



## § 1 DRAINAGE MASTER PLAN CHECKLIST.

Town Of Mount Pleasant  
 Department of Planning and Development  
 (843)884-1229

100 Ann Edwards Lane  
 P.O. Box 745  
 Mount Pleasant, SC 29465

**This form is to be completed by applicant or their representative and submitted with plans for projects disturbing areas greater than or equal to one acre (1 ac.).**

Project Name:			
Applicant's Name:			
Consulting Firm's Name:			
Contact Person:			
Date:		Phone:	
<p>Drainage report is to be separately bound, labeled and signed with a professional seal affixed. This form is to be completed by applicant and submitted in the report. (Only one set of construction drawings is needed for initial review.)</p>			
A. Report Requirements			
(1)	Professional Certifications.		
	a)	Owner and Inspecting Engineer Certificate	
	b)	Certificate of Design.	
	c)	Detention/retention Certificate/No Impact	
	d)	Application of Plat Improvements	
(2)	Location map - or parcel map, showing at least two main traffic corridors		
(3)	Project narrative		
	a)	brief description of pre- and post-developed site conditions	
	b)	describe any existing flooding problems in the surrounding area	
(4)	USGS 7.5 minute topographic map		
	a)	show project location	
	b)	show route of runoff from site to nearest waterbody and nearest shellfish bed, if applicable	
	c)	show any critical areas downstream	
(5)	FEMA Flood Zones. Include the following in the report:		
	a)	Identify flood zones and referenced FIRM map date and community panel number	
	b)	Building minimum first floor elevation	
	c)	Identify road elevation at lowest point	
(6)	Predominate Soil Types:		
	a)	specify soil type and the hydrological soil group	

(7)	<u>Wetlands or Waters of the State</u>	
	a)	delineate on plans
	b)	for any disturbances (i.e. fill of wetlands, creek crossings, etc.) notify the U.S. Army Corps of Engineers at 1-800-208-2054 or the SCDHEC-OCRM Federal Certification Section to see if additional permits are needed
	c)	if wetlands or water-of-the-state are to be impacted, work cannot be performed in these designated areas until all necessary federal and state permits have been acquired
(8)	Pre- and post-drainage basin comparison:	
	a)	Maps:
		Pre and Post Development Drainage basins and discharge points should be labeled in a manner consistent with the drainage model input information. Basin boundaries should be accurately shown and consistently labeled with the computer model. Depict time of concentration routes and curve numbers where applicable. The basin analysis should account for all off-site runoff.
	b)	Tabulated peak flow rates for 10, 25, 50 and 100 year 24 hour storm events
	c)	Detention/retention (BMP) analysis, when required. See also #9 below.
	d)	Pond volume calculations in 1ft increments. Total sediment and runoff storage capacity should be provided.
	e)	Pond and outfall rating table (Stage, Storage, Discharge Summary)
(9)	<u>Water Quality Requirements</u>	
	a.	Sediment basins must provide a minimum trapping efficiency of 80 percent.
	b.	Sediment basins are required when ten (10) or more disturbed acres drain to a common point
	c.	Stormwater storage should not allow the post-development discharge to exceed pre-development 2 and 10 yr 24 hour storm events.
	d.	Dry detention basins must contain a riprap berm or stone check coffer dam immediately following pond excavation.
	e.	Temporary sediment traps should be sized to handle drainage areas of five (5) acres or less and should provide a minimum storage capacity of 1800 cubic feet of storage for each contributing acre.
	f.	Provide pollutant of concern analysis if a 303(d) waterbody is impacted.
	g.	Land disturbance of five (5) acres or more must show 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 and released over a 24-hour period.
	h.	Land disturbance less than five (5) acres 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.

		Calculating and demonstrating that the stored water is released over a 24 hour period is not a requirement.	
	i.	If a project disturbs more than 25 acres and the stormwater discharges directly into an impaired (303(d)) waterbody, the Town must have assurance that stormwater runoff from the site will not cause or contribute to further degradation of the waterbody	
	j.	If a project discharges to shellfish grounds, storage volume calculations demonstrating that the first 1 ½ inches of runoff are retained onsite must be provided.	
	k.	Bridge runoff, Golf course, Mine or landfill design standards must be in compliance with DHEC OCRM requirements.	
	l.	Inlet Protection is required for all inlets that do not discharge to a sediment basin.	
(10)	Energy dissipators/outlet protection:		
	a)	all outlets should be stabilized with rip rap or approved sediment control BMP	
	b)	filter fabric is to be installed beneath all riprap	
	c)	Stable Channel Calculations: all channels and diversion ditches must be able to handle the 10 year storm event with non-erosive velocities of less than 5 feet per second	
(11)	Permanent Stormwater Management Structure Maintenance Plan		
		Water quality maintenance and responsibility agreement.	
<b>B.</b>	<b>Construction Plan Requirements</b> (All sheets must be stamped, signed and dated by a SC Licensed Professional Civil Engineer		
SHEET (1)	<b>Title Sheet.</b> Include Title, Location Map, Index, Owner Information, Inspecting professional.		
SHEET (2)	<b>Existing Condition.</b> Include 1-foot contours, trees, drainage and existing features and wetlands.		
SHEET (3)	<b>Layout Plan.</b> Include road geometry, street signs, property lines, all existing trees and detention areas.		
SHEET (4)	<b>Sediment and Erosion Control Plan.</b> (See BMP manual for standard details.)		
	a)	Construction sequence (include implementation of all stormwater and sediment controls in the first phase of construction)	
	b)	Location of all potential sources of pollution, including the locations of construction debris management areas and equipment washout areas.	
	c)	Locations of all temporary and permanent stormwater control measures	
	d)	Details for all temporary and permanent stormwater control measures	
	e)	Grassing and stabilization specifications	

	f)	Maintenance requirements (for temporary and permanent controls, grassing, etc.)	
	g)	Construction entrance/exit	
	h)	Individual lot erosion control plan (applicable to subdivisions)	
	i)	Special requirements for utility lines – address how creek crossings are to be handled.	
	j)	Existing and proposed easements.	
	k)	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.	
Note	a)	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, unless activity in that portion of the site will resume within twenty-one (21) days.	
Note	b)	All sediment and erosion control devices shall be inspected every seven (7) days or every 14 calendar days and within 24 hours of the end of a storm event of 1/2 inch or greater. Damaged or ineffective devices shall be repaired or replaced, as necessary.	
Note	c)	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.	
Note	d)	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.	
Note	e)	The contractor must take necessary action to minimize the tracking of mud onto the paved roadway construction areas. The contractor shall daily remove mud/soil from pavement, as may be required.	
Note	f)	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 provide an individual plan in accordance with SC R. 72-300 et seq. and SCR 1000000.	
Note	g)	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	
SHEET (5)	<b>Grading and Drainage Plan.</b>		
	a)	Show existing and proposed contours for each individual lot.	
	b)	Pipe Schedule and hydraulic analysis	
	c)	Pipe installation requirements	
SHEET	<b>Storm Drain Profile. Profiles for all drainage pipes to be dedicated to the</b>		

(6)	<b>Town upon completion.</b>		
	a)	Pipe profiles with 10-year hydraulic grade line.	
SHEET (7)	<b>Roadway Plan and Profile.</b>		
	a.	Street plan and three-line profiles showing existing grades or cross-section at 50-foot intervals. The plan and profile sheets should show street layout, width, curvature, signage, drainage, utilities, and sidewalks. The purpose of the three-line profile is to include lot drainage that will be accomplished along with the street development so that positive lot drainage shall occur, and shall be maintained during construction activities and thereafter.	
SHEET (8)	<b>Utility Plan</b>		
	a.	Water and sewer plan with sewer manhole inverts and water line locations.	
SHEET (9)	<b>Standard Details</b>		
	a.	Typical pavement section, road cross-section	
	b.	.Stormdrain installation requirements	
C.	<b>Fees</b>		
	a)	Water Quality Review Fee: For land disturbing activities involving <b>more than one (1) acre: \$100 per disturbed acre</b> review fee; maximum review fee not to exceed \$2000.	
D.	<b>Clearing and Grading Permit Requirements</b>		
Site Operators	a.	Contact information for all co-permittees and contractors operating at the site and their areas of operation.	
	b.	Highway Department approval. Include drainage system approval documentation.	
	c.	Documentation that all federal and state permits have been received	
Fees	a.	NPDES Inspection fees paid	
		(1) For Single Family Residences or sites less than one acre. The fee will be payable prior to the issuance of the building permit, with the submittal of a signed Certificate of Compliance as provided in Ordinance Chapter 155 Appendix B §17. This fee is established by Town Council for sites less than (1) one acre as \$25.00	
		(2) For large developments – Residential and Commercial that disturb one acre or greater. The fee will be payable prior to the issuance of a Clearing and Grading Permit. This fee is established by Town Council based upon the area of disturbed land as:  1-5 acres – \$100.00 5-10 acres – \$200.00 10+ Acres – \$400.00	