

Single Family Instructions

Sections referenced in these instructions relate to A User's Guide to Environmental Site Review.

Section 1- Site Information

See chapter 4.0 for information regarding the site information.

Section 2 - General Information

1. Need these fees paid prior to the permit being issued
2. Copy of the permit application
3. Approximate cost of storm water facilities. This is used to determine the amount of a bond if a certificate of occupancy is needed before the installation is completed.

Section 3 - Stormwater Management

1. Site Plan -Need site plan with the referenced information. See Section 9 of A, Page 15 for assistance regarding tabulating this information and a list of elements that must be included on the Site Plan. See Section 4, Page 6, and Section 11, Page 29, for examples of Site Plan drawings. See Section 9 for more information on the Water Quality volume calculations. (WQv). Include any details for stormwater management features. See attached examples.
2. BMP's - There are two options. For option one, you can provide a structural or non-structural Stormwater management measure for the computed Water Quality volume. Must provide the storage computation, details of feature and show drainage area. The second option is to use rain gardens and swales and use alternative pervious surface for all sidewalks and driveways

Section 4 - Engineering Conditions and Final Approval Requirements

1. As-built conditions must match the proposed site plan. An as built survey may be required if there are significant differences.
2. Two inspections are required. It is important to make sure you get a grading inspection prior to finishing landscaping. The check list will help with what will be required for grading and final engineering inspection

Section 5- Certification

Signatures are required to insure understanding of stormwater requirements.



**Standard Stormwater Management Plan
Water Quality Management Plan
and Engineering Conditions**
(for Single Family 5,000sf and over)

Permit # _____
Date _____

I. SITE INFORMATION (Please Print)

Name/Site Address _____

Owner/Agent's Name _____ Phone # _____

Permanent Address _____

Tax Map _____ Parcel Lot _____ Block _____ Zone _____

Contractor's Name _____ Phone # _____

Contractor's Address _____

Total Area of Site	Total Proposed Impervious	Total Existing Impervious
_____	_____	_____

II. GENERAL INFORMATION

1. Review fee \$50 and \$150 inspection fee
2. Building permit application form and approval check list
3. Cost estimate of stormwater management designs _____

III. STORMWATER MANAGEMENT - Requirements for Standard Stormwater Management on Single Family residential lots, which implement the following site planning techniques, shall meet the intent of the Stormwater Management Ordinance and the 10% rule regulation. Provide four copies of the site plan with the following information illustrated.

1. Site Plan

- a. Shown to scale the property lines with limit of disturbance and all proposed improvements including location of buildings, structures, sidewalks, curbs, walls, sheds, driveways, parking lots, decks, easements, etc. Include a tabulation of the area of these features. Critical area setback line and 100' buffer as well as all wetlands should also be shown.
- b. Show all utilities including water meter, phone and cable pedestals, electric poles, storage tanks, grease interceptors, stormwater management features, etc.
- c. Existing landscaping should be shown and note all trees and large shrubs to be removed.
- d. Topographic map showing drainage areas, existing and proposed spot elevations, and drainage direction, roof drainage discharge location, etc.
- e. Unified sizing criteria volume computations according to Design Manual, Redevelopment is 50% reduction of impervious surface or treat 50% of existing and 100% of new/increase;
 - i. SWM computations: (Site Plan must show exactly the proposed footprint of imperviousness)

$$WQ_v \text{ cf} = (\text{New Impervious area} + 50\% \text{ of existing impervious}) * .95/12 =$$
 _____ cf, treated in a BMP below, or
 (Impervious area is the roof top, sidewalk, driveways patios covered decks etc.)
- f. All necessary structural and construction details and specifications for all components of the proposed drainage system or systems, and storm water management BMP's/facilities

- g. Dimensions, volume and cross section of each structure;
- h. Sequence of construction including any phasing;
- i. Proposed landscaping plan and a maintenance schedule. This should be coordinated with the landscaping plan for entire site and the Critical Area Mitigation requirements.

2. **BMP's:**

OPTION 1: Provide a structural stormwater feature to accommodate the calculated Water Quality Volume from Section 1(e) above. Features include but not limited to French drains, pocket ponds, infiltration trenches, landscape infiltration and cistern, or other BMP's that are approved by the Department.

OPTION 2: Provide Environmentally Sensitive Designs to the Maximum extent practicable. All of the following measures must be utilized on the site plan:

- a. All rooftop downspouts shall discharge to and drain continuously through a swale and terminate at a rain garden if less than 75' and be 500 sq. ft. or less
- b. All sidewalks and driveways must utilize pervious material
- c. All decks must be built according to the pervious deck detail. Which includes 1/8" spacing and stone under the deck?

IV. ENGINEERING CONDITIONS AND FINAL APPROVAL REQUIREMENTS

* The developer maintains liability for conformance to the City's Ordinance and building code, or subdivision regulations requirements.

1. _____ Does site plan match as-built conditions? Critical area and stormwater compliance is contingent on attached approved site plan and the proposed impervious surface. If as-built drawing is not exactly like the approved site plans a revisions is required to be submitted to Engineering. As-built survey may be requested should site conditions merit such a request. Projects are cumulative to any future improvements or impervious surface.
2. Call Engineering 24 hours in advance at **410-289-8845** for two inspections:
First inspection- a grading inspection **prior to any landscaping**, and
Second - a final inspection prior to certificate of occupancy or close of permit

Grading Inspection Check List:

_____ Final Grades should have positive drainage and runoff drain toward street/bay over grass and drainage must be directed away from neighbors.

_____ Must use a wall/berm/swale at property line to prevent drainage and sediment on to adjacent lots.

_____ An adjustment of the grade to the site is the responsibility of the contactor – minimum slope is 1" in 10'.

_____ Swale and Rain garden must be depressed and have available storage area and soil must be aerated to promote infiltration

_____ No ponding water over 48 hours,

Notes: Fill material must be clean and be free of debris, organic material and clay.

Stockpiles of dirt should be stabilized with vegetation or protected with silt fence, hay bales, straw or other appropriate protection; compaction of fill is required. Slope and height of fill should not exceed requirements for retaining wall.

Final Engineering Inspection Check list

_____Streets must be clean of dirt and debris and site free of litter and debris. Remove all construction materials, dumpsters, port-a-pots, etc. from City property and rights-of-way at completion of project.

_____Stormwater management devices must be installed contributing drainage area stabilized and if necessary planted with the appropriate vegetation.

_____Any disturbance to neighboring property will require their permission and must be replaced to their satisfaction.

_____Sidewalk must be repaired of any damage made during placement of structure.

_____All disturbed property will be permanently and adequately stabilized including under deck to prevent soil runoff and erosion. All stormwater Management structural devices will be protected from siltation until site is stabilized. Install silt fence, if needed, until property is stabilized - bare soil will need to be stabilized with vegetation, straw, or other appropriate measure prior to Certificate of Occupancy.

V. CERTIFICATION

I certify that I have the authority to make the foregoing application and that the information contained herein is correct and that clearing, filling, grading, or development will be done pursuant to this plan. This permit is valid for two years.

Applicant's Signature _____

Owner's Signature _____

Engineering Department _____

