

Storm Water Standards (SM)

7.20 SM-01: Storm Water Standards

This Storm Water Standards section applies to the following types of development



- A. Applicability: Subdivisions, planned developments, and development plans shall provide for the collection and management of all storm and surface water drainage.
- B. Cross Reference:
 1. *City's Zoning Jurisdiction*: Developments within the zoning jurisdiction of the City shall meet or exceed the City of Richmond's Stormwater Management Ordinance (See *Chapter 59.1 of City Code, Control of Post Construction Stormwater Runoff*).
 2. *County*: Developments outside of the City's corporate limits and developments accessing a legal drain (regulated drain) shall meet or exceed the standards of Wayne County per the Wayne County Surveyor's Office.
 3. *Construction*: Drainage facilities shall be constructed to meet or exceed the City of Richmond's Construction Standards.
- C. Existing Drainage Facilities:
 1. *Protection*: If any stream or surface drainage course is located in the area to be developed, an easement shall be established along the stream or surface drainage course that extends twenty (20) feet per side or as required by the Wayne County Surveyor. The applicant may propose re-routing the surface drainage course, but shall obtain approval from the MS4 Coordinator, City Engineer, Wayne County Drainage Board, Indiana Department of Natural Resources, Indiana Department of Environmental Management, and/or Army Corps of Engineers, whichever entities have jurisdiction.
 2. *Obstruction*: The applicant shall not block, impede the flow of, alter, construct any structure, deposit any material or object, or commit any act which will affect normal or flood flow in any ditch, stream, or watercourse without having obtained prior approval from the MS4 Coordinator, City Engineer, Wayne County Drainage Board, Indiana Department of Natural Resources, Indiana Department of Environmental Management, and/or Army Corps of Engineers, whichever entity has jurisdiction.
 3. *Restoration*: The applicant shall restore any stream, watercourse, swale, tile, floodplain, or floodway that is disturbed during development and return these areas/facilities to their original or equal condition.
- D. Proposed Drainage Facilities: Drainage facilities shall meet the following conditions.
 1. *Location*: Drainage facilities shall be located in common areas or on private property if the necessary drainage easements (or utility and drainage easements) are created and executed.
 2. *Design*:
 - a. Drainage facilities shall be durable, easily maintained, retard sedimentation, and retard erosion.
 - b. Drainage facilities shall not endanger the public health and safety, or cause significant damage to property.
 - c. Drainage facilities shall have sufficient capacity to accept the current water runoff from areas upstream and accept the water runoff from the site after it is developed.
 - d. Design of drainage facilities shall give consideration to water runoff from future developments in undeveloped areas upstream if that water runoff cannot reasonably be accommodated in the upstream area. The types of consideration should include, but need not be limited to retention-detention systems; over-sizing with fifteen-year law cost recovery; and granting easements for future construction. The type of future development shall be consistent with the uses indicated in the *City of Richmond Comprehensive Plan* or the use permitted by current zoning, whichever use is most intense.
 - e. Drainage facilities shall be designed such that there will be no increase in the peak discharge runoff rate as a result of the proposed development unless the existing or improved downstream drainage facilities are adequate to accept the present water runoff from developed and undeveloped areas upstream; the present water runoff of downstream areas, and the water runoff from the site after it is developed.
 - f. Drainage facilities shall be designed such that the low point of entry for structures is two (2) feet above the base flood elevation (BFE) and free from a 100 year flood.

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3. *Inspection*: Drainage facilities shall be inspected during construction by a professional engineer or registered land surveyor at the expense of the applicant and certified that the standards within the Unified Development Ordinance are met. Inspection reports and a signed certification shall be submitted to the Department of Public Works and Engineering.
- E. As-built Drawings: As-built drawings of each phase of all drainage facilities associated with a development shall be submitted to the Department of Public Works and Engineering within six (6) months of the completion of construction.