



REVISED:
May 21, 2007

FEE: _____

Plan No. _____

Date Received. _____

**TOWN OF FORT MILL, SOUTH CAROLINA
STORMWATER MANAGEMENT/SEDIMENT CONTROL PLAN
LAND DISTURBANCE PERMIT APPLICATION FORM
TWO (2) ACRES OR MORE (TYPE II)**

Submission of this application constitutes notice that the party identified in Section 2 of this form intends to be authorized by a NPDES permit for storm water discharges associated with construction activity in the Town of Fort Mill, State of South Carolina. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit.
This Application must be submitted along with the Instruction Checklist completed (pages 5 & 6 of this form). Please reference the Checklist (page 4) for instructions on completing this application. All Plan Submittals submitted after 2:00 P.M. will be logged in for the following business day. Upon approval of plan by Fort Mill, a copy of this NOI application form, along with a separate non-refundable \$125 check made payable to SCDHEC will be forwarded for SCDHEC review. This \$125 fee is in addition to any review fees as set by the Town Council. Once all required items are received the permit will be processed (first by the Town and then by SCDHEC) and the applicant will be mailed a Permit, if approved.

Section 1 – Administrative Information:

Today's Date: _____ Tax Map _____

1. Facility or project name: _____

County: _____

City/Town: _____

Location, Street or Road (also show on plans): _____ Flood Plain: Yes No

Latitude: _____ Longitude: _____ USGS Quad Name: _____

2. Nearest receiving water body: _____ Distance to nearest receiving water body:: _____

Ultimate receiving water body: _____

Section 2: Numbers 3 through 5 must be completely filled out or plan submittal will be returned.

3. Property owner of record: _____

Street Address: _____ City: _____ State: _____ Zip: _____

Email Address: _____

Phone No. (Day): _____ Ext. _____ Mobile/Night No. _____ Fax No. _____

4. Person financially responsible for the land disturbing activity: _____

Street Address: _____ City: _____ State: _____ Zip: _____

Email Address: _____

Phone No. (Day): _____ Ext. _____ Mobile/Night No. _____ Fax No. _____

5. Agent or day-to-day contact: _____

Street Address: _____ City: _____ State: _____ Zip: _____

Email Address: _____

Phone No. (Day): _____ Ext. _____ Mobile/Night No. _____ Fax No. _____

6. Name of Engineering firm: _____

Engineer name: _____

Street Address: _____ City: _____ State: _____ Zip: _____

Email Address: _____

Phone No. (Day): _____ Ext. _____ Mobile/Night No. _____ Fax No. _____

7. Grading contractor company name: _____

Contractor name: _____

Street Address: _____ City: _____ State: _____ Zip: _____

Email Address: _____

Phone No. (Day): _____ Ext. _____ Mobile/Night No. _____ Fax No. _____

Section 3:

8. Property size, total (acres): _____ Surface area disturbed (acres):

9. SIC Code (SIC code only required for sites disturbing more than 5 acres or more – See instruction sheet for codes):

Is this site located on Indian lands? (For sites disturbing more than 5 acres):

10. Type Of Project (Please check type of activity):

a. ___ Federal ___ State ___ Local

b. ___ Single Family Subdivision ___ Commercial ___ Industrial ___ Institutional ___ Residential

___ Construction Drawing Amendment

11. Start date: _____ Completion date: _____

12. Is there any fresh water wetlands located on the property?: _____

If yes, have the wetlands been delineated?: _____

Town of Fort Mill Type II Land Disturbance Permit Fee Schedule

Please print or type. Do not send payment in window envelope. DO NOT MAIL CASH. This schedule should be attached to the Land Disturbance Permit Form. The Director will notify the Project Owner/Operator if the submitted check payment cannot be processed. The review clock will start when acceptable payment is received.

1. Total Required Fees \$ _____.00
Fees have been set by Town Council. Refer to Town's Fee Schedule for Land Disturbance Activities disturbing more than 2 acres.

Payment by Check:

If paying by check, fill out information and attach check below. Make sure check is signed and is not past its presentment date. Make sure the check is for the entire amount of required fees.

STAPLE CHECK HERE

Make check payable to: Town of Fort Mill

For official use only: Invoice Number _____ - _

Section 5:

(FOR INTERNAL USE ONLY)

Facility/Project Name: _____

Tax Map No. _____ Plan No. _____

Will As Built Certification by a registered professional responsible? ___ Yes ___ No:
(To be specified by reviewer)

REPORT OF PLAN REVIEW

- ◇ **STORMWATER MANGEMENT & SEDIMENT CONTROL PLANS SUBMITTED FOR SAID PROJECT MEET REQUIREMENTS OF TOWN OF FORT MILL STORMWATER MANAGEMENT ORDINANCE NO. 2007-05, AND S.C. REGULATION NO. 72-300, AND ARE HEREBY APPROVED. I HEREBY CERTIFY THAT I HAVE THOROUGHLY REVIEWED THE APPLICATION, PLANS, AND SUPPORTING DOCUMENTS AND FOUND THEM TO BE IN COMPLIANCE WITH THE LETTER AND THE INTENT OF THE LAW. THIS STAMP OF APPROVAL ON THE PLANS IS SOLELY AN ACKNOWLEDGEMENT OF SATISFACTORY COMPLIANCE WITH THE REQUIREMENTS OF THESE REGULATIONS. THE APPROVAL STAMP DOES NOT CONSTITUTE A REPRESENTATION OR WARRANTY TO THE APPLICANT OR ANY OTHER PERSON CONCERNING THE SAFETY APPROPRIATENESS OR EFFECTIVENESS OF ANY PROVISIONS, OR OF OMISSIONS FROM THE STORMWATER AND SEDIMENT PLAN. I HAVE STAMPED FIVE SETS OF PLANS APPROVED. I HAVE FILED ONE SET AND DISTRIBUTED ONE SET WITH THE INSPECTION AUTHORITY.**

- ◇ **SEDIMENT CONTROL PLANS SUBMITTED FOR SAID PROJECT MEET REQUIREMENTS OF TOWN OF FORT MILL STORMWATER MANAGEMENT ORDINANCE NO. 2007-05. CONDITIONAL APPROVAL IS GIVEN THIS PLAN, SUBJECT TO MEETING REQUIREMENTS OF TOWN OF FORT MILL STORMWATER MANAGEMENT ORDINANCE NO. 2007-05 AND S.C. REGULATION NO. 72-300 BY THIS DATE**

- ◇ **STORMWATER MANAGEMENT AND SEDIMENT CONTROL PLANS SUBMITTED FOR SAID PROJECT DO NOT MEET MINIMUM REQUIREMENTS OF THE TOWN OF FORT MILL OR SOUTH CAROLINA BECAUSE OF THE BELOW LISTED OMISSIONS OR DEVIATIONS FROM STATUTES OR DESIGN CRITERIA.**

Copies:

- ___ Codes
- ___ Engineer
- ___ Planning
- ___ Road
- ___ DHEC
- ___ Other

Notes:

- ___ Subdivision
- ___ As-Built
- ___ Pond
- ___ Tract
- ___ Floodplain
- ___ Other

Files:

- ___ Permanent
- ___ Temporary
- ___ Inspector
- ___ Permit Dept.
- ___ Book Copy

Plan Reviewer Signature

Date

Section 6:

*** REMINDER TO APPLICANT**

PERMIT WILL BE ISSUED TO OWNER/PERSON FINANCIALLY RESPONSIBLE AND/OR DESIGN PROFESSIONAL. UPON ISSUANCE, PLEASE DISTRIBUTE COPIES OF THE APPROVED PLANS TO THE FOLLOWING INDIVIDUALS. PLEASE HAVE A COPY OF THE APPROVED PLANS WITH APPROVAL STAMP ON SITE AT ALL TIMES.

1. OWNER/PERSON FINANCIALLY RESPONSIBLE
2. DESIGN PROFESSIONAL
3. CONTRACTOR

**INSTRUCTIONS FOR COMPLETING FORM
LAND DISTURBING ACTIVITIES IN TOWN OF FORT MILL, SOUTH CAROLINA
Two (2) Acres or Over**

Who must file an Application Form for disturbing two acres or over?

Any public (federal, state, local) private, industrial, commercial and /or residential subdivision project that will be engaging in any land disturbing activity that disturbs an area of two (2) acres or more in size, must file an Application Form along with Five (5) Concept site plans to obtain a Grading Permit.

ALL PLANS MUST BE FOLDED & STAPLED IN SETS. (Size: No larger than 24"x 36")

Plans that are submitted after 2:00 P.M. will be logged in the next business day.

Where to file:

Town of Fort Mill Stormwater Management
Attn: Stormwater Manager
Town of Fort Mill
P.O. Box 159
Fort Mill, SC 29715

Completing the Application: Type or Print ALL Information in Sections 1-4:
(Plans have to be prepared by a licensed professional.)

1. Enter the name of the project or facility where the land disturbing activity will be taking place. List the county and name of the city/town if applicable. Enter the location of the activity and the tax map number of the tract of land.
2. Enter the names of the water bodies.
- 3.-7. Enter the Complete Company Name, Contact Name(s), Street Address, Email Address, Office/Day Phone, Mobile and Fax Numbers.
8. Enter the total area of the project in acres. Enter the total area that will be disturbed in acres.
9. List the Standard Industrial Classification (SIC) code as needed. Enter yes or no if located on Indian lands. (This is only needed for sites disturbing 5 acres or greater.)

SIC CODES:

15 GENERAL BUILDING CONTRACTORS

1521 Single-family housing construction
1522 Residential construction, nec.
1531 Operative builders
1541 Industrial buildings and warehouses
1542 Nonresidential construction, nec.

16 HEAVY CONSTRUCTION

1611 Highway and street construction
1622 Bridge, tunnel, & elevated highway
1623 Water, sewer, and utility lines
1629 Heavy construction, nec.

17 SPECIAL TRADE CONTRACTORS

1794 Excavation work
1795 Wrecking and demolition work

10. Check the appropriate type project.
11. Enter the anticipated start and completion dates for the project.
12. Enter yes or no, as appropriate. If yes, delineation must be included on the plans.
- 13.-15. Read the certification. Have appropriate person(s) sign and date the certification.
***Report of plan Review is for internal use only by plan reviewer. ***

**TOWN OF FORT MILL, SOUTH CAROLINA
STORMWATER MANAGEMENT/SEDIMENT CONTROL CHECKLIST
DISTURBING TWO (2) ACRES OR MORE**

(The Provisions of all required information is not a guarantee of approval. The approving authority may reasonably require supplemental reports, data, and additional information. Please initial and indicate the location and page number where each item can be found in your SWPPP and or supporting calculations.)

The Applicant must include the following information (on the plan or in the narrative) in The Submittal Package. If we do not have the correct information upon submittal, we cannot process your package and it will be returned.

PLAN SUBMITTAL PACKAGE MUST INCLUDE:

___ Application Form, Sediment Control Checklist (which is this Form) and **Five (5)** Site Plans Folded & Stapled in Sets for the Concept, (Size: 24"x36" max) including supporting documentation (reports, calculations, maps, etc.)

Information that must be included on the application:

➤ **Section 1:**

___ Date, Tax Map No., and Numbers 1 & 2 completed.

➤ **Section 2:**

___ Property owner name, street, address, email address, office, mobile, and fax phone number.

___ Name of person financially responsible for land disturbance, street address, email address, office, mobile, and fax phone number.

___ Name of contact person, street address, email address, office, mobile, and fax phone number.

___ Name of engineer firm, street address, email address, office, mobile, and fax phone number.

___ Name of contractor, street address, email address, office, mobile, and fax phone number.

➤ **Section 3:**

___ Numbers 8 thru 12 are completed.

➤ **Section 4:**

___ Numbers 13 thru 16 **Signed** and have **Original Signatures Only** along with the Date.

Checklist Completed by:

Printed Name _____ Signature: _____ Date: _____

Supporting documentation should include the following reports, calculations, maps, etc. Please indicate location and page number of each requested item. If an item is not applicable, put N/A:

1) LOCATION MAP

- a) ___ North arrow and scale
- b) ___ Outlined project location
- c) ___ Labeled road names

2) PROJECT NARRATIVE

- a) ___ Scope of project outlined, including a brief description of pre- and post-development conditions
- b) ___ Summary table of pre- and post-development flows (at least 2- and 10-year, 24-hour storm events)
- c) ___ Existing flooding problems in the surrounding area described
- d) ___ Disturbed area calculations included for subdivision projects or LCP disturbing 1 or more acres

(1) For subdivisions if the site is not to be mass-graded, the following formula should be used to determine the amount of disturbance:

$$\text{Amount of Disturbance} = 2[\text{Max Restricted Building Size}][\text{Number of Lots}] + \text{Right of Way (ROW) areas} \quad \{\text{ROW areas include clearing for roads, utilities, easements etc.}\}$$

(2) If this equation is used, include a note on the **plans** stating: "The site is not to be mass-graded. Only 2 times the footprint is to be cleared as the lots are developed. The assumed disturbance on each lot is _____ sq. ft."

3) USGS TOPOGRAPHIC MAP

- a) _____ Project boundary outlined
- b) _____ Route of runoff from site to nearest waterbody shown
- c) _____ Road names adjacent to site labeled

4) SOILS INFORMATION

- a) _____ Project boundary outlined
- b) _____ Predominate soil types found at the site identified on the plans or on a separate map
 - (1) *Note: Soils information is available from the Natural Resource Conservation Service through their website: <http://websoilsurvey.nrcs.usda.gov/app/>*

5) FLOODWAY MAPS/FEMA FLOOD INSURANCE MAP

- a) _____ Project boundary outlined, if in close proximity to floodplain/ floodway

6) WATERS OF THE STATE, INCLUDING WETLANDS

- a) _____ Delineation of all waters of the State (WoS), including wetlands, shown and labeled on plans (delineation not required if a 100-ft undisturbed buffer can be maintained between the WoS and all land-disturbing activities)
- b) _____ Additional, separate plan sheet that shows all WoS on the site and the impacted areas with a description of the activity(s), whether it is permanent or temporary, and any other relevant information.
- c) _____ If impacts to WoS, outlined areas of impacts and labeled that no work can begin in this area until all necessary USACOE permits and SCDHEC 401 certifications have been obtained.
- d) _____ Double row of silt fence provided in all areas where a 50' undisturbed buffer cannot be maintained between the disturbed area and the WoS
- e) _____ Minimum 10' maintenance buffer provided between last row of silt fence and WoS; or, if buffer not provided, then statement from P.E. on plans indicating how silt fence will be installed and maintained without impacts to WoS
- f) _____ *Note: If there are proposed impacts to WoS, then it is advised that you contact USACOE (866-329-8187) and/or S.C. DHEC Water Quality Certification, Standards & Wetlands Programs Section (803-898-4300) to determine additional requirements before submitting the Notice of Intent (NOI).*
- g) _____ *Note: If WoS are to be impacted, work cannot be performed in these designated areas until all necessary permits have been acquired*
- h) _____ *Note: If a USACOE permit is required for construction of or access to a temporary or permanent stormwater management structure, NPDES permit coverage cannot be granted until the USACOE permits and S.C. DHEC 401 Section certifications are obtained.*
- i) _____ *Note: The Department recommends a minimum 20-foot buffer between a sediment trap/basin and WoS.*

7) HYDROLOGIC ANALYSIS

- a) _____ Pre- and post-developed hydrologic analysis calculations for the 2- and 10-year, 24-hour storm events at each outfall point
- b) _____ Drainage area maps that clearly correspond to the calculations (pre- and post-development)
- c) _____ Analysis points for comparing runoff rates and the total drainage area analyzed do not change from pre- to post-development, although the immediate drainage areas contributing to each analysis point might shift.
- d) _____ Post-development discharges less than pre-development discharges for each outfall point (if not, then see "Detention Waiver" section below)
- e) _____ Analysis performed using SCS 24-hour storm (Rational method is not acceptable)
- f) _____ Rainfall data from [South Carolina DHEC Storm Water Management BMP Handbook](#) (BMP Handbook) used in all calculations
 - i) *Note: The curve number for open water, marshes, etc. should be 98 to 100.*

8) DETENTION ANALYSIS/DESIGN

- a) **Analysis**
 - i) _____ Pond routing using a volume-based hydrograph for the 2- and 10-year, SCS 24-hour storm event (Drain:Edge, ICPR, HEC-1, SedCAD, HYDRAFLOW, etc. perform full pond routings; TR55 does not perform a full pond routing; rational method cannot be used)
 - ii) _____ Hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications of the proposed land-disturbing activity, with and without the detention structure (results of

analysis will determine the need to modify the detention design or eliminate the detention requirement— see note 2 below)

- b) ___ Inputs and outputs from analysis program
- c) ___ Summary table of the peak inflows, peak outflows, discharge velocities, and maximum water surface elevations (WSE) for the 2- and 10-year, 24-hour storm events for each detention structure
- d) ___ Stage-storage-discharge relationship for the outlet structure of each detention structure
- e) ___ If a rating curve for the outlet structure must be generated externally from the analysis program (Drain:Edge, HEC-1, etc.), data and equations used to rate the outlet structure
- f) ___ As-built of existing detention pond if the site drains to an existing detention structure (see below)
- g) **Note: SedCAD users please refer to the [memo regarding the input of outlet structures](#).**
- h) **Note: The Department recommends using the 10% rule in performing analysis. The hydrologic analysis should be conducted for the larger drainage area, where the site in question encompasses 10% of the total drainage area. For example, if your site is 10 acres, then the hydrologic analysis should be performed at the point downstream where the contributing drainage area, including your 10-acre site, is approximately 100 acres.**

9) Design

- a) ___ Detail of outlet structure and cross-section of the dam/ berm or pond bank, including elevations and dimensions that correspond to the calculations
- b) ___ Orifice constructability considered (do not specify orifice diameters with increments of less than ¼")
- c) ___ Maximum WSE for the 10-year storm event below the emergency spillway with 0.5-ft of freeboard between maximum WSE for the 10-year storm and the emergency spillway
- d) ___ Maximum WSE for the 100-year storm event below the embankment with 0.5-ft of freeboard between maximum WSE for the 100-year storm and the embankment
- e) ___ Dewatering time calculations for the 10-year storm event (dry ponds must drain completely within 72 hours)
- f) ___ Bottom of all detention and retention ponds graded to have a slope of not less than 0.5%
- g) ___ If the pond is to be used for sediment control during construction, temporary horseshoe-shaped riprap berm in front of any low level outlets provided during construction and shown on the pond detail
- h) ___ Permanent maintenance access to all permanent detention structures (easements may be needed for structures surrounded by lots)
- i) ___ Infiltration systems designed in accordance with S.C. Reg. 72-307.C(11) [specify how items a-j have been addressed]
- j) *Note: Emergency spillways should not be built on fill slopes.*
- k) *Note: The Department recommends installation of a trash rack or other debris-screening device on all pond risers.*
- l) *Note: The Department recommends a maximum slope of 3:1 on pond embankments to allow for ease of maintenance.*
- m) *Note: The Department recommends installation of sediment forebays at each outfall into the detention/ sediment basin.*

10) AS-BUILTS

- a) ___ Provided for all previously approved detention ponds that will receive flows from new drainage areas
- b) ___ Prepared by a South Carolina Licensed Land Surveyor
- c) ___ Grades/ contours/ depths for pond
- d) ___ Elevations and dimensions of all outlet structures, including:
 - i) Pipe and orifice inverts and diameters
 - ii) Weir elevations and dimensions
 - iii) Riser dimensions and elevations
 - iv) Emergency spillway dimensions and elevations
 - v) Locations and inverts for all pipes discharging into the pond
- e) If the elevations or dimensions of the structures listed above do not match those used in the approved plans, certification statement signed by the project's Registered Engineer indicating that the pond, as built, will function within all applicable standards provided [new analysis of the pond (routing) may be necessary]
- f) *Note: As-built survey and /or analysis must be submitted and accepted by the Department before Notice of Termination (NOT) is submitted.*

11) PERMANENT STORMWATER MANAGEMENT STRUCTURE MAINTENANCE

- a) ___ Signed agreement from the responsible party accepting ownership and maintenance of the structure
- b) ___ Description of maintenance plan to be used
- c) ___ Schedule of maintenance procedures (e.g., every 6 months)

- d) ____ Detailed or manufacturer-specific maintenance items for proprietary control devices (oil-water separators, etc.), underground detention structures, exfiltration systems and non-traditional stormwater controls (constructed wetlands, bioretention, etc.)
- e) ____ Typical maintenance items to be addressed
 - i) Grass to be mowed
 - ii) Trees to be removed from within the pond and on the embankment
 - iii) Trash and sediment to be removed from inside of and around the pond outlet structure
 - iv) Orifices to be cleaned and unclogged
 - v) Outlet pipe to be cleaned, inspected, and repaired
 - vi) Sediment accumulation to be removed from pond
 - vii) Pond bottom to be regraded to provide proper drainage towards the outlet discharge point
 - viii) Energy dissipator to be cleaned and repaired
 - ix) Emergency spillway, if applicable, to be inspected and repaired
 - x) Erosion on side slopes, if present, to be addressed
- f) The Town of Fort Mill must be notified in writing of any changes in maintenance responsibility for the stormwater devices at the site (include this statement in maintenance agreement).
- g) *Note: If the entity or person with maintenance responsibility changes, then a new maintenance agreement, signed by the new person responsible for maintenance, must be provided to the Town of Fort Mill. If a new, signed maintenance agreement is not provided, then the entity/ person who signed the most recent maintenance agreement on file with the Town of Fort Mill will be considered the responsible entity.*

12) DISCHARGE POINTS

- a) ____ Storm drainage or pond outfalls carried to an existing drainage outfall such as a pipe, ditch, etc.
- b) ____ No new point discharges onto adjacent property where there was not a point discharge previously, unless written permission from the adjacent property owner is provided
- c) ____ Level spreaders, plunge pools, etc. provided when the proposed outlet is near the property line and not directed to an existing outfall, such as a creek or ditch
- d) ____ Twenty (20)-foot minimum buffer is provided between the property line and the discharge point
- e) ____ Outlets shall not discharge on fill slopes

13) DETENTION WAIVER

- a) *Note: If the 2- and 10-year, 24-hour post-developed flow rates exceed the pre-developed rates, [waivers](#) from detention may be granted in accordance with regulation 72-302(B) on a case-by-case basis*
- b) ____ Justification and a written request, including the following statement: *“the increased flows will not have a significant [adverse impact](#) on the downstream/adjacent properties”*
- c) ____ A project may be eligible for a waiver or variance of stormwater management for water quantity control if the applicant can demonstrate that:
 - i) The proposed project will have no significant adverse impact on the receiving natural waterway or downstream properties; or
 - ii) The imposition of peak control requirements for rates of stormwater runoff would aggravate downstream flooding
- d) ____ Waiver signed by the project’s Professional Engineer
- e) *Note: See note in checklist item 8 regarding the 10% rule.*

14) PERMANENT WATER QUALITY REQUIREMENTS

- a) ____ Permanent water quality addressed (all projects or LCP that disturb 5 or more acres)
 - i) Wet ponds designed to catch the first ½” of runoff from the entire area draining to the pond and release it over at least a 24-hour period
 - ii) Dry ponds designed to catch the first 1” of runoff from the entire area draining to the pond and release it over at least a 24-hour period
 - iii) For areas not draining to a pond, show how permanent water quality requirements were addressed
- b) ____ Projects disturbing less than five (5) acres must meet Section III.C.3.XIII.A of the Coastal Zone Management Program Refinements. Designs must show that the first ½ inch of runoff from the entire site or the first one (1) inch of runoff from the built upon area, whichever is greater, can be stored onsite.
- c) *Note: Waters of the U.S./State are not used for permanent water quality control (alternative means of treatment must be used if an existing pond is to be used for water quantity control).*
- d) *Note: Other non-traditional stormwater controls such as Bioretention areas, constructed wetlands, etc. may be used. Consult the SCDHEC [BMP Handbook](#) for information on the design of these devices.*
- e) *Note: Pre-fabricated or proprietary treatment devices are approved on a case-by-case basis if adequate removal efficiency can be demonstrated. Provide pollutant removal efficiency data, preferably from a third-party testing company. Type of system selected should be based on the ability to remove the pollutants of concern in that area/situation (bacteria, hydrocarbons, etc.).*

15) SEDIMENTOLOGY

- a) ___ Trapping efficiency calculations showing that all sediment basins/ traps are capable of achieving a sediment trapping efficiency of at least 80% for the 10-year, 24-hour storm event, if more than 10 disturbed acres drain to a common point (stream, lake, etc.)
- b) ___ Sediment basins provide storage for the 10-year, 24-hour storm event for disturbed conditions or 3600 ft³/acre draining to the basin, if more than 10 disturbed acres drain to a common point (stream, lake, property line, etc.)
- c) ___ Sediment traps only used for drainage areas of less than 5 acres
- d) ___ Sediment trap storage calculations, showing that 1800 ft³/total acre draining to each trap is provided below the spillway
- e) ___ If trapping efficiency calculations are required for sediment traps, then provide peak outflow, q_{po} , calculations; the 10-year, 24-hour storm event for construction conditions cannot overtop the trap's spillway
- f) ___ Sediment basins and traps designed for total area draining to them
- g) ___ Drainage area map outlining the area draining to each basin/ trap
- h) ___ Copies of figures used to determine V_{15} (SV-1) and trapping efficiency (ST-1, SB-1, SB-2), if Design Aids from BMP manual are used to determine trapping efficiencies
- i) ___ Silt fence only used in areas with drainage areas of less than ¼ acre per 100 LF of fence and not used in areas with concentrated flows
- j) ___ Clean-out stake, marked at ½ the designed sediment storage depth, provided in all sediment basins/ sediment traps
- k) *Note: Consult the [BMP Handbook](#) for information on the design of these and other devices.*
- l) *Note: The Design Aids in the [BMP Handbook](#) cannot be used to determine trapping efficiencies for structures in series. If the flow for the 10-year, 24-hour storm for construction conditions overtops the structure or the structure's spillway, then the Design Aids cannot be used. If multiple soil types are in the area draining to the structure, then the soil type with the smallest D_{15} for the appropriate depth should be used to determine the settling velocity, V_{15} ; an average D_{15} should not be used.*
- m) *Note: SedCAD users please refer to the [memo regarding the input of outlet structures](#).*

16) STABLE CHANNEL CALCULATIONS

- a) ___ All channels and diversion ditches able to handle the 10-year storm event with non-erosive velocities of less than 5 feet per second during construction (use appropriate CN for disturbed areas) and post-construction (if velocity exceeds 5 ft/s, then permanent measures to reduce the velocity to a non-erosive rate must be provided)
- b) ___ Rock check dams provided in temporary diversions
- c) ___ Installation detail for erosion control blanket (ECB) or turf reinforcement matting (TRM) if ECBs or TRMs to be used

17) INLET PROTECTION

- a) ___ Provided at all inlets
- b) ___ Hay bales not used
- c) ___ Steel posts and buried fabric shown for filter fabric inlet protection
- d) ___ Inlet protection details provided for pre-paving and after roadways have been paved
- e) *Note: The Department recommends that an inlet not have more than one (1) acre draining to it.*

18) ENERGY DISSIPATORS/ OUTLET PROTECTION

- a) ___ All outlets stabilized
- b) ___ Riprap aprons sized appropriately
- c) ___ Riprap detail shows apron dimensions and stone sizes for each pad or each pipe diameter
- d) ___ Filter fabric installed beneath all riprap

19) FILL SLOPES AND/ OR EMBANKMENTS

- a) ___ All slopes stabilized
 - b) ___ Slope drains designed in accordance with the [BMP Handbook](#)
 - c) ___ Slope drains provided where concentrated flows discharge onto a fill slope
 - d) ___ For all slopes steeper than 1.5:1, identification of stabilization practice (e.g., ECB, TRM)
- Note: Measures, in addition to grassing or hydroseeding, include synthetic or vegetative matting, diversion berms, temporary slope drains, etc.*
- Note: If retaining walls or fill slopes are to be constructed at the downstream property line, the Department recommends a 10' buffer to allow for construction and maintenance. If a 10' buffer is not provided, then provide permission from the adjacent property owner for possible land-disturbing activities on his property.*

20) UTILITY LINES

- a) ___ Limits of disturbance include areas disturbed for water and sewer line installation
- b) ___ Inlet protection provided at all existing inlets that receive flows from the disturbed areas; also add this as a note on the plans
- c) ___ For all utility lines crossing WoS, narrative and detail showing sediment and erosion control measures provided on plans
- d) ___ Note for construction entrances to be provided at all locations where construction traffic accesses a paved roadway

21) TMDL/ 303d IMPAIRED WATERBODIES

- a) ___ List the nearest S.C.DHEC Water Quality Monitoring Station (WQMS) that the site's stormwater discharges drain to and the waterbody on which it is located:
- b) ___ Qualitative and quantitative assessment (described in Section 3.4C of SCR100000), if nearest WQMS listed on the [2004 303\(d\) List of Impaired Waters](#) **and** if site's stormwater construction discharges contain the pollutant of impairment **and** if site disturbs 25 or more acres
- c) ___ Evaluation of selected BMPs if nearest WQMS listed on the [2005 303\(d\) List of Impaired Waters](#) **and** if site's stormwater construction discharges contain the pollutant of impairment **and** if site disturbs less than 25 acres
- d) ___ If [Approved TMDL](#) developed for nearest WQMS **and** if site's stormwater construction discharges contain the pollutant of impairment, showed that measures and controls on SWPPP met assumptions and requirements of TMDL (may need to contact [Watershed Manager](#) for assistance)

Note: Contact SCDHEC staff for guidance on selection of BMPs based on pollutant of impairment.

22) SITE PLANS CHECKLIST:

Note: The Department may require phased sediment and erosion control plans for large or complicated projects.

- a) ___ Location map with site outlined on first plan sheet (map should have enough detail to identify Surface Waters of the State within 1 mile of the site)
- b) ___ North arrow and scale
- c) ___ Property lines and adjacent landowners' names
- d) ___ Legend
- e) ___ Registered engineer's signed and dated seal
- f) ___ Engineering Firm's Certificate of Authorization seal
- g) ___ Existing and proposed contours for entire disturbed area
- h) ___ Limits of disturbed area
- i) ___ Locations of off-site material, waste, borrow, or construction equipment storage areas, excluding roll-off containers (*Note: Some off-site disturbed areas may require a separate application for NPDES coverage*)
- j) ___ Location and identification of any stormwater discharges associated with industrial activity (not construction)
- k) ___ Delineation of WoS, including wetlands (see checklist item 6)
- l) ___ Easements
- m) ___ Road profiles with existing and proposed ground elevations (if no contours are shown on the plans)
- n) ___ Grassing and stabilization specifications (temporary and permanent)
- o) ___ Construction sequence (implementation of all stormwater and sediment controls in the first phase of construction; ensure that basins, traps, ponds, etc. can be installed before the area draining to them is cleared and grubbed)
- p) ___ Standard notes (see following page)
- q) ___ Temporary and permanent control measures (provide details of all sediment and erosion control measures used; make sure the label or legend on the plans matches the name on the detail)
- r) *Note: Maintenance requirements for each BMP should be listed on the detail.*
- s) *Note: If details from the [BMP Handbook](#) are used, then the inspection frequency must be changed to be in accordance with the new CGP (see list of Standard notes 3 that follow).*

Standard Notes

1. If necessary, slopes, which exceed eight (8) vertical feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.
2. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below.
 - a. Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions stabilization measures must be initiated as soon as practicable.
 - b. Where construction activity on a portion of the Site is temporarily ceased, and earth-disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the Site.
3. All sediment and erosion control devices shall be inspected every seven (7) days. If site inspections identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable.
 - a. **OR**
4. All sediment and erosion control devices shall be inspected at least once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. If site inspections identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable.
5. Provide silt fence and/or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleaned, graded, and stabilized with grassing immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove any sediments before being pumped back into any waters of the State.
6. All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or offsite sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.
7. The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.
8. Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with S.C Reg. 72-300 et seq. and SCR100000.
9. Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or to divert sediment-laden water to appropriate traps or stable outlets.
10. All waters of the State (WoS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 50-foot buffer can't be maintained between the disturbed area and all WoS. A 10-foot buffer should be maintained between the last row of silt fence and all WoS.
11. Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.

I, as the Engineer, understand and have read all the instructions above and included all the information requested for this "Plan Submittal Package".

Printed Name _____ Signature _____ Date _____

Please check appropriate person: _____ Engineer _____ TIER B, Land Surveyor _____ Landscape Architect