COUNTY COUNCIL OF PRINCE GEORGE'S COUNTY, MARYLAND

2004 Legislative Session

Bill No. CB-87-2004

Chapter No. 77

Proposed and Presented by The Chairman (by request – County Executive)

Introduced by Council Members Knotts and Dernoga

Co-Sponsors

Date of Introduction November 1, 2004

BILL

AN ACT concerning

Building Code

For the purpose of amending the Prince George's County Building ordinance, adopting certain amendments to the 2000 Edition of the International Building Code and the International Residential Code for One and Two Family Dwellings, amending sections of the Grading, Drainage and Pollution Control ordinance and generally related to grading, drainage and building standards.

BY repealing and reenacting with amendments:

SUBTITLE 4. BUILDING.
Sections 4-271, 4-277, 4-297, 4-298, 4-308, and 4-310,
The Prince George's County Code
(2003 Edition).

BY adding with amendments:

SUBTITLE 4. BUILDING.
Sections 4-191, 4-248, 4-249, 4-250 and 4-251.
The Prince George's County Code
(2003 Edition).

SECTION 1. BE IT ENACTED by the County Council of Prince George's County, Maryland, that Sections 4-271, 4-277, 4-297, 4-298, 4-308, and 4-310 of the Prince George's County Code be and the same are hereby repealed and reenacted with the following amendments:

SUBTITLE 4. BUILDING.

DIVISION 3. GRADING, DRAINAGE, AND POLLUTION CONTROL.

Sec. 4-271. Definitions.

(a) Wherever the following words are used in, or in conjunction with, the administration of this Division, they shall have the meaning ascribed to them in this Section.

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(47) **Significant Drainage.** Surface drainage rates that exceed three (3) cubic feet per second, based on the ten (10) year storm event as calculated by the Rational Method.

[(47)](48) **Site**. Any lot or parcel of land or combination of contiguous lots or parcels of land.

[(48)](49) **Site development**. The resulting condition of land improvements through the constructing, installing, placing, or planting of open and enclosed storm drainage facilities, stormwater management facilities, supporting foundations for utility lines and service (house) connections, parking lots, driveways, curbing, pavements, roadways and appurtenances, steps, sidewalks, bike paths, recreational facilities, patios, ground planters, ground covers, plantings, landscaping, grading, stockpiling, quarrying, and logging or timber harvesting operations.

[(49)](50) **Slope**. The inclined exposed surface of a fill, excavation, or natural terrain.

[(50)](51) **Soil**. All earth material of whatever origin that overlies bedrock and may include the decomposed zone of bedrock that can be readily excavated by mechanical equipment.

[(51)](52) **Soil engineer**. A professional engineer who is qualified by education and experience to practice applied soil mechanics and foundation engineering.

[(52)](53) **Solid wastes (refuse)**. The same as defined in Section 21-101 of this Code.

[(53)](54) **Standards and Specifications**. The current version of the "Maryland Standards and Specifications for Soil Erosion and Sediment Control" as adopted by the Prince George's Soil Conservation District.

[(54)](55) **Stripping**. Any activity which removes or significantly disturbs the vegetative surface cover including clearing, grubbing of stumps and root mat, and topsoil removal.

[(55)](56) **Structural rock fills**. Fills including limited amounts of rubble, broken asphalt, brick, or concrete.

[(56)](57) **Surveyor**. A person duly registered or authorized to practice land surveying in the State of Maryland, and qualified to prepare grading plans and specifications.

[(57)](58) **Timber harvesting (logging)**. The severing of any size tree above ground level leaving the root system and all stumps intact, except for the purpose of providing a temporary access road.

[(58)](59) **Topsoil**. [Any soil rated Fair, Fair to Good, or Good as determined by "Table 8. - Suitability of soils as engineering material" in the U.S.D.A. Soil Conservation Service Soil Survey of Prince George's County, Maryland, issued April 1967, or other soil as approved by an agronomist or soil scientist.] Soil to be used as topsoil and the placement of topsoil over a prepared subsoil prior to the establishment of permanent vegetation is defined in the Maryland Department of the Environment, Standards and Specifications for Soil Erosion and Sediment Control, 21.0 Standard and Specifications for Topsoil.

[(59)](60) **Tree Conservation Plan**. A site map that delineates tree save areas and text that details requirements, penalties, or mitigation negotiated during the development and/or permit review process.

[(60)](61) **Watercourse**. Any natural or improved stream, river, creek, ditch, channel, canal, conduit, culvert, drain, gully, swale, or wash in which waters flow either continuously or intermittently.

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Sec. 4-277. Soils Investigation Report.

[If class one (1) fill is proposed, the] The Director shall require a soils investigation report prepared and certified by a professional engineer duly registered in the State of Maryland with expertise in the preparation of geotechnical studies and the planning, organizing and conducting the exploration, sampling, testing and engineering analysis in conjunction with subsurface geotechnical studies. The report will be used to correlate surface and subsurface conditions with the proposed grading, site and building plans. [If other than class one (1) fill is proposed, the] The Director may require a soils investigation report depending upon slopes, anticipated characteristics of soil, drainage characteristics, and the like. The results of the investigation shall be presented in a report by a professional engineer which shall include, but need not be limited to, data regarding the nature, distribution, and supporting ability of existing soils and rock on the site and to conclusions and recommendations for grading requirements and erosion control

including recommendations to insure stable soil conditions and groundwater control as applicable. The Director may require supplemental reports and data by an engineering geologist as might be deemed necessary. Recommendations included in such reports and approved by the Director shall be incorporated in the grading plan or specifications.

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Sec. 4-297. Site Grades.

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(b) [Concentrated surface] Significant drainage from each lot or parcel shall discharge directly[, or through no more than one (1) adjacent lot unless suitable easements are granted, to accommodate its flow] into a publicly maintained drainage system, street, or continuously flowing natural watercourse. Easements may not be required if, in the opinion of the Director, it can be demonstrated by a Maryland registered professional engineer that the [concentrated surface] drainage is insignificant and/or will not adversely affect adjacent properties.

(1) Slope Limitations. In effecting the foregoing objectives, the slope limitations specified in Table 24 herein and elsewhere in this Division shall be followed. The exact value used shall be as determined by the preparer of the plan to suit each specific site.

TABLE 24 -- SITE SLOPE LIMITATIONS

FEATURE	MAXIMUM	MINIMUM
Setback of Building from edge Building Pad or Shelf	--	10 ft.*
Slope of Pad or Shelf Away from Building, Residential	30" in 10'	[5" in 10'] 12" in 12' [**]
Slope of Pad or Shelf Away from Building, [Residential] All Others	--	5" in 10'
Yards or Lawns	3:1	2 1/2%
Slope of Terraces, Slopes, or Banks, Residential	3:1	--
Slope of Terraces, Slopes, or Banks, all other	2:1	--
Side Slope of Swale or Ditch	3:1	10:1
Longitudinal Gradient of Sodded Swale or Ditch	4% or **[*]	2%
Slope patios-longitudinal pitch (end to end) and	1/4" in 12"	1/8" in 12"

lateral pitch (side to side) away from the building		
Sidewalks, leadwalks, and driveways - lateral pitch (side to side) away from the building	1/2" to 12"	1/8" to 12"
Sidewalks, leadwalks, and driveways - longitudinal pitch (end to end) away from the building	12.5%	1%
Parking Lots and Areas	7%	1%

*Minimum from sides of single-family residences and from ends of a town house complex is four (4) feet.

** [In the case of "wet soils" and high ground water conditions, the Director reserves the right to increase the slope ratio up to 8" in 10'.

***] The slope that will yield a velocity no greater than four (4) feet per second.

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Sec. 4-298. Ground Stabilization.

(a) All graded surfaces shall have [suitable soil] topsoil for permanent vegetative growth; free of any rocks, stones, or other nonirreducible/nonorganic matter larger than one-and-one-half (1½) inches in diameter; disced and raked; and shall be limed, fertilized, seeded, mulched with tack, or sodded, planted, or otherwise protected from erosion; and shall be watered, tended, and maintained until growth is well established.

(1) [When the soil of graded surfaces is deemed unsuitable, the Director may direct that the uppermost four (4) inches be composed of topsoil.] Topsoil shall be in accordance with the Maryland Department of the Environment, Standards and Specifications for Soil Erosion and Sediment Control, 21.0. Standard and Specifications for Topsoil, or approved subsequent revisions thereof.

(2) [Placement of stabilization materials shall be completed within the time limits specified in Section 4-299(b)(5) of this Subtitle.] Stabilization methods and materials shall be in accordance with the Maryland Department of the Environment, Standards and Specifications for Soil Erosion and Sediment Control, 20.0. Standard and Specifications for Vegetative Stabilization, or approved subsequent revisions thereof.

(3) Upon completion of the work, a vegetative ground cover certification from a registered professional engineer, surveyor, or landscape architect shall be provided, certifying that: (i) all disturbed or graded surfaces on the project site, with the exception of the inapplicable

areas shown on the plan, have permanent vegetative growth, (ii) the vegetative materials were placed in accordance with Section 4-298, (iii) the work was completed in accordance with the conditions of the permit, approved plans and specifications, and (iv) the work was completed within the minimum standards of this Division, with the specific listing of all waivers that might have been approved.

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Sec. 4-308. On-site Drainage.

(a) The following provisions apply to the safe conveyance and disposal of drainage to prevent erosion and property damage for new construction.

(1) Drainage facilities [shall be provided], including but not limited to sump pumps, foundation drains, trench drains and under drains, shall be provided and shall be discharged into a publicly maintained drainage system or continuously flowing natural water course to safely convey surface and ground water in such a manner to prevent detrimental erosion, overflow, ponding, or nuisance of any kind [to the nearest practical street, storm drain, or other watercourse] in accordance with applicable design criteria, standards, and procedures as contained herein and as required by approved standards and regulations of the Prince George's County Department of Public Works and Transportation and Department of Environmental Resources.

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(6) Facilities and Improvements. All drainage terraces, interceptor and diversion berms, swales, and ditches shall be designed and constructed in accordance with standards contained elsewhere herein, and, when required, shall be piped or paved or otherwise improved. In order for d[D]rainage to discharg[ing]e into natural watercourses, [may require that] such natural ground shall be protected from erosion by an adequate amount of riprap or by other measures. Flows exceeding [five (5)] three (3) cubic feet per second will not be permitted in open facilities such as swales and ditches, but shall be [piped] conveyed in enclosed storm drain systems. Concentrated flow in driveways, parking lots, and access lanes shall not exceed one-half (1/2) the width of paving, or ten (10) feet, whichever is less.

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(11) Downspout discharge may discharge to a properly graded open area provided the point of discharge is ten (10) feet from any property line or Building Restriction Line (BRL) and

conveyed by splash block oriented parallel to said line. If the downspouts are connected into an underground drainage system, a cleanout valve and air gap for blockage overflow is required.

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Sec. 4-310. Grading, Drainage, and Erosion Control Standards.

(a) The design, testing, installation, and maintenance of grading, drainage, and erosion control operations and facilities shall meet the minimum requirements set forth in the Standards listed herein.

(1) SOILS.

ASTM Standards, Volume 0408 Titled Natural Building Stones, Soil and Rock, by the American Society for Testing and Materials, Philadelphia.

ASTM Designation D-1556-82E, Density of Soil in Place by the Sand-Cone Method.

ASTM Designation D-698-82E, Moisture-Density Relations of Soils and Soil Aggregate Mixtures Using 5.5-lb. (2.50 kg) Rammer and 12-in. (457 MM) Drop.

Maryland Department of the Environment, 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

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(3) EROSION CONTROL.

Soil Survey of Prince George's County, Maryland issued April 1967 [Maryland Standard and Specifications for Soil Erosion and Sediment Control.]

Maryland Department of the Environment, 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

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SECTION 2. BE IT ENACTED by the County Council of Prince George's County, Maryland, that Sections 4-191, 4-248, 4-249, 4-250 and 4-251 of the Prince George's County Code be and the same are hereby added:

SUBTITLE 4. BUILDING.

DIVISION 1. BUILDING CODE.

Sec. 4-191. [Reserved.] Dampproofing and Waterproofing; Section 1806.

(a) Section 1806.4.4 is added to read as follows: "1806.4.4 Sump Pumps and Pits." Where subsoil drains do not discharge by gravity, the drains shall discharge to an accessible sump pit

with an automatic electric pump. A battery back-up or water-powered back-up sump pump will also be provided. Sump pit shall be a minimum of eighteen (18) inches in diameter, and twenty-four (24) inches in depth and be provided with a fitted cover. The sump pump shall have adequate capacity to discharge all water coming into the sump as it accumulates but in no case shall the capacity of the pump be less than fifteen (15) gallons per minute. The discharge from the pump shall be a minimum of one and one-fourth (1¼) inches and shall have a union in the discharge piping to make the pump accessible for servicing. Subsoil drains and sump pump discharge may discharge to a properly graded open area provided the point of discharge is five (5) feet from any property line or Building Restriction Line (BRL). Where a continuous flowing spring or groundwater is encountered, subsoil and sump pump discharge lines must be piped to a storm drain or approved watercourse. When piped to a storm drain or drainage swale, all drainage lines shall be provided with an accessible backwater valve.

(b) Section 1806.4.5 is added to read as follows: "1806.4.5 Areaway Drains." All open subsurface space adjacent to a building serving as an exit or entrance shall be provided with a drain or drains. Such areaway drains shall be of approved material in accordance with Chapter 29 of this Building Code and not less than two (2) inches in diameter and shall discharge by gravity or mechanical means in accordance with 1806.4.2. Areaway drains for areas exceeding one hundred (100) square feet shall be sized in accordance with Section 1113 of the 2003 International Plumbing Code and shall be a pre-approved design.

(c) Section 1806.4.6 is added to read as follows: "1806.4.6 Window Well Drains." Window well areaways shall have drains. Window well areaways ten (10) square feet or less may discharge to the subsoil drain through a 2-inch minimum diameter pipe.

(d) Section 1806.4.7 is added to read as follows: "1806.4.7 Foundation Weep Holes." Where subsoil drains are required by Section 1806.4.2, foundations of hollow core masonry shall have foundation weep holes. Weep holes shall be placed a maximum of 4-foot o/c intervals and shall discharge into the aggregate of interior subsoil drainage system.

(e) Section 1806.4.8 is added to read as follows: "1806.4.8 Site Grading." The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than one (1) unit vertical in twelve (12) units horizontal (1:12) for a minimum distance of five (5) feet (914 mm) measured perpendicular to the face of the wall or an approved alternate method of diverting water away from the foundation shall be used. Consideration shall be given

to the possible additional settlement of the backfill when establishing the final ground level adjacent to the foundation.

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Sec. 4-248. [Reserved.] Foundations; Section R-401, General.

(a) Section R-401.1 is amended to read as follows: "Application." The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings.

(b) Section R-401.2 is amended to read as follows: "Requirements." Foundation construction shall be capable of accommodating all loads according to Section R-301 and transmitting the resulting loads to the supporting soil. Fill soils that support footings and foundations shall be designed, installed and tested in accordance with accepted engineering practice.

Sec. 4-249. [Reserved.] Foundations; Section R-402, Materials.

(a) The following amendments, additions, and/or deletions are to Section R-402 of the International Residential Code:

(1) Section R-402.1, titled "Wood foundations" is deleted.

(2) Section R-402.1.1, titled "Fasteners" is deleted.

(3) Section R-402.1.2, titled "Wood treatment" is deleted.

(b) The following amendments, additions, and/or deletions are to Section R-403 of the International Residential Code: Section R-403.2, titled "Footings for wood foundations" is deleted.

Sec. 4-250. [Reserved.] Foundations; Section R-404, Foundation Walls.

(a) The following amendments, additions, and/or deletions are to Section R-404 of the International Residential Code: Section R-404.2, titled "Wood foundation walls" is deleted in its entirety.

(b) The following amendments, additions, and/or deletions are to Section R-405 of the International Residential Code: Section R-405.2, titled "Wood foundations" is deleted in its entirety.

(c) The following amendments, additions, and/or deletions are to Section R-406 of the International Residential Code: Section R-406.3, titled "Dampproofing for wood foundations" is deleted in its entirety.

Sec. 4-251. [Reserved.] Foundation Drainage; Section R-405.

(a) Section R-405.1.1 is added to read: "R-405.1.1 Subsoil Drainage Systems." Subsoil drains shall be required for all buildings having basements, cellars, crawl spaces, or floors below grade. Subsoil drains shall be located inside and outside of the foundation and shall be installed at or below the area to be protected. Drains shall discharge by gravity or mechanical means into an approved drainage system.

(b) Section R-405.1.2 is added to read: "R-405.1.2 Sump Pumps and Pits." Where subsoil drains do not discharge by gravity, the drains shall discharge to an accessible sump pit with an automatic electric pump. A battery back-up or water-powered back-up sump pump will also be provided. The sump pit shall be a minimum of eighteen (18) inches in diameter and twenty-four (24) inches in depth, and be provided with a fitted cover. The sump pump shall have adequate capacity to discharge all water coming into the sump as it accumulates but in no case shall the capacity of the pump be less than fifteen (15) gallons per minute. The discharge from the pump shall be a minimum of one and one-fourth (1¼) inches and shall have a union in the discharge piping to make the pump accessible for servicing. Subsoil drains and sump pump discharge may discharge to a properly graded open area provided the point of discharge is ten (10) feet from any property line or Building Restriction Line (BRL). Where a continuous flowing spring or groundwater is encountered, subsoil and sump pump discharge lines must be piped to a storm drain or approved watercourse. When piped to a storm drain all drainage lines shall be provided with an accessible backwater valve.

(c) Section R-405.1.3 is added to read: "R-405.1.3 Areaway Drains." All open subsurface space adjacent to a building serving as an exit or entrance shall be provided with a drain or drains. Such areaway drains shall be of approved material in accordance with Chapter 30 of this code and not less than two (2) inches in diameter and shall discharge by gravity or mechanical means in accordance with R-405.1.2. Areaway drains for areas exceeding one hundred (100) square feet shall be sized in accordance with Section 1113 of the 2003 International Plumbing Code.

(d) Section R-405.1.4 is added to read: "R-405.1.4 Window Well Drains." Window well areaways shall have drains. Window well areaways ten (10) square feet or less may discharge to the subsoil drain through a 2-inch minimum diameter pipe. Drains for window well areaways greater than ten (10) square feet shall be installed in accordance with Section R-405.1.3.

(e) Section R-405.1.5 is added to read: "R-405.1.5 Foundation Weep Holes." Where

subsoil drains are required by Section R-405.1.1, foundations of hollow core masonry shall have foundation weep holes. Weep holes shall be placed a maximum of 4-foot o/c intervals and shall discharge into the aggregate of the interior subsoil drainage system.

(f) Section R-405.1.6 is added to read: "R-405.1.6 Site Grading." The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than one (1) unit vertical in twelve (12) units horizontal (1:12) for a minimum distance of five (5) feet (914 mm) measured perpendicular to the face of the wall or an approved alternate method of diverting water away from the foundation shall be used. Consideration shall be given to the possible additional settlement of the backfill when establishing the final ground level adjacent to the foundation.

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SECTION 3. BE IT FURTHER ENACTED that the provisions of this Act are hereby declared to be severable; and, in the event that any section, subsection, paragraph, subparagraph, sentence, clause, phrase, or word of this Act is declared invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the remaining words, phrases, clauses, sentences, subparagraphs, paragraphs, subsections, or sections of this Act, since the same would have been enacted without the incorporation in this Act of any such invalid or unconstitutional word, phrase, clause, sentence, subparagraph, subsection, or section.

SECTION 4. BE IT FURTHER ENACTED that this Act shall take effect forty-five (45) calendar days after it becomes law and shall be abrogated and of no further force and effect one year from the date it becomes law.

Adopted this 23rd day of November, 2004.

COUNTY COUNCIL OF PRINCE
GEORGE'S COUNTY, MARYLAND

BY: _____
Tony Knotts
Chairman

ATTEST:

_____
Redis C. Floyd
Clerk of the Council

APPROVED:

DATE: _____ BY: _____
Jack B. Johnson
County Executive

KEY:
Underscoring indicates language added to existing law.
[Brackets] indicate language deleted from existing law.
Asterisks *** indicate intervening existing Code provisions that remain unchanged.