



Town of Elkton Stormwater Pond Criteria

Proposed Stormwater Management Access, Inspection and Maintenance Standards.

1. Within residential subdivisions, all stormwater management facilities shall be located on a parcel and the parcel shall be dedication to the Town of Elkton, which shall be noted on the record plan and construction plans. All nonstructural practices shall be enclosed within an easement defined by metes and bounds, the purpose of which shall be noted on the record plan and construction plans. If any stormwater practice requires restrictions to the use of residential property, deed restrictions shall be established to protect the stormwater design. The deed must stipulate that the Town of Elkton must be consulted prior to any change of the restricted property that would materially affect stormwater management. The restriction must be listed on the record plan. A copy of all recorded instruments that effect the restriction must be provided to the Town of Elkton.

2. Within all commercial developments all stormwater management shall be privately maintained. Under the provisions of the Town of Elkton Stormwater Management Regulations (Chapter 13 of the Elkton Charter) the Town of Elkton has the right and obligation to assure proper maintenance is performed on private S789789stormwater facilities. All private stormwater management facilities shall be fully enclosed in an easement that is defined by metes and bounds. The individual parcel must be shown on a record plan that is recorded in the land records of Cecil County. The purpose of the easement is for access by the Town of Elkton to inspect and enforce maintenance regulations. The purpose of the easement must be listed on the plan.

2a. Prior to the issuance of any building permit for which private stormwater management is required, the Town of Elkton shall require the applicant or owner to execute an inspection and maintenance agreement binding on all subsequent owners of land served by a private stormwater management facility. Such agreement shall provide for access to the facility at reasonable times for regular inspections by the Department of Public Works or its authorized representative to ensure that the facility is maintained in proper working condition to meet design standards.

2b. The agreement shall be recorded by the applicant and/or owner in the land records of Cecil County.

2c. The agreement shall also provide that, if after notice by the Department of Public Works to correct a violation requiring maintenance work,

satisfactory corrections are not made by the owner(s) within 30 days, the Department of Public Works may perform all necessary work to place the facility in proper working condition. The owner(s) of the facility shall be assessed the cost of the work and any penalties.

2d. The owner of the property on which a private stormwater management facility exists, or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all grade surfaces, walls, drains, dams and structures, vegetation, erosion and sediment control measures, and other protective devices. Such repairs or restoration and maintenance shall be in accordance with approved plans.

3. The Town of Elkton shall be provided legal access to all stormwater management parcels or easements created for the purposes of stormwater management from a public road. Stormwater parcels intended to be dedicated to The Town of Elkton shall have a minimum road frontage of 20 feet, within which access shall be gained to the parcel from the road.

4. To all structural practices, an access way shall be provided a minimum of 10 feet wide. The land slope shall not exceed 10% either along or across the access way. The surface shall be capable of all-weather access for vehicles. The access way shall continue along all portions of an embankment no taller than 3-feet at the toe of the embankment. Access shall be possible during the 100-year storm event. Access shall be provided to the forebay, ponding area, top of embankment, riser structure and pipe outfall.

5. The maximum earth slope for any portions of any structural stormwater practice shall be 4:1. The maximum uninterrupted slope height shall be 6-feet. If an embankment is proposed taller than 6-feet vertical, a level bench 8-feet wide shall be provided. Equipment access must be provided that meet the requirements of this policy.

6. The minimum top width for an embankment shall be 8-feet. No structure, planting (other than grass) or fence may be placed on the top of the embankment, without increasing the width so that 8-feet of unobstructed width is provided at the top of all parts of every slope.

7. All embankments shall be compacted to a minimum of 95% of modified proctor density. Material for the embankment, shall be approved, by a geotechnical engineer and licensed in the State of Maryland. Copies of density tests and material approvals shall be provided to the Town of Elkton.

8. Material for the impervious core and cut-off trench within the embankment shall be classified as ML or CL compacted to a minimum of 95% of modified proctor density and shall be approved by a geotechnical engineer licensed in the state of Maryland. Copies of density tests and material approvals shall be provided to the Town of Elkton.

9. If plants are an integral part of the stormwater management facility, complete care and maintenance instructions shall be included on the plan

prepared, signed and sealed by a Landscape Architect licensed in the State of Maryland. The stormwater plan shall include pictures or drawings that will allow easy identification of all proposed plants, provide the intended amount of plants and their approximate planting location on an "AS Built" certified plan. All plants must be guaranteed for a minimum of one year.

10. All stormwater outfall structures shall be made of concrete. The primary outfall culvert shall be concrete. The anti-seep collar shall be concrete. The culvert shall be bedded in concrete. All concrete shall be reinforced. Shop drawings of all concrete structures shall be submitted to the Town of Elkton for review and approval. All concrete and concrete structures shall meet Maryland State Highway Administration Specifications 305.

11. All openings larger than 6-inches in the primary outfall structure shall have a trash rack made of #5 rebar. 3/8" angles 1"x 1-1/2" shall be used as a border. 1/2" stainless steel bolts and anchors shall be used at a maximum spacing of 4-feet to connect the trash rack to a structure. The maximum spacing between bars and opening shall be 3-inches. The rebar and angle iron shall be epoxy coated after fabrication. All materials shall meet Maryland State Highway Administration Specifications 303.

12. The outfall structure shall have a foundation that reaches a minimum of 18-inches below finished grade.

13. Every permanent pool shall be able to be fully drained within 24-hours by opening a valve provided in the outfall structure, unless the permanent pool intercepts groundwater. The valve shall be a fully enclosed pinch valve (i.e. Red Valve) that does not require exercising.

14. No portion of the permanent pool or forebay may be further than 20-feet from an access way that meets the requirements of this policy (i.e. The maximum width of a pond is 40-feet if access to both edges of water is provided).

15. A safety fence shall enclose all portions of the stormwater management facility. In general, the fence shall be on the outside of the access road for embankment facilities. The fence shall not obstruct the emergency spillway. The fence shall be 4-feet in height. It shall have a top and bottom rail made of 1-5/8" galvanized steel tubing with wall thickness of .065. There shall be a 12-foot wide swing gate. The posts shall be set in 3000-psi concrete. The wire fencing shall be coated with black PVC or polyolefin (7 mil thickness thermally fused), on 11 gauge steel wire that is zinc coated with 2" square openings and knuckled edges. Galvanized steel posts shall be used. Terminal posts shall be 2 1/2" OD with a wall thickness of 0.130. Line posts shall be 2" OD with 0.120-wall thickness. 9 gauge rail tie wire shall be spaced no less than 24". Hog rings, post caps (flat type), top and bottom rail ends, bolts, nuts, tension bars, tension clips, shall be galvanized. All materials and workmanship shall conform to Maryland State Highway Administration Specifications 607, ASTM F 567 and manufacturers recommendations.

16. A stormwater management maintenance schedule shall be provided on the construction plans. The schedule shall cover the design life of the facility. It shall specify when, how and by whom all aspects of maintenance shall be performed. A maintenance schedule shall state the time period for completion of any anticipated maintenance.

17. Prior to the approval of the stormwater management plan, the Owner/Developer will submit to the Town a proposed inspection and construction control schedule. No work shall proceed until the Town inspects and approves the work previously completed and furnishes the developer with the results of the inspection reports as soon as possible after completion of each required inspection. During construction of stormwater facilities the Town of Elkton, shall be notified, by the Owner/Developer, 72-hours in advance of the following:

For Ponds:

Excavation to sub-foundation and when required, installation of structural supports or reinforcement for structures, including but not limited to:

Installation of core trenches for structural embankments

Installation of inlet and outlet structures, anti-seep collars or diaphragms, and watertight connectors on pipes and embankment construction

Final grading and establishment of permanent stabilization.

For Wetlands:

At the stages specified for pond construction and prior to wetland reservoir area planting. **NOTE:** During the second growing season the Town may inspect to verify a vegetation survival rate of at least 50 %.

For Infiltration Trenches:

Prior to excavation to sub grade

Prior to placement and backfill of under drain systems and observation wells.

Prior to placement of geotextiles and filter media

Prior to construction of appurtenant conveyance systems such as diversion structures, pre-filters and filters, inlets, outlets, and flow distribution structures and upon completion of final grading and establishment of permanent stabilization

For Infiltration Basins:

At the stages specified for pond construction and prior to placement and backfill of under drain systems

For Filtering Systems:

Prior to excavation to sub grade

Prior to placement and backfill of under drain systems and observation wells
Prior to placement of geotextiles and filter media

Prior to construction of appurtenant conveyance systems such as diversion structures, pre-filters and filters, inlets, outlets, orifices and flow distribution structures and upon completion of final grading and establishment of permanent stabilization

For Open Channel Systems:

Prior to excavation to sub grade

Prior to placement and backfill of under drain systems and observation wells
Prior to placement of geotextiles and filter media

Prior to construction of appurtenant conveyance systems such as diversion structures, pre-filters and filters, inlets, outlets, orifices and flow distribution structures and upon completion of final grading and establishment of permanent stabilization

For Non-Structural Practices:

Prior to final grading and the establishment of permanent stabilization

18. The Town of Elkton or it's authorized representatives shall conduct inspections and file reports for periodic inspections necessary during construction of stormwater management systems to ensure compliance with the approved plans.

Inspection Reports shall include: The date, time and location of the inspection. An indication whether the construction was in compliance with the approved stormwater management plan and any variations from the approved construction specifications or any violations observed during inspection.

19. **Once construction has been completed, "as-built" plans, shall be submitted by the Owner/Developer to the Town of Elkton, sealed by a professional civil engineer or professional land surveyor licensed by the State of Maryland.** The sealed "as-built" shall contain a certification that the stormwater management practices and conveyance systems comply with the approved stormwater management plan approved by the Town of Elkton. At a minimum, "as-built" plans shall include a set of drawings comparing the approved stormwater management plan with what was actually constructed in the field and detail the following items. **Topography, Volume, Outfall structure including all openings, Valves and trash racks, Outfall culvert and outlet protection, Fencing.** The Town of Elkton may require additional information, as specified in writing to the owner/developer. The owner/developer shall notify the Town of Elkton upon completion of the project. The Town of Elkton may conduct a final inspection. The developer will receive written notification of the results of final inspection. The Town shall maintain a permanent file of inspection reports. In addition **"as-builts"** of all structural stormwater facilities shall be submitted to the Town of Elkton 30-days after completion of the Erosion and Sediment Control phase of a project.

20. An inspection and maintenance agreement between the owner and the Town of Elkton shall be executed for privately owned stormwater management systems. The maintenance agreement shall stipulate that the owner/developer perform preventive maintenance inspections. The Town of Elkton shall ensure that preventive maintenance is performed by inspecting all stormwater management systems. **Inspection shall occur during the first year (1st) of operation and at least once every three (3) years thereafter. A copy of a stormwater management system maintenance inspection report performed by the owner/developer for a privately owned system shall be submitted to the Town within ten (10) business days from the date of inspection.** The Town of Elkton

Department of Public Works shall maintain inspection reports for all management systems. These Inspection Reports for stormwater management systems shall include the following:

The date of inspection

Name of Inspector

Condition of the following items:

- a. Vegetation or filter media
- b. Fences or other safety devices
- c. Spillways, valves, or other control structures
- d. Embankments, slopes and safety benches
- e. Reservoir or treatment areas
- f. Inlet and outlet structures
- g. Underground drainage to the extent practicable
- h. Sediment and debris accumulation in storage and forebay
- i. Any non-structural practices to the extent practicable
- j. Any item that could affect the proper function of the stormwater management system
- k. Description of needed maintenance