# Notice

The Standard Special Provision (SSP) on the following page revises or modifies CDOT’s Standard Specifications for Road and Bridge Construction. The Construction Engineering Services Branch has reviewed, approved, and issued it. Use as written without change. Do not use modified versions of it on CDOT construction projects. Do not use the following special provision on CDOT projects in a manner other than specified in the instructions without approval by CDOT’s Standards and Specifications Unit. The instructions for use appear below.

Other agencies using the Standard Specifications for Road and Bridge Construction to administer construction projects may use this special provision appropriately and at their own risk.

**Instructions for use on CDOT construction projects:**

Use the following standard special provision on all projects that hold a COR400000 permit (CDPS-SCP).

**Revision of Sections 208, 213, and 216**

**Construction Permit Water Quality**

**Revise Section 208 of the Standard Specifications as follows:**

**Revise 208.01, in the first and second paragraph as follows:**

1. This work consists of constructing, installing, maintaining, and removing when required, control measures during the life of the Contract to prevent or minimize erosion, sedimentation, and pollution of any state waters as defined in subsection 101, including wetlands.

Stormwater runoff from all disturbed areas and soil storage areas, must flow to at least one control measure to minimize sediment in the discharge. This shall be accomplished through filtering, settling, or straining. The control measure shall be selected, designed, installed, and adequately sized per good engineering, hydrologic, and pollution control practices. The control measures shall contain or filter flows in order to prevent the bypass of flows without treatment and shall be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (i.e., sheet or concentrated flow).

The Contractor shall coordinate the construction of temporary control measures with the construction of permanent control measures to assure economical, effective, and continuous erosion and sediment control throughout the construction period.

When a provision of Section 208 or an order by the Engineer requires that an action be immediate or taken immediately, it shall be understood that the Contractor shall at once begin affecting completion of the action and pursue it to completion in a manner acceptable to the Engineer, and per the Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) requirements.

**Revise 208.02 (i),first paragraph, as follows:**

1. *Erosion Logs*. Erosion logs, also known as sediment control logs, shall be one of the following types unless otherwise shown on the plans:

**Revise 208.02 (k), as follows:**

1. *Concrete Washout Structure*. The Contractor shall construct a washout structure that will contain washout from concrete and masonry placement, construction equipment

**Revise 208.02 (l) 1, as follows:**

1. *Prefabricated Concrete Washout Structure.* Prefabricated Concrete Washout Structures shall be one of the following types unless otherwise shown on the plans:
2. Prefabricated Concrete Washout Structure (Type 1). Type 1 portable bins shall be used only when specified in the Contract. It shall consist of a watertight multi-use container designed to contain liquid concrete and masonry washout wastewater, solid residual concrete waste from washout operations, and residue from saw cutting, coring, grinding, grooving, and hydro-concrete demolition. Minimum capacity including freeboard shall be 440 gallons. Prefabricated Concrete Washout Structure (Type 2). Type 2 portable bins shall be used only when specified in the Contract. It shall consist of a watertight one-time use container designed to contain liquid concrete washout wastewater, solid residual concrete waste from washout operations, and residue from saw cutting, coring, grinding, grooving, and hydro-concrete demolition. The structure shall have a system to secure to the ground. Minimum capacity including freeboard shall be 50 gallons.

**Revise 208.03, in the second paragraph, under the list, as follows:**

**208.03 Project Review, Schedule, and Erosion Control Management.** Before construction, an on-site Environmental Preconstruction conference shall be held. The conference shall be attended by:

1. The Engineer.
2. The Superintendent.
3. The Contractor's Stormwater Management Plan (SWMP) Administrator. The SWMP Administrator is equivalent to the CDPS-SCP Qualified Stormwater Manager.
4. Supervisors or Foremen of subcontractors working on the project.
5. The Region Water Pollution Control Manager (RWPCM).
6. CDOT personnel (e.g., CDOT Landscape Architect) who prepared or reviewed the Stormwater Management Plan (SWMP).

At this conference, the attendees shall discuss the SWMP, CDPS-SCP, sensitive habitats on-site, wetlands, other vegetation to be protected, and the enforcement mechanisms for not meeting the requirements of this specification.

**Revise 208.03, in the fifth, sixth and seventh paragraphs, as follows:**

The SWMP Administrator shall review existing inlets and culverts to determine if inlet protection is needed due to water flow patterns. Before beginning construction, inlets and culverts needing protection shall be protected and the location of the implemented control measure added to the SWMP Site Map (Site Map).

Before construction, the Contractor shall implement appropriate control measures for protection of wetlands, sensitive habitat, and existing vegetation (vegetative buffers) from ground disturbance and other pollutant sources, per the approved project schedule as described in subsection 208.03(b). Upgradient control measures shall be installed immediately adjacent to vegetative buffers.

When additional control measures are required and approved by the Engineer, the Contractor shall implement the additional control measures and the SWMP Administrator shall record and describe them on the Site Map. The approved control measures will be measured and paid for per subsections 208.11 and 208.12.

**Revise 208.03, (b), Erosion and Sediment Control Activities, (c) Erosion Control Management, (d) Documentation Available on the Project***,* **and (e) Weekly meetings, as follows:**

1. *Erosion and Sediment Control Activities*. The erosion and sediment control activities shall be included in the weekly meeting update. The project schedule shall specifically indicate the sequence of clearing and grubbing, earthwork operations, and construction of temporary and permanent erosion control features and stabilization. Temporary control measures shall be installed prior to commencing construction activities associated with water quality. The project schedule shall include erosion and sediment control work for haul roads, borrow pits, storage and asphalt or concrete batch sites, and all areas within the LOC. If during construction the Contractor proposes changes that would affect the Contract's control measures, the Contractor shall propose revised control measures to the Engineer for approval in writing. If necessary, the SWMP Administrator shall update proposed sequencing of major activities in the SWMP. Revisions shall not be implemented until the proposed measures have been approved in writing by the Engineer.

*(c) Erosion Control Management* (ECM). Erosion Control Management for this project shall consist of SWMP administration and assessment of site conditions. All ECM staff shall have working knowledge and experience in construction and shall hold a current Transportation Erosion Control Supervisor Certification (TECS) as provided by the Department. The Superintendent cannot serve in an ECM role. The Erosion Control Inspector (ECI) and the SWMP Administrator may be the same person in projects with not more than 40 acres of disturbed area. The ECI and the SWMP Administrator are equivalent to the CDPS-SCP Qualified Stormwater Manager.

ECM staff shall implement and maintain control measures in effective operating condition. At any time, regardless of the inspection schedule, CDOT or the Contractor shall identify control measures requiring corrective action. Identified noncompliance shall be corrected immediately, but no later than 2 calendar days from the time of observation. Discharges outside of the LOC or spills occurring within the project shall be addressed upon observation.

1. SWMP Administration. The SWMP Administrator shall maintain the SWMP. Record the name of the SWMP Administrator on the SWMP. The SWMP Administrator shall have full responsibility to maintain and update the SWMP and identify to the Superintendent critical action items needed to conform to the CDPS-SCP as follows:

Complete the SWMP as described in subsection 208.03(d). Initial and date changes to the SWMP.

Participate in the Environmental Pre-construction Conference.

Attend weekly meetings.

Attend all Department-led Monthly Audit Reports (MARs). The Contractor and the Contractor’s SWMP Administrator will be notified a minimum of five days in advance of each MAR.

Coordinate with the Superintendent to implement necessary actions to reduce anticipated or presently existing water quality or erosion problems resulting from construction activities.

Coordinate with the Superintendent to ensure that all labor, material, and equipment needed to install, maintain, and remove control measures are available as needed.

During construction, update the Site Map to reflect current site conditions, initial, date, and describe changes. Site Maps shall include, at a minimum, the following:

* 1. Limits of Construction (LOC).
  2. Areas of Disturbance (AD), including areas of borrow and fill.
  3. Limits of Disturbed Area (LDA).
  4. Areas used for storage of construction materials, equipment, soils, or wastes.
  5. Location of dedicated asphalt, concrete batch plants, and masonry mixing machines.
  6. Location of field offices and staging areas.
  7. Location of work access routes during construction.
  8. Location of waste storage areas, including areas for liquid, concrete, masonry, and asphalt.
  9. Location of daily, temporary, and permanent stabilization.
  10. Location of outfalls.
  11. Flow arrows that depict stormwater flow directions on-site and runoff direction.
  12. Location of structural and non-structural control measures.
  13. Location of springs, streams, wetlands, diversions, and other state waters, within or bordering the site, including areas that require pre-existing vegetation be maintained within 50 horizontal feet of a receiving water, unless infeasible.
  14. Location of stream crossings located within the LOC.
  15. A clear and legible map legend or control measure key with symbology that applies uniformly across all Site Maps.
  16. Protected trees, shrubs, mature vegetation, and cultural resources.
  17. Locations of pumped stormwater including intake and discharge points.
  18. Locations of dewatering activities covered under the CDPS-SCP, low risk guidance, or other dewatering permit.

1. The SWMP shall reflect the site conditions and shall be amended to reflect control measures, including the following:
2. A change in design, construction, operation, or maintenance of the site that would require the implementation of new or revised control measures; or
3. Changes when the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity.
4. Changes when control measures are no longer necessary and are removed.
5. Complete vegetative survey transects when required per CDOT Erosion Control and Stormwater Quality Guide.
6. Start a new Site Map before the current one becomes illegible. All Site Maps shall remain as part of the SWMP.
7. Document all inspections and corrective actions. Keep the SWMP and documentation on the project site.
8. Add a narrative when adding or revising control measures in the SWMP, including drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements of the control measure. Non-standard details must be approved by the Engineer prior to installation.
9. If using existing topography (landform), vegetation, etc. as a control measure, label it as such on the Site Map; add a narrative as to when, where, why, and how the control measure is being used.
10. Indicate control measures in use or not in use by recording them on Standard Plans M-208-1 and M-216-1 in the SWMP.
11. Record on the SWMP the approved Method Statement for Containing Pollutant Byproducts.
12. Update the potential pollutants list in the SWMP and Spill Response Plan throughout construction.

2. Erosion Control Inspector.

One ECI is required for every 40 acres of total disturbed area that is currently receiving daily and temporary stabilization as defined in subsection 208.04(e). An ECI shall not be responsible for more than 40 acres in the project. Accepted permanent stabilization methods as defined in subsection 208.04(e) will not be included in the 40 acres.

Coordinate with the SWMP Administrator on the results of Form 1176 Inspections.

The ECI duties include the following inspection responsibilities:

1. Form 1176 Inspections

The ECI shall conduct Form 1176 Inspections every seven days at a minimum. Form 1176 Inspections shall be conducted before commencing construction activities associated with water quality. Inspection types include:

1. Routine Form 1176 Inspection. Conduct with the Superintendent and the Engineer, or their designated representatives, all areas noted in subsection 208.03(c)2.B.

When a MAR is conducted that meets all requirements of subsection 208.03(c)2.B, it may be counted as a Routine Form 1176 Inspection. If any portion of the requirements listed in subsection 208.03(c)2.B are not met by the MAR, a Routine Form 1176 Inspection shall be conducted to address the remaining requirements. The ECI shall document in the Corrective Action Log of the Form 1176 that a MAR occurred.

1. Winter Conditions. Routine Form 1176 Inspections are not required at sites when all of the following conditions are met:
   1. Construction activities associated with water quality are temporarily halted
   2. Snow cover exists over the entire site for an extended period (i.e. high-elevation winter season)
   3. Melting conditions posing a risk of surface erosion do not exist.

The winter conditions exception is applicable only during the period where melting conditions do not exist and applies to the Form 1176 Inspections. When this inspection exclusion is implemented, the following information must be documented on Form 1176: dates when snow cover existed, date when construction activities ceased, and date melting conditions began.

1. Form 1176 Inspection Points
2. Form 1176 Inspections and post-storm inspections shall include inspection of the following areas for evidence of, or the potential for, pollutants leaving the LOC, entering the stormwater drainage system, or discharging to state waters:
3. Construction site perimeter.
4. All disturbed areas, including areas that are temporarily stabilized.
5. Designated haul routes.
6. Material and waste storage areas exposed to precipitation.
7. Locations where stormwater has the potential to discharge offsite.
8. Locations where vehicles exit the site.
9. Locations of pumped stormwater, including all intake and discharge points.
10. Staging Areas.
11. While inspecting, evaluate and document on the Form 1176:
12. Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.
13. Determine if there are new potential sources of pollutants.
14. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.
15. Identify all areas of non-compliance with the CDPS-SCP requirements and, if necessary, implement corrective action per the CDPS-SCP.
16. When pumped stormwater discharges offsite, assess the adequacy of control measures for pumped stormwater (for example, sediment plume, suspended solids, unusual color, decreased clarity, presence of odor or foam, or other evidence of pollutants).
17. Inspection Documentation

Form 1176 (Stormwater Field Inspection Report – Active Construction) shall be used for all Form 1176 Inspections. The ECI shall fill out the Form 1176 in full.

During inspection, the ECI shall note any findings on the Form 1176’s Corrective Action Log. The Corrective Action Log shall note in the appropriate column: findings, location, control measure being assessed, finding type (additional, repair, or remove), and a description of the corrective action needed. When additional line items for multiple findings are needed, print out additional Correction Actions Logs from the Form 1176.

Any finding not completed from the previous Form 1176 Inspection shall be noted on the current Form 1176 as a current action item.

Compliance Certification on Form 1176 shall be signed when all corrective actions are noted as corrected or if no findings are noted on the Form 1176 Inspection.

1. Corrective Actions and Interim Responses

When addressing findings noted in section 208.03(c)2.C, note all corrective actions on the Form 1176 Corrective Action Log.

1. Corrective Action Response Time. All findings noted on Form 1176 shall be corrected immediately, but no later than 2 calendar days from the time of observation. Findings associated with discharges outside of the LOC or spills occurring within the project shall be addressed immediately upon observation. The ECI shall document the completion date of each corrective action on the Form 1176 Corrective Action Log.
2. When a finding cannot be completed immediately within the Corrective Action Response Time of 2 calendar days, an Interim Action Response Plan shall be submitted to the Engineer for each finding under consideration. The Interim Action Response Plan shall include:
   1. Individual finding that is being requested for Interim Action Response
   2. Reason why each finding cannot be corrected within the Corrective Action Response Time
   3. Additional control measures to be implemented until each finding is corrected and accepted.
   4. Milestones to measure progress toward completion and projected corrective completion dates for each finding.

The Department will discuss the Interim Action Response Plan request and may meet with the Superintendent to recommend modifications to the plan. The Engineer will initial and date each line item on the Form 1176’s Corrective Action Log when the plan is accepted.

Preparation of Interim Action Response Plan documentation and additional materials, including additional control measures, required to complete the plan shall be at the Contractor’s expense. The Corrective Action Response Time in 208.03(c)2.D.1 must be met unless the Interim Action Response Plan is approved.

1. Noncompliance Reporting. The Contractor shall immediately report the following circumstances to the CDOT Project Engineer. The Department will notify the Contractor if the incident requires reporting to CDPHE-WQCD. When directed by the Department to report, the Contractor shall notify CDPHE-WQCD immediately, but no later than 24 hours from the time of observation. The Contractor shall be responsible for all follow-up correspondence, requirements, and timelines noted within the CDPS-SCP. Reportable circumstances include:
2. Noncompliance that may endanger health or the environment, regardless of the cause of the incident.
3. Unanticipated bypass that exceeds any effluent limitations per the CDPS-SCP.
4. Upset conditions that causes an exceedance of any effluent limitation per the CDPS-SCP.
5. Daily maximum violations for any of the pollutants limited by the CDPS-SCP. This includes any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.
6. Upon observation, spills, leaks, or overflows must immediately be contained and disposed of properly. Document spills, leaks, or overflows that result in the discharge of pollutants. The ECI shall record the time and date, weather conditions, reasons for spill, and how it was remediated.

*(d) Documentation Available on the Project*. The following Contract documents and references will be made available for reference at the CDOT field office during construction:

1. SWMP. The Engineer will provide an approved SWMP design at the Pre-construction Conference, which shall remain the property of CDOT. The SWMP shall be available upon request to CDPHE-WQCD, EPA, or CDOT. Before construction, CDOT will provide the documentation for SWMP Tabs (1) through (4), and (18) as listed below. The Contractor shall provide the contents required for items (5) through (17). The SWMP shall be stored in the CDOT field office or at another on-site location approved by CDPHE-WQCD. The SWMP Administrator shall modify and update the SWMP as needed to reflect actual site conditions , within two calendar days of the change. The following Contract documents and reports shall be kept, maintained, and updated in the SWMP under the appropriate items by the SWMP Administrator:

1. (Tab 1) SWMP Plan Sheets – Notes, tabulation, site description. The SWMP site description shall include, at a minimum, the following:
2. The nature of the construction activity at the site, including if it is a public emergency related site.
3. The proposed schedule for the sequence for major construction activities and the planned implementation of control measures for each phase (clearing, grading, utilities, vertical, etc.).
4. Estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, or any other construction activities.
5. A description of the erodibility of identified soil types and a summary of any existing data used in the development of the construction site plans or SWMP that describe the soil or existing potential for soil erosion.
6. A description of the percent of existing vegetative ground cover relative to the entire site and the method for determining the percentage, per CDOT Erosion Control and Stormwater Quality Guide.
7. A description of any allowable non-stormwater discharges at the site, including those being discharged under a CDPHE-WQCD low risk discharge guidance policy.
8. A description of areas receiving discharge from the site. Including a description of the immediate source receiving the discharge. If the stormwater discharge is to a municipal separate storm sewer system (MS4), the name of the entity owning the system, the location of the storm sewer discharge, and the ultimate receiving water(s).
9. A description of all stream crossings located within the LOC.
10. (Tab 2) Site Maps and Project Plan Title Sheet.
11. (Tab 3) Specifications – Standard and project special provisions related to stormwater and erosion control.
12. (Tab 4) Standard Plans M-208-1 and M-216-1.
13. (Tab 5) Control Measure Details not in Standard Plan M-208-1 or M-216-1– Non-standard details.
14. (Tab 6) Weekly meeting sign-in sheet and weekly meeting notes.
15. (Tab 7) Calendar of Inspections – Calendar of inspections marking when all Form 1176 Inspections and MARs take place.
16. (Tab 8) Contractor Stormwater Field Inspection Reports (Forms 1176 and 1177).
17. (Tab 9) All Monthly Audit Reports (MAR) and Form 105(s) relating to Water Quality.
18. (Tab 10) Description of Inspection and Maintenance Methods – Description of inspection and maintenance methods implemented at the site to maintain all control measures identified in the SWMP and items not addressed in the design.
19. (Tab 11) Spill Response Plan – Reports of reportable spills submitted to CDPHE-WQCD.
20. (Tab 12) List and Evaluation of Potential Pollutants – List of potential pollutants as described in subsection 107.25 and approved Method Statement for Containing Pollutant Byproducts.
21. (Tab 13) Other Correspondence including agreements with other MS4s, approved deferral request, CDPHE-WQCD audit documentation, Water Quality Permit Transfer to Maintenance Punch List, and other miscellaneous documentation such as documented use agreements for areas outside of the permitted area.
22. (Tab 14) TECS Certifications of the SWMP Administrator and all ECIs, kept current through the life of the project.
23. (Tab 15) Environmental Pre-construction Conference – Conference agenda with a certification of understanding of the terms and conditions of the CDPS-SCP and SWMP. All attendees shall sign the certification. A certification shall also be signed by all attendees of meetings held for new subcontractors beginning work on the project that could adversely affect water quality after the Environmental Pre-construction Conference has been held.
24. (Tab 16) Project Environmental Permits – All project environmental permits and associated applications and certifications, including: CDPS-SCP, USACE 404, temporary stream crossings, dewatering, biological opinions, emergency projects, low risk discharge guidance, and all other permits applicable to the project, including any separate CDPS-SCP obtained by the Contractor for staging areas on private property, asphalt or concrete batch plants.
25. (Tab 17) Photographs Documenting Existing Vegetation – Project photographs shall include the following information with the record: project number, project code, name of the person who took the picture, date and time the picture was taken, and location and approximate station number or mile marker. The Contractor shall submit photographs documenting existing vegetation, before construction commencing, on paper with a maximum of four colored images per side of 8 1/2 inch by 11-inch sheet or a digital copy on CD-ROM/Flash Drive (JPG format) as directed by the Engineer.
26. (Tab 18) Permanent Water Quality Plan Sheets – Plan sheets and specifications for permanent water quality structures and riprap.

The Engineer will incorporate the documents and reports available at the time of award. The Contractor shall provide and insert all other documents and reports as they become available during construction. The SWMP Administrator shall finalize the SWMP for CDOT Maintenance use upon completion of the project. The Engineer shall approve SWMP completeness. Corrections to the SWMP shall be made at the Contractor’s expense.

2. Reference Materials. The following Reference materials shall be used:

* 1. CDOT Erosion Control and Stormwater Quality Guide.
  2. CDOT Erosion Control and Stormwater Quality Field Guide.

*(e) Weekly Meetings*: The Engineer, the Superintendent, and the SWMP Administrator shall conduct a weekly meeting with supervisors involved in construction activities associated with water quality. The meeting shall follow an agenda prepared by the Engineer, or a designated representative, and have a sign-in sheet recording the names of all attendees. The SWMP Administrator shall take notes of water quality comments and action items at each weekly meeting and place the agenda and sign-in sheet in the SWMP. At this meeting the following shall be discussed and recorded in Tab 6 of the SWMP:

(1) Recalcitrant, chronic, and severe MAR findings.

(2) Unresolved issues from previous Form 1176 Inspections and/or MARs.

(3) Requirements of the SWMP.

(4) Problems that may have arisen in implementing the site specific SWMP or maintaining control measures.

(5) Control measures that are to be installed, removed, modified, or maintained, and associated SWMP modifications.

(6) Planned activities that will affect stormwater in order to proactively phase control measures.

All subcontractors not in attendance at the Environmental Pre-construction Conference shall be briefed on the project by the Engineer, Superintendent, and the SWMP Administrator before start of work. The SWMP Administrator shall record the names of these subcontractors as an addendum to the list of attendees and add it to the SWMP.

**Revise 208.04, in the second, third and fourth paragraphs, and in (b), (c), (e), and (f) third paragraph, as follows:**

**208.04 Control Measures for Stormwater.**  The SWMP Administrator shall modify the SWMP to clearly describe and locate all control measures implemented at the site to control potential sediment discharges.

Vehicle tracking pads shall be used at all vehicle and equipment exit points from the site to prevent sediment exiting the LOC of the project site. Access shall be provided only at locations approved by the Engineer. The SWMP Administrator shall record vehicle tracking pad locations on the Site Map.

New inlets and culverts shall be protected during their construction. Appropriate protection of each culvert and inlet shall be installed immediately. When riprap is called for at the outlet of a culvert, it shall be installed within 24 hours of completion of each pipe. The Contractor shall remove sediment, millings, debris, and other pollutants from within the newly constructed drainage system per the CDPS-SCP, before use, at the Contractor’s expense. All removed sediment shall be disposed of outside the LOC per all applicable regulations.

Concrete or masonry products wasted on the ground during construction including, but not limited to, excess concrete removed from forms, spills, slop, and all other unused concrete or masonry are potential pollutants that shall be removed from the site or contained at a preapproved containment area that has been identified in the SWMP. The concrete or masonry shall be picked up and recycled per 6 CCR 1007-2 (CDPHE Regulations Pertaining to Solid Waste Sites and Facilities) at regular intervals, as needed, or as directed by the Engineer. The uses of recycled concrete from permitted recycling facilities shall be per Section 203.

1. *Other Agencies*. If CDPHE-WQCD, US Army Corps of Engineers (USACE), the Environmental Protection Agency (EPA), or a Local Agency reviews the project site and requires additional measures to prevent and control erosion, sediment, or pollutants, the Contractor shall cease and desist activities resulting in pollutant discharge and immediately implement these measures. If the work may negatively affect another MS4, the Contractor shall cease and desist activities resulting in the discharge and shall implement appropriate measures to protect the neighboring MS4, including installing additional measures. Implementation of these additional measures will be paid for at contract unit prices.
2. *Work Outside the Right of Way*. Disturbed areas, including staging areas, that are outside CDOT ROW and outside easements acquired by CDOT for construction, are the responsibility of the Contractor. These areas shall be subject to a separate CDPS-SCP and all other necessary permits, as they are considered a common plan of development if within a 1/4 mile of the construction site. The Contractor shall acquire these permits and submit copies to the Engineer before any disturbance. These permits shall be acquired, and all erosion and sediment control work performed at the Contractor's expense. These areas are subject to audits by CDOT or any other agency, as agreed upon in writing. A documented use agreement between the permittee and the owner or operator of any control measures located outside of the LOC that are utilized by the permittee’s construction site for compliance with the CDPS-SCP, but not under the direct control of the permittee shall be placed in the project’s SWMP.
3. *Stabilization*. Once earthwork has started, the Contractor shall maintain erosion control measures until permanent stabilization of the area has been completed and accepted. Failure to properly maintain erosion control and stabilization methods, either through improper phasing or sequencing will require the Contractor to repair or replace sections of earthwork at the Contractor’s expense. The Contractor shall schedule and implement the following stabilization measures during the course of the project:
4. Daily Stabilization. At the end of each working day, the Contractor shall stabilize disturbed areas by surface roughening, vertical tracking, or a combination thereof. Disturbed areas are locations where actions have been taken to alter the existing vegetation or underlying soil of a site, such as clearing, grading, roadbed preparation, soil compaction, and movement and stockpiling of sediment and materials. Designated topsoil distributed on the surface or in stockpiles shall not receive daily stabilization. Other stabilization measures may be implemented, as approved. The maximum area of daily stabilization (excluding areas of designated topsoil) shall not exceed 20 acres.
5. Temporary Stabilization. Temporary stabilization shall be implemented for earth disturbing activities on any portion of the site where construction activities associated with water quality have permanently or temporarily ceased for more than 14 calendar days. These areas shall be stabilized using one or more of the following methods:
6. Application of 1.5 tons per acre of mechanically crimped certified weed free hay or straw in combination with an approved organic mulch tackifier.
7. Placement of bonded fiber matrix per Section 213.
8. Placement of mulching (hydraulic) wood cellulose fiber mulch with tackifier, per Section 213.
9. Application of spray-on mulch blanket per Section 213. Magnesium Chloride, Potassium Chloride, and Sodium Chloride or other salt products shall not be used as a stabilization method.
10. Topsoil stockpiles shall receive temporary stabilization unless specified per Section 207 as a different material than the other disturbed areas on-site.
11. Summer and Winter Stabilization. Summer and winter stabilization is defined as stabilization during months when seeding is not permitted. As soon as the Contractor knows shutdown is to occur, temporary stabilization shall be applied to the disturbed area. Protection of the temporary stabilization method is required. Reapplication of temporary stabilization may be required as directed.
12. Permanent Stabilization. Permanent stabilization is defined as the covering of disturbed areas with topsoil, seeding, mulching with tackifier, soil retention coverings, and such non-erodible methods as riprap, road shouldering, etc., or a combination as required by the Contract. Other permanent stabilization techniques may be proposed by the Contractor, in writing, and shall be used if approved in writing by the Engineer. Permanent stabilization requirements shown on the plans shall be completed within four working days of the placement of the topsoil per Section 207.
13. Final Stabilization. Final stabilization is achieved when all ground-disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of predisturbance levels, or equivalent permanent physical erosion reduction methods have been employed.
14. *Maintenance*.

**Second Paragraph:**

Maintenance of erosion and sediment control devices shall include replacement of such devices upon the end of their useful service life as recommended by the Contractor and approved by the Engineer. Maintenance of rock check dams and vehicle tracking pads shall be limited to removal and disposal of sediment or addition of aggregate. Damages resulting from failure to maintain control measures shall be repaired at the Contractor’s expense.

**Third paragraph:**

Complete site assessment shall be performed as part of comprehensive inspection and maintenance procedures to assess the adequacy of control measures at the site and the necessity of changes to those control measures to ensure continued effective performance. Where site assessment results in the determination that new or replacement control measures are necessary, the control measures shall be installed to ensure continuous effectiveness. When identified, control measures shall be maintained, added, modified or replaced per 208.03(c)2.D.

**Revise 208.05 (e), (g), (l), ((n), (o), and (q) as follows:**

**208.05 Construction of Control Measures.** Control measures shall be constructed per Standard Plans M-208-1 and M-216-1, and with the following:

1. *Temporary Diversion*. Diversions shall be constructed to the dimensions shown in the Contract and graded to drain to a designated outlet. The berm shall be sufficiently compacted to prevent erosion or failure. If the diversion erodes or fails, it shall be repaired or replaced upon observation at the Contractor's expense.
2. *Silt Berm*. Before installation of silt berms, the Contractor shall prepare the surface of the areas where the berms are to be installed such that they are free of materials greater than 2 inches in diameter and are suitably smooth for the installation of the silt berms, as approved. Silt berms shall be secured with spikes. The Contractor shall install the silt berm in a manner that will prevent water from going around or under the silt berm. Silt berms shall be installed on top of soil retention blanket or turf reinforcement mat.

the trap and shall be disposed of per subsection 208.04(f).

1. *Erosion Logs*. Erosion logs, also known as sediment control logs, shall be embedded 2 inches into the soil. Stakes shall be embedded so that the top of the stake does not extend past the top of the erosion log more than 2 inches, at the discretion of the Engineer, a shallower stake depth may be permitted if adverse site conditions are encountered, such as rock or frozen ground.

The Contractor shall maintain the erosion logs during construction to prevent sediment from passing over or under the logs.

1. *Concrete Washout Structure*. The concrete washout structure shall meet or exceed the dimensions shown on the plans. Work on this structure shall not begin until the Engineer provides written acceptance of location.

Implement control measures designed for concrete and masonry washout waste. If the bottom of the excavated structure is within 5 feet of anticipated high ground water elevation or the soil does not have adequate buffering capacity to meet water quality standards, an impermeable synthetic liner shall be installed with the minimum properties shown in Table 208-8 or use a prefabricated washout.

Meet the following requirements:

1. The structure shall contain all washout water.
2. Stormwater shall not carry wastes from washout and disposal locations.
3. The structure shall be located a minimum of 50 horizontal feet away from state waters and shall meet all requirements for containment and disposal as defined in subsection 107.25.
4. The structure shall be signed as “Concrete Washout.”
5. The structure shall be accessible to appropriate vehicles.
6. Freeboard capacity shall be included in the structure design to reasonably ensure the structure will not overtop during or because of a precipitation event.
7. The Contractor shall prevent tracking of washout material out of the washout structure.
8. Do not add soaps, solvents, detergents, flocculants, and acid to wash water.
9. Surround the structure on three sides by a compacted berm.
10. The structure shall be fenced with orange plastic construction fencing to provide a barrier to construction equipment and to aid in identification of the concrete washout structure.
11. Concrete and masonry waste, liquid and solid, shall not exceed 2/3 the storage capacity of the washout structure.

*(o) Prefabricated concrete washout structures (Type 1 and Type 2).* Structures and sites shall meet the following requirements:

1. Structure shall contain concrete and masonry washout water. If bins are determined to be leaking, the Contractor shall replace the bin onsite and clean up the spilled material.
2. Structure shall be located a minimum of 50 horizontal feet away from state waters and shall be confined so that no potential pollutants will enter state waters and other sensitive areas as defined in the Contract. Locations shall be as approved by the Engineer. Sign the prefabricated structure as “Concrete Washout”. Sign can be on portable bin.
3. The structure shall be accessible to appropriate vehicles.
4. Washout bins shall be covered with a tarp tied down to the structure or staked to the ground when a storm event is anticipated.
5. Do not add soaps, solvents, detergents, flocculants, and acid to wash water.
6. Concrete and masonry waste, liquid and solid, shall not exceed ⅔ the storage capacity of the washout structure.
7. Do not move prefabricated structures when they contain liquid, unless otherwise approved.
8. The concrete washout structure shall be installed and ready for use before concrete placement operations.
9. Check and maintain washout areas as required. Do not allow on-site permanent disposal of concrete washout waste.
10. All liquid and solid wastes, including contaminated sediment and soils generated from concrete washout shall be hauled away from the site and disposed of properly at the Contractor's expense.
11. Delivery to the site shall not occur until written acceptance is provided by the Engineer for both the product and the concrete waste disposal facility.

*(q) Detention Pond*. Permanent detention ponds shown on the plans may be used as temporary control measures if the following conditions are met:

1. The pond is designated as a construction control measure in the SWMP.
2. The pond outfall and outlet are designed and implemented for use as a control measure during construction per good engineering, hydrologic, and pollution control practices. The stormwater discharges from the outfall shall not cause degradation or pollution of state waters and shall have control measures as appropriate.
3. All silt shall be removed, and the pond returned to the design grade and contour, before project acceptance.

**Add 208.05 (u), as follows:**

*(u)* *Topographical (Landform) Controls*. Topographical controls consist of existing or created landforms that minimize sediment from entering or leaving the areas of disturbance. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion and withdraw water from or near the surface.

**Revise 208.06 as follows:**

**208.06 Materials Handling and Spill Prevention.** The SWMP Administrator shall clearly describe and record on the SWMP, all practices implemented at the site to minimize impacts from procedures or significant material that could contribute pollutants to runoff. Areas or procedures where potential spills can occur shall have a Spill Response Plan in place as specified in subsections 107.25(b) or 208.06(c). Any spilled materials shall be cleaned using dry cleanup methods. Construction equipment, fuels, lubricants, and other petroleum distillates shall not be stored or stockpiled within 50 horizontal feet of any state waters or more if the Contractor determines necessary. Equipment fueling and servicing shall occur only within approved designated areas.

1. *Bulk Storage Structures*. Bulk storage structures for petroleum products and other chemicals shall have impervious secondary containment or equivalent adequate protection to contain all spills and prevent any spilled material from entering state waters. Secondary containment shall be capable of containing the combined volume of all the storage containers plus at least 10 percent freeboard. For secondary containment that is used and may result in accumulation of stormwater within the containment, a plan shall be implemented to properly manage and dispose of all accumulated stormwater deemed to be contaminated (has an unusual odor or sheen).
2. *Lubricant Leaks*. The Contractor shall inspect equipment, vehicles, and repair areas daily to ensure petroleum, oils, and lubricants (POL) are not leaking onto the soil or pavement. Absorbent material or containers approved by the Engineer shall be used to prevent leaking POL from reaching the soil or pavement. The Contractor shall have onsite approved absorbent material or containers of sufficient capacity to contain any POL leak that can reasonably be foreseen. The Contractor shall inform Spill Response Coordinators per the Spill Response Plan if unforeseen leakage is encountered. All materials resulting from POL leakage control and cleanup shall become the property of the Contractor and shall be removed from the site. Control, cleanup, and removal of by-products resulting from POL leaks shall be performed at the Contractor's expense.
3. *Spill Response Plan*. A Spill Response Plan shall be developed and implemented to establish operating procedures for handling potential pollutants and preventing spills.

The Response Plan shall contain the following information:

1. Identification and contact information of each Spill Response Coordinator.
2. Locations of areas on the project site where equipment fueling and servicing operations are permitted.
3. Location of clean-up kits.
4. Quantities of chemicals and locations stored on-site.
5. Label system for chemicals and Safety Data Sheets (SDS) for products.
6. Clean-up procedures to be implemented in the event of a spill that does not enter state waters or ground water.
7. Procedures for spills of any size that enter surface waters or ground water or have the potential to do so.
8. A summary of the employee training provided.

Information in items (1) through (8) shall be updated in the SWMP when they change.

1. *Equipment Washing.* When washing applicators and containers used for paint, form release oils, curing compounds, or other similar construction materials, the wash water must be directed into a leak-proof container. Liquid and hardened wastes shall be removed from the site and disposed of properly.

**Revise 208.07, first paragraph, as follows:**

**208.07 Stockpile Management.** Material stockpiles shall be located 50 horizontal feet away from state waters and shall be confined so that no potential pollutants will enter state waters and other sensitive areas as defined in the Contract. Locations shall be approved by the Engineer.

**Revise 208.08 as follows:**

**208.08 Limits of Disturbed Area (LDA).** The Contractor shall limit construction activities to those areas within the LDA shown on the plans and cross-sections. Construction activities, in addition to the Contract work, shall include the on-site parking of vehicles or equipment, on-site staging, on-site batch plants, haul roads or work access, and all other activities that would disturb existing soil conditions. Staging areas within the LDA shall be as approved by the Engineer. Construction activities beyond the LDA due to Contractor negligence shall be restored to the original condition by the Contractor at the Contractor’s expense. The SWMP Administrator shall tabulate additional disturbances not identified in the CDPS-SCP application and indicate changes to locations and quantities on the SWMP. The Contractor shall report the changes and additional disturbances to the Engineer, CDPHE-WQCD, and all other involved agencies.

The Contractor shall pursue stabilization of all disturbances to completion.

**Revise 208.09 as follows:**

**208.09 Regulatory Mechanism for Water Quality** The Department will identify and document findings not in compliance with the Water Quality Specifications, as specified in subsection 208.09(a)7, during MARs. The Engineer will immediately notify the Contractor of these findings by issuing Form 105, which will be tracked in ESCAN/CARL software. Failure by the Contractor to clarify a finding location with the Engineer shall not interrupt the timelines noted in subsection 208.09(b).

Timelines noted in subsection 208.09(b) do not indemnify the Contractor from failing to comply with CDPS-SCP timelines for corrective actions. Corrective actions must be addressed in accordance with subsection 208.03(c).

1. *Definitions*.
2. Compliance Assistance. A low-risk event as determined by the Region Water Pollution Control Manager (RWPCM). Compliance assistance events are not considered Findings and not subject to the Regulatory Mechanism noted in subsection 208.09(b).
3. Deferment. A request from the Contractor to the Engineer to delay implementation of corrective actions for Regular Findings pertaining to Water Quality Specifications. Deferments may only be granted due to extraordinary circumstances. However, it is at the Department’s discretion to approve or reject these requests.
4. Finding. An incident discovered through a MAR , which is noncompliant with the Water Quality Specifications. A Finding will be classified as one of the following:
5. Regular Finding. A situation upon inspection that is in noncompliance with the Water Quality Specifications.
6. Severe Finding. A discharge outside the project’s Limits of Construction (LOC), subsection 107.25(a), to state waters or to a live inlet where the pollutant cannot be reclaimed.
7. Chronic Finding. A Chronic Finding is assessed when the same Regular Finding at the same location is documented twice in the last three MARs. Engineer observed findings outside these MARs will not apply.
8. Inspection Form 105. The Form 105 issued by the Engineer documenting findings from the MAR.

**Revise 208.09 (b) Liquidated Damages and Stop Work Orders***,* **2. A. and B., as follows:**

1. Severe Finding. In response to a Severe Finding, the Engineer will issue Inspection Form 105 and immediately assess Liquidated Damages of $3,500 per Severe Finding. Severe Findings shall not be eligible for the seven-day grace period (subsection 208.09(b)1). Liquidated damages will accrue at $3,500 per Severe Finding per calendar day beginning at 11:59 PM of day the Inspection Form 105 is issued.
2. If the Severe Finding is a discharge to state waters, the Contractor shall prevent any further discharge and shall reclaim discharge that has not yet entered state waters. The Contractor shall report the discharge to CDPHE-WQCD per CDPS-SCP requirements.
3. If the Severe Finding is a discharge outside the LOC that does not enter state waters, the Contractor shall fully reclaim the discharge before it enters state waters and implement relevant CDPS-SCP noncompliance notification procedures.

**Revise 208.09 (e) 1., 2., 3., and 4. as follows:**

1. *Exemptions*. The Engineer will exempt from subsection 208.09(b) situations of Compliance Assistance, Documented Upset Conditions, Documented Reportable Spills and Documented Winter Exemptions. Release from subsection 208.09(b) does not exempt the Contractor from compliance with the CDPS-SCP.
2. Documented Upset Condition. The Contractor shall report, both verbally and in writing, the Upset Condition to CDPHE-WQCD per CDPS-SCP Part II.N and subsection 208.03(c) and provide written documentation to the Engineer. The Engineer will issue a Form 105 and recognize the exemption to the Regulatory Mechanism. The Contractor shall also update the SWMP with the Form 105 and the documented Upset Condition.
3. Documented Reportable Spills. The Contractor shall report, both verbally and in writing, the Reportable Spill to CDPHE-WQCD per subsection 107.25(b) and provide written documentation to the Engineer. The Engineer will issue a Form 105 and recognize the exemption to the Regulatory Mechanism. The Contractor shall also update the SWMP with the Form 105 and the documented Reportable Spill.
4. Winter Exemptions. The Contractor is unable to address findings noted on the MAR due to:
5. Snow covers the entire site for an extended period,
6. No construction activity, and
7. Melting conditions posing a risk of surface erosion do not exist.

The Contractor shall request a Winter Exemption to the Department. If approved, the Engineer will issue a Form 105 and recognize the exemption to subsection 208.09(b). The Contractor shall also update the SWMP with the Form 105 and the documented Winter Exemption. Liquidated Damages, if assessed, will only accrue up to the point where the Winter Exemptions are approved.

1. Compliance assistance during MARs. The RWPCM will record compliance assistance in ESCAN/CARL software.

**Revise 208.10 (c), second paragraph, as follows:**

1. *Locations of Temporary Control Measures*. The Engineer will identify locations where modification, cleaning, or removal of temporary control measures are required and will provide these in writing to the Contractor. Upon completion of work required, the SWMP Administrator shall modify the SWMP to provide an accurate depiction of control measures to remain on the project site.

Complete and approve all punch list and walkthrough items by the Engineer and CDOT Maintenance.

**Revise 208.11 first paragraph, as follows:**

1. Erosion Control Management will be measured as the actual number of days of ECM work performed, regardless of the number of personnel required for SWMP Administration and Form 1176 Inspection, including Form 1176 Inspections, documentation, meeting participation, SWMP Administration, and the preparation of the SWMP. If the combined hours of SWMP Administration and Form 1176 Inspection is four hours or less in a day, the work will be measured as a half day. If the combined hours of SWMP Administration and Form 1176 Inspection is more than four hours in a day, the work will be measured as one day. Pay the total combined hours of ECM work exceeding eight hours in a day as one day.

**Revise 208.12, in the details under the Pay Item table, as follows:**

**First paragraph:**

Payment for Erosion Control Management (ECM) will be full compensation for all labor, materials and equipment necessary for the SWMP Administrator and Erosion Control Inspectors to perform all the work described in this specification. This includes assembling Tabs 5 to 18 in subsection 208.03(d)1 and required updates to the SWMP.

**Fourth paragraph:**

Surface roughening and vertical tracking (daily stabilization) will not be measured and paid for separately but shall be included in the work. Payment for each control measure item will be full compensation for all work and materials required to furnish, install, maintain, and remove the control measure when directed.

**Ninth paragraph:**

Spray-on mulch blankets required by the Contract, including those used in both temporary and final stabilization, will be measured and paid for per Section 213.

**Revise Section 213 of the Standard Specifications as follows:**

**Revise 213.01, in the second paragraph as follows:**

1. This work consists of mulching the seeded areas, furnishing and placing wood chip mulch in the planting beds and plant saucers, furnishing and applying hydromulch with tackifier on roadway ditches and slopes, furnishing and placing tackifier on mulch or soil on roadway ditches or slopes, and furnishing and installing metal landscape border for the separation of planting beds, per the Contract or as directed. Mulching may be accomplished by the crimping method using straw or hay, by the hydraulic method using wood cellulose fiber mulch, or by other approved methods with approved materials. When a specific mulching method is required, it will be designated in the Contract.

This work includes furnishing and applying spray-on mulch blanket or bonded fiber matrix on top of rock cuts and slopes after seeding or as daily stabilization as shown on the plans or as directed by the Engineer.

**Revise Section 216 of the Standard Specifications as follows:**

**Revise 216.01 as follows:**

1. This work consists of furnishing, preparing, applying, placing, and securing soil retention blankets and turf reinforcement mats (TRM) for erosion control on roadway slopes or channels as designated in the Contract.

**Revise 216.02 first paragraph, as follows:**

1. Soil retention covering shall be either a soil retention blanket or a TRM as specified in the Contract. It shall be one of the products listed on CDOT’s Approved Products List and shall conform to the following:

**Revise 216.04, under Slope Application, fifth paragraph, as follows:**

**Slope Application.**  Soil retention coverings shall be installed on slopes as follows:

The upslope end shall be buried in a trench 3 feet beyond the crest of the slope if possible. Trench depth shall be a minimum of 6 inches unless required by the manufacture to be deeper. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over trench and secured with staples or earth anchors at 1 foot on center.

There shall be an overlap wherever one roll of fabric ends, and another begins, with the uphill covering placed on top of the downhill covering. Staples shall be installed in the overlap.

There shall be an overlap wherever two widths of covering are applied side by side. Staples shall be installed in the overlap.

Staple checks shall be installed on the slope length at a maximum of every 35 feet. Each staple check shall consist of two rows of staggered staples.

The down slope end shall be buried in a trench 3 feet beyond the toe of slope. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over the trench and secured with staples or earth anchors. If a slope runs into state waters or cannot be extended 3 feet beyond the toe of slope, the end of covering shall be secured using a staple check as described above.