of the US that receive discharges from outfalls. <i>Explain activities performed this year <u>and planned for next year</u>, including work on the following IDDE guidance prerequisites:</i></p> <ul style="list-style-type: none"> • field verification of outfall locations; • mapping all inter-municipal subsurface conveyances; • delineating storm sewershed; and • developing and retaining MS4 mapping as needed to find the source and identify illicit discharges. <i>State if maps are in GIS.</i> 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p> <ul style="list-style-type: none"> • <i>Example measurable goals: percent of outfalls mapped</i>
<p>Mapping to be maintained and updated as necessary.</p>	<p>Continue to map outfall and discharge locations and maintain and update outfall/discharge location map; task will be continued in year 5 and on an ongoing basis.</p>

Minimum Control Measure 3. Illicit Discharge Detection and Elimination (IDDE) Regulatory Mechanism

Permit Reference IV.C.3.c: Prohibit, through an ordinance, local law or other regulatory mechanism, illicit discharges into the MS4. The MS4s have until year 5 to complete the local law work. See the instructions for information about completing this section.	
Does the MS4 have the legal authority to enact ordinances, local laws or other regulatory mechanisms?	<input checked="" type="checkbox"/> No (go to ADDENDUM 1) <input type="checkbox"/> Yes (complete questions below)
Assessment of Regulatory Mechanism (Local Code)	
1) When was this assessment completed or planned to be completed?	Date completed: _____ <input type="checkbox"/> Not yet completed (proceed to next table) Plan to complete for reporting in year: ; ____4; ____5.
2) Is there an existing ordinance, local law or other regulatory mechanism?	<input type="checkbox"/> No (go to question 5) <input type="checkbox"/> Yes
3) Does the existing regulatory mechanism prohibit illicit discharges as required by the MS4 Permit?	<input type="checkbox"/> No (amendments needed) <input type="checkbox"/> Yes
4) Does the existing regulatory mechanism include enforcement authorities and procedures as required by the MS4 Permit?	<input type="checkbox"/> No (amendments needed) <input type="checkbox"/> Yes
Development of Regulatory Mechanism (Local Codes)	
5) When was this work completed or planned to be completed?	Date completed: _____ <input type="checkbox"/> Not yet completed (proceed to next table) Plan to complete work below for reporting in year: ____4; ; ____5.
6) If you answered 'No' to question 1, 2 or 3, what regulatory mechanism or amendments will be adopted to meet the MS4 permit requirements?	<input type="checkbox"/> NYS IDDE Model Law in its entirety <input type="checkbox"/> Selected NYS IDDE Model Law articles adopted as amendments to existing code(s) that are equivalent to the NYS IDDE Model Law <input type="checkbox"/> MS4 will write language equivalent to NYS IDDE Model Law
7) If you answered 'No' to question 1, 2 or 3, has a list of needed changes to local codes been developed for adoption of the regulatory mechanism?	<input type="checkbox"/> No <input type="checkbox"/> Yes, list the local code(s) that will be changed:
8) If the existing regulatory mechanism does not require amendments, what language is in the mechanism?	<input type="checkbox"/> NYS IDDE Model Law in its entirety <input type="checkbox"/> Selected NYS IDDE Model Law articles adopted as amendments to existing code(s) that are equivalent to the NYS IDDE Model Law <input type="checkbox"/> Language equivalent to NYS IDDE Model Law
9) What was the date or is the planned date of local law adoption?	Date:
10) Provide a web address if adopted local law can be found on a web site.	Web Address:

Minimum Control Measure 3. Illicit Discharge Detection and Elimination (IDDE)

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

<p>Permit Reference IV.C.3.e: Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.</p> <ul style="list-style-type: none"> • <i>Explain activities and materials used to meet this requirement this year <u>and</u> planned for next year</i> • <i>Identify personnel or outside organization conducting activities</i> 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>Public informed of illicit discharge detection and elimination through storm water repository; employees informed of illicit discharge detection and elimination through training sessions.</p>	<p>Approximately 9 employees were informed through a training meeting/ session; proper informing to be continuous; task to be continued in year 5 and on an ongoing basis.</p>
<p>Additional Techniques</p>	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>Security patrols were performed to ensure that no illicit discharges are occurring.</p>	<p>Task to be performed on an ongoing basis.</p>
<p>Explain any changes or additions to the Permit Referenced Activities / Techniques, Measurable Goals and / or Scheduled Dates above and provide a reason(s) for the change: N/A</p>	

Minimum Control Measure 4 and 5. Construction Site and Post-Construction Stormwater Runoff Control Regulatory Mechanism

<p>Permit Reference IV.C.4.b.i, 5.a.i: Require development and implementation of erosion and sedimentation controls through a local law or other regulatory mechanism. Report on assessment process used (<i>Stormwater Management Gap Analysis Workbook for Local Officials</i> or equivalent process). The MS4s have until year 5 to complete the local law work. See the instructions for information about completing this section.</p>	
<p>Does the MS4 have the legal authority to enact land use ordinances, local laws or other regulatory mechanisms?</p>	<p><input checked="" type="checkbox"/> No (go to ADDENDUM 2) <input type="checkbox"/> Yes (complete questions below)</p>
<p>Preliminary Assessment of Regulatory Mechanism (Local Code)</p>	
<p>1. When was the preliminary assessment of existing local codes completed or when will it be completed?</p>	<p>Date completed: _____ Not yet completed (proceed to next table) Plan to complete for reporting in year: ___4; ___5. ___ Did not do preliminary assessment; proceeded directly to Gap Analysis Worksheets 1-4 or adopted <i>Sample Local Law for Stormwater Management and Erosion & Sediment Control</i> (Sample Local Law).</p>
<p>2. If preliminary assessment was completed, indicate the results.</p>	<p>___ If none of Sample Local Law provisions appear in local code; consider adopting Sample Local Law or equivalent ___ If few Sample Local Law provisions appear in local code; major revisions needed or consider adopting Sample Local Law or equivalent ___ If most of the Sample Local Law provisions appear in local code; minor revisions needed</p>
<p>Assessment and Development of Regulatory Mechanism (Local Code) (continued on next page)</p>	
<p>3. When was the Gap Analysis or equivalent process completed or when will it be completed?</p>	<p>Date completed: _____ Not yet completed (proceed to next table) Plan to complete work below for reporting in year: ___4; ___5.</p>
<p>4. How was the local code adopted or how will it be adopted*? <i>*If MS4 has some existing local code equivalent to the Sample Local Law and adopted parts of the Sample Local Law as amendments to make a complete local code, check b and c.</i></p>	<p>a. ___ The entire Sample Local Law adopted as amendments to existing code or as stand alone law.</p> <ul style="list-style-type: none"> • If no portions of the Sample Local Law were moved or deleted, all provisions would be exactly the same as the Sample Local Law. • If ANY provisions of the Sample Local Law were moved or deleted, the moved or changed provisions must be reviewed (use the <i>Gap Analysis</i> or equivalent process) to ensure the intent of the law has not been changed. <p>b. ___ Parts of NYS Sample Local Law adopted as amendments to existing code.</p> <p>c. ___ Language developed by municipality was demonstrated to be equivalent.</p>

Minimum Control Measures 4 and 5. Construction Site and Post-Construction Stormwater Runoff Control Regulatory Mechanism

Permit Reference IV.C.4.b.i, 5.a.i (continued)

Assessment and Development of Regulatory Mechanism (Local Code) (continued)

5. Answer the following questions about the Gap Analysis or equivalent processes.

Clauses are defined as: All the Sample Local Law sections or subsections in the Gap Analysis Worksheets 1-4 that have a box in the “Equivalence” column, meaning that there is an associated “Equivalence” sheet (with the exception of Article 6, Section 4 which does not have an Equivalence sheet).

Total number of clauses in each worksheet: Sample Local Law Article 1 (Gap Analysis Worksheet 1) - 8 clauses; Sample Local Law Article 2 (Gap Analysis Worksheet 2) - 51 clauses; Sample Local Law Article 3, 4, 5 (Gap Analysis Worksheet 3) - 3 clauses; Sample Local Law Article 6 (Gap Analysis Worksheet 4) - 9 clauses.

MS4s that adopt the entire Sample Local Law as amendments to existing code or as stand alone law need to indicate the number of clauses being adopted that are exactly the same as the Sample Local Law, or equivalent, in the right-hand column below.

Sample Local Law Articles	NUMBER OF REQUIRED CLAUSES IN LOCAL LAW		
	Existing clauses exactly the same as the Sample Local Law language	Existing clauses equivalent to the Sample Local Law language (see Gap Analysis Workbook Equivalence Sheets for information to help determine equivalence)	Sample Local Law or equivalent language to be adopted , listed as legislative agenda items.
1			
2			
3, 4, 5			
6			
TOTAL			

6. Has a list of needed changes (legislative agenda) been developed for adoption of amendments to local codes (or for deletion of existing codes that are addressed by adoption of a stand alone law)?

___ No
___ Yes, list the **local codes** that will be changed:

7. What was the date or is planned date of local code adoption? Date:

8. Provide a web address if the adopted local law can be found on a web site. Web Address:

Minimum Control Measure 4. Construction Site Stormwater Runoff Control

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

<p>Permit Reference IV.C.4.b. v: Develop and implement procedures for site plan review by the MS4 that incorporate consideration of potential water quality impacts and review individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements.</p> <ul style="list-style-type: none"> Describe the procedures below. <u>Revise as procedures are updated.</u> 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p> <ul style="list-style-type: none"> Example measurable goals: number of plans received; number of plans reviewed; percent of plans received that are reviewed.
<p>NYS Bridge Authority's site plan review requires that construction site storm water controls, including erosion and sedimentation controls, must be included and that a construction runoff control plan be prepared prior to the commencement of any site work.</p>	<p>Completed for the period between March 2006-2007; approximately 0 construction projects that included storm water controls were approved between March 2006-2007; task will continue in year 5 and on an ongoing basis.</p>
<p>Construction site plan reviews were performed by NYS Bridge Authority and included consideration of storm water erosion and sedimentation controls as necessary using the NYS standards and specifications for Erosion and Sediment Control and the NYS Stormwater Management Design Manual.</p>	<p>Approximately 2 site plan reviews received and performed for the period between March 2006-2007; task will continue year 5 and on an ongoing basis with all site plans reviewed for storm water requirements.</p>
<p>Overall construction site waste management was required for all construction sites.</p>	<p>Task will continue in year 5 and on an ongoing basis.</p>
<p>Erosion and sedimentation controls</p>	<p>Task will continue in year 5 and on an ongoing basis.</p>
<p>Permit Reference IV.C.4.b. vi: Develop and implement procedures for the receipt and consideration of information submitted by the public.</p> <ul style="list-style-type: none"> Explain the procedures below. <u>Revise as procedures are updated.</u> Identify the responsible personnel or outside organizations. 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>NYS Bridge Authority did not file any NOIs for construction projects greater than one acre.</p>	<p>NYS Bridge Authority will file construction site NOIs for public review and comment as necessary; task will continue in year 5 and on an ongoing basis.</p>

Minimum Control Measure 4. Construction Site Stormwater Runoff Control
Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

<p>Permit Reference IV.C.4.b. iii, vii: Develop and implement procedures for site inspections, enforcement of control measures and sanctions to ensure compliance with GP-02-02.</p> <ul style="list-style-type: none"> Describe each procedure below. <u>Revise as procedures are updated.</u> 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p> <ul style="list-style-type: none"> Example measurable goals are number of: inspections; fines assessed; stop work orders; other sanctions.
<p>Site inspections and enforcement conducted by NYS Bridge Authority included consideration of storm water.</p>	<p>Approximately 150 construction inspections were performed for the period between March 2006-2007; inspection and enforcement to be performed in year 5 and on an ongoing basis.</p>
<p>Permit Reference IV.C.4.b. viii: Educate and train construction site operators about requirements to develop and implement a SWPPP and any other requirements they must meet within the MS4s jurisdiction.</p> <ul style="list-style-type: none"> Explain the activities and materials used to meet this requirement. Identify the personnel or outside organization conducting this activity. Indicate activities planned for next year. 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>NYS Bridge Authority participated in a construction training seminar related to the Phase II storm water program, BMPs, annual reporting and other activities.</p>	<p>Training conducted annually; approximately 9 employees attended for the period between March 2006-2007; task to be continued in year 5.</p>
<p>Additional Techniques</p>	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>100% of construction project documents specified sediment and erosion control measures at applicable facilities.</p>	<p>Task to be performed in year 5 and on an ongoing basis.</p>
<p>100% of specified sediment and erosion control BMPs utilized on construction projects at applicable facilities.</p>	<p>Task to be performed in year 5 and on an ongoing basis.</p>
<p>100% of construction material stockpiles were kept covered.</p>	<p>Task to be performed in year 5 and on an ongoing basis.</p>
<p>100% of plaza grooving sweepings were collected and removed.</p>	<p>Task to be performed in year 5 and on an ongoing basis.</p>
<p>100% of roadway milling sweepings were collected and removed</p>	<p>Task to be performed in year 5 and on an ongoing basis.</p>
<p>Explain any changes or additions to the Permit Referenced Activities / Techniques, Measurable Goals and / or Scheduled Dates above and provide a reason(s) for the change: N/A</p>	

Minimum Control Measure 5. Post-Construction Stormwater Management

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

Permit Reference IV.C.5.a, c. Develop and implement a post-construction stormwater management program that addresses stormwater runoff from new development and redevelopment and will reduce the discharge of pollutants to the MEP. Program requirements should include:	Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)
<ul style="list-style-type: none"> A combination of structural and/or non-structural management practices. <i>Identify and describe below procedures to ensure installation of post-construction management practices. <u>Revise as procedures are updated.</u></i> 	DO NOT ENTER INFORMATION IN THIS CELL
The Authority does not have the legal authority to enact ordinances, local laws or other regulatory mechanisms; construction activities are monitored by an independent engineering consultant for compliance with NYSDEC specifications; contract language has been adopted that includes mitigation measures for contractors creating nuisance conditions, including storm water issues; see attached documents	The Authority will continue to evaluate regulatory mechanisms as appropriate; task will continue in year 5
NYS Bridge Authority procedures require that staff inspect construction practices during, after construction and prior to operation.	NYS Bridge Authority will continue inspection practices; task to be continued in year 5 and on an ongoing basis.
A broad list of generally acceptable BMPs for roadways, bridges and tunnels has been identified and is kept at each facility.	BMP list identified between March 2006-2007, list will be updated as necessary.
General identification of alternate storm water BMPs for new projects was covered as part of the storm water training and included in the in-house NOI supporting materials/documents.	Task to be performed in year 5 and on an ongoing basis.
<ul style="list-style-type: none"> Procedures for site plan and SWPPP review to ensure SWMPs meet state standards. <i>Describe procedures below. <u>Revise as procedures are updated.</u></i> 	<ul style="list-style-type: none"> <i>Example measurable goals include: number of plans received; number of plans reviewed; percent of plans received that are reviewed.</i>
Site plan review procedure includes erosion and sediment control and construction waste management practices.	Performed for the period between March 2006-2007; continued compliance with review procedure and approximately 2 site plans were reviewed for the period between March 2006-2007; review to be performed in year 5 and on an ongoing basis.

Minimum Control Measure 5. Post-Construction Stormwater Management

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

Permit Reference IV.C.5.a, c. (continued): Develop and implement a post-construction stormwater management program that addresses stormwater runoff from new development and redevelopment and will reduce the discharge of pollutants to the MEP. Program requirements should include:	Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)
<ul style="list-style-type: none"> • Procedures for inspection and maintenance of post-construction management practices. • <i>Explain procedures below. <u>Revise as procedures are updated.</u></i> 	<ul style="list-style-type: none"> • <i>Example measurable goals are number of: inspections maintenance activities performed.</i>
<p>NYS Bridge Authority has initiated the development of a management practice inspection and maintenance program to regulate post-construction runoff from new development projects.</p>	<p>NYS Bridge Authority will continue the development of the inspection and maintenance program; task will be completed by year 5.</p>
<ul style="list-style-type: none"> • Procedures for enforcement and penalization of violators. • <i>Explain procedures below. <u>Revise as procedures are updated.</u></i> 	<ul style="list-style-type: none"> • <i>Example measurable goals: number enforcement activities performed.</i>
<p>The Authority does not have the legal authority to enact ordinances, local laws or other regulatory mechanisms; construction activities are monitored by an independent engineering consultant for compliance with NYSDEC specifications; contract language has been adopted that includes mitigation measures for contractors creating nuisance conditions, including storm water issues; see attached documents</p>	<p>The Authority will continue to evaluate regulatory mechanisms as appropriate; task will continue in year 5</p>

Minimum Control Measure 5. Post-Construction Stormwater Management

Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed.

<p>Permit Reference IV.C.5.a, c. (continued): Develop and implement a post-construction stormwater management program that addresses stormwater runoff from new development and redevelopment and will reduce the discharge of pollutants to the MEP. Program requirements should include:</p>	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<ul style="list-style-type: none"> • Adequate resources for a program to inspect new and re-development sites and for enforcement and penalization of violators. • <i>Describe resources below. Update annually.</i> 	<p>DO NOT ENTER INFORMATION IN THIS CELL</p>
<p>The Authority does not have the legal authority to enact ordinances, local laws or other regulatory mechanisms; construction activities are monitored by an independent engineering consultant for compliance with NYSDEC specifications; contract language has been adopted that includes mitigation measures for contractors creating nuisance conditions, including storm water issues; see attached documents</p>	<p>The Authority will continue to evaluate regulatory mechanisms as appropriate; task will continue in year 5</p>
<p>Additional Techniques</p>	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>A training program has been conducted providing personnel with information on the Phase II storm water program, implementing SWPPPs at construction sites, BMP's, annual reporting and other activities.</p>	<p>Training will be conducted annually; approximately 9 employees attended for the period between March 2006-2007; task to be continued in year 5.</p>
<p>Explain any changes or additions to the Permit Referenced Activities / Techniques, Measurable Goals and / or Scheduled Dates above and provide a reason(s) for the change: N/A</p>	

Minimum Control Measure 6. Pollution Prevention/Good Housekeeping for Municipal Operations

OVERALL MUNICIPAL POLLUTION PREVENTION / GOOD HOUSEKEEPING PROGRAM INFORMATION

<ul style="list-style-type: none"> • This table is for MS4s to report on their OVERALL Municipal Pollution Prevention / Good Housekeeping Program. • A separate table follows that is for MS4s to report on management practices performed in identified municipal operations. • Refer to the Municipal Pollution Prevention / Good Housekeeping Assistance document for example best management practices, policies and procedures. • Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed. 	
<p>Permit Reference IV.C.6.a: Develop and implement an operation and maintenance program to reduce and prevent pollutant discharges from municipal operations to the MEP.</p>	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<ul style="list-style-type: none"> • <i>List pollutants that will be addressed by the municipal pollution prevention program.</i> 	
<p>Floatables, sediment, hydrocarbons, toxics/metals, PCBs, cadmium</p>	
<ul style="list-style-type: none"> • <i>Set and describe pollution prevention priorities by geographic areas, municipal operation type, and facilities.</i> 	<p>DO NOT ENTER INFORMATION IN THIS CELL</p>
<ul style="list-style-type: none"> – Roadway sweeping – Toll lanes degreasing – Plaza lanes swept – Collected used oil recycled – Roadway salt storage kept covered – Catch basins cleaning – Collected used vehicle batteries recycled – Oil/water separators serviced – Toll plaza surveillance for leaking vehicles performed – Concrete truck washouts prohibited from being discharged to the storm water system or waterways – Roadway cuttings from plaza pavement grooving collected and removed – Debris roadway millings/grindings collected and removed – Vehicle maintenance and washing – Roadway and bridge maintenance – Septic holding tanks inspected – Septic holding tanks pumped out when full – Stream and beach cleanups 	<p>Performed for the period between March 2006-2007; BMPs will continue in year 5; BMPs will continue on an ongoing basis.</p>

<p>Permit Reference IV.C.6.a: Include a municipal pollution prevention training component for staff (where all staff are trained).</p> <ul style="list-style-type: none"> • <i>Explain activities and materials used to meet this requirement.</i> • <i>Identify training needs and design training components</i> • <i>Determine the adequacy and appropriate frequency of staff training.</i> • <i>Identify personnel or outside organization conducting activities.</i> 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>1 training seminar related to the Phase II storm water program, BMPs, annual reporting and other activities was conducted.</p>	<p>Approximately 9 employees attended; completed 1 time for the period between March 2006-2007; task to be continued in year 5 and on an ongoing basis</p>
<p>Additional Techniques</p>	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<p>N/A</p>	
<p>Explain any changes or additions to the Permit Referenced Activities / Techniques, Measurable Goals and / or Scheduled Dates above and provide a reason(s) for the change: N/A</p>	

Minimum Control Measure 6. Municipal Operations: X Street and Bridge Maintenance; X Winter Road Maintenance; X Stormwater System Maintenance; X Vehicle and Fleet Maintenance; X Park and Open Space Maintenance; X Municipal Building Maintenance; X Solid Waste Management; ___ Other: _____

<ul style="list-style-type: none"> • Copy this page and give it to each municipal office or department responsible for reporting. • Put an 'X' in front of each municipal operation type addressed by the Municipal Pollution Prevention/Good Housekeeping Program in that office or department. • Refer to the Municipal Pollution Prevention / Good Housekeeping Assistance document for example best management practices, policies and procedures. • Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed. 	
<p>Permit Reference IV.C.6.a, c: Develop and implement an operation and maintenance program to reduce and prevent pollutant discharges from the municipal operation(s) indicated above to the MEP.</p> <ul style="list-style-type: none"> • Describe how the bulleted items below focus on pollutants addressed by the municipal pollution prevention program and the pollution prevention priorities. 	<p>Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)</p>
<ul style="list-style-type: none"> • Briefly describe or reference any existing policies and procedures • Briefly describe or reference any policies and procedures being developed 	<p>DO NOT ENTER INFORMATION IN THIS CELL</p>
<p>Existing policies and procedures govern the frequency of the application of BMPs. BMPs applied in year 4 include the following:</p> <ul style="list-style-type: none"> – 250 lane miles of roadway swept – 23 toll lanes degreased – Plaza lanes swept 50 times/year – 100% of collected used oil recycled – 100% of roadway salt storage kept covered – Catch basins cleaned once every 2 years – 100% of collected used vehicle batteries recycled – 100% of the oil/water separators serviced – Toll plaza surveillance for leaking vehicles performed – 100% of concrete truck washouts prohibited from being discharged to the storm water system or waterways – 100% of roadway cuttings from plaza pavement grooving collected and removed – 100% of debris roadway millings/grindings collected and removed – 100% of vehicle maintenance and washing conducted indoors – 100% of roadway and bridge maintenance painting performed under containment – 100% septic holding tanks inspected – 100% septic holding tanks pumped out when full 	<p>BMP's followed for the period between March 2006-2007; BMPs to be continued in year 5 and on an ongoing basis.</p>

<ul style="list-style-type: none"> • <i>Briefly describe or reference any existing best management practices</i> • <i>Briefly describe or reference any planned best management practices</i> 	DO NOT ENTER INFORMATION IN THIS CELL
Maintained and utilized BMP document for facilities. Routinely familiarizing employees with storm water pollution prevention practices and requirements.	BMP document maintained and updated as necessary; employees familiarized with storm water pollution prevention practices and requirements on an ongoing basis.
NYS Bridge Authority BMP's employed include the following: <ul style="list-style-type: none"> • 250 lane miles of roadway swept • 23 toll lanes degreased • Plaza lanes swept 50 times/year • 100% of collected used oil recycled • 100% of roadway salt storage kept covered • Catch basins cleaned once every 2 years. • 100% of collected used vehicle batteries recycled • 100% of the oil/water separators serviced • toll plaza surveillance for leaking vehicles performed • 100% septic holding tanks inspected • 100% septic holding tanks pumped out when full • 100% of concrete truck washouts prohibited from being discharged to the storm water system or waterways • 100% of roadway cuttings from plaza pavement grooving collected and removed • 100% of debris roadway millings/grindings collected and removed • 100% of vehicle maintenance and washing conducted indoors • 100% of roadway and bridge maintenance painting performed under containment 	BMP's followed for the period between March 2006-2007; task to be continued in year 5 and on an ongoing basis.
<ul style="list-style-type: none"> • <i>Identify and describe the equipment and staff that are in place</i> 	DO NOT ENTER INFORMATION IN THIS CELL
Mechanical sweepers, vacuum trucks, mechanical degreasers, oil/water separators, salt domes/sheds, brooms, tools, toll collectors, plaza police	Equipment to be maintained and serviced/replaced as needed on an ongoing basis.

Minimum Control Measure 6. Municipal Operations: Street and Bridge Maintenance; Winter Road Maintenance;
 Stormwater System Maintenance; Vehicle and Fleet Maintenance; Park and Open Space Maintenance; Municipal Building
Maintenance; Solid Waste Management; Other: _____

<ul style="list-style-type: none"> • Copy this page and give it to each municipal office or department responsible for reporting. • Put an 'X' in front of each municipal operation type addressed by the Municipal Pollution Prevention/Good Housekeeping Program in that office or department. • Refer to the Municipal Pollution Prevention / Good Housekeeping Assistance document for example best management practices, policies and procedures. • Use separate rows to explain the different processes, activities, procedures, practices, etc. used by the MS4. Add additional rows as needed. 	
Permit Reference IV.C.6.a, c (continued): Develop and implement an operation and maintenance program to reduce and prevent pollutant discharges from municipal operations to the MEP.	Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)
<ul style="list-style-type: none"> • <i>Assess if existing programs adequately reduce and/or prevent pollutant discharges</i> • <i>Determine and list any operation type, location or facility that is in need of modification or updates.</i> 	DO NOT ENTER INFORMATION IN THIS CELL
Permit Reference IV.C.6.a: If there is a training component for staff specific to these municipal operations: <ul style="list-style-type: none"> • <i>explain the activities and materials;</i> • <i>identify the personnel or outside organization conducting the activities.</i> 	Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)
1 training session related to the Phase II storm water program, BMPs, annual reporting and other activities was conducted.	Approximately 9 employees were informed through a training meeting/session which took place 1 time during the period between March 2006-2007; proper informing to be continuous task to be continued in year 5 and on an ongoing basis.
Additional Techniques N/A	Describe Measurable Goals and Results (when applicable) Indicate: Date Completed, Ongoing Task, or Scheduled Date (for next years activities)
Explain any changes or additions to the Permit Referenced Activities / Techniques, Measurable Goals and / or Scheduled Dates above and provide a reason(s) for the change: N/A	

Did you include any of the following documents as appendices? Put a mark each appended document.

- Summary of public comments received on the annual report at the public presentation (Required)
- Intended response to comments on the annual report (Required)
- Results of information collected and analyzed, including monitoring data; evaluation of assessment (modeling) of pollutant discharges, including modeling results and pollutant transport trends.
- Other Construction Contracts

**ADDENDUM REPORTING FOR
MS4S THAT LACK LEGAL AUTHORITY TO ADOPT
REGUALTORY MECHANISMS FOR IDDE AND
CONSTRUCTION / POST-CONSTRUCTION STORMWATER RUNOFF CONTROL**

BE SURE TO INDICATE THE MS4 NAME AND PERMIT NUMBER IN THE HEADER

ADDENDUM 1. Minimum Control Measure 3. Illicit Discharge Detection and Elimination (IDDE) Local Law

Permit Reference IV.C.3.c: Prohibit, through an ordinance, local law or other regulatory mechanism, illicit discharges into the MS4. The MS4s have until year 5 to complete this work.		
1) When was this work completed or planned to be completed?	Date completed: <u>November 2006</u> ___ Not yet completed Plan to complete for reporting in year: ___4; ___5.	
2) Indicate which of the control mechanisms or procedures to the right used by the MS4 notify staff and others doing work on behalf of the MS4 about prohibition of and enforcement against illicit discharges:	___ Interconnection agreements ___ Maintenance directives / BMPS ___ Access Permits ___ Tenant Leases	___ Consultant Agreements <u>X</u> Construction/Bid Documents ___ Other _____ _____
3) Indicate which of these control mechanisms contain specific language prohibiting illicit discharges:	___ Interconnection agreements ___ Maintenance directives / BMPS ___ Access Permits ___ Tenant Leases	___ Consultant Agreements <u>X</u> Construction/Bid Documents ___ Other _____ _____
4) Explain how the MS4 intends to prohibit illicit discharges if: <ul style="list-style-type: none"> • none of the mechanisms in number 2 contain language prohibiting illicit discharges; or • the MS4 intends to add language to prohibit illicit discharges in other control mechanisms. 	Explanation:	
5) Explain how the MS4 (intends to) enforce against illicit dischargers within their jurisdiction?	Explanation: Utilize the local Town Law and enforcement personnel, depending on location.	

ADDENDUM 2. Minimum Control Measure 4 & 5. Construction Site & Post-Construction Stormwater Runoff Control Local Law

Permit Reference IV.C.4.b.i, 5.a.i: Require development and implementation of erosion and sedimentation controls through a local law or other regulatory mechanism. The MS4s have until year 5 to complete this work.	
1) When was this work completed or planned to be completed?	Date completed: <u>November 2006</u> ___ Not yet completed Plan to complete for reporting in year: ___4; ___5.
2) Indicate which of the control mechanisms or procedures below are used by the MS4 to notify staff and others doing work on behalf of the MS4 about the <u>erosion, sedimentation and stormwater management requirements</u> for projects under the MS4s jurisdiction. (These requirements are based on the Construction Permit (GP-02-01) and MS4 Permit (GP-02-02)).	
___ Access Permits ___ Tenant Leases ___ Requests for Proposals (RFPs) ___ Scope of Services	___ Consultant Agreements <u>X</u> Construction / Bid Documents ___ Other Policies / Procedures _____
3) All of the <u>erosion, sedimentation and stormwater management requirements</u> below must be addressed by the MS4's control mechanisms. For the control mechanisms identified in number 2 above, state in the left hand cells below the control mechanism(s) that contain the language.	
Control Mechanism	<u>Erosion, Sedimentation and Stormwater Management Requirements</u>
Construction/Bid Documents	Require all projects to have SWPPPs, as in GP-02-01
Construction/Bid Documents	Require all 16 components of a basic SWPPP (erosion and sediment control)
Construction/Bid Documents	Require all additional 7 components for a full SWPPP when post-construction control is required
Construction/Bid Documents	Meet the standards in the <i>Erosion and Sediment Control</i> and <i>Stormwater Management Design Manuals</i> (or otherwise meet the requirements of GP-02-01)
	Require contractor certification statements stating that the contractor will agree to comply with the terms and conditions of the SWPPP
Construction/Bid Documents	Require proper operation and maintenance of stormwater facilities during construction
	Require proper operation and maintenance of stormwater facilities after construction
	Require SWPPPs to be certified by a licensed / certified individual when there is a deviation from technical standards or direct discharge to a 303(d) segment or TMDL watershed subject to condition A of GP-0-01
	Have a process for review of SWPPPs
Construction/Bid Documents	Require site self inspections as in GP-02-01
Construction/Bid Documents	Have enforcement procedures during and after construction
	Require construction site operators to control waste
	Procedures for receipt and consideration of information submitted by the public
4) If any of the requirements in number 3 are not addressed, explain how the MS4 intends to incorporate them into the control mechanisms?	Explanation: Utilize the local Town Law and enforcement personnel, depending on location.
5) Explain how the MS4 intends to enforce the requirements within their jurisdiction?	Explanation: Utilize the local Town Law and enforcement personnel, depending on location.

The Contractor's operations shall be carried out in accordance with the approved erosion and sediment control plans, progress schedule, contract documents and permits. The Contractor shall be guided by, but not limited to, the following:

A. Permits. All applicable statutes, regulations, permits and approvals of the NYSDEC, other water quality management agencies and fish and wildlife agencies shall be complied with in the performance of the contract. Care shall be taken so as not to cause turbidity that will result in a visible contrast to the natural conditions of a waterway or impoundment, cause sedimentation or impair the waters for their best usages.

B. Borrow or Spoil Areas. Erosion and sediment control of borrow areas, spoil areas and construction roads shall be conducted both during and after completion of the work, to minimize soil erosion and not cause or contribute to a violation of water quality standards and prevent sedimentation on lands adjacent to or affected by the work.

C. Forging. Forging of waterways may require a permit from NYSDEC, and will not normally be allowed, therefore, temporary bridges or other structures shall be used where a waterway crossing is necessary. Unless otherwise approved in writing by the Engineer, the Contractor shall not ford or operate mechanized equipment in waterways.

D. Work Areas Adjacent to Waterways. When work areas, borrow areas, spoil areas or gravel pits are located in or adjacent to waterways or impoundments, such areas shall be separated from the rest of the waterway or impoundment by a dike or other barrier to prevent sediment from entering aflowing waterway or impoundment. Care shall be taken during the construction and removal of such barriers so as not to cause turbidity or sedimentation.

E. Removal of Temporary Obstructions. All waterways shall be cleared as soon as practicable of false work, piling, debris or other obstructions placed during construction operations and which are not a part of the finished work.

F. Maintenance. Ditches which are filled, or are partly or wholly inoperative, shall be cleaned and made operative before the Contractor stops work for each day, and shall be maintained in a satisfactory condition for the duration of the contract. All erosion and sedimentation control measures which have been displaced, or are partly or wholly inoperative, shall be repaired within 72hours after required inspection, unless repairs are required sooner by the contract documents.

G. Water Discharges. Water containing sediment from aggregate washing, pump discharges or other operations shall be treated by filtration, settling basin or other means sufficient to prevent turbidity or sedimentation of receiving waterways. Turbid wash water or pump discharges shall not be allowed to enter waterways or impoundments.

H. Pollutants. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near waterways and impoundments or into natural or manmade channels leading thereto.

The Contractor shall ensure that all controls are functioning in an effective manner and address all failures or other problems in a pro-active manner, immediately. If a situation comes to the Engineer's attention, the Engineer will inform the Contractor of unsatisfactory construction procedures and operations insofar as water quality management are concerned. The Engineer will also review the Contractor's compliance with state and federal permit conditions as they relate to water quality. If the unsatisfactory construction procedures and operations are not corrected in a timely manner, the Engineer will suspend the performance of any or all operations in accordance with §105-01, *Engineer's Authority* until the unsatisfactory condition has been corrected.

SECTION 108 - PROSECUTION AND PROGRESS

108-01 PROGRESS SCHEDULE.

h. Personnel must be trained in hazardous waste management procedures relevant to the positions in which they are employed.

i. Appropriate security shall be provided for hazardous wastes while stored on site.

107-11 AIR QUALITY PROTECTION.

The Contractor shall schedule and conduct activities to minimize impacts to air quality and to prevent hazardous or objectionable air quality conditions within the contract limits and in areas adjacent to or affected by the work. The Engineer will suspend the performance of any construction activity that creates hazardous or objectionable air quality conditions until the unsatisfactory condition has been corrected.

A. Dust. The Contractor shall apply pro-active measures to prevent discharge of dust into the atmosphere that unreasonably interferes with the comfortable enjoyment of life and property or is harmful to plants or animals.

B. Burning. Any material generated by any activity for the development, modification and construction of any transportation facility shall not be burned on the contract site. This shall include but not be limited to products of land clearing and demolition.

C. Prevention. The Contractor shall employ appropriate protection techniques and/or systems to prevent hazardous or objectionable air quality conditions, particularly when conducting drilling, cutting, grinding, abrasive blasting or similar operations that impact air quality.

107-12 WATER QUALITY PROTECTION.

Water quality protection is a joint responsibility of the Department, as the owner and the holder of environmental permits, and the Contractor, acting as an agent for the Department. The Contractor shall protect all water resources within the contract limits and on lands adjacent to or affected by the work, and take measures to maintain water quality of receiving water bodies.

The Contractor shall schedule and conduct its work to minimize soil erosion, not cause or contribute to a violation of water quality standards and prevent sedimentation on lands adjacent to or affected by the work. Construction of temporary soil erosion and sedimentation control measures, temporary and permanent soil stabilization, construction of drainage facilities and performance of other contract work which will contribute to the control of erosion and sedimentation shall be carried out in conjunction with related construction operations. The area of disturbance at any one time by construction operations shall be kept to a minimum and shall not exceed the limits established in the contract documents or applicable permits.

Prior to the start of related construction, the Contractor shall review the erosion and sediment control plan included in the contract documents, and if necessitated by the Contractor's operations, modify the plan for compatibility with the Contractor's intended sequence of construction operations, to include, but not limited to: construction phases; contract milestones, installation of control measures, clearing and grubbing operations, earthwork, etc. The Contractor's modified erosion and sediment control plan shall be submitted to the Engineer for approval, along with a progress schedule for accomplishment of temporary and permanent erosion and sediment control work in accordance with §108-01 *Progress Schedule*.

Prior to the start of related construction, the Contractor shall submit for approval a proposed plan of erosion and sediment control and water pollution control on material storage areas, haul roads and borrow pits and a plan for disposal of surplus excavated materials within the right of way. The Contractor shall submit for approval the names of individuals who will be inspecting control measures, and a description of their qualifications. The Contractor's erosion and sediment control plan shall be prepared in accordance with Department specifications and the guidance contained in the *New York Guidelines for Urban Erosion and Sediment Control*, latest edition, printed by the Empire State Chapter, Soil and Water Conservation Society, c/o Cayuga County SWCD, 7413 County House Road, Auburn, New York 13021.

No related work shall be started until the erosion and sediment control plans and progress schedules have been approved by the Engineer. As conditions change during construction or work is not progressed in accordance with the schedule, the Contractor shall regularly submit a progress schedule update in accordance with §108-01 *Progress Schedule* and an updated erosion and sedimentation control plan, as necessary, for approval by the Engineer.

209.110104 Check Dam (Ditch Bottom Width >3.0 m), Stone - Temporary	Each
209.110201 Check Dam (Ditch Bottom Width 0.0 to 1.0 m), Gravel Bag - Temporary	Each
209.110202 Check Dam (Ditch Bottom Width >1.0 to 2.0 m), Gravel Bag - Temporary	Each
209.110203 Check Dam (Ditch Bottom Width >2.0 to 3.0 m), Gravel Bag - Temporary	Each
209.110204 Check Dam (Ditch Bottom Width >3.0 m), Gravel Bag - Temporary	Each
209.110301 Check Dam (Ditch Bottom Width 0.0 to 1.0 m), Sand Bag - Temporary	Each
209.110302 Check Dam (Ditch Bottom Width >1.0 to 2.0 m), Sand Bag - Temporary	Each
209.110303 Check Dam (Ditch Bottom Width >2.0 to 3.0 m), Sand Bag - Temporary	Each
209.110304 Check Dam (Ditch Bottom Width >3.0 m), Sand Bag - Temporary	Each
209.1104 Check Dam, Silt Fence - Temporary	Meter
209.1105 Check Dam, Prefabricated - Temporary	Meter
209.1201 Haybale/Strawbale - Temporary	Meter
209.1202 Strawbale - Temporary	Meter
209.13 Silt Fence - Temporary	Meter
209.1401nn Sediment Trap, Earth Berm - Temporary	Each
209.1402nn Sediment Trap, Sand Bag - Temporary	Each
209.1403nn Sediment Trap, Ditch Dam - Temporary	Each
209.15 Turbidity Curtain - Temporary	Square Meter
209.160101 Pipe Slope Drain, 150 mm - Temporary	Each
209.160102 Pipe Slope Drain, 200 mm - Temporary	Each
209.160103 Pipe Slope Drain, 300 mm - Temporary	Each
209.160104 Pipe Slope Drain, 375 mm - Temporary	Each
209.160105 Pipe Slope Drain, 450 mm - Temporary	Each
209.160106 Pipe Slope Drain, 600 mm - Temporary	Each
209.160107 Pipe Slope Drain, 750 mm - Temporary	Each
209.1701 Drainage Structure Inlet Protection, Silt Fence - Temporary	Meter
209.1702 Drainage Structure Inlet Protection, Gravel Bag - Temporary	Cubic Meter
209.1703 Drainage Structure Inlet Protection, Prefabricated - Temporary	Meter
209.1801 Rolled Erosion Control Product, Class I Type A, Short Term	Square Meter
209.1802 Rolled Erosion Control Product, Class I Type B, Short Term	Square Meter
209.1803 Rolled Erosion Control Product, Class I Type C, Short Term	Square Meter
209.1901 Rolled Erosion Control Product, Class II Type A, Intermediate	Square Meter
209.1902 Rolled Erosion Control Product, Class II Type B, Intermediate	Square Meter
209.1903 Rolled Erosion Control Product, Class II Type C, Intermediate	Square Meter
209.2001 Rolled Erosion Control Product, Class III Type A, Permanent	Square Meter
209.2002 Rolled Erosion Control Product, Class III Type B, Permanent	Square Meter
209.2003 Rolled Erosion Control Product, Class III Type C, Permanent	Square Meter
209.2004 Rolled Erosion Control Product, Class III Type D, Permanent	Square Meter
209.190201, Rolled Erosion Control Products, Class II Type B, Intermediate	Square Meter
209.190301, Rolled Erosion Control Products, Class II Type C, Intermediate	Square Meter
209.1904, Rolled Erosion Control Product, Class II, Type D, Intermediate	Square Meter
209.200101, Turf Reinforcement Mats, Class III Type A, Permanent	Square Meter
209.200201, Turf Reinforcement Mats, Class III Type B, Permanent	Square Meter
209.200301, Turf Reinforcement Mats, Class III Type C, Permanent	Square Meter
209.200401, Turf Reinforcement Mats, Class III Type D, Permanent	Square Meter
209.2103, Soil Stabilizers, Class IV Type C	Square Meter
EI06004,EB06013	
209.2101 Soil Stabilizers, Class IV Type A	Square Meter
209.2102 Soil Stabilizers, Class IV Type B	Square Meter
209.22 Construction Entrance	Square Meter
209.23 Pipe Inlet/Outlet Protection, Silt Fence - Temporary	Meter

NOTE: nn denotes serialized pay item, see §101-02 Definition of Terms under "Specifications". These items will be paid for by the each within established size groups.

209-4.09 Drainage Structure Inlet Protection. Silt fence geotextile, and prefabricated drainage structure inlet protection measures will be measured by the number of meters to the nearest meter. Gravel bag measures will be measured by the number of cubic meters to the nearest cubic meter.

209-4.10 Rolled Erosion Control Products and Soil Stabilizers. Rolled erosion control products and soil stabilizers will be measured as the number of square meters to the nearest square meter.

209-4.11 Construction Entrances. Construction entrances shown in the contract documents will be measured by the number of square meters to the nearest square meter. Measurement will not be made for construction entrances associated with the contractor’s operations (e.g., staging areas, storage yards, borrow sites, etc.).

209-4.12 Temporary Pipe Inlet/Outlet Protection, Silt Fence. Temporary pipe inlet/outlet protection, silt fence, will be measured by the number of meters to the nearest meter.

209-5 BASIS OF PAYMENT.

209-5.01 General. The unit price bid for all work items shall include the cost of furnishing all labor, equipment, and materials necessary to satisfactorily complete the work as shown in the contract documents, including the cost of excavation associated with the removal of accumulated sediment and the installation of erosion and sediment control measures covered by this Section.

Progress payments will be made for check dams, turbidity curtain, silt fence, pipe slope drain, and sediment traps. Fifty percent of the price bid will be paid after installation. The remaining percentage will be paid when the temporary control measure is removed and the remaining area is permanently stabilized.

Payment will not be made for work which is attributed to the Contractor's negligence, carelessness or failure to install temporary or permanent controls in accordance with the contract documents.

209-5.02 Mulch. Mulching will only be paid for when directed or approved by the Engineer.

209-5.03 Seed and Mulch. Seed and mulch will only be paid for when directed or approved by the Engineer. In addition to the provisions of §209-5.01, the unit price bid for this item shall include water.

209-5.04 Sediment Trap - Temporary. In addition to the provisions of §209-5.01, the unit price bid for this item shall include bags, excavation, impervious embankment material, outlet pipe, riser assembly, light stone filling, and geotextile. Temporary mulch and rolled erosion control product will be paid for under their respective items.

209-5.05 Pipe Slope Drain - Temporary. In addition to the provisions of §209-5.01, the unit price bid for this item shall include bales, pipe, pipe end sections, stone, and geotextile.

209-5.06 Construction Entrances. In addition to the provisions of §209-5.01, the unit price bid for this item shall include any erosion control treatments (temporary mulch, temporary seed and mulch, etc.) required to stabilize an erodible surface produced by the installation of the construction entrance, periodic top-dressing with additional coarse aggregate material, and washing station provisions.

Additional sediment control measures (silt fence, haybale/strawbale, sediment trap, etc.) required to control a washing area will be paid for under their respective item(s).

Payment will be made under:

Item No.	Item	Pay Unit
209.1001	Mulch - Temporary	Square Meter
209.1002	Straw/Wood Fiber Mulch - Temporary	Square Meter
209.1003	Seed and Mulch - Temporary	Square Meter
209.1004	Seed and Straw/Wood Fiber Mulch - Temporary	Square Meter
209.110101	Check Dam (Ditch Bottom Width 0.0 to 1.0 m), Stone - Temporary	Each
209.110102	Check Dam (Ditch Bottom Width >1.0 to 2.0 m), Stone - Temporary	Each
209.110103	Check Dam (Ditch Bottom Width >2.0 to 3.0 m), Stone - Temporary	Each

Type B may also be placed through dry spreading. When dry spreading method is used, the Contractor shall apply the material uniformly. Where applied, Type A shall be minimum of 6 mm thick. When Type A is used in conjunction with turf establishment, seeds must be sown separately and prior to the application of the soil stabilizer.
EI060004, EB06013

209-3.13 Construction Entrances. Construction entrances shall be placed where shown in the contract documents and constructed in accordance with the standard sheets.

The Contractor shall grade, including excavating or placing fill, to prepare the original ground surface for the placement of a stabilized pad of 150 mm of coarse aggregate material, underlain by a geotextile. If necessary, a drainage pipe shall be installed to maintain the capacity of the ditch. The pipe dimension shall be consistent with the modified soil erosion and sediment control plan approved by the Engineer. All areas cut or filled and not stabilized by the construction entrance material shall be covered with an erosion control treatment (temporary mulch, temporary seed and mulch, etc.) and shall be included in this pay item.

When washing is performed, the washing area within the construction entrance shall be located in an area which will drain into an approved sediment control measure(s).

The construction entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto the right-of-way. All sediment spilled, dropped, washed or tracked onto the right-of-way shall be removed immediately. In the event the entrance is no longer performing properly (i.e. the entrance aggregate becomes clogged with sediment), the Contractor shall top-dress the entrance with additional coarse aggregate material.

209-3.14 Temporary Pipe Inlet/Outlet Protection, Silt Fence. Temporary pipe inlet/outlet protection, silt fence, shall be placed where shown in the contract documents and constructed in accordance with the standard sheets.

209-4 METHOD OF MEASUREMENT. Measurement will be made for installation or reinstallation of temporary soil erosion and sediment controls shown in the contract documents.

209-4.01 Temporary Mulch. Measurement will only be made for work directed or approved by the Engineer. This work will be measured as the number of square meters of mulch to the nearest square meter.

209-4.02 Temporary Seed and Mulch. Measurement will only be made for work directed or approved by the Engineer. This work will be measured as the number of square meters to the nearest square meter.

209-4.03 Temporary Check Dams. Stone, gravel, and sand bag check dams will be measured by the number of check dams. All other check dams will be measured by the number of meters to the nearest meter.

209-4.04 Temporary Haybale/Strawbale. Bales will be measured by the number of meters to the nearest meter.

209-4.05 Temporary Silt Fence. Silt fence will be measured by the number of meters of silt fence to the nearest meter. No measurement will be made for seams or overlaps.

209-4.06 Temporary Sediment Trap. Sediment traps will be measured by the number of traps.

209-4.07 Vacant.

209-4.08 Temporary Pipe Slope Drain. Pipe slope drain will be measured by the number of drains.

the material uniformly. Where applied, Type A shall be minimum of 6 mm thick. When Type A is used in conjunction with turf establishment, seeds must be sown separately and prior to the application of the soil stabilizer.

209-3.12 Rolled Erosion Control Products and Soil Stabilizers. The time and method of placement shall be as specified in the contract documents and/or according to Manufacturer's recommendations.

For areas at final grade, all loose stones, clods, sticks, or other undesirable material shall be removed in accordance with the manufacturer's recommendations or as specified elsewhere in the contract documents. In addition, those areas at final grade shall be scarified to a minimum depth of 25 mm immediately prior to installation, unless topsoil is being placed and the erosion control material will be installed within 2 work days of topsoil placement.

A. Rolled Erosion Control Products.

1. Class II, Type A, Jute Mesh. Jute mesh shall be placed without stretching on the freshly prepared surface so that it lays loosely on the soil and in contact with the soil at all points; and then it shall be rolled or tamped firmly into the soil surface. The upper end of each roll shall be turned down and buried to a depth of 150 mm with the soil firmly tamped against it. Unless otherwise specified in the contract documents, check slots shall be constructed at 15-m intervals down the slope. The construction procedure shall consist of placing a fold of material 150 mm vertically into the ground and tamping soil firmly against it. Jute mesh shall be placed so that all edges shall have a minimum overlap of 150 mm. The ends of rolls shall be placed with the upgrade section on top. Jute mesh shall be held tightly to the soil by anchors driven firmly into the ground. Anchors shall be spaced not more than 1 m apart on the sides and along the centerline of all drainage ways. Jute mesh ends and check slots shall have anchors spaced at 300 mm intervals.

2. Class I and Other Class II, Rolled Erosion Control Products. These products shall be placed and firmly anchored as stated in the manufacturer's instructions.

3. Class III Turf Reinforcement Mat (TRM). Class III-Type A and B TRMs shall be completely filled with topsoil immediately after installation. Class III-Type C and D TRMs, which contain a composite, do not need to be filled with topsoil unless recommended by the manufacturer.

To prevent initial soil loss Class III TRM mats Type A and B shall be covered with one of the following materials during installation. (These materials will be paid for separately.)

For Slope application:

1. Class IV-Soil Stabilizer
2. An approved RECP (Class I or II)
3. Mulch

For Channels:

1. An approved RECP (Class I or II)

B. Class IV Soil Stabilizers. These materials shall be applied as recommended by the Manufacturer. Type A & B are intended to be applied with hydroseeding equipment.

B. Riser and Outlet Pipe. The section of the riser above the embedment shall be perforated with 25 mm diameter holes or slits spaced 150 mm vertically and horizontally and placed in the concave portion of the riser pipe. No holes shall be made within 150 mm of the outlet pipe.

The riser shall be wrapped with 6 mm to 12 mm hardware cloth wire then wrapped with Class A Geotextile Drainage Fabric. The geotextile shall extend 150 mm above the highest hole and 150 mm below the lowest hole. Where ends of geotextile come together, they shall be overlapped, folded and stapled to prevent bypass.

Straps or connecting bands shall be used to hold the geotextile and wire fabric in place. They shall be placed at the top and bottom of the cloth.

The riser shall be anchored with a steel plate base to prevent floatation. A 7 mm minimum thickness steel plate shall be attached and sealed to the riser by a continuous weld around the bottom to form a watertight connection. 600 mm of suitable material shall be placed on the plate and tamped.

Fill material around the outlet pipe shall be hand compacted in four 100 mm layers. A minimum of 600 mm of hand compacted backfill shall be placed over the outlet pipe before crossing it with construction equipment.

All outlet pipe connections shall be watertight.

C. Sediment Removal. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to $\frac{1}{2}$ the design depth of the trap.

209-3.09 Vacant.

209-3.10 Temporary Pipe Slope Drain. Pipe slope drain shall be placed where shown in the contract documents and constructed in accordance with the standard sheets.

209-3.11 Drainage Structure Inlet Protection. Drainage structure inlet protection shall be placed where shown in the contract documents and constructed in accordance with the standard sheets.

~~**209-3.12 Rolled Erosion Control Products and Soil Stabilizers.** The time and method of placement shall be as specified in the contract documents and/or according to Manufacturer's recommendations.~~

~~—For areas at final grade, all loose stones, clods, sticks, or other undesirable material shall be removed in accordance with the manufacturer's recommendations or as specified elsewhere in the contract documents. In addition, those areas at final grade shall be scarified to a minimum depth of 25 mm immediately prior to installation, unless topsoil is being placed and the erosion control material will be installed within 2 workdays of topsoil placement.~~

~~**A. Rolled Erosion Control Products.**——~~

~~1. Class II, Type A, Jute Mesh. Jute mesh shall be placed without stretching on the freshly prepared surface so that it lays loosely on the soil and in contact with the soil at all points; and then it shall be rolled or tamped firmly into the soil surface. The upper end of each roll shall be turned down and buried to a depth of 150 mm with the soil firmly tamped against it. Unless otherwise specified in the contract documents, check slots shall be constructed at 15 m intervals down the slope. The construction procedure shall consist of placing a fold of material 150 mm vertically into the ground and tamping soil firmly against it. Jute mesh shall be placed so that all edges shall have a minimum overlap of 150 mm. The ends of rolls shall be placed with the upgrade section on top. Jute mesh shall be held tightly to the soil by anchors driven firmly into the ground. Anchors shall be spaced not more than 1 m apart on the sides and along the centerline of all drainage ways. Jute mesh ends and check slots shall have anchors spaced at 300 mm intervals.~~

~~2. Class I, Other Class II, and Class III Rolled Erosion Control Products. These products shall be placed and firmly anchored as stated in the manufacturer's instructions.~~

~~**B. Class IV Soil Stabilizers.** These materials shall be applied as recommended by the Manufacturer. Type A & B are intended to be applied with hydroseeding equipment. Type B may also be placed through dry spreading. When dry spreading method is used, the Contractor shall apply~~

Mulch shall be spread immediately following application of seed. Mulch shall be spread uniformly in a continuous blanket at an approximate rate of 4 t/ha. Mulch may be spread by hand, mechanical spreaders, or blowers. Mulch and seed shall not be placed simultaneously, except in the case of hydroseeding.

209-3.05 Temporary Check Dam. Check dams shall be constructed where shown in the contract documents and in accordance with the standard sheets. A bedding type geotextile or stone scour protection shall be placed as indicated in the contract documents.

A. Prefabricated Check Dam. The length of each prefabricated check dam shall be as indicated in the contract documents. The dam shall be attached to the ground with wire staples. The staples shall be No. 11 gauge wire and be 150 mm - 210 mm long. Staples shall be placed as indicated in the contract documents.

The geotextile filter material shall be attached to the triangular frame by using wire ties or staples. The ties shall be placed evenly 0.3 m on center.

209-3.06 Temporary Haybale/Strawbale. Bales shall be placed with the cut ends vertical as shown in the contract documents. Each bale shall be embedded into the soil a minimum of 100 mm, and be securely anchored. Hardwood stakes shall be installed a minimum of 300 mm into the ground below the bale. The first stake in each bale shall be driven at an angle toward the previously laid bale to force the bales together.

209-3.07 Temporary Silt Fence. Unless otherwise detailed in the contract documents, silt fence shall be installed as follows:

1. Posts shall be driven into the ground.
2. Geotextile and any mesh support (if applicable) shall be placed on the upstream side of the posts.
3. The geotextile shall be fastened to each post in no less than 4 locations with approved fasteners.
4. The mesh support shall be fastened to each post at the top, bottom, and two additional evenly spaced locations, or by a continuous corded attachment along the top of the assembly.
5. Any geotextile or mesh splices necessary for fence erection shall be continuous between two post sections.
6. Geotextile at the bottom of the fence shall be buried in a trench to a depth of 150 mm. The trench shall be back filled with the excavated soil and the soil compacted by tamping.

209-3.08 Temporary Sediment Trap. Sediment traps shall be constructed where shown in the contract documents and in accordance with the standard sheets.

A. Sand Bag Berm and Earth Berm.

1. The area under which the sand bag berm or earth berm will be constructed shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared. All work shall be performed consistent with the requirements of §201-3 Construction Details.
2. The earth berm embankment shall be constructed consistent with the requirements of §203-Excavation & Embankment, except as herein modified. Immediately prior to placement of the impervious embankment material, the entire earth surface on or against which fill is to be placed, shall be thoroughly scarified to a depth of 150 mm and compacted to not less than 95 percent of Standard Proctor Maximum Density. Impervious embankment material shall then be deposited in horizontal layers not exceeding 200 mm in thickness prior to compaction. Each layer shall be compacted to not less than 95 percent of Standard Proctor Maximum Density. The moisture content of all impervious embankment material shall not be greater than 2 percent above Optimum Moisture Content as determined by A.A.S.H.T.O Designation: T-99, Method C at the time of compaction.

Sand bag and ditch dam sediment traps shall be constructed as shown on the Standard Sheets.

3. All fill slopes shall be 2:1 or flatter. Cut slopes shall be 1:1 or flatter.
4. Temporary mulch and rolled erosion control product shall be applied to earth berm side slopes.
5. Excavate and install light stone at emergency spillway.

The Contractor shall designate to the Engineer an erosion and sediment control supervisor with adequate training, experience, and authority to implement and maintain all erosion and sediment control measures.

Perimeter sediment controls shall be installed prior to performing grubbing, excavation, and borrow or fill operations. The Contractor shall limit the area of clearing and grubbing, excavation, borrow and embankment operations in progress, commensurate with their capability and progress in keeping the finish grading, mulching, seeding and other temporary and/or permanent control measures current in accordance with the approved schedule. Under no condition shall earth material exposed by grubbing, excavation, borrow or fill or other work be left without application of temporary or permanent erosion controls for a period of greater than 7 days. The Engineer may determine that a potential for erosion or sediment transport exists and order the Contractor to install temporary erosion controls earlier. When permanent soil erosion and sediment control measures can not be installed due to seasonal or other limitations, temporary soil erosion and sediment control measures shall be installed. Prior to removing or disturbing any erosion or sediment control measure that may be required to be reestablished due to continual grading operations, the Contractor shall verify the proposed progression of operations and the reestablishment of control measures with the Engineer to ensure the continuity of erosion and sediment control.

Sediment control measures shall not be removed without the Engineer's approval.

209-3.02 Inspection and Maintenance. Soil erosion and sediment control measures shall be inspected and maintained by the Contractor during the life of the project, including winter shutdown, etc. Such inspection and maintenance shall continue until after the permanent stabilization measures are in place and the temporary control measures are ordered to be removed by the Engineer. The remaining disturbed area shall be permanently stabilized as indicated in the contract documents.

All temporary controls shall be inspected by the Contractor every seven calendar days, after each rainfall of 12 mm or more within a 12 hour period, or daily during prolonged rainfall to determine if the measure is functioning as intended. All inspections shall be completed within one calendar day.

Within 3 calendar days from completion of the inspection, the Contractor shall:

- Repair or rebuild the control measure to function as originally intended.
- Remove sediment deposition which reaches one half the height of the control measure. All sediment deposits shall be considered unsuitable material and disposed of in accordance with §203-3.08, Disposal of Surplus Excavated Materials. Material shall be disposed of away from wetlands, water courses or other bodies of water.

Torn or punctured silt fence fabric may be repaired by the placement of a patch, on the upstream side, consisting of an additional layer of fabric over the damaged area, or replacement of the damaged section.

Where erosion control materials have been used on final grade that have been permanently seeded, the Contractor shall care for the areas until acceptance of the Contract or acceptance of the turf, whichever is later. Where necessary, such care may include, but is not limited to providing warning signs or barricades for protection against traffic. Any surfaces that have settled, become gullied, or otherwise damaged due to the Contractor's operations shall be repaired at no additional expense to the state to re-establish the grade and soil conditions that existed prior to placing erosion control materials.

209-3.03 Temporary Mulch. The Contractor shall have the capability to mulch any disturbed areas on any given day (e.g., those areas where earthwork operations are ongoing, etc.). The Contractor shall apply mulch on disturbed areas consistent with the approved project schedule.

Mulch shall be spread uniformly in a continuous blanket at an approximate rate of 4 t/ha. Mulch may be spread by hand, mechanical spreaders, or blowers.

209-3.04 Temporary Seed and Mulch. The Contractor shall apply seed and mulch on disturbed areas consistent with the approved project schedule.

Prior to the application of seed, all areas where compaction has occurred shall be scarified. The seed bed shall be loose and friable for positive seed retention.

Ryegrasses shall be spread at a rate of 3.5 g/m² to uniformly cover the ground. Cereal grasses shall be spread at a rate of 11.2 g/m² to uniformly cover the ground. Seeds shall be evenly distributed by any method of sowing that does not injure the seeds in the process of spreading.

209-2.11 Pipe Slope Drain. Pipe slope drain materials may consist of new or used material in satisfactory condition and suitable for the intended use. The Engineer will reject used materials determined to be unsatisfactory. Pipe couplings shall be appropriate for the pipe and as recommended by the Manufacturer. End sections may be steel, aluminum, or polyethylene.

209-2.12 Rolled Erosion Control Products and Soil Stabilizers. These materials shall meet the requirements of §713-07 Jute Mesh Or Other Approved Erosion Control Materials and shall be of the Type and Class specified in the contract documents.

209-2.13 Stabilized Construction Entrance. Construction entrances shall consist of a geotextile, crushed stone or gravel and, if necessary, a drainage pipe to maintain ditch flow.

A. Geotextile. Geotextile shall meet the requirements of §207-2 Materials, Geotextile Stabilization, Strength Class 1.

B. Crushed Stone or Gravel. Crushed stone or gravel shall be 150 mm of coarse aggregate material meeting the gradation requirements of size designation #3 on Table 703-4.

C. Drainage Pipe. The Contractor shall provide a drainage pipe sized with sufficient capacity to carry ditch flow. The pipe dimension shall be consistent with the modified soil erosion and sediment control plan approved by the Engineer. The drainage pipe may consist of new or used material in satisfactory condition and suitable for the intended use. The Engineer will reject any materials determined to be unsatisfactory.

209-2.14 Temporary Pipe Inlet/Outlet Protection. The materials used shall be as indicated on the standard sheets.

209-2.15 Temporary Sediment Trap. The materials used shall be as indicated on the standard sheets.

A. Impervious Embankment In Place.

1. The impervious embankment material shall have the following gradation:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
150 mm	90 - 100
19.0 mm	50 -100
4.75 mm	40 - 90
425 µm	30 - 85
75 µm	25 - 75

209-3 CONSTRUCTION DETAILS.

209-3.01 General. In the event of conflict between these specification requirements and pollution control laws, rules, regulations or permit conditions by other federal or state or local government agencies, the more restrictive laws, rules or regulations shall apply.

All work done under this section shall be performed consistent with §107-12 Water Quality Protection and included as part of the construction schedule submitted by the Contractor under §108-01 Start and Progress of Work. The Contractor's schedules and methods shall be consistent with the soil erosion and sediment control plan included in the contract documents or the modified plan approved by the Engineer. The Contractor shall begin earthwork only after receiving written approval from the Engineer for the scheduling of earthwork and work covered under this section.

209-2 MATERIALS. Unless otherwise stated elsewhere in the contract documents, materials shall be as stated herein.

209-2.01 Mulch. Mulch shall be §713-18 Hay, §713-19 Straw, or §713-11 Wood Fiber Mulch. Straw/Wood Fiber Mulch shall be §713-19 Straw or §713-11 Wood Fiber Mulch.

209-2.02 Seed. Seed shall be ryegrasses (annual or perennial) or cereal grasses suitable to the area and as a temporary cover which will not compete with the grasses sown later for permanent cover.

209-2.03 Stone Filling. Stone filling shall meet the requirements of §620-2.02 Stone Filling, light.

209-2.04 Haybale/Strawbale. Haybale/Strawbale shall meet the requirements of §713-18 Hay or §713-19 Straw. Strawbale shall be §713-19 Straw.

All bales shall be tightly bound; loose or broken bales will not be accepted. Hardwood stakes shall be at least 32 mm x 32 mm and a minimum of 0.6 m long.

209-2.05 Geotextile. Geotextiles shall meet the requirements of §207-2 Materials. UV sensitive geotextiles shall be protected from exposure to sunlight during transport and storage.

209-2.06 Prefabricated Check Dams and Drainage Structure Inlet Protection. The materials used for prefabricated check dams and drainage structure inlet protection shall be triangular-shaped in cross section, and have a height of at least 200 mm - 250 mm in the center with two equal sides and a 450 mm - 600 mm base. The triangular-shaped inner material shall be urethane foam. The outer cover shall be a woven bedding type geotextile placed around the inner triangle and extend 600 mm - 920 mm beyond each side of the triangle base.

Other materials may be proposed by the Contractor who shall be solely responsible for their performance.

209-2.07 Vacant.

209-2.08 Silt Fence. Silt fence shall be listed in the Approved List. A silt fence assembly shall consist of silt fence geotextile, posts, and fasteners and may include mesh support consistent with the Approved List.

A. Posts. Posts shall meet the following requirements:

1. Either wood, metal, or synthetic posts may be used. Softwood post shall be 38 mm x 89 mm, hardwood post shall be at least 32 mm x 32 mm, steel post shall be "T" or "L" shaped in cross section, with a minimum weight of 2 kg/m.
2. Posts shall be a minimum of 1.2 m long and shall be spaced consistent with the material selected and as indicated in the Approved List.

B. Mesh Support. For those silt fence assemblies on the Approved List that require a mesh support, the support shall consist of 14 gauge (min) welded wire mesh with a maximum 150 mm x 150 mm opening or polymeric mesh. All mesh support shall be a minimum of 750 mm in height.

C. Fasteners. Fasteners shall be heavy duty staples, hog rings, tie wires, or any other fastener compatible with the post material.

209-2.09 Gravel Bag. Bags shall be fabricated from reinforced woven geotextile and shall include ties. No burlap bags shall be allowed. Coarse aggregate shall meet the gradation requirements of size designation #1 or #2 of Table 703-4 and shall be used as the fill material. Each gravel bag shall be individually tied and double bagged. The bag with fill material shall be inversely inserted into the second bag in order to prevent leakage.

209-2.10 Sand Bag. Sand bags shall meet the requirements of §209-2.09 Gravel Bag except that sand meeting the gradation requirements of §703-06 Cushion Sand shall be used as the fill material.

207-4.01 Geotextiles

A. General. The quantity of Geotextile will be the number of square meters computed from the payment lines shown on the plans or from payment lines established in writing by the Engineer. Measurement will not be made for Geotextile used for repairs, seams, or overlaps. If taken, the amount of quality assurance samples will be added to this quantity.

B. Drainage. The number of square meters shall be computed by multiplying the length of the trench where Geotextile is used by the theoretical perimeter (determined from the typical section).

207-4.02 Prefabricated Composite Drains for Structures. The quantity of PCSD or PCIAD is the number of square meters satisfactorily installed computed from the payment lines indicated in the contract documents or from payment lines established, in writing, by the Engineer.

207-5 BASIS OF PAYMENT

207-5.01 Geotextiles. The unit price bid per square meter for these items shall include the cost of furnishing all labor, equipment, and materials necessary to complete the work, including the cost of preparing the surface upon which the Geotextile is placed. No payment will be made for replacement or repairs.

207-5.02 Prefabricated Composite Drains for Structures. The unit price per square meter for this item includes the cost of furnishing all labor, equipment, and material necessary to complete the work. No payment will be made for repairs or replacement.

Payment will be made under:

Item No.	Item	Pay Unit
207.10	Geotextile Bedding	Square Meter
207.11	Geotextile Separation	Square Meter
207.12	Geotextile Drainage	Square Meter
207.13	Geotextile Slope Protection	Square Meter
207.14	Geotextile Stabilization	Square Meter
207.15	Prefabricated Composite Structural Drain	Square Meter
207.16	Prefabricated Composite Integral Abutment Drain	Square Meter

SECTION 208 (VACANT)

SECTION 209 - SOIL EROSION AND SEDIMENT CONTROL

209-1 DESCRIPTION. This work shall consist of furnishing, installing, inspecting, maintaining, and removing soil erosion and sediment control measures as shown on the contract documents or as ordered by the Engineer during the life of the contract to provide soil erosion and sediment control. This work shall be coordinated with the soil erosion and sediment control features specified elsewhere in the contract documents to the extent practical to assure effective and continuous soil erosion and sediment control throughout the construction and post construction period.

209-1.01 Erosion Control. See §101-02 Definitions of Terms, Erosion Control, for the definition of Erosion Control. The following items of work are provided in this section to address soil erosion control - mulch, straw/wood fiber mulch, seed and mulch, seed and straw/wood fiber mulch, all classes and types of rolled erosion control products, and soil stabilizers. Other items may be provided in the contract documents to provide soil erosion control (e.g., turf establishment, bank and channel protection, etc.).

209-1.02 Sediment Control. Sediment control is any action taken or item used as part of a project or as a separate action to minimize suspended solid material transport by water. The following items of work are provided in this section to address sediment control - haybale/strawbale, strawbale, sediment trap, turbidity curtain, silt fence.