



NEW CASTLE COUNTY DEPARTMENT OF LAND USE

ENGINEERING CHECKLIST  
STORMWATER MANAGEMENT FACILITY AS-BUILT INFORMATION

Project Name:
Application Number:
Date Submitted:

Date Accepted:
Accepted By:

*For Office Use Only*

1. **Minimum Submission Information**

- Review fee, payable to New Castle County. (UDC Appendix 2)
- Two (2) copies of bound as-built package consisting of: (all originals, signed and sealed, and dated)
  - Stormwater Management Facility As-Built Information (Form)
  - All applicable individual Stormwater Construction Checklists (Form)  
(vegetative stabilization should be inspected at the time of as-built submission)
  - Plans
  - Narrative Report consisting of the following items:
    - Identification of any discrepancies from the regulations and/or approved plans and any design changes from the original design
    - CCR Inspection(s) during the construction and stabilization of the facility
    - Identification of any installation issues
    - Confirmation the drainage area to each stormwater management facility is consistent with the design
    - Revised volume and routing computations along with an evaluation of the facility, if applicable. (If necessary

modifications to the facility or outlet structure may be required)

- \_\_\_\_\_ Certification from a Delaware RLA of landscape plantings within the facility, if applicable
- \_\_\_\_\_ Outfall Data Sheet(s)

2. **Minimum Required Plan Information**

- \_\_\_\_\_ 24" x 36" Sheet
- \_\_\_\_\_ Engineering firm and address, phone number and fax number
- \_\_\_\_\_ Record subdivision name, Instrument number, and Subdivision Land Development Application number (SLD)
- \_\_\_\_\_ Name, address, phone number and fax number of maintenance corporation representative or owner
- \_\_\_\_\_ Hundred, County, State
- \_\_\_\_\_ Scale (must match design plan)
- \_\_\_\_\_ Date of Survey
- \_\_\_\_\_ Signature, seal and date of P.E. or P.L.S.
- \_\_\_\_\_ Certification as prescribed below:

I, the undersigned, hereby certify that I am a Professional Engineer / Land Surveyor registered in the State of Delaware. To the best of my knowledge and belief, I certify that the stormwater management facility, as shown on the Stormwater Management Facility As-Built Plan prepared by \_\_\_\_\_ and dated \_\_\_\_\_, is in general compliance with the latest approved Sediment and Stormwater Plan.

\_\_\_\_\_  
**Signature and Seal of Professional**

\_\_\_\_\_  
**Date**

- \_\_\_\_\_ Adjoining roads with names
- \_\_\_\_\_ Property lines
- \_\_\_\_\_ Easements
- \_\_\_\_\_ Maintenance access
- \_\_\_\_\_ Sediment disposal area per Record Plan
- \_\_\_\_\_ Contours at 1-2 foot intervals based on design plan datum
- \_\_\_\_\_ Type, size, length of pipes
- \_\_\_\_\_ Rock outlet protection with rock size
- \_\_\_\_\_ Location plan
- \_\_\_\_\_ North arrow

\_\_\_\_\_ Facility Data as prescribed below (required for each facility)

Facility Type	
Impervious Cover (ac.)	
DE State Plane Coordinates	N: W:
GPS Coordinates	Latitude: N Longitude: W
Drainage Area to Facility (ac.)*	

\* If there are BMP's in a series start with the most upstream BMP and assign the appropriate drainage area to it; proceed downstream adding only the incremental increase in drainage area at each BMP.

3. The as-built drawing shall include a complete as-built survey of the facility in plan view and, at a minimum, the following:

**Cross-Sections and Details**

- \_\_\_\_\_ Through each pipe discharge into the basin (including forebays)
- \_\_\_\_\_ Through outfall structure
- \_\_\_\_\_ Through principal spillway including outfall treatment such as stilling basins or riprap channels.
- \_\_\_\_\_ Through the emergency spillway
- \_\_\_\_\_ Two cross sections of any Bioretention facility, underground detention, sand filter, or infiltration facility.
- \_\_\_\_\_ Design storm water elevations
- \_\_\_\_\_ Type(s), size(s), length(s), and slope(s) of pipes
- \_\_\_\_\_ Weir opening size
- \_\_\_\_\_ Orifice opening size
- \_\_\_\_\_ Outlet structures type, material and applicable dimensions (see item 4). The cross-sections should include all relevant existing and design storm water elevations.
- \_\_\_\_\_ Invert elevations of all pipes
- \_\_\_\_\_ Top elevations of outlet structures and risers
- \_\_\_\_\_ Type of grate and trash rack with manufacturer's information.
- \_\_\_\_\_ Outlet protection length, width, depth, type, and size
- \_\_\_\_\_ Embankment
  - \_\_\_\_\_ Height (existing grade and top of embankment as-built)
  - \_\_\_\_\_ Top width
  - \_\_\_\_\_ Side slopes
  - \_\_\_\_\_ Cutoff trench, if applicable per design

- \_\_\_\_\_ Anti-seep collar(s)
  - \_\_\_\_\_ Emergency spillway
    - \_\_\_\_\_ Width and side slopes
    - \_\_\_\_\_ Crest elevation
    - \_\_\_\_\_ Length
    - \_\_\_\_\_ Top of berm elevation
    - \_\_\_\_\_ Type stabilization methods
  - \_\_\_\_\_ Filter media depth and supplier
  - \_\_\_\_\_ Type of geotextile
  - \_\_\_\_\_ Type, length, size of underdrain
  - \_\_\_\_\_ Type and depth of stone
  - \_\_\_\_\_ Type and depth of mulch
  - \_\_\_\_\_ Cross sections along length of Biofiltration Swale (two minimum):
    - \_\_\_\_\_ Minimum three (3) spot grades across bottom (left toe of slope, centerline, and right toe of slope), top of bank elevations
    - \_\_\_\_\_ Bottom width
    - \_\_\_\_\_ Side slopes
  - \_\_\_\_\_ Longitudinal profile of Biofiltration Swale:
    - \_\_\_\_\_ Minimum spot grades at fifty feet intervals along entire length
    - \_\_\_\_\_ Length
    - \_\_\_\_\_ Slope
  - \_\_\_\_\_ Sand Filter:
    - \_\_\_\_\_ Depth of stone
    - \_\_\_\_\_ Depth of sand
    - \_\_\_\_\_ Chamber dimensions
    - \_\_\_\_\_ Weir dimensions
    - \_\_\_\_\_ Access manhole
4. \_\_\_\_\_ Provide a detailed drawing of the outfall structure as constructed including all relevant elevations and views.
  5. \_\_\_\_\_ As required in Section 12.04.007 of the New Castle County Drainage code (June 1998), the Substantiating Data for Documentation as specified in the USDA Soil Conservation Service Pond Code 378 (September 1990 or as later revised) must also be provided.
  6. \_\_\_\_\_ The plan should include the maintenance specifications and schedule for the facility.
  7. \_\_\_\_\_ Provide details of the condition and adequacy of the vegetative stabilization of the facility.

**CERTIFICATION OF ENGINEER / LAND SURVEYOR**

**I, the undersigned, hereby certify that I am a Professional Engineer / Land Surveyor registered in the State of Delaware and it is my opinion that, to the best of my knowledge, each element of this checklist was considered and addressed in accordance with all applicable regulations, codes, standards, guidelines and policies.**

\_\_\_\_\_  
**Signature and Seal of Professional**

\_\_\_\_\_  
**Date**

Submission of this Checklist does not relieve the Applicant from the responsibility to comply with all applicable regulations, codes, standards, guidelines and policies.

The Department of Land Use reserves the right to revise this checklist periodically as the need arises.

Revised: 08/27/04, 01/25/05, 4/23/08, 10/11/11