



CITY OF PETERSBURG, VIRGINIA

STORMWATER MANAGEMENT GUIDELINES

- 1.1** PURPOSE: It is the purpose of this policy to establish minimum stormwater management guidelines and controls:
- A. To reduce flood damage to health, life, and property.
 - B. To minimize increased stormwater runoff from new developments.
 - C. To maintain the adequacy of existing channels and structures.
- 1.2** PROGRAM ADMINISTRATION: The City of Petersburg, Department of Public Works designates the City Engineer to administer the Stormwater Management Program.
- 1.3** APPLICABILITY: The following activities are exempt from this policy:
- A. Agriculture, horticultural and forestry related activities;
 - B. Single family residences separately built and not developed as part of a subdivision;
 - C. Land development projects that disturb less than 10,000 square feet of land, provided that the Director of Public Works may reduce this exception to a smaller area of disturbed land or qualify the conditions under which this exception shall apply;
 - D. State projects.
- 1.4** COMPATIBILITY WITH OTHER REQUIREMENTS: Conformance with this policy does not relieve the applicant of the responsibility to comply with other applicable ordinances and regulations.

2.0 DEFINITIONS: For the purpose of this document, the following terms and words shall have the meanings ascribed to them by this section:

"Adequate Channel" shall be defined as a natural or man-made channel or pipe which is capable of conveying the runoff from a 2-year storm without overtopping its banks or eroding after development of this site. Reference the State Erosion and Sediment Control Handbook.

"Post-Development" refers to conditions that reasonably may be expected or anticipated to exist after completion of the land development activity on a specific site.

"Runoff" means that portion of precipitation that is discharged across the land surface or through conveyances of one or more waterways.

"Stormwater Management Facility" means a device that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow.

"Stormwater Management Plan" means a document containing material for describing how existing runoff characteristics will be maintained by a land development project and comply with the requirements of this policy.

3.1 TECHNICAL CRITERIA:

- A. A Stormwater Management Plan shall be developed so that the post-development peak runoff rate from a two-year and a ten-year storm, considered individually, shall not exceed their respective pre-development rates.
- B. To prevent flooding or stream erosion downstream of the development site, it may be necessary to increase the detention storage requirements and reduce peak outflow rates to levels that exceed the requirements of Paragraph 3.1.A above. Applicable watershed will have a watershed stormwater management analysis prepared by the City.
- C. The design storms shall be defined as either a 24-hour storm using the rainfall distribution recommended by the Soil Conservation Service when using U.S. Soil Conservation Service methods or as the storm of critical duration that produces the greatest required storage volume at the site when using a design method such as the Rational Method.
- D. For purposes of computing runoffs, all lands in the site shall be assumed prior to development to be in good condition (if the lands are pasture, lawns, or parks), with good cover (if the lands are cultivated); regardless of condition existing at the time of computation.

3.2 GENERAL CRITERIA:

- A. Proposed residential, commercial, or industrial subdivisions shall apply stormwater management criteria to the development as a whole. Individual lots in new subdivisions shall not be considered separate land development projects, but rather the entire subdivision shall be considered a single land development project. Hydrologic parameters shall reflect the ultimate land development and shall be used in all engineering calculations.

- B. Construction of stormwater management facilities or modifications of channels shall comply with all applicable laws and regulations. Evidence of approval of all necessary permits and execution of the Stormwater Management Agreement with the City shall be presented prior to issuance of the land disturbing permit.
- C. Pre-development and post-development runoff rates shall be verified by calculations that are consistent with good engineering practices and are acceptable to the City.
- D. The design of impounding structures that are not covered by the Virginia Dam Safety Regulations shall be checked by the applicant for structural integrity and floodplain impacts for the 100 year storm event. An emergency discharge should be designed to pass the 100 year storm.
- E. Safety measures should be incorporated into the design of all stormwater management facilities.
- F. Outlets from stormwater management facilities shall be designed to function without manual, electrical or mechanical controls.

3.3 STORMWATER MANAGEMENT FACILITIES IN FLOODPLAINS:

- A. New construction, including on-site stormwater management facilities, should be avoided in floodplains, when this is unavoidable, a special examination to determine adequacy of proposed stormwater management facilities during the 10 year flood shall be required. The 10 year design storm should be applied to both the site and the entire watershed contributing to the floodplain, assuming that the two peak simultaneously at the point in question. The time of concentration assumed for the entire watershed should be that appropriate to the larger area.
- B. In addition, such construction shall be in compliance with all regulations under the National Flood Insurance Program.

4.1 STORMWATER MANAGEMENT PLAN REQUIREMENTS:

- A. Maps, plans, designs, and calculations shall be certified by a Registered Professional Engineer, Class IIIB Surveyor, or Landscape Architect licensed to practice in the Commonwealth of Virginia.
- B. Plans should include:
 - 1. The boundary of the drainage area tributary to the project site. (e.g. U.S.G.S. Quadrangle Map).
 - 2. The location of the project relative to significant features in the general surroundings such as roads, pedestrian ways, access to the site, adjacent land use, property lines, existing man-made structures, public facilities, landmarks, and places of architectural and historical significance.
 - 3. Existing contours at 2-foot intervals, extending a minimum of 200 feet beyond the limits of the proposed development.

4. Streams, lakes, ponds, existing drainage swales, wetlands, forested areas and other physical features within or adjacent to the project area.
5. Locations of existing and proposed utilities, sewers and water lines.
6. The location of proposed buildings, roads, parking areas, and other permanent structures.
7. Final contours at 2-foot intervals, extending a minimum of 200 feet beyond the limits of the proposed development.

C. Details should include:

1. All stormwater management facilities must be shown, including details, plan, profile, and cross sections.
2. If infiltration facilities are proposed, the locations of existing and proposed wells and septic system drain fields must be shown.
3. Comprehensive hydrologic and hydraulic design calculations, including all assumptions and criteria, for the pre-development and post-development conditions for the 2-, 10-, and 100-year design storms.
4. A soils report and boring logs, as required by the design engineer to certify the design.
5. A maintenance plan indicating the person permanently responsible for maintenance of the stormwater management facilities.



CITY OF PETERSBURG
DECLARATION OF COVENANTS
FOR STORM AND SURFACE WATER FACILITY
AND SYSTEM MAINTENANCE

THIS DECLARATION OF COVENANTS made this _____ day of _____, 20____, by _____, hereinafter referred to as the "Covenantor" to and for the benefit of the City of Petersburg, a municipal corporation, and its successors and assigns, hereinafter to as the "City".

WITNESSETH:

WHEREAS, the City is authorized to regulate and control the disposition of storm and surface waters within the City of Petersburg, Virginia; and

WHEREAS, the Covenantor is the owner of a certain tract or parcel of land more particularly described as:

Tax Parcel Number(s): _____
City of Petersburg, City Assessor's Maps; and

WHEREAS, the Covenantor and/or its assigns desire to construct certain improvements on its property which will alter extant storm and surface water flow conditions on both the property and adjacent lands; and

WHEREAS, in order to accommodate and regulate these anticipated changes in existing storm and surface water flow conditions, the Covenantor and/or its assigns desire to build and maintain, at its expense, a storm and surface water management facility and system more particularly described and shown on plans titled _____ and dated _____; and _____

WHEREAS, the City has reviewed and approved these plans subject to the execution of this agreement.

NOW THEREFORE, in consideration of the benefits received by the Covenantor and/or its assigns as a result of the City's approval of his plans, Covenantor and/or its assigns, with full authority to execute deeds, deeds of trust, other covenants, and all rights, title and interest in the property described above does hereby covenant with the City as follows:

1. Covenantor and/or its assigns shall construct and perpetually maintain, at its sole expense, the above referenced storm and surface water management facility and system in strict accordance with the plan approval granted by the City.
2. Covenantor and/or its assigns shall, at its sole expense, make such changes or modifications to the

storm drainage facility and system as may, in the City's discretion, be determined necessary to insure that the facility and system are properly maintained and continue to operate as designed and approved.

3. The City, its agents, employees and contractors shall have the perpetual right of ingress and egress over the property of the Covenantor and/or its assigns and the right to inspect at reasonable times and in a reasonable manner, the storm and surface water management system to make sure it is being properly maintained and is continuing to perform in an adequate manner.
4. The Covenantor and/or its assigns agree that should it fail to correct any defects in the above described facility and system within ten (10) days from the receipt of written notice, or shall fail to maintain the facility and system in accordance with the approved design standards and with the law and applicable regulations or, in the event of an emergency as determined by the City in its sole discretion, the City is authorized to enter the property to make all repairs, and to perform all maintenance, construction and reconstruction the City deems necessary. The City shall then assess the Covenantor and/or its assigns and/or all landowners served by the facility and system for the cost of such placed on the property tax bills of said properties and collected as ordinary taxes by the City.
5. Covenantor and/or its assigns shall indemnify, save harmless and defend the City from and against any and all claims, demands, suits, liabilities, losses, damages and payments including reasonable attorney fees claimed or made by persons not parties to the Declaration against the City that are alleged or proven to result or arise from the Covenantor's and/or its assigns' construction, operation or maintenance of the storm and surface water management facility and system that is the subject of this Covenant.
6. The covenants contained herein shall run with the land and the Covenantor and/or its assigns further agree that whenever the property shall be held, sold, conveyed, it shall be subject to the covenants, stipulations, agreements and provision of this Declaration, which shall apply to, bind and be obligatory upon the Covenantor hereto, its heirs, successors and assigns and shall bind all present and subsequent owners of the property served by the facility and system.
7. The Covenantor and/or its assigns shall promptly notify the City when the Covenantor and/or its assigns legally transfer any of the Covenantor's and/or its assigns' responsibilities for the facility. The Covenantor and/or its assigns shall supply the Director of Public Works, City of Petersburg, 103 W. Tabb Street, Petersburg, Virginia 23803, with a copy of any document of transfer, executed by both parties, and a copy of this document acknowledged by both parties.
8. The provision of this Declaration shall be severable and, if any phrase, clause, sentence or provision is declared unconstitutional, or the applicability thereof to the Covenantor and/or its assigns is held invalid, the remainder of this Covenant shall not be affected thereby.
9. The Declaration shall be recorded at the Clerk's Office of the Circuit Court of the City of Petersburg, Virginia, at the Covenantor's and/or its assigns' expense.
10. In the event that the City shall determine at its sole discretion at any future time that the facility and system is no longer required, then the City shall, at the request of the Covenantor and/or its assigns, execute a release of this Declaration of Covenants which the Covenantor and/or its assigns shall record such release at its expense.
11. All notices sent hereunder shall be sent by first class mail (certified, postage prepaid, with return receipt requested) addressed to the intended recipient at the address listed below: release of this Declaration of Covenants which the Covenantor and/or its assigns shall record such release at its expense

For the Covenantor:

For the City: Director of Public Works
City of Petersburg
103 W. Tabb Street
Petersburg, Virginia 23803

IN WITNESS WHEREOF, the Covenantor has executed this Declaration of Covenants as of the _____ day of _____, 20____.

By: _____

SEEN AND AGREED:

Property Owner

Property Owner

STATE OF VIRGINIA
CITY/COUNTY OF _____, to wit:

The foregoing instrument was acknowledged before me this _____ day of _____, 20____.

NOTARY PUBLIC

My Commission Expires: _____

STATE OF VIRGINIA
CITY/COUNTY OF _____, to wit: