

Introduced _____
Public Hearing _____
Council Action _____
Executive Action _____
Effective Date _____

County Council of Howard County, Maryland

2026 Legislative Session

Legislative Day No. 12

Bill No. 61 -2026

Introduced by: The Chairperson at the request of the County Executive

Short Title: Amending Floodplain Provisions – FEMA and MEMA requirements.

Title: AN ACT, in accordance with Federal Emergency Management Agency and Maryland Emergency Management Agency requirements, updating certain floodplain provisions of the County Code; defining certain terms; setting forth the purpose, authority and findings for County floodplain requirements; clarifying the agencies who review requests for alternative compliance; providing for certain submissions and certain inspections; prohibiting certain development and certain activities in certain Special Flood Hazard Areas, including FEMA Special Flood Hazard Areas and Community Special Flood Hazard Areas; setting the basis for the establishment of Special Flood Hazard Areas; setting forth the duties and responsibilities of the Floodplain Administrator and County Departments and Agencies; providing for certain permits, applications and permit review; imposing certain subdivision and development requirements on Floodplain areas; setting forth standards and conditions and an application process for alternative compliance; updating and defining terms; allowing for certain enforcement; and generally relating to floodplain regulations in Howard County.

Introduced and read first time _____, 2026. Ordered posted and hearing scheduled.

By order _____
Michelle Harrod, Administrator

Having been posted and notice of time & place of hearing & title of Bill having been published according to Charter, the Bill was read for a second time at a public hearing on _____, 2026.

By order _____
Michelle Harrod, Administrator

This Bill was read the third time on _____, 2026 and Passed ___, Passed with amendments ___, Failed ____.

By order _____
Michelle Harrod, Administrator

Sealed with the County Seal and presented to the County Executive for approval this ___ day of _____, 2026 at ___ a.m./p.m.

By order _____
Michelle Harrod, Administrator

Approved/Vetoed by the County Executive _____, 2026

Calvin Ball, County Executive

NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN SMALL CAPITALS indicates additions to existing law; ~~Strike-out~~ indicates material deleted by amendment; Underlining indicates material added by amendment

1 **WHEREAS**, the intent of this Bill is to adopt Howard County’s updated Floodplain
2 Management Ordinance based on the Maryland Model Floodplain Ordinance and recent Federal
3 Emergency Management Agency (FEMA) guidance, while preserving and clarifying existing
4 County-specific standards; and
5

6 **WHEREAS**, this update supports continued compliance with the National Flood Insurance
7 Program (NFIP), maintains eligibility for FEMA funding, and reflects lessons learned from recent
8 flood events; and
9

10 **WHEREAS**, the proposed Bill aligns County code with current Federal and State
11 requirements, incorporates new locally developed floodplain data, and modernizes regulatory
12 language to better protect life, property, and public infrastructure.
13

14 **NOW, THEREFORE,**
15

16 ***Section 1. Be It Enacted** by the County Council of Howard County, Maryland, that the Howard*
17 *County Code is amended as follows:*

18 *By Repealing and Reenacting:*

19 *Title 16, Subtitle 7*
20

21 *By Amending:*

22 *Section 3.101. Amendments to the International Building Code, 2024 Edition.*

23 *Subsection (b)(36) and Subsection (b)(78)*
24

25 *Section 16.108. Rules of construction; definitions*

26 *Subsection (b)(23) and Subsection (32.1)*
27

28 *Section 16.115*
29

30 *Section 16.133. Storm Drainage.*

31 *Subsection (d)*

1
2 *Section 16.145. Sketch plan; preliminary equivalent sketch plan.*

3 *Subsection (c)*
4

5 *Section 16.146. Preliminary Plan.*

6 *Subsection (c)*
7

8 *Section 16.157. Required information for site development plans*

9 *Subsection (b)*
10

11 *Section 16.1201. Definitions*

12 *Subsections (v) and (bb)*
13

14 *Section 16.1205. Forest Retention Policies.*

15 *Subsection (b)*
16

17 *Section 16.1028. Reforestation and afforestation location priorities, preferred location,*
18 *and preferred methods.*

19 *Subsection (a)*
20

21 *Section 18.901. Definitions.*
22

23 *Section 18.905. Stormwater management design process.*

24 *Subsection (b).*
25

26 **Title 3. Buildings.**

27 **Subtitle 1. Building Code.**

28 29 **Section 3.101. Amendments to the International Building Code, 2024 Edition.**

30 (b) *Local Amendments.* The following amendments modify certain provisions of the adopted
31 code.

1
2 (36) *Subsection 111.1 Change of occupancy.*

3 After the first sentence, insert the following:

4 If there is an approved site development plan and grading has occurred, the Building
5 Official shall not issue a certificate of use and occupancy unless the permittee submits a
6 certification by a registered land surveyor that the site grading and drainage courses are in
7 compliance with the approved site development plan. If there is not an approved site
8 development plan and grading has occurred, the permittee shall submit a certification by
9 a registered land surveyor that the site grading and drainage courses are in compliance
10 with the approved erosion and sediment control plan and grading plan. The certification
11 shall be submitted to the County. The fine grading and soil stabilization may be deferred
12 until the following growing season upon the posting of adequate surety equal to the cost
13 to complete the grading and stabilization. PER TITLE 16, SUBTITLE 7, SEC. 16.702(H)
14 SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION, FOR DEVELOPMENT IN DESIGNATED
15 FLOODPLAINS, THE BUILDING OFFICIAL SHALL NOT PERFORM THE FINAL INSPECTION OR
16 ISSUE A CERTIFICATE OF USE AND OCCUPANCY UNLESS THE PERMITTEE SUBMITS AN
17 ELEVATION CERTIFICATE AND OTHER CONSTRUCTION CERTIFICATES AS APPLICABLE: NON-
18 CONVERSION AGREEMENT, NON-RESIDENTIAL FLOODPROOFING CERTIFICATE,
19 ENGINEERED OPENING CERTIFICATE, AND NO-RISE CERTIFICATION.

20
21 (78) *Section 3115 Floodplain.*

22 Add new Section 3115 after Section 3114 as follows:

23 **Section 3115 Floodplain.**

24 **3115.1 General.** For the purpose of this Section, the [[floodplain is]] DESIGNATED
25 FLOODPLAINS ARE delineated in title 16, subtitle 7 of the Howard County Code.

26 **3115.2 Within designated floodplain.**

27 The construction, reconstruction, modification, alteration, repair, or improvement of
28 buildings, manufactured homes, or other structures located within a designated floodplain
29 shall be done in accordance with the requirements set forth in this section.

30 **3115.2.1 New construction.** New residential or nonresidential DEVELOPMENT AND
31 construction shall not occur within a designated floodplain.

Exception 1: An existing nonconforming structure located within a designated floodplain [[which is destroyed by fire or flood, or]] that sustains substantial damage may be restored to the same size and dimension and in the same location on the same lot as the [[destroyed]] SUBSTANTIALLY DAMAGED structure, provided construction begins within 12 months of the date of [[destruction]] SUBSTANTIAL DAMAGE. Construction shall comply with the elevating and floodproofing requirements of subsection 3115.4 for new construction adjacent to a floodplain. A person shall not intentionally demolish or reconstruct any nonconforming structure. This exception does not apply to manufactured homes. A manufactured home cannot be restored under any condition within a designated floodplain.

Exception 2: Transportation networks, utility installations, piers, open pier structures, and open decks approved by the Department of Public Works ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR. Streets, sidewalks, pathways, and utility systems in accordance with the Howard County Design Manual and all other applicable codes, ordinances, resolutions, and regulations.

3115.2.2 Additions and enlargements. Existing nonconforming structures located within a designated floodplain shall not be expanded or enlarged.

3115.2.3 Modifications, alterations, and repairs. Modifications, alterations, repairs, or improvements that cost less than 50% of the fair market value of the structure may be made to existing nonconforming structures located within a designated floodplain without floodproofing or elevating if the owner demonstrates through a Maryland State registered professional engineer that floodproofing or elevating is impractical.

3115.3 Substantial improvements within a designated floodplain. Substantial improvements within a designated floodplain shall meet the standards set forth in this subsection and Title 16, Subtitle 7 of the Howard County Code.

3115.3.1. Residential. The lowest floor, including a basement, of substantial improvements to existing nonconforming residential structures located within a designated floodplain shall be elevated to at least [[2]] TWO feet above the [[100-year]] BASE flood elevation.

3115.3.2. Nonresidential. The lowest floor, including a basement, of substantial improvements to existing nonconforming nonresidential structures shall be elevated to at

1 least [[2]]TWO above the [[100-year]]BASE flood elevation or shall be designed so that
2 any area of the building which is lower than [[2]]TWO feet above the [[100-year]]BASE
3 flood elevation, as determined or approved by the Department of Public Works ON
4 BEHALF OF THE FLOODPLAIN ADMINISTRATOR, is watertight with walls substantially
5 impermeable to the passage of water and with structural components having the
6 capability of withstanding applicable hydrostatic, hydrodynamic, impact, soil, and, when
7 applicable, hurricane and tidal wave loading conditions. The water tightness and
8 structural capabilities shall be those described in floodproofing regulations published by
9 the Office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or
10 subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County Code.

11 **3115.4 Construction adjacent to a designated floodplain.** Where buildings are located
12 adjacent to a designated floodplain the following subsections and Title 16, Subtitle 7 of
13 the Howard County Code shall apply:

14 **3115.4.1 Residential.** In new construction of residential buildings or additions or
15 substantial improvements to residential buildings, all floors, including those of basement
16 and storage areas, shall be elevated at least [[2]]TWO feet above the [[100-year]]BASE
17 flood level AND SHALL NOT BE LOCATED WITHIN FLOOD PROTECTION SETBACK AREAS.

18 **3115.4.2 Nonresidential.** In new construction of nonresidential buildings or additions or
19 substantial improvements to nonresidential buildings, either:

- 20 (i) All floors (including those of basement and storage areas) shall be elevated at least
21 [[2]]TWO feet above the [[100-year]]BASE flood level AND SHALL NOT BE LOCATED
22 WITHIN FLOOD PROTECTION SETBACK AREAS[[,]] as determined or approved by the
23 Department of [[Public Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF
24 THE FLOODPLAIN ADMINISTRATOR; or
- 25 (ii) The construction or improvement (including attendant utility or sanitary facilities)
26 shall be designed so that any areas of the building that are lower than [[2]]TWO feet
27 above the [[100-year]]BASE flood elevation AND/OR WITHIN FLOOD PROTECTION
28 SETBACK AREAS, as determined or approved by the Department of [[Public Works]]
29 INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN
30 ADMINISTRATOR, are watertight with walls substantially impermeable to the passage
31 of water and with structural components having the capability of withstanding

1 applicable hydrostatic, hydrodynamic, impact, soil, and, when applicable, hurricane
2 and tidal wave loading conditions. Electrical, heating, ventilation, plumbing, air
3 conditioning equipment, and other service facilities associated with the buildings
4 shall be designed or located to prevent water from entering or accumulating within
5 the components during flood conditions. The water tightness and structural
6 capabilities shall be those described in floodproofing regulations, published by the
7 office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or
8 subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County
9 Code.

10 **3115.4.3. Modifications, alterations or repairs.** Modifications, alterations, repairs, or
11 improvements that costs less than 50% of the fair market value of the structure may be
12 made to existing nonconforming structures located adjacent to a designated floodplain
13 WITHIN FLOOD PROTECTION SETBACK AREAS without floodproofing or elevating.

14 **3115.4.4. [[Variances]] ALTERNATIVE COMPLIANCE.** [[Variances]]ALTERNATIVE
15 COMPLIANCE to the requirements set forth in this subsection may be granted by the
16 [[Building Official]] HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING,
17 DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND
18 PERMITS in accordance with Section [[16.711]]16.706 of the Howard County Code.

19 **3115.5 Substantial improvements adjacent to a designated floodplain.** Substantial
20 improvements adjacent to a designated floodplain WITHIN FLOOD PROTECTION SETBACK
21 AREAS shall meet the standards set forth in this subsection and Title 16, Subtitle 7 of the
22 Howard County Code.

23 **3115.5.1 Residential.** The lowest floor, including a basement, of substantial
24 improvements to existing nonconforming residential structures located adjacent to a
25 designated floodplain WITHIN FLOOD PROTECTION SETBACK AREAS shall be elevated to at
26 least [[2]]TWO feet above the [[100-year]]BASE flood elevation.

27 **3115.5.2 Nonresidential.** The lowest floor, including a basement, of substantial
28 improvements to existing nonconforming nonresidential structures WITHIN FLOOD
29 PROTECTION SETBACK AREAS AND ALL ELECTRICAL, HEATING, VENTILATION, PLUMBING,
30 AIR-CONDITIONING EQUIPMENT, AND OTHER SERVICE FACILITIES ASSOCIATED WITH THE
31 BUILDINGS SHALL BE [[located adjacent to a designated floodplain shall be]] elevated to at

1 least [[2]]TWO feet above the [[100-year]]BASE flood elevation or shall be designed so
2 that any area of the building which is lower than [[2]]TWO feet above the [[100-
3 year]]BASE flood elevation, as determined or approved by the Department of [[Public
4 Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN
5 ADMINISTRATOR, is watertight with walls substantially impermeable to the passage of
6 water and with structural components having the capability of withstanding applicable
7 hydrostatic, hydrodynamic impact, soil, and, when applicable, hurricane and tidal wave
8 loading conditions. Electrical, heating, ventilation, plumbing, air conditioning equipment,
9 and other service facilities associated with the buildings shall be designed or located so as
10 to prevent water from entering or accumulating within the components during conditions
11 of flooding. The water tightness and structural capabilities shall be those described in
12 floodproofing regulations published by the Office of the Chief of Engineers, U.S. Army,
13 Washington, D.C., December 1995, or subsequent revisions, and Section
14 [[16.705(c)]]16.703(D) of the Howard County Code.

15 **3115.6 Verification.** For the purpose of verifying compliance with Section 3115.4 for
16 construction adjacent to a designated floodplain, the following shall apply:

- 17 (i) When floodproofing by means other than elevating, a document stating that the
18 proposed construction has been adequately designed to withstand the loading
19 conditions stated in subsection 3115.4.2(ii) shall be certified by a professional
20 engineer or architect currently registered in Maryland. This document shall be
21 required prior to issuance of a building permit.
- 22 (ii) When floodproofing by elevating is used, the owner shall agree, in writing, to provide
23 a FEMA elevation certificate form 086-0-33, completed by a professional engineer or
24 professional land surveyor currently registered in Maryland, certifying that the as-
25 built lowest floor of the structure is elevated at least [[2]]TWO feet above the [[100-
26 year floodplain]]BASE FLOOD elevation. The agreement shall be made prior to the
27 issuance of the building permit and the completed certification shall be submitted
28 prior to foundation approval by the Building Official.
- 29 (iii) Fair market value of a structure shall be established by a recent (within 6 months)
30 formal appraisal from a qualified appraiser. Fair market value shall not include land
31 value.

(iv) Cost to repair or improve a structure shall be established by a recent (within 6 months) written estimate from a licensed contractor and shall include the complete cost of repairs or improvements to the point of use or occupancy.

3115.7 Definitions. Notwithstanding Chapter 2 of the International Building Code, the following definitions SET FORTH IN SECTION 16.701 OF THIS CODE shall apply to Section 3115.0, Floodplain, of this Code: THE FOLLOWING WORDS OR PHRASES ARE DEFINED IN SECTION 16.701 OF THIS CODE.

Accessory structure. [[A detached structure on the same parcel or property as the principal structure that has a use that is incidental to the principal structure including, but not limited to, a shed or detached garage.]]

Adjacent to a floodplain. [[Sharing a common border with a floodplain.]]

AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE.

BASE BUILDING.

BASE FLOOD.

BASE FLOOD ELEVATION (BFE).

Basement. [[An enclosed area that is below grade on all sides.]]

BUILDING CODES.

CRITICAL AND ESSENTIAL FACILITIES.

DECLARATION OF LAND RESTRICTION (NON-CONVERSION AGREEMENT).

DESIGN MANUAL.

DEVELOPMENT.

ELEVATION CERTIFICATE.

ENCLOSURE BELOW THE LOWEST FLOOR.

ENGINEERED OPENING CERTIFICATE.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

FLOOD OR FLOODING.

FLOOD DAMAGE-RESISTANT MATERIALS.

FLOOD INSURANCE RATE MAP (FIRM) FLOOD OPENING.

FLOOD PROTECTION ELEVATION.

FLOOD PROTECTION SETBACK.

FLOOD ZONE.

1 **Floodplain.** [[Shall be as delineated in title 16, subtitle 7 of the Howard County Code.]]

2 **Floodproofing OR FLOODPROOFED.** [[Any combination of additions, changes, or
3 adjustments to a structure which reduce or eliminate flood damage to real estate or
4 improved real property, water or sanitary facilities, or structures and their contents, such
5 that the buildings or structures are watertight with walls substantially impermeable to the
6 passage of water and with structural components having the capability of resisting
7 hydrostatic and hydrodynamic loads and effects of buoyancy.]]

8 **FLOODPROOFING CERTIFICATE.**

9 **FREE-OF-OBSTRUCTION.**

10 **FUNCTIONALLY DEPENDENT USE.**

11 **HIGHEST ADJACENT GRADE.**

12 **Historic structure.** [[A building listed on the national register of historic places, a state
13 inventory of historic places, or an inventory of historic structures adopted by resolution of
14 the County Council. A historic structure also includes a structure that is certified or
15 preliminarily determined by the United States Secretary of the Interior as contributing to
16 the historical significance of a registered historic district or a district preliminarily
17 determined by the Secretary to qualify as a registered historic district.]]

18 **LICENSED**

19 **Lowest floor.** [[The lowest floor or the lowest enclosed area, including a basement.
20 Lowest floor does not include an unfinished or flood resistant enclosure used solely for
21 parking vehicles, building access, or storage in an area other than a basement area. The
22 enclosure shall not be built so as to render the structure in violation of the applicable non-
23 elevation design requirements of subsections 3115.4 and 3115.6 of this Code.]]

24 **Manufactured home.** [[A manufactured home shall have the meaning set forth in Title
25 16, Subtitle 7 of the Howard County Code.]]

26 **MARKET VALUE.**

27 **MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).**

28 **MIXED-USE STRUCTURE.**

29 **NATIONAL FLOOD INSURANCE PROGRAM (NFIP).**

30 **New construction.**[[Structures, including additions and improvements, and the
31 placement of manufactured homes, for which the start of construction commenced on or

1 after 3/15/1977, the initial effective date of the Howard County Flood Insurance Rate
2 Map, including any subsequent improvements, alterations, modifications, and additions
3 to such structures.

4 **The repair or replacement of a manufactured home because of substantial damage**
5 **is considered to be new construction and is prohibited in accordance with Section**
6 **3115.2.1 of this Code.]]**

7 **NO-RISE CERTIFICATION.**

8 **SPECIAL FLOOD HAZARD AREA (SFHA).**

9 **START OF CONSTRUCTION.**

10 **Structure.** [[For purposes of this Subsection 3115 to this Code, shall have the meaning
11 set forth in Title 16, Subtitle 7 of the Howard County Code.]]

12 **Substantial damage.** [[Damage of any origin sustained by a structure where the cost of
13 returning the structure to its condition prior to damage would equal or exceed 50% of the
14 structure's fair market value before the damage occurred.]]

15 **Substantial improvement.** [[The repair, reconstruction, or improvement of a building or
16 structure, the cost of which is equal to or greater than 50% of the fair market value of the
17 building or structure prior to damage, improvement, or repair. For the purpose of this
18 definition, "substantial improvement" occurs when the first alteration of a wall, ceiling,
19 floor, or other structural part of the building begins, whether or not that alteration affects
20 the external dimensions of the building or structure. The term does not include any
21 project for improving a building or structure to comply with existing State or local health,
22 sanitary, or housing code requirements which are necessary to assure safe living
23 conditions. This term does not include an alteration of a historic structure provided that
24 the alteration will not preclude the structure's continued designation as a historic
25 structure.]]

26 **TEMPORARY STRUCTURE.**

27 **Variance.** [[The grant of relief from a term of this subtitle.]]

28 **VIOLATION.**

29
30 **3115.8 ALTERNATIVE COMPLIANCE, Variances and waivers.** Except as provided in
31 Section 3115.4 of this Code, [[a]] AN ALTERNATIVE COMPLIANCE, variance or waiver of

1 this section is not allowed. The [[building official]]HOWARD COUNTY DEPARTMENT OF
2 PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF
3 INSPECTIONS, LICENSES, AND PERMITS shall consider [[a variance]] AN ALTERNATIVE
4 COMPLIANCE in accordance with the provisions of Section [[16.711]]16.706 of the
5 Howard County Code.

6 **3115.9 Other agencies.** A permit issued by the Building Official under this Subtitle is
7 not valid until all necessary permits for the development are obtained. Receipt of
8 [[federal]]FEDERAL or State permits do not exempt a development from the provisions of
9 this Subtitle.

10
11 **3115.10 INSPECTIONS.** ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE
12 DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL MAKE PERIODIC
13 INSPECTIONS OF DEVELOPMENT PERMITTED IN SPECIAL FLOOD HAZARD AREAS, AT
14 APPROPRIATE TIMES THROUGHOUT THE PERIOD OF CONSTRUCTION IN ORDER TO MONITOR
15 COMPLIANCE. SUCH INSPECTIONS MAY INCLUDE:

- 16 (I) STAKE-OUT INSPECTION, TO DETERMINE LOCATION ON THE SITE RELATIVE TO THE
17 FLOOD HAZARD AREA AND DESIGNATED FLOODWAY.
- 18 (II) FOUNDATION INSPECTION, UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO
19 FURTHER VERTICAL CONSTRUCTION, TO COLLECT INFORMATION OR CERTIFICATION OF
20 THE ELEVATION OF THE LOWEST FLOOR.
- 21 (III)INSPECTION OF ENCLOSURES BELOW THE LOWEST FLOOR, INCLUDING
22 CRAWL/UNDERFLOOR SPACES, TO DETERMINE COMPLIANCE WITH APPLICABLE
23 PROVISIONS.
- 24 (IV) UTILITY INSPECTION, UPON INSTALLATION OF SPECIFIED EQUIPMENT AND
25 APPLIANCES, TO DETERMINE APPROPRIATE LOCATION WITH RESPECT TO THE BASE
26 FLOOD ELEVATION.
- 27 (V) FINAL INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

28
29 **3115.11 SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION.** PURSUANT TO THE
30 AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE SUBMITTED WITH THE APPLICATION
31 AS REQUIRED IN SECTION 16.702(E)(1)(IX)(A), THE PERMITTEE SHALL HAVE AN ELEVATION

CERTIFICATE PREPARED AND SUBMITTED PRIOR TO FINAL INSPECTION AND ISSUANCE OF A
CERTIFICATE OF OCCUPANCY FOR ELEVATED STRUCTURES AND MANUFACTURED HOMES,
INCLUDING NEW STRUCTURES AND MANUFACTURED HOMES, SUBSTANTIALLY-IMPROVED
STRUCTURES AND MANUFACTURED HOMES, AND ADDITIONS TO STRUCTURES AND
MANUFACTURED HOMES.

Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

Subtitle 1. Subdivisions and Land Development Regulations.

Article I. General.

Section 16.108. Rules of construction; definitions.

(b) *Definitions.* As used in these regulations, the following terms shall be defined as follows:

(23) *Floodplain* [[means that area which would be inundated by stormwater runoff
equivalent to that which would occur from a rainfall of 100-year frequency, assuming
total development of the watershed as shown in the general plan of the County.
Floodplain determination shall be in accordance with the Design Manual]]SHALL HAVE
THE MEANING SET FORTH IN SECTION 16.701 OF THIS CODE.

(32.1) *Net area* means the gross area minus all steep slopes existing at the time of
subdivision and the area within the 100-year floodplain INCLUDING ANY SPECIAL FLOOD
HAZARD AREA WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND
COMMUNITY SPECIAL FLOOD HAZARD AREAS.

Title 16. Subdivision and Land Development Regulations.

Subtitle 1. Subdivisions and Land Development Regulations.

Article II. Design Standards and Requirements.

Section 16.115. Floodplain preservation.

(a) *Development Restricted in [[100-Year Floodplain (Base Flood Elevation)]]SPECIAL FLOOD
HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL
FLOOD HAZARD AREAS.* Development within the boundaries of the [[100-year floodplain (base

1 flood elevation))]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD
2 HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, shall be pursuant to title
3 16, subtitle 7 of this Code. Most land within [[base flood elevation]] SPECIAL FLOOD HAZARD
4 AREAS, FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD
5 AREAS, is considered a protection area (i.e., a stream valley or valuable ecological area or
6 scenic resource) [[which]], WHICH is shown:

- 7 (1) In the General Plan of Howard County for conservation status; or
- 8 (2) In the master plan of parks for acquisition as a conservation area; or
- 9 (3) In the capital improvement program for acquisition as a conservation area.

10 (b) *Floodplain Protection*. In subdivisions and site development plans containing [[a 100-year
11 floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA
12 SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, the
13 floodplain land shall be protected in accordance with one of the following alternatives. Prior
14 to the recordation of the final plat and final acceptance of the construction drawings, a deed
15 description of the floodplain will be provided when requested.

16 (1) *Deed the floodplain land to the County*. Developers are encouraged to dedicate and deed
17 the land in [[the 100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD
18 AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL
19 FLOOD HAZARD AREAS, to Howard County as permanent open space.

20 (2) *Grant a floodplain easement to Howard County*. If the floodplain is not dedicated to the
21 County, the developer shall grant the County right of entry through a perpetual easement,
22 and shall:

23 (i) Dedicate and deed the land area within the [[100-year floodplain (base flood
24 elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD
25 HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, in fee simple to a
26 legally constituted property owners association. The property owners association may
27 use the area in any manner consistent with the maintenance and preservation of the
28 area as a floodplain; or

29 (ii) Include the [[100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD
30 AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL
31 FLOOD HAZARD AREAS, within the boundary of the lots in accordance with section

1 16.120 of this subtitle. The property owner whose lot includes floodplain area may
2 use the area in any manner consistent with the maintenance and preservation of the
3 area as a floodplain.

4 (c) *Prohibitions on Use of Floodplain Land:*

5 (1) A person shall not store materials of any kind in a [[floodplain]] SPECIAL FLOOD HAZARD
6 AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL
7 FLOOD HAZARD AREAS, either temporarily or permanently. Accordingly, building
8 materials and other debris shall not be stored or discarded in [[floodplains]] SPECIAL
9 FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND
10 COMMUNITY SPECIAL FLOOD HAZARD AREAS, UNLESS APPROVED AS A NECESSARY
11 DISTURBANCE UNDER PARAGRAPH (3) OF THIS SUBSECTION .

12 (2) No clearing, excavating, filling, altering drainage, or impervious paving, may occur on
13 land located in [[a floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA
14 SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS,
15 unless [[required or authorized by the Department of Planning and Zoning upon the
16 advice of]] APPROVED AS A NECESSARY DISTURBANCE UNDER PARAGRAPH (3) OF THIS
17 SUBSECTION OR AUTHORIZED THROUGH AN ALTERNATIVE COMPLIANCE PER SECTION
18 16.104 FOLLOWING THE CRITERIA AS DESCRIBED IN 16.706, APPROVED BY THE
19 DEPARTMENT OF PLANNING AND ZONING, the Department of Inspections, Licenses and
20 Permits, OFFICE OF COMMUNITY SUSTAINABILITY AND the Department of Public Works[[,
21 the Department of Recreation and Parks,]]UPON THE ADVICE OF the Soil Conservation
22 District, or the Maryland Department of the Environment. Any proposed construction of
23 a structure located within [[a floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING
24 FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD
25 AREAS, shall be subject to the requirements of the Howard County Building Code AND
26 TITLE 16, SUBTITLE 7 OF THE HOWARD COUNTY CODE.

27 (3) THE ACTIVITIES PROHIBITED BY PARAGRAPHS (1) AND (2) ARE ONLY ALLOWED IN SPECIAL
28 FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND
29 COMMUNITY SPECIAL FLOOD HAZARD AREAS, IF THE DEPARTMENT OF PLANNING AND
30 ZONING IN CONSULTATION WITH THE DEPARTMENT OF INSPECTIONS, LICENSES AND

PERMITS AND THE DEPARTMENT OF PUBLIC WORKS DETERMINES BASED ON A DETAILED JUSTIFICATION PROVIDED BY THE DEVELOPER THAT:

(I) IT IS NECESSARY FOR CONSTRUCTION OF PUBLIC OR PRIVATE ROADS, DRIVEWAYS, UTILITIES, TRAILS, PATHWAYS, OR STORMWATER MANAGEMENT FACILITIES WHICH ARE ESSENTIAL FOR REASONABLE DEVELOPMENT OF THE PROPERTY;

(II) THE DESIGN MINIMIZES DISTURBANCE;

(III) THERE IS NO OTHER REASONABLE ALTERNATIVE; AND

(IV) THE COST OF AN ALTERNATIVE IMPROVEMENT SHALL NOT BE A FACTOR IN DECIDING WHETHER THE CRITERIA IN SUBJECT SUBSECTION (1) ABOVE CAN BE MET.

(d) *Delineation on Final Plats and Site Development Plans.* *[[Floodplain limits]]* SPECIAL FLOOD HAZARD AREA LIMITS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS LIMITS, shall be clearly defined, except for agricultural preservation subdivisions and rural cluster subdivisions where the *[[floodplain is]]* SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, ARE obviously not critical to the proposed development as defined by the Design Manual nor critical to calculation of forest conservation obligations. Final plats and site development plans shall show the following information:

(1) *[[Floodplain]]* SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREA AND COMMUNITY SPECIAL FLOOD HAZARD AREA, elevations at every bearing change to be designated along floodplain limits. Elevation shall be designated at not greater than 200-foot horizontal intervals.

(2) Bearings and distances or coordinated values along each line.

(3) The area shall be labeled as "100-year floodplain, drainage, and utility easement".

Title 16. Subdivision and Land Development Regulations.

Subtitle 1. Subdivisions and Land Development Regulations.

Article III. Required Improvements.

1 **Section 16.133. Storm drainage.**

2 (d) *Restriction on Construction in 100-year floodplain* INCLUDING ANY SPECIAL FLOOD HAZARD
3 AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD
4 HAZARD AREAS. Construction on land within the 100-year floodplain INCLUDING ANY
5 SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND
6 COMMUNITY SPECIAL FLOOD HAZARD AREAS shall be subject to the restrictions of section
7 16.115, "Floodplain Preservation."
8

9 **Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.**

10 **Subtitle 1. Subdivisions and Land Development Regulations.**

11 **Article IV. Procedures for filing and processing subdivision applications.**
12

13 **Section 16.145. Sketch plan; preliminary equivalent sketch plan.**

14 (c) *Required Information.* A checklist specifying the required information format for sketch plan
15 submission is to be provided by the Department of Planning and Zoning. For all types of
16 subdivisions, except for apartments, the sketch plan, drawn on 24-inch by 36-inch sheets to
17 scale one inch equals 200 feet, or as approved by the Department of Planning and Zoning
18 shall be submitted on a topographic map, accompanied by an application form, checklist, and
19 fee and the following items. Apartment developments shall be drawn at a scale of one inch
20 equals 100 feet or one inch equals 50 feet and shall also provide the information required in
21 paragraph (16) of this subsection. The Department of Planning and Zoning will provide a
22 separate submission checklist for a preliminary equivalent sketch plan that incorporates
23 appropriate requirements from the checklists for both sketch and preliminary plans.

24 (1) Name and address of developer, owner, engineer, and/or surveyor.

25 (2) Adjoining property owners, deed references and recorded subdivision names, recording
26 references and adjoining property structures within 200 feet of the proposed property
27 line. Provide information regarding any adjoining undeveloped parcel that is landlocked
28 or has insufficient frontage which may need access through the proposed subdivision.

29 (3) Development data, including land characteristics, availability of public utilities, existing
30 and proposed individual wells, individual septic systems, and shared sewage disposal
31 facilities, existing and proposed recreation, park and conservation areas, existing and

1 proposed street systems, scenic roads, existing and proposed stormwater management
2 systems, preliminary lot layout, approximate 100-year floodplain INCLUDING ANY
3 SPECIAL FLOOD HAZARD AREA, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD
4 AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, limits, wetlands and
5 streambanks, wetland and stream buffers or steep slopes, if any.

6 (4) Vicinity map.

7 (5) North arrow.

8 (6) The title block shall be in the lower right-hand corner and include:

9 (i) Proposed subdivision name which shall not be a duplicate of any other subdivision or
10 development name in the Baltimore Metropolitan Area;

11 (ii) Scale of plan;

12 (iii) Location by election districts, County, and State;

13 (iv) Tax map, parcel number; and

14 (v) Date.

15 (7) List of street names which, if approved by the Department of Planning and Zoning, will
16 be reserved for that subdivision.

17 (8) Existing zoning, number of acres and proposed lots.

18 (9) Soils map at the scale of the subdivision plan with the boundary plotted and the mapping
19 symbols indicated within the mapping boundaries.

20 (10) Forest stand delineation as described in subtitle 12 of this title.

21 (11) Whenever the sketch plan covers only a part of an applicant's contiguous holdings, the
22 applicant shall submit, at the same scale as above, a sketch of the proposed subdivision
23 area, with its proposed street system and an indication of the probable future street and
24 drainage system of the remaining portion of the tract.

25 (12) The location and approximate age of any burial grounds or existing structures and
26 whether structures are to be retained or removed. A cemetery boundary documentation
27 and accommodation plan shall be submitted, if applicable pursuant to the requirements of
28 subtitle 13, "Cemetery Preservation," of this title.

29 (13) The phasing schedule, if the subdivision is to be phased.

30 (14) A traffic study pursuant to the requirements of subtitle 11, "Adequate Public Facilities,"
31 of this title.

- (15) Additional information which may be required by the review committee to evaluate the plan.
- (16) For apartment developments, the sketch plan shall be submitted for the entire acreage of contiguous ownership in accordance with paragraphs (1) through (15) of this subsection and shall include the following additional items:
- (i) Approximate location of each building, setbacks from all streets (public or private), property lines, and distances between buildings.
 - (ii) Number of apartment units in each building.
 - (iii) Number of parking spaces in each off-street parking area, and total number of parking spaces.
 - (iv) Interior road or street access, whether public or private, and total area of each.
- (17) For development of a site abutting a scenic road, the following are required:
- (i) Location of views and viewsheds as seen along the entire frontage of the scenic road, indicated on the plan.
 - (ii) Photographs, perspective sketches or elevations of the property as necessary to adequately portray the visual character of the scenic road right-of-way and the site as viewed from the scenic road.
 - (iii) Perspective sketches, elevations or cross-sections of the proposed development as viewed from the scenic road, showing the relationship of development to the scenic character of the landscape as viewed from the road.
- (18) Location of overhead utility line maintenance easements that would conflict with proposed landscaping or forest buffers, if any.
- (19) For cluster and density receiving subdivisions in the RC or RR zoning districts, a written explanation of how the proposed design meets the objectives set forth in sections 104.F.2, 105.F.2, or 106.F.3 of the zoning regulations.
- (20) For residential developments required to hold presubmission community meetings in accordance with section 16.128 of this subtitle, a certification that meeting notices were mailed and a summary of the comments made at the meeting.
- (21) For residential development projects requesting green neighborhood allocations, the preliminary equivalent sketch plan shall demonstrate how the project will comply with the green neighborhood site portion of the green neighborhood checklist.

(22) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms "redevelopment" and "golf course" shall have the meaning set forth in section 16.129 of this subtitle.

Section 16.146. Preliminary plan.

(c) *Required Information for Preliminary Plan.* A checklist specifying the format for preliminary plan submission shall be provided by the Department of Planning and Zoning. The following information shall be required for all preliminary plans:

(1) The preliminary plan shall be submitted at a scale of one inch equals 100 feet, one inch equals 50 feet or as approved by the Department of Planning and Zoning and shall be clear and legible. The size of a sheet shall be 24 inches by 36 inches. When more than one sheet is required, an index sheet of the same size shall be submitted showing the entire subdivision drawn to scale.

(2) Vicinity map indicating the location of the property with respect to surrounding property and streets to an accurate scale.

(3) The names, liber, and folio of all adjoining unsubdivided property. If a recorded subdivision adjoins the land to be developed, the subdivision name, lot number, block number, and recording number shall be indicated with dashed lines.

(4) Title block shall be in the lower right-hand corner and include:

(i) Proposed subdivision name, which shall not be a duplicate of any subdivision or development name in the Baltimore Metropolitan Area;

(ii) Section number;

(iii) Scale of plan;

(iv) Location by election district, County, and State;

(v) Date; and

(vi) Tax map and parcel number.

(5) Name and address of the owner and/or developer and registered engineer or other professional person licensed in the State of Maryland responsible for the preparation of the plan; signature, and seal of engineer, or other professional person qualified by law

and licensed in the State of Maryland to sign and seal the preliminary plan and corporation (if corporate developer) is required.

(6) North arrow.

(7) Boundary of proposed subdivision clearly indicated by a heavy line with bearings and distances.

(8) All existing pertinent features, either natural or manmade, on-site or within 200 feet of the project property line that may influence the design of the subdivision, including streambanks, wetlands, floodplains, required buffers, soil characteristics, forests or important trees, utility rights-of-way including maintenance easements, individual well and septic systems and shared sewage disposal systems, or existing buildings, structures, and burial grounds. Indicate the approximate age of any structure and whether it is to be retained or removed. A cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title.

(9) Existing topography at two-foot contour intervals. Contour lines shall be indicated 200 feet beyond subdivision boundary.

(10) Location, widths, and names of all streets or alleys on or adjoining the subdivision.

Existing easements and streets which have been preliminarily approved or recorded but remain unimproved shall be indicated with dashed lines.

(11) The layout of all proposed streets, including widths of rights-of-way and pavements, widths and locations of sidewalks or paths, and general location of street trees.

(12) Location of existing and proposed utilities on or adjoining the tract, indicating approximate pipe sizes and directions of slopes. Include electric and telephone poles, street lights, and fire hydrants. If no hydrants, indicate provisions for fire protection.

(13) The layout of all proposed and existing lots with appropriate dimensions and minimum area in square feet (acres if lot size is greater than 60,000 square feet), section number and area number, and required front, side, and rear setbacks except in the New Town district.

(14) All subdivisions shall be tied to the Maryland Coordinate System if control points and information are within one mile of proposed subdivision. Coordinate values needed on all

1 points on the boundary of the preliminary plan shall be presented in tabular form.

2 Original monument references may be obtained from the Department of Public Works.

3 (15) Lot numbers in numerical order throughout the entire subdivision for single-family lots.

4 Apartment, condominium, commercial, industrial and bulk parcels will be designated by
5 letters in alphabetical order.

6 (16) The approximate location, dimensions, and area of all property proposed to be reserved
7 or temporarily reserved for public use, or reserved for the use of all property owners in
8 the subdivision and the location, dimensions, and purposes of any proposed easements.

9 (17) Zoning district classification governing the subject tract and adjoining properties.

10 (18) Proposed drainage and stormwater management systems including the type of
11 structures, drainage easements, proposed changes in topography, the 100-year floodplain
12 INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD
13 HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, and any deviations
14 from standards. Justification shall be provided for rejecting preferred stormwater
15 management measures in favor of less preferred methods unless predetermined by the
16 Department of Planning and Zoning, after consultation with the Director of Public
17 Works, and in accordance with the Design Manual.

18 (19) If a private sewage or water supply system or shared sewage disposal system is to be
19 used, location and results of soil percolation tests and locations of water wells are to be
20 indicated in accordance with the specifications of the Maryland State Department of
21 Environment. Signature block for County Health officer should be provided on the
22 percolation plan or the plan sheets showing required well and septic information. No
23 other sheets require signature by the Health Officer.

24 (20) Total number of lots, area of lots, and parcels, area of public roadway and open space
25 dedications, and total area of subdivision should be listed.

26 (21) Locations and extent of proposed erosion and sediment control measures, as required,
27 by the Howard County Soil Conservation District shall be shown.

28 (22) Soil map at the scale of the subdivision plan, with the boundary plotted and the
29 mapping symbols indicated within the mapping boundaries.

30 (23) Preliminary forest conservation plan as described in subtitle 12 of this title.

1 (24) The following information shall accompany the submission of the preliminary plan in
2 accordance with requirements contained in the design manual:

3 (i) Tentative profiles of each street center line and typical cross section of each type of
4 street.

5 (ii) Preliminary drainage area map and preliminary storm drainage study for the entire
6 area covered by the preliminary subdivision plan. The storm drainage study shall
7 include an evaluation of drainage structures and/or drainage systems, both upstream
8 and downstream, affected by the drainage from the area covered by the preliminary
9 plan as required by section 16.133 of this subtitle.

10 (iii) Preliminary grading plan showing limits of disturbance, grading for subdivision
11 improvements and mass grading, if proposed. Schematic grading, for residential lots
12 smaller than 20,000 square feet in area shall be shown to demonstrate that units can
13 be accommodated without adverse drainage impacts or disturbance of floodplains,
14 wetland and stream buffers, or proposed forest conservation easements.

15 (25) A traffic study shall accompany all preliminary plans for subdivisions which are
16 required to pass the test for adequate road facilities pursuant to subtitle 11, "Adequate
17 Public Facilities," of this title and have not yet been tested or have to be tested because of
18 failure to meet a milestone.

19 (26) Preliminary landscape plan as described in subsection 16.124(a)(3)(i) of this title.

20 (27) In addition, preliminary plans for apartments shall include:

21 (i) Approximate location of each building, setbacks from all streets (public or private),
22 property lines, and distances between buildings.

23 (ii) Number of apartment units in each building.

24 (iii) Number of parking spaces in each off-street parking area, and total number of parking
25 spaces.

26 (iv) Interior road or street access, whether public or private, and total area of each.

27 (28) A developer who is proposing the redevelopment of a golf course shall comply with
28 section 16.129 of this subtitle, and, for purposes of this section, the terms
29 "redevelopment" and "golf course" shall have the meaning set forth in section 16.129 of
30 this subtitle.

1
2 **Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.**

3 **Subtitle 1. Subdivisions and Land Development Regulations.**

4 **Article V. Procedures for filing and processing site development plan applications.**

5
6 **Section 16.157. Required information for site development plans.**

7 **(b) *Information about Existing Conditions:***

- 8 (1) Vicinity map showing property location in relation to access roads with scale and north
9 arrow;
- 10 (2) Existing topography two-foot contour intervals for proposed parcel and adjacent
11 properties;
- 12 (3) Coordinate grids and ticks;
- 13 (4) One-hundred-year floodplains INCLUDING ANY SPECIAL FLOOD HAZARD AREA,
14 INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD
15 HAZARD AREAS;
- 16 (5) Wooded areas and major trees, including a forest stand delineation, if required;
- 17 (6) Buildings and structures, including sewage pretreatment structures;
- 18 (7) Utilities and fire hydrants;
- 19 (8) Existing roads and/or rights-of-way and other paving, scenic roads, trails, and proposed
20 State or County rights-of-way;
- 21 (9) Existing and proposed County parks, schools, or other public facilities;
- 22 (10) Easements of record with recording reference;
- 23 (11) Ponds, wetlands, wetlands buffers, streams and stream buffers;
- 24 (12) Howard County survey control stations shall be plotted accurately, identifying any that
25 require relocation;
- 26 (13) Accurately plotted lot or parcel showing property lines with bearings and distances;
- 27 (14) North arrow;
- 28 (15) Identification and zoning of adjacent properties;
- 29 (16) The location and approximate age of any existing structure and whether the structure is
30 to be retained or removed;

(17) The boundaries of burial grounds with a certification by the developer that the burial grounds have not and will not be disturbed except as permitted by law, or a certification that there are no burial grounds on the property being developed; a cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title;

(18) Legend; and

(19) General information, to include:

(i) Existing zoning;

(ii) Subdivision or final development plan reference, if appropriate;

(iii) Total area of submission;

(iv) Approved street names and numbers; and

(v) Other specific information as may be required by the zoning ordinance, including structure and use setbacks.

(20) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms *redevelopment* and *golf course* shall have the meaning set forth in section 16.129 of this subtitle.

Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

SUBTITLE 7. FLOODPLAIN.

SECTION 16.700. FINDINGS, STATUTORY AUTHORITY; PURPOSE; APPLICATION AREAS; BASIS FOR ESTABLISHMENT; ABROGATION AND GREATER RESTRICTIONS; INTERPRETATION; LIABILITY DISCLAIMER.

(A) *FINDINGS.* THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) HAS IDENTIFIED SPECIAL FLOOD HAZARD AREAS WITHIN THE BOUNDARIES OF HOWARD COUNTY, MARYLAND. SPECIAL FLOOD HAZARD AREAS ARE SUBJECT TO PERIODIC INUNDATION WHICH MAY RESULT IN LOSS OF LIFE AND PROPERTY, HEALTH AND SAFETY HAZARDS, DISRUPTION OF COMMERCE AND GOVERNMENTAL SERVICES, EXTRAORDINARY PUBLIC EXPENDITURES FOR FLOOD PROTECTION AND RELIEF, AND IMPAIRMENT OF THE TAX BASE, ALL OF WHICH ADVERSELY AFFECT THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE. *STRUCTURES* THAT ARE INADEQUATELY

1 ELEVATED, IMPROPERLY *FLOODPROOFED*, OR OTHERWISE UNPROTECTED FROM FLOOD DAMAGE
2 ALSO CONTRIBUTE TO FLOOD LOSSES.

3
4 HOWARD COUNTY, MARYLAND BY RESOLUTION, AGREED TO MEET THE REQUIREMENTS OF THE
5 NATIONAL FLOOD INSURANCE PROGRAM (NFIP) AND WAS ACCEPTED FOR PARTICIPATION IN
6 THE PROGRAM ON MARCH 15, 1977. AS OF THAT DATE, WHICH IS ALSO THE INITIAL EFFECTIVE
7 DATE OF THE HOWARD COUNTY, MARYLAND, FLOOD INSURANCE RATE MAP, ALL
8 DEVELOPMENT AND NEW CONSTRUCTION AS DEFINED HEREIN, ARE TO BE COMPLIANT WITH
9 THESE REGULATIONS.

10
11 (B) *STATUTORY AUTHORITY.* THE MARYLAND GENERAL ASSEMBLY, IN TITLE 4 OF THE LAND USE
12 ARTICLE OF THE ANNOTATED CODE OF MARYLAND, HAS ESTABLISHED AS POLICY OF THE
13 STATE THAT THE ORDERLY DEVELOPMENT AND USE OF LAND AND STRUCTURES REQUIRES
14 COMPREHENSIVE REGULATION THROUGH THE IMPLEMENTATION OF PLANNING AND ZONING
15 CONTROL, AND THAT PLANNING AND ZONING CONTROLS SHALL BE IMPLEMENTED BY LOCAL
16 GOVERNMENT IN ORDER TO, AMONG OTHER PURPOSES, SECURE THE PUBLIC SAFETY, PROMOTE
17 HEALTH AND GENERAL WELFARE, AND PROMOTE THE CONSERVATION OF NATURAL RESOURCES.
18 THEREFORE, HOWARD COUNTY ADOPTS FLOODPLAIN MANAGEMENT REGULATIONS AS
19 CONTAINED IN THIS SUBTITLE; TITLE 16, SUBTITLE 1 OF THIS CODE; AND THE HOWARD COUNTY
20 BUILDING CODE. IN THIS SUBTITLE, REFERENCES TO “THESE REGULATIONS” SHALL MEAN THIS
21 SUBTITLE; TITLE 16, SUBTITLE 1 OF THIS CODE AND THE HOWARD COUNTY BUILDING CODE.

22 (C) *PURPOSE.* IT IS THE PURPOSE OF THESE REGULATIONS IS TO PROMOTE THE PUBLIC HEALTH,
23 SAFETY AND GENERAL WELFARE, AND TO:

- 24 (1) PROTECT HUMAN LIFE, HEALTH AND WELFARE;
25 (2) ENCOURAGE THE UTILIZATION OF APPROPRIATE CONSTRUCTION PRACTICES IN ORDER TO
26 PREVENT OR MINIMIZE FLOOD DAMAGE IN THE FUTURE;
27 (3) MINIMIZE FLOODING OF WATER SUPPLY AND SANITARY SEWAGE DISPOSAL SYSTEMS;
28 (4) MAINTAIN NATURAL DRAINAGE;
29 (5) REDUCE FINANCIAL BURDENS IMPOSED ON THE COMMUNITY, ITS GOVERNMENTAL UNITS
30 AND ITS RESIDENTS, BY DISCOURAGING UNWISE DESIGN AND CONSTRUCTION OF
31 DEVELOPMENT IN AREAS SUBJECT TO FLOODING;

- 1 (6) MINIMIZE THE NEED FOR RESCUE AND RELIEF EFFORTS ASSOCIATED WITH FLOODING AND
2 GENERALLY UNDERTAKEN AT THE EXPENSE OF THE GENERAL PUBLIC;
3 (7) MINIMIZE PROLONGED BUSINESS INTERRUPTIONS;
4 (8) MINIMIZE DAMAGE TO PUBLIC FACILITIES AND OTHER UTILITIES SUCH AS WATER AND GAS
5 MAINS, ELECTRIC, TELEPHONE AND SEWER LINES, STREETS AND BRIDGES;
6 (9) REINFORCE THAT THOSE WHO BUILD IN AND OCCUPY SPECIAL FLOOD HAZARD AREAS,
7 INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD
8 HAZARD AREAS, SHOULD ASSUME RESPONSIBILITY FOR THEIR ACTIONS;
9 (10) MINIMIZE THE IMPACT OF DEVELOPMENT ON ADJACENT PROPERTIES WITHIN AND NEAR
10 FLOOD-PRONE AREAS;
11 (11) PROVIDE THAT THE FLOOD STORAGE AND CONVEYANCE FUNCTIONS OF FLOODPLAINS ARE
12 MAINTAINED;
13 (12) MINIMIZE THE IMPACT OF DEVELOPMENT ON THE NATURAL AND BENEFICIAL FUNCTIONS
14 OF FLOODPLAINS;
15 (13) PREVENT FLOODPLAIN USES THAT ARE EITHER HAZARDOUS OR ENVIRONMENTALLY
16 INCOMPATIBLE; AND
17 (14) MEET COMMUNITY PARTICIPATION REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE
18 PROGRAM AS SET FORTH IN THE CODE OF FEDERAL REGULATIONS (CFR) AT 44 C.F.R.
19 SECTION 59.22.

20 (D) *AREAS TO WHICH THESE REGULATIONS APPLY.*

21 THESE REGULATIONS SHALL APPLY TO ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA
22 SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, WITHIN
23 THE JURISDICTION OF HOWARD COUNTY, MARYLAND, AND IDENTIFIED IN SECTION 16.700(E).

24 (E) *BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BFEs.*

25 (1) FOR THE PURPOSES OF THESE REGULATIONS, THE MINIMUM BASIS FOR ESTABLISHING
26 SPECIAL FLOOD HAZARD AREAS AND BASE FLOOD ELEVATIONS IS:

- 27 (i) THE FLOOD INSURANCE STUDY FOR HOWARD COUNTY, MARYLAND, AND
28 INCORPORATED AREAS DATED NOVEMBER 6, 2013, OR THE MOST RECENT REVISION
29 THEREOF, AND THE ACCOMPANYING FLOOD INSURANCE RATE MAP(S) AND DIGITAL
30 DATA, AND ALL SUBSEQUENT AMENDMENTS AND REVISIONS TO THE FIRMS.

(ii) THE HOWARD COUNTY FLOODPLAINS DEVELOPED BY DETAILED STUDY AND BASE LEVEL ENGINEERING (BLE) METHODS IN FLOOD MODELING AND MAPPING: LITTLE PATUXENT RIVER AND PATAPSCO RIVER LOWER NORTH BRANCH WATERSHEDS, HOWARD COUNTY, MD, DATED JANUARY 2026, AND THE ACCOMPANYING MAPPING, DIGITAL DATA, AND ALL SUBSEQUENT AMENDMENTS AND REVISIONS, INCLUDING STUDIES AND MAPPING FOR ADDITIONAL WATERSHEDS.

(iii) THE FIS, FIRMS, AND REPORTS FOR THE HOWARD COUNTY FLOODPLAINS ARE RETAINED ON FILE AND AVAILABLE TO THE PUBLIC AT THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENVIRONMENTAL SERVICES, 9801 BROKEN LAND PARKWAY, COLUMBIA, MARYLAND, 21046, AND ON THE COUNTY'S DIGITAL FLOOD INSURANCE RATE MAP WEBSITE: [HTTPS://DATA.HOWARDCOUNTYMD.GOV/GDFIRM](https://data.howardcountymd.gov/gdfirm).

(2) WHERE FIELD SURVEYED TOPOGRAPHY OR DIGITAL TOPOGRAPHY INDICATES THAT GROUND ELEVATIONS ARE BELOW THE CLOSEST APPLICABLE BASE FLOOD ELEVATION, EVEN IN AREAS NOT DELINEATED AS A SPECIAL FLOOD HAZARD ON THE FIRM OR HOWARD COUNTY FLOODPLAINS, THE AREA SHALL BE CONSIDERED AS SPECIAL FLOOD HAZARD AREA.

(3) TO ESTABLISH BASE FLOOD ELEVATIONS IN SPECIAL FLOOD HAZARD AREAS THAT DO NOT HAVE SUCH ELEVATIONS SHOWN ON THE FIRM OR HOWARD COUNTY FLOODPLAINS, THE FLOODPLAIN ADMINISTRATOR MAY PROVIDE THE BEST AVAILABLE DATA FOR BASE FLOOD ELEVATIONS, MAY REQUIRE THE APPLICANT TO OBTAIN AVAILABLE INFORMATION FROM FEDERAL, STATE OR OTHER SOURCES, OR MAY REQUIRE THE APPLICANT TO ESTABLISH SPECIAL FLOOD HAZARD AREAS AND BASE FLOOD ELEVATIONS AS SET FORTH IN SECTION 16.702(C), SECTION 16.702(D), AND SECTION 16.702(E) OF THESE REGULATIONS.

(F) *ABROGATION AND GREATER RESTRICTIONS*. REGULATIONS GOVERNING THE FLOODPLAIN ARE NOT INTENDED TO REPEAL OR ABROGATE ANY EXISTING REGULATIONS AND ORDINANCES, INCLUDING SUBDIVISION REGULATIONS; THE HOWARD COUNTY ZONING REGULATIONS; THE HOWARD COUNTY BUILDING CODE, THIS SUBTITLE; TITLE 16, SUBTITLE 1; OR ANY EXISTING EASEMENTS, COVENANTS, OR DEED RESTRICTIONS. IF A CONFLICT EXISTS BETWEEN THESE REGULATIONS AND ANY OTHER CODE PROVISION, EASEMENT, COVENANT, OR DEED RESTRICTION, THE MORE RESTRICTIVE SHALL GOVERN.

(G) *INTERPRETATION*. IN THE INTERPRETATION AND APPLICATION OF THESE REGULATIONS, ALL PROVISIONS SHALL BE:

- 1 (1) CONSIDERED AS MINIMUM REQUIREMENTS;
2 (2) LIBERALLY CONSTRUED IN FAVOR OF THE GOVERNING BODY; AND,
3 (3) DEEMED NEITHER TO LIMIT NOR REPEAL ANY OTHER POWERS GRANTED UNDER STATE
4 STATUTES.

5
6 NOTES REFERENCING PUBLICATIONS OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY
7 REFER TO THE MOST RECENT EDITION OF THOSE PUBLICATIONS, ARE INTENDED ONLY AS
8 GUIDANCE, AND DO NOT BIND OR ALTER THE AUTHORITY OF THE FLOODPLAIN ADMINISTRATOR
9 TO INTERPRET AND APPLY THESE REGULATIONS.

10 (H) *WARNING AND DISCLAIMER OF LIABILITY*

11 THE DEGREE OF FLOOD PROTECTION REQUIRED BY THESE REGULATIONS IS CONSIDERED
12 REASONABLE FOR REGULATORY PURPOSES AND IS BASED ON SCIENTIFIC AND ENGINEERING
13 CONSIDERATIONS. LARGER FLOODS CAN AND WILL OCCUR, AND FLOOD HEIGHTS MAY BE
14 INCREASED BY MANMADE OR NATURAL CAUSES. THESE REGULATIONS DO NOT IMPLY THAT
15 LAND OUTSIDE OF THE SPECIAL FLOOD HAZARD AREAS OR USES THAT ARE PERMITTED WITHIN
16 SUCH AREAS WILL BE FREE FROM FLOODING OR FLOOD DAMAGE.

17
18 THESE REGULATIONS SHALL NOT CREATE LIABILITY ON THE PART OF HOWARD COUNTY,
19 MARYLAND, ANY OFFICER OR EMPLOYEE THEREOF, THE MARYLAND DEPARTMENT OF THE
20 ENVIRONMENT (MDE) OR THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FOR
21 ANY FLOOD DAMAGE THAT RESULTS FROM RELIANCE ON THESE REGULATIONS OR ANY
22 ADMINISTRATIVE DECISION LAWFULLY MADE HEREUNDER.

23
24 **SECTION 16.701. DEFINITIONS.**

25 EXCEPT AS SPECIFICALLY DEFINED IN THIS SECTION OR SECTION 3115 OF THE HOWARD COUNTY
26 BUILDING CODE, WORDS OR PHRASES USED IN THESE REGULATIONS SHALL BE INTERPRETED TO
27 HAVE THE MEANING THEY HAVE IN COMMON USAGE AND, WHERE NOT SPECIFICALLY DEFINED, ARE
28 GIVEN THE MOST REASONABLE APPLICATION:

- 29 (A) *ACCESSORY STRUCTURE AND AGRICULTURAL STRUCTURE*: A NON-RESIDENTIAL BUILDING OR
30 STRUCTURE ON THE SAME LOT WITH, AND OF A NATURE CUSTOMARILY INCIDENTAL AND
31 SUBORDINATE TO, THE PRINCIPAL STRUCTURE. FOR THE PURPOSES OF THESE FLOODPLAIN

1 REGULATIONS, THE PERMITTING THRESHOLDS AND EXEMPTIONS FOR ACCESSORY AND
2 AGRICULTURAL STRUCTURES DO NOT APPLY; PROPOSALS FOR ALL NEW CONSTRUCTION OF NEW
3 AND SUBSTANTIALLY IMPROVED ACCESSORY AND AGRICULTURAL STRUCTURES IN SPECIAL
4 FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY
5 SPECIAL FLOOD HAZARD AREAS, REQUIRE PERMITS. ACCESSORY STRUCTURES INCLUDE BUT
6 ARE NOT LIMITED TO DETACHED GARAGES, STORAGE SHEDS, GAZEBOS, PICNIC PAVILIONS,
7 BOATHOUSES, SMALL POLE BARNs, SWIMMING POOLS AND SPAS AND RELATED DECKING,
8 FENCES AND PRIVACY WALLS, EROSION CONTROL STRUCTURES, SPORTS COURTS, CONCRETE
9 SLABS AND PATIOS, AND ON-SITE SEPTIC SYSTEMS. AGRICULTURAL STRUCTURES ARE THOSE
10 USED EXCLUSIVELY IN CONNECTION WITH THE PRODUCTION, HARVESTING, STORAGE, RAISING
11 OR DRYING OF AGRICULTURAL COMMODITIES AND LIVESTOCK, INCLUDING STRUCTURES
12 RELATED TO AQUACULTURE. AGRICULTURAL STRUCTURES INCLUDE BUT ARE NOT LIMITED TO
13 BARNs, LOAFING SHEDS, POULTRY COOPS AND BROODERS, FENCING AND CORRALS, SILOS,
14 EQUIPMENT SHEDS, COLD STORAGE, GREENHOUSES, HOOP HOUSES, PUMP HOUSES, WORKSHOPS,
15 AND FARM STANDS.

16 (B) *ADJACENT TO A FLOODPLAIN*. PARCELS SHARING A COMMON BORDER WITH OR INTERSECTED BY
17 A SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND
18 COMMUNITY SPECIAL FLOOD HAZARD AREAS.

19 (C) *AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE*: A FORM ON WHICH THE APPLICANT FOR A
20 PERMIT TO CONSTRUCT A BUILDING OR STRUCTURE, TO CONSTRUCT CERTAIN HORIZONTAL
21 ADDITIONS, TO PLACE OR REPLACE A MANUFACTURED HOME, TO SUBSTANTIALLY IMPROVE A
22 BUILDING, STRUCTURE, OR MANUFACTURED HOME, AGREES TO HAVE AN ELEVATION
23 CERTIFICATE PREPARED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED PROFESSIONAL
24 SURVEYOR, AS SPECIFIED BY THE DIRECTOR OF THE DEPARTMENT OF INSPECTIONS, LICENSES
25 AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, AND TO SUBMIT THE
26 CERTIFICATE:

27 (1) UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL
28 CONSTRUCTION; AND

29 (2) PRIOR TO THE FINAL INSPECTION AND ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

30 (D) *ALTERATION OF A WATERCOURSE*: FOR THE PURPOSE OF THESE REGULATIONS, ALTERATION OF A
31 WATERCOURSE INCLUDES, BUT IS NOT LIMITED TO WIDENING, DEEPENING OR RELOCATING THE

CHANNEL, INCLUDING EXCAVATION OR FILLING OF THE CHANNEL. ALTERATION OF A WATERCOURSE DOES NOT INCLUDE CONSTRUCTION OF A ROAD, BRIDGE, CULVERT, DAM, OR IN-STREAM POND UNLESS THE CHANNEL IS PROPOSED TO BE REALIGNED OR RELOCATED AS PART OF SUCH CONSTRUCTION.

(E) *AREA OF SHALLOW FLOODING*: A DESIGNATED ZONE AO ON THE FLOOD INSURANCE RATE MAP WITH A 1-PERCENT ANNUAL CHANCE OR GREATER OF FLOODING TO AN AVERAGE DEPTH OF ONE TO THREE FEET WHERE A CLEARLY DEFINED CHANNEL DOES NOT EXIST, WHERE THE PATH OF FLOODING IS UNPREDICTABLE, AND WHERE VELOCITY FLOW MAY BE EVIDENT; SUCH FLOODING IS CHARACTERIZED BY PONDING OR SHEET FLOW.

(F) *BASE BUILDING*: THE BUILDING TO WHICH AN ADDITION IS BEING ADDED. THIS TERM IS USED IN PROVISIONS RELATING TO ADDITIONS.

(G) *BASE FLOOD*: THE FLOOD HAVING A ONE-PERCENT CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR; THE BASE FLOOD ALSO IS REFERRED TO AS THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD.

(H) *BASE FLOOD ELEVATION*: THE WATER SURFACE ELEVATION OF THE BASE FLOOD IN RELATION TO THE DATUM SPECIFIED ON THE COMMUNITY'S FLOOD INSURANCE RATE MAP AND HOWARD COUNTY FLOODPLAINS. IN AREAS OF SHALLOW FLOODING, THE BASE FLOOD ELEVATION IS THE HIGHEST ADJACENT NATURAL GRADE ELEVATION PLUS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FLOOD INSURANCE RATE MAP, OR AT LEAST FOUR (4) FEET IF THE DEPTH NUMBER IS NOT SPECIFIED.

(I) *BASEMENT*: ANY AREA OF THE BUILDING HAVING ITS FLOOR SUBGRADE (BELOW GROUND LEVEL) ON ALL SIDES.

(J) *BUILDING CODE(S)*: THE BUILDING CODE OF HOWARD COUNTY ADOPTED PURSUANT TO SUBTITLE 1, "BUILDING CODE" OF TITLE 3, "BUILDINGS," OF THE HOWARD COUNTY CODE, THE EFFECTIVE MARYLAND BUILDING PERFORMANCE STANDARDS (COMAR 05.02.07), INCLUDING THE BUILDING CODE, RESIDENTIAL CODE, AND EXISTING BUILDING CODE.

(K) *COMMUNITY*: A POLITICAL SUBDIVISION OF THE STATE OF MARYLAND (COUNTY, CITY OR TOWN) THAT HAS AUTHORITY TO ADOPT AND ENFORCE FLOODPLAIN MANAGEMENT REGULATIONS WITHIN ITS JURISDICTIONAL BOUNDARIES.

(L) *CRITICAL AND ESSENTIAL FACILITIES*: BUILDINGS AND OTHER STRUCTURES THAT ARE INTENDED TO REMAIN OPERATIONAL IN THE EVENT OF EXTREME ENVIRONMENTAL LOADING FROM FLOOD,

1 WIND, SNOW OR EARTHQUAKES. [NOTE: SEE MARYLAND BUILDING PERFORMANCE
2 STANDARDS, SEC. 1602 AND TABLE 1604.5.] CRITICAL AND ESSENTIAL FACILITIES TYPICALLY
3 INCLUDE HOSPITALS, FIRE STATIONS, POLICE STATIONS, STORAGE OF CRITICAL RECORDS,
4 FACILITIES THAT HANDLE OR STORE HAZARDOUS MATERIALS, AND SIMILAR FACILITIES.

5 (M) *DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT)*: A FORM SIGNED BY THE
6 OWNER TO AGREE NOT TO CONVERT OR MODIFY IN ANY MANNER THAT IS INCONSISTENT WITH
7 THE TERMS OF THE PERMIT AND THESE REGULATIONS, CERTAIN ENCLOSURES BELOW THE
8 LOWEST FLOOR OF ELEVATED BUILDINGS AND CERTAIN ACCESSORY STRUCTURES. THE FORM
9 REQUIRES THE OWNER TO RECORD IT ON THE PROPERTY DEED TO INFORM FUTURE OWNERS OF
10 THE RESTRICTIONS.

11 (N) *DESIGN MANUAL*. HOWARD COUNTY'S TECHNICAL STANDARDS, APPROVED BY RESOLUTION OF
12 THE COUNTY COUNCIL, FOR DESIGN, CONSTRUCTION AND INSPECTION OF BRIDGES, ROADS,
13 STORM DRAINAGE STRUCTURES, STORMWATER MANAGEMENT SYSTEMS, SIDEWALKS,
14 WALKWAYS, PARKING AREAS, TRAFFIC CONTROL DEVICES, WATER AND SEWER FACILITIES, AND
15 OTHER IMPROVEMENTS.

16 (O) *DEVELOPMENT*: ANY MANMADE CHANGE TO IMPROVED OR UNIMPROVED REAL ESTATE,
17 INCLUDING BUT NOT LIMITED TO BUILDINGS OR OTHER STRUCTURES INCLUDING ACCESSORY
18 STRUCTURES AND AGRICULTURAL STRUCTURES, PLACEMENT OF MANUFACTURED HOMES,
19 MINING, DREDGING, FILLING, GRADING, PAVING, EXCAVATION, DRILLING OPERATIONS,
20 STORAGE OF EQUIPMENT OR MATERIALS, AND ANY AGRICULTURAL EARTH-MOVING PRACTICES
21 THAT ALTER THE TOPOGRAPHY, DRAINAGE, OR CROSS-SECTIONAL PROFILE OF THE LAND SUCH
22 AS GRADING AND FILLING, EXCAVATION AND DREDGING, DRAINAGE ALTERATION,
23 STREAMBANK ALTERATIONS, LEVEE AND BERM CONSTRUCTION, AND LAND CLEARING AND
24 GRUBBING. ROUTINE AGRICULTURAL PRACTICES SUCH AS TILLING, PLANTING, AND
25 HARVESTING ARE CONSIDERED NORMAL LAND MAINTENANCE AND ARE NOT CONSIDERED
26 DEVELOPMENT, PROVIDED THEY DO NOT INVOLVE SIGNIFICANT CHANGES TO THE LAND'S
27 SURFACE ELEVATION.

28 (P) *ELEVATION CERTIFICATE*: FEMA FORM ON WHICH SURVEYED ELEVATIONS AND OTHER DATA
29 PERTINENT TO A PROPERTY AND A BUILDING ARE IDENTIFIED AND WHICH SHALL BE COMPLETED
30 BY A LICENSED PROFESSIONAL LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER, AS
31 SPECIFIED BY THE DIRECTOR OF THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS

ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR. WHEN USED TO DOCUMENT THE HEIGHT ABOVE GRADE OF BUILDINGS IN SPECIAL FLOOD HAZARD AREAS FOR WHICH BASE FLOOD ELEVATION DATA ARE NOT AVAILABLE, THE ELEVATION CERTIFICATE SHALL BE COMPLETED IN ACCORDANCE WITH THE INSTRUCTIONS ISSUED BY FEMA. [NOTE: FEMA FORM 086-0-33 AND INSTRUCTIONS ARE AVAILABLE ONLINE AT [HTTPS://WWW.FEMA.GOV/MEDIA-LIBRARY/ASSETS/DOCUMENTS/160](https://www.fema.gov/media-library/assets/documents/160).]

(Q) *ENCLOSURE BELOW THE LOWEST FLOOR*: AN UNFINISHED OR FLOOD-RESISTANT ENCLOSURE THAT IS LOCATED BELOW AN ELEVATED BUILDING, IS SURROUNDED BY WALLS ON ALL SIDES, AND IS USABLE SOLELY FOR PARKING OF VEHICLES, BUILDING ACCESS OR STORAGE, IN AN AREA OTHER THAN A BASEMENT AREA, PROVIDED THAT SUCH ENCLOSURE IS BUILT IN ACCORDANCE WITH THE APPLICABLE DESIGN REQUIREMENTS SPECIFIED IN THESE REGULATIONS. ALSO SEE “LOWEST FLOOR.”

(R) *FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)*: THE FEDERAL AGENCY WITH THE OVERALL RESPONSIBILITY FOR ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM.

(S) *FLOOD OR FLOODING*: A GENERAL AND TEMPORARY CONDITION OF PARTIAL OR COMPLETE INUNDATION OF NORMALLY DRY LAND AREAS FROM:

(1) THE OVERFLOW OF INLAND OR TIDAL WATERS, AND/OR

(2) THE UNUSUAL AND RAPID ACCUMULATION OR RUNOFF OF SURFACE WATERS FROM ANY SOURCE.

(T) *FLOOD DAMAGE-RESISTANT MATERIALS*: ANY CONSTRUCTION MATERIAL THAT IS CAPABLE OF WITHSTANDING DIRECT AND PROLONGED CONTACT WITH FLOODWATERS WITHOUT SUSTAINING ANY DAMAGE THAT REQUIRES MORE THAN COSMETIC REPAIR. [NOTE: SEE NFIP TECHNICAL BULLETIN #2, “FLOOD DAMAGE-RESISTANT MATERIALS REQUIREMENTS.”]

(U) *FLOOD INSURANCE RATE MAP (FIRM)*: AN OFFICIAL MAP ON WHICH THE FEDERAL EMERGENCY MANAGEMENT AGENCY HAS DELINEATED SPECIAL FLOOD HAZARD AREAS TO INDICATE THE MAGNITUDE AND NATURE OF FLOOD HAZARDS, TO DESIGNATE APPLICABLE FLOOD ZONES, AND TO DELINEATE FLOODWAYS, IF APPLICABLE. FIRMS THAT HAVE BEEN PREPARED IN DIGITAL FORMAT OR CONVERTED TO DIGITAL FORMAT ARE REFERRED TO AS DIGITAL FIRMS (DFIRM).

(V) *FLOOD INSURANCE STUDY (FIS)*: THE OFFICIAL REPORT IN WHICH THE FEDERAL EMERGENCY MANAGEMENT AGENCY HAS PROVIDED FLOOD PROFILES, FLOODWAY INFORMATION, AND THE WATER SURFACE ELEVATIONS.

(w) *FLOOD OPENING*: A FLOOD OPENING (NON-ENGINEERED) IS AN OPENING THAT IS USED TO MEET THE PRESCRIPTIVE REQUIREMENT OF 1 SQUARE INCH OF NET OPEN AREA FOR EVERY SQUARE FOOT OF ENCLOSED AREA. AN ENGINEERED FLOOD OPENING IS AN OPENING THAT IS DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT AS MEETING CERTAIN PERFORMANCE CHARACTERISTICS, INCLUDING PROVIDING AUTOMATIC ENTRY AND EXIT OF FLOODWATERS; THIS CERTIFICATION REQUIREMENT MAY BE SATISFIED BY AN INDIVIDUAL CERTIFICATION FOR A SPECIFIC STRUCTURE OR ISSUANCE OF AN EVALUATION REPORT BY THE ICC EVALUATION SERVICE, INC. [NOTE: SEE NFIP TECHNICAL BULLETIN #1, "OPENINGS IN FOUNDATION WALLS AND WALLS OF ENCLOSURES."]

(x) *FLOOD PROTECTION ELEVATION*: THE BASE FLOOD ELEVATION PLUS TWO (2) FEET OF FREEBOARD. FREEBOARD IS A FACTOR OF SAFETY THAT COMPENSATES FOR UNCERTAINTY IN FACTORS THAT COULD CONTRIBUTE TO FLOOD HEIGHTS GREATER THAN THE HEIGHT CALCULATED FOR A SELECTED SIZE FLOOD AND FLOODWAY CONDITIONS, SUCH AS WAVE ACTION, OBSTRUCTED BRIDGE OPENINGS, DEBRIS AND ICE JAMS, CLIMATE CHANGE, AND THE HYDROLOGIC EFFECT OF URBANIZATION IN A WATERSHED.

(y) *FLOOD PROTECTION SETBACK*: A DISTANCE MEASURED PERPENDICULAR TO THE SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, THAT DELINEATES AN AREA TO BE LEFT UNDISTURBED TO MINIMIZE FUTURE FLOOD DAMAGE AND TO RECOGNIZE THE POTENTIAL FOR BANK EROSION ON PARCELS INTERSECTED BY SPECIAL FLOOD HAZARD AREAS. ALONG NONTIDAL WATERS OF THE STATE IN HOWARD COUNTY, MARYLAND, THE FLOOD PROTECTION SETBACK IS DETERMINED BY THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS ON A CASE-BY-CASE BASIS RELATIVE TO SITE-SPECIFIC CONDITIONS, INCLUDING:

(1) THE EXISTENCE OF WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS, AND STEEP SLOPES

(2) THE REQUIREMENTS SET FORTH IN SECTION 16.116 OF THIS CODE. .

(z) *FLOOD ZONE*: A DESIGNATION FOR AREAS THAT ARE SHOWN ON FLOOD INSURANCE RATE MAPS AND HOWARD COUNTY FLOODPLAINS:

(1) *ZONE A*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD; BASE FLOOD ELEVATIONS MAY OR MAY NOT BE DETERMINED.

- (2) *ZONE AE AND ZONE A1-30*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD; BASE FLOOD ELEVATIONS ARE DETERMINED; FLOODWAYS MAY OR MAY NOT BE DETERMINED.
- (3) *ZONE AH AND ZONE AO*: AREAS OF SHALLOW FLOODING, WITH FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY AREAS OF PONDING OR SHEET FLOW ON SLOPING TERRAIN), WITH OR WITHOUT BFEs OR DESIGNATED FLOOD DEPTHS.
- (4) *ZONE B AND ZONE X (SHADED)*: AREAS SUBJECT TO INUNDATION BY THE 0.2-PERCENT ANNUAL CHANCE (500-YEAR) FLOOD; AND AREAS SUBJECT TO THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD WITH CONTRIBUTING DRAINAGE AREA LESS THAN 1 SQUARE MILE. SHADED X ZONES SUBJECT TO THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD WITH CONTRIBUTING DRAINAGE AREA LESS THAN 1 SQUARE MILE ARE CONSIDERED COMMUNITY SPECIAL FLOOD HAZARD AREAS IN HOWARD COUNTY, MARYLAND.
- (5) *ZONE C AND ZONE X (UNSHADED)*: AREAS OUTSIDE OF ZONES DESIGNATED A, AE, A1-30, AO, VE, V1-30, B, AND X (SHADED).
- (6) *ZONE VE AND ZONE V1-30*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD AND SUBJECT TO HIGH VELOCITY WAVE ACTION.
- (7) HOWARD COUNTY 30-ACRE 100-YEAR FLOODPLAIN: COMMUNITY SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD.
- (8) HOWARD COUNTY 30-ACRE 500-YEAR FLOODPLAIN: AREAS SUBJECT TO INUNDATION BY THE 0.2-PERCENT ANNUAL CHANCE (500-YEAR) FLOOD.
- (AA) *FLOODPLAIN*: ANY LAND AREA SUSCEPTIBLE TO BEING INUNDATED BY WATER FROM ANY SOURCE (SEE DEFINITION OF "FLOOD" OR "FLOODING"). EACH REFERENCE IN THE HOWARD COUNTY CODE OR THE HOWARD COUNTY ZONING REGULATIONS TO THE "100-YEAR FLOODPLAIN" SHALL MEAN SPECIAL FLOOD HAZARD AREA INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.
- (AB) *FLOODPROOFING OR FLOODPROOFED*: ANY COMBINATION OF STRUCTURAL AND NONSTRUCTURAL ADDITIONS, CHANGES, OR ADJUSTMENTS TO BUILDINGS OR STRUCTURES WHICH REDUCE OR ELIMINATE FLOOD DAMAGE TO REAL ESTATE OR IMPROVED REAL PROPERTY, WATER AND SANITARY FACILITIES, STRUCTURES AND THEIR CONTENTS, SUCH THAT THE

1 BUILDINGS OR STRUCTURES ARE WATERTIGHT WITH WALLS SUBSTANTIALLY IMPERMEABLE TO
2 THE PASSAGE OF WATER AND WITH STRUCTURAL COMPONENTS HAVING THE CAPABILITY OF
3 RESISTING HYDROSTATIC AND HYDRODYNAMIC LOADS AND EFFECTS OF BUOYANCY. [NOTE:
4 STATE REGULATIONS AT COMAR 26.17.04.11(B)(7) DO NOT ALLOW NEW NONRESIDENTIAL
5 BUILDINGS IN NONTIDAL WATERS OF THE STATE TO BE FLOODPROOFED.]

6 (AC) *FLOODPROOFING CERTIFICATE*: FEMA FORM THAT IS TO BE COMPLETED, SIGNED AND
7 SEALED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT TO CERTIFY THAT
8 THE DESIGN OF FLOODPROOFING AND PROPOSED METHODS OF CONSTRUCTION ARE IN
9 ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.704(E)(2) OF THIS
10 SUBTITLE. [NOTE: FEMA FORM 086-0-34 IS AVAILABLE ONLINE AT
11 [HTTPS://WWW.FEMA.GOV/MEDIA-LIBRARY/ASSETS/DOCUMENTS/2748](https://www.fema.gov/media-library/assets/documents/2748).]

12 (AD) *FLOODWAY*: THE CHANNEL OF A RIVER OR OTHER WATERCOURSE AND THE ADJACENT LAND
13 AREAS THAT MUST BE RESERVED IN ORDER TO PASS THE BASE FLOOD DISCHARGE SUCH THAT
14 THE CUMULATIVE INCREASE IN THE WATER SURFACE ELEVATION OF THE BASE FLOOD
15 DISCHARGE IS NO MORE THAN A DESIGNATED HEIGHT, WHICH IS 0.0 FEET IN HOWARD COUNTY.
16 WHEN SHOWN ON A FIRM, THE FLOODWAY IS REFERRED TO AS THE “DESIGNATED
17 FLOODWAY.”

18 (AE) *FREE-OF-OBSTRUCTION*: A TERM THAT DESCRIBES OPEN FOUNDATIONS (PILINGS,
19 COLUMNS, OR PIERS) WITHOUT ATTACHED ELEMENTS OR FOUNDATION COMPONENTS THAT
20 WOULD OBSTRUCT THE FREE PASSAGE OF FLOODWATERS AND WAVES BENEATH STRUCTURES
21 THAT ARE ELEVATED ON SUCH FOUNDATIONS. [NOTE: SEE NFIP TECHNICAL BULLETIN #5,
22 “FREE-OF-OBSTRUCTION REQUIREMENTS.”]

23 (AF) *FUNCTIONALLY DEPENDENT USE*: A USE WHICH CANNOT PERFORM ITS INTENDED PURPOSE
24 UNLESS IT IS LOCATED OR CARRIED OUT IN CLOSE PROXIMITY TO WATER; THE TERM INCLUDES
25 ONLY DOCKING FACILITIES, PORT FACILITIES THAT ARE NECESSARY FOR THE LOADING AND
26 UNLOADING OF CARGO OR PASSENGERS, AND SHIP BUILDING AND SHIP REPAIR FACILITIES, BUT
27 DOES NOT INCLUDE LONG-TERM STORAGE OR RELATED MANUFACTURING FACILITIES.

28 (AG) *HIGHEST ADJACENT GRADE*: THE HIGHEST NATURAL ELEVATION OF THE GROUND SURFACE,
29 PRIOR TO CONSTRUCTION, NEXT TO THE PROPOSED FOUNDATION OF A STRUCTURE.

30 (AH) *HISTORIC STRUCTURE*:

31 (1) ANY STRUCTURE THAT IS:

- (I) INDIVIDUALLY LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES (A LISTING MAINTAINED BY THE U.S. DEPARTMENT OF THE INTERIOR);
- (II) DETERMINED BY THE SECRETARY OF THE INTERIOR OR THE MARYLAND STATE HISTORIC PRESERVATION OFFICER AS MEETING THE REQUIREMENTS FOR INDIVIDUAL LISTINGS ON THE NATIONAL REGISTER;
- (III) CERTIFIED OR PRELIMINARILY DETERMINED BY THE SECRETARY OF THE INTERIOR AS CONTRIBUTING TO THE HISTORICAL SIGNIFICANCE OF AN HISTORIC DISTRICT LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES; OR
- (IV) CERTIFIED OR PRELIMINARILY DETERMINED BY THE SECRETARY OF THE INTERIOR AS CONTRIBUTING TO THE HISTORICAL SIGNIFICANCE OF AN HISTORIC DISTRICT THAT MEETS THE REQUIREMENTS FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.
- (2) IF HOWARD COUNTY, MARYLAND, BECOMES A CERTIFIED LOCAL GOVERNMENT WITH THE NATIONAL PARK SERVICE, HISTORIC STRUCTURES ALSO INCLUDE ANY STRUCTURE THAT IS INDIVIDUALLY LISTED ON THE INVENTORY OF HISTORIC PLACES MAINTAINED BY HOWARD COUNTY, MARYLAND, WHOSE HISTORIC PRESERVATION PROGRAM HAS BEEN CERTIFIED BY THE MARYLAND HISTORICAL TRUST OR THE SECRETARY OF THE INTERIOR.
- (AI) *HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES*: ANALYSES PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICES THAT ARE ACCEPTED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (NONTIDAL WETLANDS & WATERWAYS) AND FEMA, USED TO DETERMINE THE BASE FLOOD, OTHER FREQUENCY FLOODS, FLOOD ELEVATIONS, FLOODWAY INFORMATION AND BOUNDARIES, AND FLOOD PROFILES.
- (AJ) *LETTER OF MAP CHANGE (LOMC)*: A LETTER OF MAP CHANGE IS AN OFFICIAL FEMA DETERMINATION, BY LETTER, THAT AMENDS OR REVISES AN EFFECTIVE FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY. LETTERS OF MAP CHANGE INCLUDE:
- (1) *LETTER OF MAP AMENDMENT (LOMA)*: AN AMENDMENT BASED ON TECHNICAL DATA SHOWING THAT A PROPERTY WAS INCORRECTLY INCLUDED IN A DESIGNATED FEMA SPECIAL FLOOD HAZARD AREA. A LOMA AMENDS THE CURRENT EFFECTIVE FLOOD INSURANCE RATE MAP AND ESTABLISHES THAT A SPECIFIC PROPERTY OR STRUCTURE IS NOT LOCATED IN A FEMA SPECIAL FLOOD HAZARD AREA.

1 (2) LETTER OF MAP REVISION (LOMR): A REVISION BASED ON TECHNICAL DATA THAT MAY
2 SHOW CHANGES TO EFFECTIVE FEMA FLOOD INSURANCE RATE MAP OR FLOOD
3 INSURANCE STUDY FLOOD ZONES, FLOOD ELEVATIONS, FLOODPLAIN AND FLOODWAY
4 DELINEATIONS, AND PLANIMETRIC FEATURES. A LETTER OF MAP REVISION BASED ON FILL
5 (LOMR-F), IS A DETERMINATION THAT A STRUCTURE OR PARCEL OF LAND HAS BEEN
6 ELEVATED BY FILL ABOVE THE BASE FLOOD ELEVATION AND IS, THEREFORE, NO LONGER
7 EXPOSED TO FLOODING ASSOCIATED WITH THE BASE FLOOD. IN ORDER TO QUALIFY FOR
8 THIS DETERMINATION, THE FILL MUST HAVE BEEN PERMITTED AND PLACED IN ACCORDANCE
9 WITH THE COMMUNITY'S FLOODPLAIN MANAGEMENT REGULATIONS.

10 (3) CONDITIONAL LETTER OF MAP REVISION (CLOMR): A FORMAL REVIEW AND COMMENT
11 AS TO WHETHER A PROPOSED FLOOD PROTECTION PROJECT OR OTHER PROJECT COMPLIES
12 WITH THE MINIMUM NFIP REQUIREMENTS FOR SUCH PROJECTS WITH RESPECT TO
13 DELINEATION OF FEMA SPECIAL FLOOD HAZARD AREAS. A CONDITIONAL LETTER OF MAP
14 REVISION BASED ON FILL (CLOMR-F) IS A DETERMINATION THAT A PARCEL OF LAND OR
15 PROPOSED STRUCTURE THAT WILL BE ELEVATED BY FILL WOULD NOT BE INUNDATED BY
16 THE BASE FLOOD IF FILL IS PLACED ON THE PARCEL AS PROPOSED OR THE STRUCTURE IS
17 BUILT AS PROPOSED. A CLOMR DOES NOT REVISE THE EFFECTIVE FLOOD INSURANCE
18 RATE MAP OR FLOOD INSURANCE STUDY; UPON SUBMISSION AND APPROVAL OF CERTIFIED
19 AS-BUILT DOCUMENTATION, A LETTER OF MAP REVISION MAY BE ISSUED BY FEMA, TO
20 REVISE THE EFFECTIVE FIRM.

21 (AK) *LICENSED*: AS USED IN THESE REGULATIONS, LICENSED REFERS TO PROFESSIONALS WHO
22 ARE AUTHORIZED TO PRACTICE IN THE STATE OF MARYLAND BY ISSUANCE OF LICENSES BY THE
23 MARYLAND BOARD OF ARCHITECTS, MARYLAND BOARD OF PROFESSIONAL ENGINEERS,
24 MARYLAND BOARD OF PROFESSIONAL LAND SURVEYORS, AND THE MARYLAND REAL ESTATE
25 APPRAISERS AND HOME INSPECTORS COMMISSION.

26 (AL) *LOWEST FLOOR*: THE LOWEST FLOOR OF THE LOWEST ENCLOSED AREA (INCLUDING
27 BASEMENT) OF A BUILDING OR STRUCTURE; THE FLOOR OF AN ENCLOSURE BELOW THE LOWEST
28 FLOOR IS NOT THE LOWEST FLOOR PROVIDED THE ENCLOSURE IS CONSTRUCTED IN
29 ACCORDANCE WITH THESE REGULATIONS, INCLUDING AN UNFINISHED OR FLOOD RESISTANT
30 ENCLOSURE USED SOLELY FOR PARKING VEHICLES, BUILDING ACCESS, OR STORAGE IN AN AREA
31 OTHER THAN A BASEMENT AREA. THE LOWEST FLOOR OF A MANUFACTURED HOME IS THE

1 BOTTOM OF THE LOWEST HORIZONTAL SUPPORTING MEMBER (LONGITUDINAL CHASSIS FRAME
2 BEAM). THE ENCLOSURE SHALL NOT BE BUILT SO AS TO RENDER THE STRUCTURE IN VIOLATION
3 OF THE APPLICABLE NON-ELEVATION DESIGN REQUIREMENTS OF SUBSECTIONS 3115.4 AND
4 3115.6 OF THE HOWARD COUNTY BUILDING CODE.

5 (AM) *MANUFACTURED HOME*: A STRUCTURE, TRANSPORTABLE IN ONE OR MORE SECTIONS,
6 WHICH IS BUILT ON A PERMANENT CHASSIS AND IS DESIGNED FOR USE WITH OR WITHOUT A
7 PERMANENT FOUNDATION WHEN CONNECTED TO THE REQUIRED UTILITIES. THE TERM
8 MANUFACTURED HOME DOES NOT INCLUDE A RECREATIONAL VEHICLE.

9 (AN) *MARKET VALUE*: THE PRICE AT WHICH A PROPERTY WILL CHANGE HANDS BETWEEN A
10 WILLING BUYER AND A WILLING SELLER, NEITHER PARTY BEING UNDER COMPULSION TO BUY
11 OR SELL AND BOTH HAVING REASONABLE KNOWLEDGE OF RELEVANT FACTS. FOR THE
12 PURPOSES OF THESE REGULATIONS, THE MARKET VALUE OF A BUILDING IS DETERMINED BY A
13 LICENSED REAL ESTATE APPRAISER OR THE MOST RECENT, FULL PHASED-IN ASSESSMENT VALUE
14 OF THE BUILDING (IMPROVEMENT) DETERMINED BY THE MARYLAND DEPARTMENT OF
15 ASSESSMENTS AND TAXATION.

16 (AO) *MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE)*: A PRINCIPAL DEPARTMENT OF THE
17 STATE OF MARYLAND THAT IS CHARGED WITH, AMONG OTHER RESPONSIBILITIES, THE
18 COORDINATION OF THE NATIONAL FLOOD INSURANCE PROGRAM IN MARYLAND (NFIP STATE
19 COORDINATOR) AND THE ADMINISTRATION OF REGULATORY PROGRAMS FOR DEVELOPMENT
20 AND CONSTRUCTION THAT OCCUR WITHIN THE WATERS OF THE STATE, INCLUDING NONTIDAL
21 WETLANDS, NONTIDAL WATERS AND FLOODPLAINS, AND STATE AND PRIVATE TIDAL WETLANDS
22 (TIDAL WETLANDS). UNLESS OTHERWISE SPECIFIED, “MDE” REFERS TO THE DEPARTMENT’S
23 WETLANDS AND WATERWAYS PROGRAM.

24 (AP) *MIXED-USE STRUCTURE*: ANY STRUCTURE THAT IS USED OR INTENDED FOR USE FOR A
25 MIXTURE OF NONRESIDENTIAL AND RESIDENTIAL USES IN THE SAME STRUCTURE.

26 (AQ) *NATIONAL FLOOD INSURANCE PROGRAM (NFIP)*: THE PROGRAM AUTHORIZED BY THE U.S.
27 CONGRESS IN 42 U.S.C. §§4001 - 4129. THE NFIP MAKES FLOOD INSURANCE COVERAGE
28 AVAILABLE IN COMMUNITIES THAT AGREE TO ADOPT AND ENFORCE MINIMUM REGULATORY
29 REQUIREMENTS FOR DEVELOPMENT IN AREAS PRONE TO FLOODING (SEE DEFINITION OF
30 “SPECIAL FLOOD HAZARD AREA”).

1 (AR) *NEW CONSTRUCTION*: STRUCTURES, INCLUDING ADDITIONS AND IMPROVEMENTS, AND THE
2 PLACEMENT OF MANUFACTURED HOMES, FOR WHICH THE START OF CONSTRUCTION
3 COMMENCED ON OR AFTER MARCH 15, 1977, THE INITIAL EFFECTIVE DATE OF THE HOWARD
4 COUNTY, MARYLAND, FLOOD INSURANCE RATE MAP, INCLUDING ANY SUBSEQUENT
5 IMPROVEMENTS, ALTERATIONS, MODIFICATIONS, AND ADDITIONS TO SUCH STRUCTURES. THE
6 REPAIR OR REPLACEMENT OF A MANUFACTURED HOME BECAUSE OF SUBSTANTIAL DAMAGE IS
7 CONSIDERED TO BE NEW CONSTRUCTION AND IS PROHIBITED IN ACCORDANCE WITH SECTION
8 3115.2.1 OF THE BUILDING CODE.

9 (AS) *NFIP STATE COORDINATOR*: SEE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

10 (AT) *NONTIDAL WATERS OF THE STATE*: SEE “WATERS OF THE STATE.” AS USED IN THESE
11 REGULATIONS, “NONTIDAL WATERS OF THE STATE” REFERS TO ANY STREAM OR BODY OF
12 WATER WITHIN THE STATE THAT IS SUBJECT TO STATE REGULATION, INCLUDING THE “100-
13 YEAR FREQUENCY FLOODPLAIN OF FREE-FLOWING WATERS.” COMAR 26.17.04 STATES THAT
14 “THE LANDWARD BOUNDARIES OF ANY TIDAL WATERS SHALL BE DEEMED COTERMINOUS WITH
15 THE WETLANDS BOUNDARY MAPS ADOPTED PURSUANT TO ENVIRONMENT ARTICLE, §16-301,
16 ANNOTATED CODE OF MARYLAND.” THEREFORE, THE BOUNDARY BETWEEN THE TIDAL AND
17 NONTIDAL WATERS OF THE STATE IS THE TIDAL WETLANDS BOUNDARY.

18 (AU) *NO-RISE CERTIFICATION*. AN ENCROACHMENT REVIEW THAT MUST BE SUBMITTED WHEN ANY
19 NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENT, OR REPAIR FOR A SUBSTANTIALLY
20 DAMAGED BUILDING IS PROPOSED IN OR ADJACENT TO THE SPECIAL FLOOD HAZARD AREA
21 (SFHA). THIS CERTIFICATION CERTIFIES THAT A DEVELOPMENT PROJECT WILL NOT AFFECT
22 FLOOD HEIGHTS UPSTREAM, DOWNSTREAM, OR ADJACENT TO THE PROJECT SITE. THE
23 PERMISSIBLE RISE FOR ANY SINGLE ENCROACHMENT IS ZERO FEET. THE CERTIFICATION MUST
24 BE SUPPORTED BY TECHNICAL DATA AND HYDRAULIC MODELING.

25 (AV) *PERSON*: AN INDIVIDUAL OR GROUP OF INDIVIDUALS, CORPORATION, PARTNERSHIP,
26 ASSOCIATION, OR ANY OTHER ENTITY, INCLUDING STATE AND LOCAL GOVERNMENTS AND
27 AGENCIES.

28 (AW) *RECREATIONAL VEHICLE*: A VEHICLE THAT IS BUILT ON A SINGLE CHASSIS, 400 SQUARE FEET
29 OR LESS WHEN MEASURED AT THE LARGEST HORIZONTAL PROJECTION, DESIGNED TO BE SELF-
30 PROPELLED OR PERMANENTLY TOWABLE BY A LIGHT DUTY TRUCK, AND DESIGNED PRIMARILY

1 NOT FOR USE AS A PERMANENT DWELLING, BUT AS TEMPORARY LIVING QUARTERS FOR
2 RECREATIONAL, CAMPING, TRAVEL, OR SEASONAL USE.

3 (AX) *REPETITIVE LOSS STRUCTURE*: MEANS A STRUCTURE COVERED UNDER AN NFIP FLOOD
4 INSURANCE POLICY THAT:

5 (1) HAS INCURRED *FLOOD*-RELATED DAMAGE ON 2 OR MORE OCCASIONS WITHIN ANY ROLLING
6 10-YEAR PERIOD, IN WHICH THE COST OF REPAIRS AT THE TIME OF EACH SUCH FLOOD
7 EVENT, ON AVERAGE, EQUALED OR EXCEEDED 25% OF THE VALUE OF THE STRUCTURE
8 BEFORE THE DAMAGE OCCURRED; AND

9 (2) AT THE TIME OF THE SECOND INCIDENCE OF *FLOOD* RELATED DAMAGE, THE CONTRACT FOR
10 *FLOOD* INSURANCE CONTAINS INCREASED COST OF COMPLIANCE COVERAGE.

11 (AY) *SEVERE REPETITIVE LOSS STRUCTURE*: MEANS A STRUCTURE THAT IS COVERED UNDER AN NFIP
12 *FLOOD* INSURANCE POLICY AND HAS INCURRED *FLOOD*-RELATED DAMAGE:

13 (1) FOR WHICH 4 OR MORE SEPARATE CLAIMS PAYMENTS HAVE BEEN MADE UNDER *FLOOD*
14 INSURANCE COVERAGE, WITH THE AMOUNT OF EACH CLAIM (INCLUDING BUILDING AND
15 CONTENTS PAYMENTS) EXCEEDING \$5,000, AND WITH THE CUMULATIVE AMOUNT OF SUCH
16 CLAIMS PAYMENTS EXCEEDING \$20,000; OR

17 (2) FOR WHICH AT LEAST 2 SEPARATE *FLOOD* INSURANCE CLAIMS PAYMENTS (BUILDING
18 PAYMENTS ONLY) HAVE BEEN MADE, WITH THE CUMULATIVE AMOUNT OF SUCH CLAIMS
19 EXCEEDING THE VALUE OF THE INSURED STRUCTURE.

20 (AZ) *SPECIAL FLOOD HAZARD AREA (SFHA)*: THE LAND IN THE FLOODPLAIN SUBJECT TO A ONE-
21 PERCENT OR GREATER CHANCE OF FLOODING IN ANY GIVEN YEAR. IN HOWARD COUNTY,
22 MARYLAND, SPECIAL FLOOD HAZARD AREAS INCLUDE FEMA SPECIAL FLOOD HAZARD
23 AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS. FEMA SPECIAL FLOOD HAZARD
24 AREAS ARE DESIGNATED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY IN *FLOOD*
25 *INSURANCE STUDIES* AND ON *FLOOD INSURANCE RATE MAPS* AS ZONES A, AE, AH, AO, A130,
26 AND A99, AND ZONES VE AND V1-30. COMMUNITY SPECIAL FLOOD HAZARD AREAS ARE
27 DESIGNED BY HOWARD COUNTY AS 1) FEMA SHADED X ZONES FOR 100-YEAR FLOODPLAINS
28 WITH DRAINAGE AREAS LESS THAN 1 SQUARE-MILE DESIGNED BY FEMA IN *FLOOD INSURANCE*
29 *STUDIES* AND ON *FLOOD INSURANCE RATE MAPS*, AND 2) AREAS SHOWN ON OTHER FLOOD MAPS
30 THAT ARE IDENTIFIED IN SECTION 16.700(E) OF THIS SUBTITLE INCLUDING HOWARD COUNTY
31 30-ACRE 100-YEAR FLOODPLAINS.

1 (BA) *START OF CONSTRUCTION*: THE DATE THE BUILDING PERMIT WAS ISSUED, PROVIDED THE
2 ACTUAL START OF CONSTRUCTION, REPAIR, RECONSTRUCTION, REHABILITATION, ADDITION
3 PLACEMENT, OR OTHER IMPROVEMENT WAS WITHIN 180 DAYS OF THE PERMIT DATE. THE
4 ACTUAL START MEANS EITHER THE FIRST PLACEMENT OF PERMANENT CONSTRUCTION OF A
5 STRUCTURE ON A SITE, SUCH AS THE POURING OF SLAB OR FOOTINGS, THE INSTALLATION OF
6 PILES, THE CONSTRUCTION OF COLUMNS, OR ANY WORK BEYOND THE STAGE OF EXCAVATION;
7 OR THE PLACEMENT OF A MANUFACTURED HOME ON A FOUNDATION. PERMANENT
8 CONSTRUCTION DOES NOT INCLUDE LAND PREPARATION, SUCH AS CLEARING, GRADING AND
9 FILLING; NOR DOES IT INCLUDE THE INSTALLATION OF STREETS AND/OR WALKWAYS; NOR DOES
10 IT INCLUDE EXCAVATION FOR A BASEMENT, FOOTINGS, PIERS, OR FOUNDATIONS OR THE
11 ERECTION OF TEMPORARY FORMS; NOR DOES IT INCLUDE THE INSTALLATION ON THE PROPERTY
12 OF ACCESSORY STRUCTURES, SUCH AS GARAGES OR SHEDS NOT OCCUPIED AS DWELLING UNITS
13 OR NOT PART OF THE MAIN STRUCTURE. FOR SUBSTANTIAL IMPROVEMENTS, THE ACTUAL START
14 OF CONSTRUCTION MEANS THE FIRST ALTERATION OF ANY WALL, CEILING, FLOOR, OR OTHER
15 STRUCTURAL PART OF A BUILDING, WHETHER OR NOT THAT ALTERATION AFFECTS THE
16 EXTERNAL DIMENSIONS OF THE BUILDING.

17 (BB) *STRUCTURE*: THAT WHICH IS BUILT OR CONSTRUCTED; SPECIFICALLY, A WALLED AND ROOFED
18 BUILDING, INCLUDING A GAS OR LIQUID STORAGE TANK THAT IS PRINCIPALLY ABOVE GROUND,
19 AS WELL AS A MANUFACTURED HOME AND ACCESSORY STRUCTURES.

20 (BC) *SUBSTANTIAL DAMAGE*: DAMAGE OF ANY ORIGIN SUSTAINED BY A BUILDING OR STRUCTURE
21 WHEREBY THE COST OF RESTORING THE BUILDING OR STRUCTURE TO ITS BEFORE DAMAGED
22 CONDITION WOULD EQUAL OR EXCEED 50 PERCENT OF THE MARKET VALUE OF THE BUILDING
23 OR STRUCTURE BEFORE THE DAMAGE OCCURRED. ALSO USED AS “SUBSTANTIALLY DAMAGED”
24 STRUCTURES. REPETITIVE LOSS STRUCTURES THAT ARE REPETITIVELY DAMAGED,
25 EXPERIENCING 2 FLOOD EVENTS IN 10 YEARS WHERE REPAIRS AVERAGED 25% OR MORE OF THE
26 MARKET VALUE, ARE CONSIDERED SUBSTANTIALLY DAMAGED. [NOTE: SEE “SUBSTANTIAL
27 IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE” (FEMA P-758).]

28 (BD) *SUBSTANTIAL IMPROVEMENT*: ANY RECONSTRUCTION, REHABILITATION, ADDITION, OR OTHER
29 IMPROVEMENT OF A BUILDING OR STRUCTURE TAKING PLACE DURING A PERIOD OF 5
30 CONSECUTIVE YEARS, THE CUMULATIVE, THE COST OF WHICH EQUALS OR EXCEEDS 50 PERCENT
31 OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE THE START OF CONSTRUCTION

1 OF THE IMPROVEMENT. THE TERM INCLUDES STRUCTURES WHICH HAVE INCURRED REPETITIVE
2 LOSS OR SUBSTANTIAL DAMAGE, REGARDLESS OF THE ACTUAL REPAIR WORK PERFORMED. THE
3 TERM DOES NOT, HOWEVER, INCLUDE EITHER:

4 (1) ANY PROJECT FOR IMPROVEMENT OF A BUILDING OR STRUCTURE TO CORRECT EXISTING
5 VIOLATIONS OF STATE OR LOCAL HEALTH, SANITARY, OR SAFETY CODE SPECIFICATIONS
6 WHICH HAVE BEEN IDENTIFIED BY THE LOCAL CODE ENFORCEMENT OFFICIAL PRIOR TO
7 SUBMISSION OF AN APPLICATION FOR A PERMIT AND WHICH ARE THE MINIMUM NECESSARY
8 TO ASSURE SAFE LIVING CONDITIONS; OR

9 (2) ANY ALTERATION OF A HISTORIC STRUCTURE, PROVIDED THAT THE ALTERATION WILL NOT
10 PRECLUDE THE STRUCTURE'S CONTINUED DESIGNATION AS A HISTORIC STRUCTURE.

11 [NOTE: SEE "SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE"
12 (FEMA P-758).]

13 (BE) *TEMPORARY STRUCTURE*: A STRUCTURE INSTALLED, USED, OR ERECTED FOR A PERIOD OF LESS
14 THAN 180 DAYS.

15 (BF) *VARIANCE*: A GRANT OF RELIEF FROM THE STRICT APPLICATION OF ONE OR MORE
16 REQUIREMENTS OF THESE REGULATIONS. IN HOWARD COUNTY, MARYLAND, A VARIANCE OF
17 THE FLOODPLAIN REGULATIONS IS KNOWN AS AN ALTERNATIVE COMPLIANCE.

18 (BG) *VIOLATION*: ANY CONSTRUCTION OR DEVELOPMENT IN A SPECIAL FLOOD HAZARD AREA THAT
19 IS BEING PERFORMED WITHOUT AN ISSUED PERMIT. THE FAILURE OF A BUILDING, STRUCTURE,
20 OR OTHER DEVELOPMENT FOR WHICH A PERMIT IS ISSUED TO BE FULLY COMPLIANT WITH THESE
21 REGULATIONS AND THE CONDITIONS OF THE ISSUED PERMIT. A BUILDING, STRUCTURE, OR
22 OTHER DEVELOPMENT WITHOUT THE REQUIRED DESIGN CERTIFICATIONS, THE ELEVATION
23 CERTIFICATE, OR OTHER EVIDENCE OF COMPLIANCE REQUIRED IS PRESUMED TO BE A
24 VIOLATION UNTIL SUCH TIME AS THE REQUIRED DOCUMENTATION IS PROVIDED.

25 (BH) *WATERCOURSE*: THE CHANNEL, INCLUDING CHANNEL BANKS AND BED, OF NONTIDAL
26 WATERS OF THE STATE.

27 (BI) *WATERS OF THE STATE*: [SEE ENVIRONMENT ARTICLE, TITLE 5, SUBTITLE 1, ANNOTATED CODE
28 OF MARYLAND.] WATERS OF THE STATE INCLUDE:

29 (1) BOTH SURFACE AND UNDERGROUND WATERS WITHIN THE BOUNDARIES OF THE STATE
30 SUBJECT TO ITS JURISDICTION;

31 (2) THAT PORTION OF THE ATLANTIC OCEAN WITHIN THE BOUNDARIES OF THE STATE;

- (3) THE CHESAPEAKE BAY AND ITS TRIBUTARIES;
- (4) ALL PONDS, LAKES, RIVERS, STREAMS, PUBLIC DITCHES, TAX DITCHES, AND PUBLIC DRAINAGE SYSTEMS WITHIN THE STATE, OTHER THAN THOSE DESIGNED AND USED TO COLLECT, CONVEY, OR DISPOSE OF SANITARY SEWAGE; AND
- (5) THE FLOODPLAIN OF FREE-FLOWING WATERS DETERMINED BY MDE ON THE BASIS OF THE 100-YEAR FLOOD FREQUENCY.

SECTION 16.702. ADMINISTRATION.

(A) *DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR.* THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS IS HEREBY APPOINTED TO ADMINISTER AND IMPLEMENT THESE REGULATIONS AND IS REFERRED TO HEREIN AS THE FLOODPLAIN ADMINISTRATOR. THE FLOODPLAIN ADMINISTRATOR MAY:

- (1) DELEGATE DUTIES AND RESPONSIBILITIES SET FORTH IN THESE REGULATIONS TO QUALIFIED TECHNICAL PERSONNEL, PLAN EXAMINERS, INSPECTORS, AND OTHER EMPLOYEES IN THE DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS.
- (2) ENTER INTO A WRITTEN AGREEMENT OR WRITTEN CONTRACT WITH ANOTHER MARYLAND COMMUNITY OR PRIVATE SECTOR ENTITY TO ADMINISTER SPECIFIC PROVISIONS OF THESE REGULATIONS. ADMINISTRATION OF ANY PART OF THESE REGULATIONS BY ANOTHER ENTITY SHALL NOT RELIEVE THE COMMUNITY OF ITS RESPONSIBILITIES PURSUANT TO THE PARTICIPATION REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM AS SET FORTH IN THE CODE OF FEDERAL REGULATIONS (CFR) AT 44 CFR SECTION 59.22.

(B) *DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR; DUTIES OF THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF PUBLIC WORKS AND THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- (1) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: REVIEW APPLICATIONS FOR PERMITS TO DETERMINE WHETHER PROPOSED ACTIVITIES WILL BE LOCATED IN FLOOD HAZARD AREAS.

- 1 (2) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF PUBLIC WORKS:
2 INTERPRET FLOODPLAIN BOUNDARIES AND PROVIDE AVAILABLE BASE FLOOD ELEVATION
3 AND FLOOD HAZARD INFORMATION.
- 4 (3) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: REVIEW APPLICATIONS TO
5 DETERMINE WHETHER PROPOSED ACTIVITIES WILL BE REASONABLY SAFE FROM FLOODING
6 AND REQUIRE NEW CONSTRUCTION AND SUBSTANTIAL IMPROVEMENTS TO MEET THE
7 REQUIREMENTS OF THESE REGULATIONS.
- 8 (4) DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND
9 PERMITS, AND DEPARTMENT OF PUBLIC WORKS: REVIEW APPLICATIONS TO DETERMINE
10 WHETHER ALL NECESSARY PERMITS HAVE BEEN OBTAINED FROM THE FEDERAL, STATE OR
11 LOCAL AGENCIES FROM WHICH PRIOR OR CONCURRENT APPROVAL IS REQUIRED; IN
12 PARTICULAR, PERMITS FROM MDE FOR ANY CONSTRUCTION, RECONSTRUCTION, REPAIR, OR
13 ALTERATION OF A DAM, RESERVOIR, OR WATERWAY OBSTRUCTION (INCLUDING BRIDGES,
14 CULVERTS, STRUCTURES), ANY ALTERATION OF A WATERCOURSE, OR ANY CHANGE OF THE
15 COURSE, CURRENT, OR CROSS SECTION OF A STREAM OR BODY OF WATER, INCLUDING ANY
16 CHANGE TO THE 100-YEAR FREQUENCY FLOODPLAIN OF FREE-FLOWING NONTIDAL WATERS
17 OF THE STATE.
- 18 (5) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSES
19 AND PERMITS: VERIFY THAT APPLICANTS PROPOSING AN ALTERATION OF A WATERCOURSE
20 HAVE NOTIFIED ADJACENT COMMUNITIES AND MDE (NFIP STATE COORDINATOR);
- 21 (6) DEPARTMENT OF PUBLIC WORKS: AND VERIFY THAT APPLICANTS PROPOSING AN
22 ALTERATION OF A WATERCOURSE HAVE SUBMITTED COPIES OF SUCH NOTIFICATIONS TO
23 FEMA.
- 24 (7) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: APPROVE APPLICATIONS AND
25 ISSUE PERMITS TO DEVELOP IN FLOOD HAZARD AREAS IF THE PROVISIONS OF THESE
26 REGULATIONS HAVE BEEN MET OR DISAPPROVE APPLICATIONS IF THE PROVISIONS OF THESE
27 REGULATIONS HAVE NOT BEEN MET.
- 28 (8) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: INSPECT OR CAUSE TO BE
29 INSPECTED, BUILDINGS, STRUCTURES, AND OTHER DEVELOPMENT FOR WHICH PERMITS
30 HAVE BEEN ISSUED TO DETERMINE COMPLIANCE WITH THESE REGULATIONS OR TO
31 DETERMINE IF NON-COMPLIANCE HAS OCCURRED OR VIOLATIONS HAVE BEEN COMMITTED.

1 (9) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AND DEPARTMENT OF PUBLIC
2 WORKS: REVIEW ELEVATION CERTIFICATES AND REQUIRE INCOMPLETE OR DEFICIENT
3 CERTIFICATES TO BE CORRECTED.

4 (10) DEPARTMENT OF PUBLIC WORKS: SUBMIT TO FEMA, OR REQUIRE APPLICANTS TO
5 SUBMIT TO FEMA, DATA AND INFORMATION NECESSARY TO MAINTAIN FIRMS, INCLUDING
6 HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES PREPARED BY OR FOR HOWARD
7 COUNTY, MARYLAND, WITHIN SIX MONTHS AFTER SUCH DATA AND INFORMATION
8 BECOMES AVAILABLE IF THE ANALYSES INDICATE CHANGES IN BASE FLOOD ELEVATIONS OR
9 BOUNDARIES.

10 (11) MAINTAIN AND PERMANENTLY KEEP RECORDS THAT ARE NECESSARY FOR THE
11 ADMINISTRATION OF THESE REGULATIONS, INCLUDING:

12 (i) DEPARTMENT OF PUBLIC WORKS: DOCUMENTATION, DATA, AND MAPPING FOR
13 HOWARD COUNTY FLOODPLAINS, FLOOD INSURANCE STUDIES, FLOOD INSURANCE
14 RATE MAPS (INCLUDING HISTORIC STUDIES AND MAPS AND CURRENT EFFECTIVE
15 STUDIES AND MAPS) AND LETTERS OF MAP CHANGE; AND

16 (ii) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: DOCUMENTATION
17 SUPPORTING ISSUANCE AND DENIAL OF PERMITS, ELEVATION CERTIFICATES,
18 DOCUMENTATION OF THE ELEVATION (IN RELATION TO THE DATUM ON THE FIRM) TO
19 WHICH STRUCTURES HAVE BEEN FLOODPROOFED, OTHER REQUIRED DESIGN
20 CERTIFICATIONS, ALTERNATIVE COMPLIANCES, AND RECORDS OF ENFORCEMENT
21 ACTIONS TAKEN TO CORRECT VIOLATIONS OF THESE REGULATIONS.

22 (12) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: ENFORCE THE PROVISIONS OF
23 THESE REGULATIONS, INVESTIGATE VIOLATIONS, ISSUE NOTICES OF VIOLATIONS OR STOP
24 WORK ORDERS, AND REQUIRE PERMIT HOLDERS TO TAKE CORRECTIVE ACTION.

25 (13) DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND
26 PERMITS, AND DEPARTMENT OF PUBLIC WORKS: REVIEW EACH APPLICATION FOR AN
27 ALTERNATIVE COMPLIANCE AND PREPARE A STAFF REPORT AND RECOMMENDATION AS
28 APPLICABLE.

29 (14) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: ADMINISTER THE REQUIREMENTS
30 RELATED TO PROPOSED WORK ON EXISTING BUILDINGS:

1 (I) MAKE DETERMINATIONS AS TO WHETHER BUILDINGS AND STRUCTURES THAT ARE
2 LOCATED IN FLOOD HAZARD AREAS AND THAT ARE DAMAGED BY ANY CAUSE HAVE
3 BEEN SUBSTANTIALLY DAMAGED.

4 (II) MAKE REASONABLE EFFORTS TO NOTIFY OWNERS OF SUBSTANTIALLY DAMAGED
5 STRUCTURES OF THE NEED TO OBTAIN A PERMIT TO REPAIR, REHABILITATE, OR
6 RECONSTRUCT, AND PROHIBIT THE NON-COMPLIANT REPAIR OF SUBSTANTIALLY
7 DAMAGED BUILDINGS EXCEPT FOR TEMPORARY EMERGENCY PROTECTIVE MEASURES
8 NECESSARY TO SECURE A PROPERTY OR STABILIZE A BUILDING OR STRUCTURE TO
9 PREVENT ADDITIONAL DAMAGE.

10 (15) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: UNDERTAKE, AS DETERMINED
11 APPROPRIATE BY THE FLOODPLAIN ADMINISTRATOR DUE TO THE CIRCUMSTANCES, OTHER
12 ACTIONS WHICH MAY INCLUDE BUT ARE NOT LIMITED TO: ISSUING PRESS RELEASES, PUBLIC
13 SERVICE ANNOUNCEMENTS, AND OTHER PUBLIC INFORMATION MATERIALS RELATED TO
14 PERMIT REQUESTS AND REPAIR OF DAMAGED STRUCTURES; COORDINATING WITH OTHER
15 FEDERAL, STATE, AND LOCAL AGENCIES TO ASSIST WITH SUBSTANTIAL DAMAGE
16 DETERMINATIONS; PROVIDING OWNERS OF DAMAGED STRUCTURES INFORMATION RELATED
17 TO THE PROPER REPAIR OF DAMAGED STRUCTURES IN SPECIAL FLOOD HAZARD AREAS; AND
18 ASSISTING PROPERTY OWNERS WITH DOCUMENTATION NECESSARY TO FILE CLAIMS FOR
19 INCREASED COST OF COMPLIANCE (ICC) COVERAGE UNDER NFIP FLOOD INSURANCE
20 POLICIES.

21 (16) DEPARTMENT OF PUBLIC WORKS: NOTIFY THE FEDERAL EMERGENCY MANAGEMENT
22 AGENCY WHEN THE CORPORATE BOUNDARIES OF HOWARD COUNTY, MARYLAND, HAVE
23 BEEN MODIFIED AND:

24 (I) PROVIDE A MAP THAT CLEARLY DELINEATES THE NEW CORPORATE BOUNDARIES OR THE
25 NEW AREA FOR WHICH THE AUTHORITY TO REGULATE PURSUANT TO THESE
26 REGULATIONS HAS EITHER BEEN ASSUMED OR RELINQUISHED THROUGH ANNEXATION;
27 AND

28 (II) IF THE FIRM FOR ANY ANNEXED AREA INCLUDES SPECIAL FLOOD HAZARD AREAS THAT
29 HAVE FLOOD ZONES THAT HAVE REGULATORY REQUIREMENTS THAT ARE NOT SET
30 FORTH IN THESE REGULATIONS, PREPARE AMENDMENTS TO THESE REGULATIONS TO
31 ADOPT THE FIRM AND APPROPRIATE REQUIREMENTS, AND SUBMIT THE AMENDMENTS

1 TO THE GOVERNING BODY FOR ADOPTION; SUCH ADOPTION SHALL TAKE PLACE WITHIN
2 SIX MONTHS OF THE DATE OF ANNEXATION AND A COPY OF THE AMENDED
3 REGULATIONS SHALL BE PROVIDED TO MDE (NFIP STATE COORDINATOR) AND FEMA.
4 (17) DEPARTMENT OF PUBLIC WORKS: UPON THE REQUEST OF FEMA, COMPLETE AND SUBMIT
5 A REPORT CONCERNING PARTICIPATION IN THE NFIP WHICH MAY REQUEST INFORMATION
6 REGARDING THE NUMBER OF BUILDINGS IN THE SFHA, NUMBER OF PERMITS ISSUED FOR
7 DEVELOPMENT IN THE SFHA, AND NUMBER OF ALTERNATIVE COMPLIANCES ISSUED FOR
8 DEVELOPMENT IN THE SFHA.

9 (C) *USE AND INTERPRETATION OF FIRMS AND HOWARD COUNTY FLOODPLAINS.* ON BEHALF OF THE
10 FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PUBLIC WORKS, THE DEPARTMENT OF
11 INSPECTIONS, LICENSES AND PERMITS AND DEPARTMENT OF PLANNING AND ZONING, AS
12 APPLICABLE, SHALL MAKE INTERPRETATIONS, WHERE NEEDED, AS TO THE EXACT LOCATION OF
13 SPECIAL FLOOD HAZARD AREAS, FLOODPLAIN BOUNDARIES, AND FLOODWAY BOUNDARIES. THE
14 FOLLOWING SHALL APPLY TO THE USE AND INTERPRETATION OF FIRMS AND THEIR DATA AND
15 HOWARD COUNTY FLOODPLAINS AND THEIR DATA:

16 (1) WHERE FIELD SURVEYED TOPOGRAPHY INDICATES THAT GROUND ELEVATIONS:

17 (I) ARE BELOW THE BASE FLOOD ELEVATION, EVEN IN AREAS NOT DELINEATED AS A
18 SPECIAL FLOOD HAZARD AREA ON A FIRM OR HOWARD COUNTY FLOODPLAIN, THE
19 AREA SHALL BE CONSIDERED AS SPECIAL FLOOD HAZARD AREA AND SUBJECT TO THE
20 REQUIREMENTS OF THESE REGULATIONS;

21 (II) ARE ABOVE THE BASE FLOOD ELEVATION, THE AREA SHALL BE REGULATED AS SPECIAL
22 FLOOD HAZARD AREA UNLESS THE APPLICANT OBTAINS A LETTER OF MAP CHANGE
23 THAT REMOVES THE AREA FROM THE SPECIAL FLOOD HAZARD AREA.

24 (2) IN FEMA-IDENTIFIED SPECIAL FLOOD HAZARD AREAS WHERE BASE FLOOD ELEVATION AND
25 FLOODWAY DATA HAVE NOT BEEN IDENTIFIED AND IN AREAS WHERE FEMA HAS NOT
26 IDENTIFIED SPECIAL FLOOD HAZARD AREAS, ANY OTHER FLOOD HAZARD DATA AVAILABLE
27 FROM A FEDERAL, STATE, OR OTHER SOURCE, INCLUDING HOWARD COUNTY FLOODPLAINS,
28 SHALL BE REVIEWED AND REASONABLY USED.

29 (3) BASE FLOOD ELEVATIONS AND DESIGNATED FLOODWAY BOUNDARIES ON FIRMS AND IN
30 FISS, OR ON HOWARD COUNTY FLOODPLAINS, SHALL TAKE PRECEDENCE OVER BASE

1 FLOOD ELEVATIONS AND FLOODWAY BOUNDARIES BY ANY OTHER SOURCES IF SUCH
2 SOURCES SHOW REDUCED FLOODWAY WIDTHS AND/OR LOWER BASE FLOOD ELEVATIONS.

3 (4) OTHER SOURCES OF DATA SHALL BE REASONABLY USED IF SUCH SOURCES SHOW
4 INCREASED BASE FLOOD ELEVATIONS AND/OR LARGER FLOODWAY AREAS THAN ARE
5 SHOWN ON FIRMS AND IN FISS, OR ON HOWARD COUNTY FLOODPLAINS.

6 (5) IF A PRELIMINARY FLOOD INSURANCE RATE MAP AND/OR A PRELIMINARY FLOOD
7 INSURANCE STUDY HAS BEEN PROVIDED BY FEMA:

8 (I) UPON THE ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, IF THE
9 PRELIMINARY FLOOD HAZARD DATA IS MORE RESTRICTIVE THAN THE EFFECTIVE DATA,
10 IT SHALL BE USED AND SHALL REPLACE THE FLOOD HAZARD DATA PREVIOUSLY
11 PROVIDED FROM FEMA FOR THE PURPOSES OF ADMINISTERING THESE REGULATIONS.

12 (II) PRIOR TO THE ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, THE USE
13 OF PRELIMINARY FLOOD HAZARD DATA SHALL BE DEEMED THE BEST AVAILABLE DATA
14 PURSUANT TO SECTION 16.700(E)(3) OF THIS SUBTITLE AND USED WHERE NO BASE
15 FLOOD ELEVATIONS AND/OR FLOODWAY AREAS ARE PROVIDED ON THE EFFECTIVE
16 FIRM.

17 (III) PRIOR TO ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, THE USE OF
18 PRELIMINARY FLOOD HAZARD DATA IS PERMITTED WHERE THE PRELIMINARY BASE
19 FLOOD ELEVATIONS, FLOODPLAIN OR FLOODWAY BOUNDARIES EXCEED THE BASE
20 FLOOD ELEVATIONS AND/OR DESIGNATED FLOODWAY WIDTHS IN EXISTING FLOOD
21 HAZARD DATA PROVIDED BY FEMA. SUCH PRELIMINARY DATA MAY BE SUBJECT TO
22 CHANGE AND/OR APPEAL TO FEMA.

23 (D) *PERMITS REQUIRED AND EXPIRATION.*

24 (1) IT SHALL BE UNLAWFUL FOR ANY PERSON TO BEGIN ANY DEVELOPMENT OR CONSTRUCTION
25 WHICH IS WHOLLY WITHIN, PARTIALLY WITHIN, OR IN CONTACT WITH ANY FLOOD HAZARD
26 AREA ESTABLISHED IN SECTION 16.700(E), OF THIS SUBTITLE INCLUDING BUT NOT LIMITED
27 TO: FILLING; GRADING; CONSTRUCTION OF NEW STRUCTURES; THE SUBSTANTIAL
28 IMPROVEMENT OF BUILDINGS OR STRUCTURES, INCLUDING REPAIR OF SUBSTANTIAL
29 DAMAGE; PLACEMENT OR REPLACEMENT OF MANUFACTURED HOMES, INCLUDING
30 SUBSTANTIAL IMPROVEMENT OR REPAIR OF SUBSTANTIAL DAMAGE OF MANUFACTURED
31 HOMES; ERECTING OR INSTALLING A TEMPORARY STRUCTURE, OR ALTERATION OF A

1 WATERCOURSE, UNTIL ALL REQUIRED PERMITS ARE OBTAINED FROM THE HOWARD COUNTY,
2 MARYLAND, DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS. NO SUCH PERMIT
3 SHALL BE ISSUED UNTIL THE REQUIREMENTS OF THESE REGULATIONS HAVE BEEN MET.

4 (2) IN ADDITION TO THE PERMITS REQUIRED IN PARAGRAPH (1), APPLICANTS FOR PERMITS IN
5 NONTIDAL WATERS OF THE STATE ARE ADVISED TO CONTACT MDE. UNLESS WAIVED BY
6 MDE, PURSUANT TO CODE OF MARYLAND REGULATIONS 26.17.04, CONSTRUCTION ON
7 NONTIDAL WATERS AND FLOODPLAINS, MDE REGULATES THE “100-YEAR FREQUENCY
8 FLOODPLAIN OF FREE-FLOWING WATERS,” ALSO REFERRED TO AS NONTIDAL WATERS OF THE
9 STATE. TO DETERMINE THE 100-YEAR FREQUENCY FLOODPLAIN, HYDROLOGIC
10 CALCULATIONS ARE BASED ON THE ULTIMATE DEVELOPMENT OF THE WATERSHED,
11 ASSUMING EXISTING ZONING. THE RESULTING FLOOD HAZARD AREAS DELINEATED USING
12 THE RESULTS OF SUCH CALCULATIONS MAY BE DIFFERENT THAN THE SPECIAL FLOOD
13 HAZARD AREAS ESTABLISHED IN SECTION 16.700(E) OF THESE REGULATIONS. A PERMIT
14 FROM HOWARD COUNTY, MARYLAND, DEPARTMENT OF INSPECTIONS, LICENSES, AND
15 PERMITS IS STILL REQUIRED IN ADDITION TO ANY STATE REQUIREMENTS.

16 (3) A PERMIT IS VALID PROVIDED THE ACTUAL START OF WORK IS WITHIN 180 DAYS OF THE
17 DATE OF PERMIT ISSUANCE. REQUESTS FOR EXTENSIONS SHALL BE SUBMITTED IN WRITING
18 AND JUSTIFIABLE CAUSE DEMONSTRATED. ON BEHALF OF THE FLOODPLAIN
19 ADMINISTRATOR, THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS MAY GRANT,
20 IN WRITING, ONE OR MORE EXTENSIONS OF TIME, FOR ADDITIONAL PERIODS NOT EXCEEDING
21 90 DAYS EACH AND PROVIDED THERE HAS BEEN NO AMENDMENT OR REVISION TO THE BASIS
22 FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BFEs SET FORTH IN SECTION
23 16.700(E).

24 (E) *APPLICATION REQUIRED.* THE GENERAL REQUIREMENTS OF THIS SUBTITLE AND THE HOWARD
25 COUNTY BUILDING CODE APPLY TO ALL DEVELOPMENT PROPOSED WITHIN ALL SPECIAL FLOOD
26 HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY
27 SPECIAL FLOOD HAZARD AREAS, IDENTIFIED IN SECTION 16.700(E) OF THIS SUBTITLE.
28 APPLICATION FOR A PERMIT SHALL BE MADE BY THE OWNER OF THE PROPERTY OR THE
29 OWNER’S AUTHORIZED AGENT (HEREIN REFERRED TO AS THE APPLICANT) PRIOR TO THE START
30 OF ANY WORK. THE APPLICATION SHALL BE ON A FORM FURNISHED BY THE DEPARTMENT OF
31 INSPECTIONS, LICENSES, AND PERMITS FOR THAT PURPOSE.

1 (1) *APPLICATION CONTENTS*. AT A MINIMUM, APPLICATIONS SHALL INCLUDE:

2 (i) SITE PLANS DRAWN TO SCALE SHOWING THE NATURE, LOCATION, DIMENSIONS, AND
3 EXISTING AND PROPOSED TOPOGRAPHY OF THE AREA IN QUESTION, AND THE LOCATION
4 OF EXISTING AND PROPOSED STRUCTURES, EXCAVATION, FILLING, STORAGE OF
5 MATERIALS, DRAINAGE FACILITIES, AND OTHER PROPOSED ACTIVITIES.

6 (ii) ELEVATION OF THE EXISTING NATURAL GROUND WHERE BUILDINGS OR STRUCTURES
7 ARE PROPOSED, REFERENCED TO THE DATUM ON THE FIRM.

8 (iii) DELINEATION OF FLOOD HAZARD AREAS, DESIGNATED FLOODWAY BOUNDARIES, FLOOD
9 ZONES, BASE FLOOD ELEVATIONS, AND FLOOD PROTECTION SETBACKS. BASE FLOOD
10 ELEVATIONS SHALL BE USED TO DELINEATE THE BOUNDARY OF FLOOD HAZARD AREAS
11 ON SURVEYED TOPOGRAPHY AND SUCH DELINEATIONS SHALL PREVAIL OVER THE
12 BOUNDARY OF SFHAS SHOWN ON FIRMS OR HOWARD COUNTY FLOODPLAINS.

13 (iv) WHERE FLOODWAYS ARE NOT DELINEATED OR BASE FLOOD ELEVATIONS ARE NOT
14 SHOWN ON THE FIRMS OR HOWARD COUNTY FLOODPLAINS, THE DEPARTMENT OF
15 PLANNING AND ZONING ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR HAS THE
16 AUTHORITY TO REQUIRE THE APPLICANT TO USE INFORMATION PROVIDED BY THE
17 DEPARTMENT OF PLANNING AND ZONING ON BEHALF OF THE FLOODPLAIN
18 ADMINISTRATOR, INFORMATION THAT IS AVAILABLE FROM FEDERAL, STATE, OR OTHER
19 SOURCES, OR TO DETERMINE SUCH INFORMATION USING ACCEPTED ENGINEERING
20 PRACTICES OR METHODS APPROVED BY THE FLOODPLAIN ADMINISTRATOR. [NOTE:
21 SEE “MANAGING FLOODPLAIN DEVELOPMENT IN APPROXIMATE ZONE A AREAS: A
22 GUIDE FOR OBTAINING AND DEVELOPING BASE (100-YEAR) FLOOD ELEVATIONS”
23 (FEMA 265).]

24 (v) DETERMINATION OF THE BASE FLOOD ELEVATIONS, FOR DEVELOPMENT PROPOSALS AND
25 SUBDIVISION PROPOSALS, EACH WITH AT LEAST 5 LOTS OR AT LEAST 5 ACRES,
26 WHICHEVER IS THE LESSER, IN SPECIAL FLOOD HAZARD AREAS WHERE BASE FLOOD
27 ELEVATIONS ARE NOT SHOWN ON THE FIRM OR HOWARD COUNTY FLOODPLAINS; IF
28 HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES ARE SUBMITTED, SUCH
29 ANALYSES SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND
30 SPECIFICATIONS OF MDE AND FEMA.

1 (vi) HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES FOR PROPOSALS IN SPECIAL
2 FLOOD HAZARD AREAS WHERE FEMA HAS PROVIDED BASE FLOOD ELEVATIONS BUT
3 HAS NOT DELINEATED A FLOODWAY; SUCH ANALYSES SHALL DEMONSTRATE THAT THE
4 CUMULATIVE EFFECT OF PROPOSED DEVELOPMENT, WHEN COMBINED WITH ALL OTHER
5 EXISTING AND ANTICIPATED DEVELOPMENT WILL NOT INCREASE THE WATER SURFACE
6 ELEVATION OF THE BASE FLOOD BY MORE THAN 0.00 FOOT.

7 (vii) FOR ENCROACHMENTS IN FLOODWAYS, AN EVALUATION OF ALTERNATIVES TO SUCH
8 ENCROACHMENTS, INCLUDING DIFFERENT USES OF THE SITE OR PORTION OF THE SITE
9 WITHIN THE FLOODWAY, AND MINIMIZATION OF SUCH ENCROACHMENT.

10 (viii) IF FILL IS PROPOSED TO BE PLACED FOR A PURPOSE OTHER THAN TO ELEVATE
11 STRUCTURES, THE APPLICANT SHALL INDICATE THE INTENDED PURPOSE FOR THE FILL.

12 (ix) FOR PROPOSED BUILDINGS AND STRUCTURES, INCLUDING SUBSTANTIAL IMPROVEMENT
13 AND REPAIR OF SUBSTANTIAL DAMAGE, AND PLACEMENT AND REPLACEMENT OF
14 MANUFACTURED HOMES, INCLUDING SUBSTANTIAL IMPROVEMENT AND REPAIR OF
15 SUBSTANTIAL DAMAGE:

16 A. THE PROPOSED ELEVATION OF THE LOWEST FLOOR, INCLUDING BASEMENT,
17 REFERENCED TO THE DATUM ON THE FIRM AND A SIGNED AGREEMENT TO SUBMIT
18 AN ELEVATION CERTIFICATE.

19 B. THE SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION
20 AGREEMENT) THAT SHALL BE RECORDED ON THE PROPERTY DEED PRIOR TO
21 ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, IF THE APPLICATION INCLUDES AN
22 ENCLOSURE BELOW THE LOWEST FLOOR OR A CRAWL/UNDERFLOOR SPACE THAT IS
23 MORE THAN FOUR (4) FEET IN HEIGHT.

24 C. A WRITTEN EVALUATION OF ALTERNATIVE METHODS CONSIDERED TO ELEVATE
25 STRUCTURES AND MANUFACTURED HOMES, IF THE LOCATION IS IN NONTIDAL
26 WATERS OF THE STATE AND FILL IS PROPOSED TO ACHIEVE THE ELEVATION
27 REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE.

28 (x) FOR ACCESSORY STRUCTURES THAT ARE 300 SQUARE FEET OR LARGER IN AREA
29 (FOOTPRINT) BUT NO LARGER THAN 600 SQUARE FEET IN AREA (FOOTPRINT) AND THAT
30 ARE BELOW THE BASE FLOOD ELEVATION, AN ALTERNATIVE COMPLIANCE IS REQUIRED
31 AS SET FORTH IN SECTION 16.706 OF THIS SUBTITLE. IF AN ALTERNATIVE COMPLIANCE

1 IS GRANTED, A SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION
2 AGREEMENT) SHALL BE RECORDED ON THE PROPERTY DEED PRIOR TO ISSUANCE OF THE
3 CERTIFICATE OF OCCUPANCY.

4 (XI) FOR TEMPORARY STRUCTURES AND TEMPORARY STORAGE, SPECIFICATION OF THE
5 DURATION OF THE TEMPORARY USE.

6 (XII) FOR PROPOSED WORK ON EXISTING BUILDINGS, STRUCTURES, AND MANUFACTURED
7 HOMES, INCLUDING ANY IMPROVEMENT, ADDITION, REPAIRS, ALTERATIONS,
8 REHABILITATION, OR RECONSTRUCTION, SUFFICIENT INFORMATION TO DETERMINE IF
9 THE WORK CONSTITUTES SUBSTANTIAL IMPROVEMENT OR REPAIR OF SUBSTANTIAL
10 DAMAGE, INCLUDING BUT NOT LIMITED TO:

11 A. IF THE EXISTING BUILDING OR STRUCTURE WAS CONSTRUCTED AFTER MARCH 15,
12 1977, EVIDENCE THAT THE WORK WILL NOT ALTER ANY ASPECT OF THE BUILDING
13 OR STRUCTURE THAT WAS REQUIRED FOR COMPLIANCE WITH THE FLOODPLAIN
14 MANAGEMENT REQUIREMENTS IN EFFECT AT THE TIME THE BUILDING OR
15 STRUCTURE WAS PERMITTED.

16 B. IF THE PROPOSED WORK IS A HORIZONTAL ADDITION, A DESCRIPTION OF THE
17 ADDITION AND WHETHER IT WILL BE INDEPENDENTLY SUPPORTED OR
18 STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE NATURE OF ALL
19 OTHER MODIFICATIONS TO THE BASE BUILDING, IF ANY.

20 C. DOCUMENTATION OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE
21 THE IMPROVEMENT OR, IF THE WORK IS REPAIR OF DAMAGE, BEFORE THE DAMAGE
22 OCCURRED.

23 D. DOCUMENTATION OF THE ACTUAL CASH VALUE OF ALL PROPOSED WORK,
24 INCLUDING THE ACTUAL CASH VALUE OF ALL WORK NECESSARY TO REPAIR AND
25 RESTORE DAMAGE TO THE BEFORE-DAMAGED CONDITION, REGARDLESS OF THE
26 AMOUNT OF WORK THAT WILL BE PERFORMED. THE VALUE OF WORK PERFORMED
27 BY THE OWNER OR VOLUNTEERS SHALL BE VALUED AT MARKET LABOR RATES; THE
28 VALUE OF DONATED OR DISCOUNTED MATERIALS SHALL BE VALUED AT MARKET
29 RATES.

(XIII) CERTIFICATIONS AND/OR TECHNICAL ANALYSES PREPARED OR CONDUCTED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT, AS APPROPRIATE, INCLUDING:

- A. THE DETERMINATION OF THE BASE FLOOD ELEVATIONS OR HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES PREPARED BY A LICENSED PROFESSIONAL ENGINEER THAT ARE REQUIRED BY THE FLOODPLAIN ADMINISTRATOR OR ARE REQUIRED BY THESE REGULATIONS IN: SECTION 16.703(B) FOR CERTAIN SUBDIVISIONS AND DEVELOPMENT; SECTION 16.704(C)(1) FOR DEVELOPMENT IN DESIGNATED FLOODWAYS; SECTION 16.704(C)(2) FOR DEVELOPMENT IN FLOOD HAZARD AREAS WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS; AND SECTION 16.704(C)(4) FOR DELIBERATE ALTERATION OR RELOCATION OF WATERCOURSES.
- B. THE FLOODPROOFING CERTIFICATE FOR NONRESIDENTIAL STRUCTURES THAT ARE FLOODPROOFED AS REQUIRED IN SECTION 16.704(E)(2).
- C. CERTIFICATION THAT ENGINEERED FLOOD OPENINGS ARE DESIGNED TO MEET THE MINIMUM REQUIREMENTS OF SECTION 16.704(D)(3)(III) TO AUTOMATICALLY EQUALIZE HYDROSTATIC FLOOD FORCES.

(XIV) FOR NONRESIDENTIAL STRUCTURES THAT ARE PROPOSED WITH FLOODPROOFING, AN OPERATIONS AND MAINTENANCE PLAN AS SPECIFIED IN SECTION 16.704(E)(2)(III).

(XV) SUCH OTHER MATERIAL AND INFORMATION AS MAY BE REQUESTED BY THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR AND NECESSARY TO DETERMINE CONFORMANCE WITH THESE REGULATIONS.

(2) NEW TECHNICAL DATA.

- (I) THE APPLICANT MAY SEEK A LETTER OF MAP CHANGE BY SUBMITTING NEW TECHNICAL DATA TO FEMA, SUCH AS BASE MAPS, TOPOGRAPHY, AND ENGINEERING ANALYSES TO SUPPORT REVISION OF FLOODPLAIN AND FLOODWAY BOUNDARIES AND/OR BASE FLOOD ELEVATIONS. SUCH SUBMISSIONS SHALL BE PREPARED IN A FORMAT ACCEPTABLE TO FEMA AND ANY FEES SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT. A COPY OF THE SUBMITTAL SHALL BE ATTACHED TO THE APPLICATION FOR A PERMIT.

1 APPLICANTS SHALL CONFIRM THROUGH THE FLOODPLAIN ADMINISTRATOR WHETHER
2 CHANGES CAN BE SUBMITTED DIRECTLY TO FEMA OR MUST BE SUBMITTED TO FEMA
3 THROUGH THE COUNTY.

4 (ii) IF THE APPLICANT SUBMITS NEW TECHNICAL DATA TO SUPPORT ANY CHANGE IN
5 FLOODPLAIN AND DESIGNATED FLOODWAY BOUNDARIES AND/OR BASE FLOOD
6 ELEVATIONS BUT HAS NOT SOUGHT A LETTER OF MAP CHANGE FROM FEMA, THE
7 APPLICANT SHALL SUBMIT SUCH DATA TO FEMA AS SOON AS PRACTICABLE, BUT NOT
8 LATER THAN SIX MONTHS AFTER THE DATE SUCH INFORMATION BECOMES AVAILABLE.
9 SUCH SUBMISSIONS SHALL BE PREPARED IN A FORMAT ACCEPTABLE TO FEMA AND
10 ANY FEES SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT.

11 (f) *REVIEW OF APPLICATION.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE
12 DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES,
13 AND PERMITS SHALL:

14 (1) REVIEW APPLICATIONS FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS TO
15 DETERMINE THE COMPLETENESS OF INFORMATION SUBMITTED. THE APPLICANT SHALL BE
16 NOTIFIED OF INCOMPLETENESS OR ADDITIONAL INFORMATION THAT IS REQUIRED TO
17 SUPPORT THE APPLICATION.

18 (2) NOTIFY APPLICANTS THAT PERMITS FROM MDE AND THE U.S. ARMY CORPS OF
19 ENGINEERS, AND OTHER STATE AND FEDERAL AUTHORITIES MAY BE REQUIRED.

20 (3) REVIEW ALL PERMIT APPLICATIONS TO ASSURE THAT ALL NECESSARY PERMITS HAVE BEEN
21 RECEIVED FROM THE FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES FROM WHICH
22 PRIOR APPROVAL IS REQUIRED. THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING
23 SUCH PERMITS, INCLUDING PERMITS ISSUED BY:

24 (i) THE U.S. ARMY CORPS OF ENGINEERS UNDER SECTION 10 OF THE RIVERS AND
25 HARBORS ACT AND SECTION 404 OF THE CLEAN WATER ACT;

26 (ii) MDE PURSUANT TO COMAR 26.23 (NONTIDAL WETLANDS) AND SECTION 401 OF THE
27 CLEAN WATER ACT;

28 (iii) MDE FOR CONSTRUCTION ON NONTIDAL WATERS OF THE STATE PURSUANT TO
29 COMAR 26.17.04.

30 (4) REVIEW APPLICATIONS FOR COMPLIANCE WITH THESE REGULATIONS AFTER ALL
31 INFORMATION REQUIRED IN SECTION 16.702(e) OF THESE REGULATIONS OR IDENTIFIED AND

1 REQUIRED BY THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF
2 INSPECTIONS, LICENSES, AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS ON
3 BEHALF OF THE FLOODPLAIN ADMINISTRATOR HAS BEEN RECEIVED.

4 (G) INSPECTIONS. ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF
5 INSPECTION, LICENSES, AND PERMITS SHALL MAKE PERIODIC INSPECTIONS OF DEVELOPMENT
6 PERMITTED IN SPECIAL FLOOD HAZARD AREAS, AT APPROPRIATE TIMES THROUGHOUT THE
7 PERIOD OF CONSTRUCTION IN ORDER TO MONITOR COMPLIANCE. SUCH INSPECTIONS MAY
8 INCLUDE:

9 (1) STAKE-OUT INSPECTION, TO DETERMINE LOCATION ON THE SITE RELATIVE TO THE FLOOD
10 HAZARD AREA AND DESIGNATED FLOODWAY.

11 (2) FOUNDATION INSPECTION, UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO
12 FURTHER VERTICAL CONSTRUCTION, TO COLLECT INFORMATION OR CERTIFICATION OF THE
13 ELEVATION OF THE LOWEST FLOOR.

14 (3) INSPECTION OF ENCLOSURES BELOW THE LOWEST FLOOR, INCLUDING CRAWL/UNDERFLOOR
15 SPACES, TO DETERMINE COMPLIANCE WITH APPLICABLE PROVISIONS.

16 (4) UTILITY INSPECTION, UPON INSTALLATION OF SPECIFIED EQUIPMENT AND APPLIANCES, TO
17 DETERMINE APPROPRIATE LOCATION WITH RESPECT TO THE BASE FLOOD ELEVATION.

18 (5) FINAL INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

19 (H) SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION. PURSUANT TO THE AGREEMENT TO
20 SUBMIT AN ELEVATION CERTIFICATE SUBMITTED WITH THE APPLICATION AS REQUIRED IN
21 SECTION 16.702(E)(1)(IX) OF THIS SUBTITLE, THE PERMITTEE SHALL HAVE AN ELEVATION
22 CERTIFICATE PREPARED AND SUBMITTED PRIOR TO FINAL INSPECTION AND ISSUANCE OF A
23 CERTIFICATE OF OCCUPANCY FOR ELEVATED STRUCTURES AND MANUFACTURED HOMES,
24 INCLUDING NEW STRUCTURES AND MANUFACTURED HOMES, SUBSTANTIALLY-IMPROVED
25 STRUCTURES AND MANUFACTURED HOMES, AND ADDITIONS TO STRUCTURES AND
26 MANUFACTURED HOMES.

27
28 **SECTION 16.703. REQUIREMENTS IN ALL FLOOD HAZARD AREAS.**

29 (A) *APPLICATION OF REQUIREMENTS.* THE GENERAL REQUIREMENTS OF THIS SECTION APPLY TO ALL
30 DEVELOPMENT PROPOSED WITHIN ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA
31 SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS,

1 IDENTIFIED IN SECTION 16.700(E). WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA
2 SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, NO
3 DEVELOPMENT SHALL BE PERMITTED EXCEPT AS PROVIDED IN THIS SUBTITLE, THE HOWARD
4 COUNTY BUILDING CODE ADOPTED AT TITLE 3, SUBTITLE 1 OF THIS CODE AND THE
5 SUBDIVISION REGULATIONS ADOPTED AT TITLE 16, SUBTITLE 1 OF THIS CODE.

6 (B) *SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS.*

7 (1) IN ALL FLOOD ZONES:

8 (I) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL BE CONSISTENT WITH
9 THE NEED TO MINIMIZE FLOOD DAMAGE AND ARE SUBJECT TO ALL APPLICABLE
10 STANDARDS IN THESE REGULATIONS.

11 (II) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL HAVE UTILITIES AND
12 FACILITIES SUCH AS SEWER, GAS, ELECTRICAL, AND WATER SYSTEMS LOCATED AND
13 CONSTRUCTED TO MINIMIZE FLOOD DAMAGE.

14 (III) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL HAVE ADEQUATE
15 DRAINAGE PATHS PROVIDED TO REDUCE EXPOSURE TO FLOOD HAZARDS AND TO GUIDE
16 FLOODWATERS AROUND AND AWAY FROM PROPOSED STRUCTURES.

17 (IV) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS CONTAINING AT LEAST 5
18 LOTS OR AT LEAST 5 ACRES, WHICHEVER IS THE LESSER, THAT ARE WHOLLY OR
19 PARTIALLY IN FLOOD HAZARD AREAS WHERE BASE FLOOD ELEVATION DATA ARE NOT
20 PROVIDED BY THE DEPARTMENT OF PLANNING AND ZONING ON BEHALF OF THE
21 FLOODPLAIN ADMINISTRATOR OR AVAILABLE FROM OTHER SOURCES, SHALL BE
22 SUPPORTED BY DETERMINATIONS OF BASE FLOOD ELEVATIONS AS REQUIRED IN
23 SECTION 16.702(E) OF THIS SUBTITLE.

24 (V) NEW PUBLIC ROADS AND NEW PUBLIC SUBDIVISION ACCESS ROADS SHALL HAVE THE
25 DRIVING SURFACE AT OR ABOVE THE BASE FLOOD ELEVATION PLUS 2 FEET.

26 (2) IN SPECIAL FLOOD HAZARD AREAS OF NONTIDAL WATERS OF THE STATE:

27 (I) SUBDIVISION PROPOSALS SHALL BE LAID OUT SUCH THAT PROPOSED BUILDING PADS
28 ARE LOCATED OUTSIDE OF THE SPECIAL FLOOD HAZARD AREA AND ANY PORTION OF
29 PLATTED LOTS THAT INCLUDE LAND AREAS THAT ARE BELOW THE BASE FLOOD
30 ELEVATION SHALL BE USED FOR OTHER PURPOSES, DEED RESTRICTED, OR OTHERWISE
31 PROTECTED TO PRESERVE IT IN AN UNDISTURBED, UNDEVELOPED CONDITION. TREE

- 1 PLANTING OR OTHER VEGETATIVE ENHANCEMENTS APPROVED AS PART OF THE
2 SUBDIVISION PROPOSAL ARE ALLOWED.
- 3 (II) NEW PUBLIC ROADS AND NEW PUBLIC SUBDIVISION ACCESS ROADS SHALL HAVE THE
4 DRIVING SURFACE AT OR ABOVE THE BASE FLOOD ELEVATION PLUS 2 FEET.
- 5 (C) PROTECTION OF WATER SUPPLY AND SANITARY SEWAGE SYSTEMS
- 6 (1) NEW AND REPLACEMENT WATER SUPPLY SYSTEMS SHALL BE DESIGNED TO MINIMIZE OR
7 ELIMINATE INFILTRATION OF FLOODWATERS INTO THE SYSTEMS.
- 8 (2) NEW AND REPLACEMENT SANITARY SEWAGE SYSTEMS SHALL BE DESIGNED TO MINIMIZE OR
9 ELIMINATE INFILTRATION OF FLOODWATERS INTO SYSTEMS AND DISCHARGES FROM
10 SYSTEMS INTO FLOODWATERS.
- 11 (3) ON-SITE WASTE DISPOSAL SYSTEMS SHALL BE LOCATED TO AVOID IMPAIRMENT TO OR
12 CONTAMINATION FROM THEM DURING CONDITIONS OF FLOODING.
- 13 (D) BUILDINGS AND STRUCTURES. NEW BUILDINGS AND STRUCTURES (EXCLUDING THE PLACEMENT
14 AND REPLACEMENT OF MANUFACTURED HOMES) AND SUBSTANTIAL IMPROVEMENT OF
15 EXISTING STRUCTURES (EXCLUDING MANUFACTURED HOMES) THAT ARE LOCATED, IN WHOLE
16 OR IN PART, IN ANY SPECIAL FLOOD HAZARD AREA SHALL:
- 17 (1) BE DESIGNED (OR MODIFIED) AND CONSTRUCTED TO SAFELY SUPPORT FLOOD LOADS. THE
18 CONSTRUCTION SHALL PROVIDE A COMPLETE LOAD PATH CAPABLE OF TRANSFERRING ALL
19 LOADS FROM THEIR POINT OF ORIGIN THROUGH THE LOAD-RESISTING ELEMENTS TO THE
20 FOUNDATION. STRUCTURES SHALL BE DESIGNED, CONNECTED AND ANCHORED TO RESIST
21 FLOTATION, COLLAPSE OR PERMANENT LATERAL MOVEMENT DUE TO STRUCTURAL LOADS
22 AND STRESSES, INCLUDING HYDRODYNAMIC AND HYDROSTATIC LOADS AND THE EFFECTS
23 OF BUOYANCY, FROM FLOODING EQUAL TO THE FLOOD PROTECTION ELEVATION OR THE
24 ELEVATION REQUIRED BY THESE REGULATIONS OR THE BUILDING CODE, WHICHEVER IS
25 HIGHER.
- 26 (2) BE CONSTRUCTED BY METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.
- 27 (3) USE FLOOD DAMAGE-RESISTANT MATERIALS BELOW THE ELEVATION OF THE LOWEST
28 FLOOR REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE.
- 29 (4) HAVE ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND MECHANICAL, HEATING,
30 VENTILATING, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING FIXTURES, DUCT
31 SYSTEMS, AND OTHER SERVICE EQUIPMENT LOCATED AT OR ABOVE THE ELEVATION OF THE

1 LOWEST FLOOR REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS
2 SUBTITLE. ELECTRICAL WIRING SYSTEMS ARE PERMITTED TO BE LOCATED BELOW
3 ELEVATION OF THE LOWEST FLOOR PROVIDED THEY CONFORM TO THE PROVISIONS OF THE
4 ELECTRICAL PART OF THE BUILDING CODE FOR WET LOCATIONS. IF REPLACED AS PART OF A
5 SUBSTANTIAL IMPROVEMENT, ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND
6 HEATING, VENTILATION, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING
7 FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT SHALL MEET THE
8 REQUIREMENTS OF THIS SECTION.

9 (5) AS AN ALTERNATIVE TO PARAGRAPH (4), ELECTRICAL SYSTEMS, EQUIPMENT AND
10 COMPONENTS, AND HEATING, VENTILATING, AIR CONDITIONING, AND PLUMBING
11 APPLIANCES, PLUMBING FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT ARE
12 PERMITTED TO BE LOCATED BELOW THE ELEVATION OF THE LOWEST FLOOR PROVIDED THEY
13 ARE DESIGNED AND INSTALLED TO PREVENT WATER FROM ENTERING OR ACCUMULATING
14 WITHIN THE COMPONENTS AND TO RESIST HYDROSTATIC AND HYDRODYNAMIC LOADS AND
15 STRESSES, INCLUDING THE EFFECTS OF BUOYANCY, DURING THE OCCURRENCE OF FLOODING
16 TO THAT ELEVATION.

17 (6) HAVE THE ELECTRIC PANELBOARD ELEVATED AT LEAST THREE (3) FEET ABOVE THE BFE.

18 (7) COMPLY WITH THE SPECIFIC REQUIREMENTS OF SECTION 16.704 OF THIS SUBTITLE.

19 (8) COMPLY WITH THE REQUIREMENTS OF THE MOST RESTRICTIVE DESIGNATION IF LOCATED
20 ON A SITE THAT HAS MORE THAN ONE FLOOD ZONE DESIGNATION (A ZONE, DESIGNATED
21 FLOODWAY).

22 (E) PLACEMENT OF FILL.

23 (1) DISPOSAL OF FILL, INCLUDING BUT NOT LIMITED TO EARTHEN SOILS, ROCK, RUBBLE,
24 CONSTRUCTION DEBRIS, WOODY DEBRIS, AND TRASH, SHALL NOT BE PERMITTED IN SPECIAL
25 FLOOD HAZARD AREAS.

26 (2) FILL PROPOSED TO BE PLACED TO ELEVATE STRUCTURES IN FLOOD HAZARD AREAS
27 SHALL COMPLY WITH THE FLOODWAYS REQUIREMENTS IN SECTION 16.704(C)(1) AND
28 SECTION 16.704(C)(2) AND THE LIMITATIONS OF SECTION 16.704(D)(2), ALL OF THIS
29 SUBTITLE.

30 (F) HISTORIC STRUCTURES. REPAIR, ALTERATION, ADDITION, REHABILITATION, OR OTHER
31 IMPROVEMENT OF HISTORIC STRUCTURES SHALL BE SUBJECT TO THE REQUIREMENTS OF

1 THESE REGULATIONS IF THE PROPOSED WORK IS DETERMINED TO BE A SUBSTANTIAL
2 IMPROVEMENT, UNLESS A DETERMINATION IS MADE THAT THE PROPOSED WORK WILL
3 PRECLUDE THE STRUCTURE'S CONTINUED DESIGNATION AS A HISTORIC STRUCTURE. ON
4 BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PLANNING AND
5 ZONING MAY REQUIRE DOCUMENTATION OF A STRUCTURE'S CONTINUED ELIGIBILITY AND
6 DESIGNATION AS A HISTORIC STRUCTURE.

7 (G)MANUFACTURED HOMES

8 (1) NEW MANUFACTURED HOMES SHALL NOT BE PLACED OR INSTALLED IN SPECIAL FLOOD
9 HAZARD AREAS OR FLOODWAYS.

10 (2) FOR THE PURPOSE OF THESE REGULATIONS, THE LOWEST FLOOR OF A MANUFACTURED
11 HOME IS THE BOTTOM OF THE LOWEST HORIZONTAL SUPPORTING MEMBER (LONGITUDINAL
12 CHASSIS FRAME BEAM).

13 (3) NEW MANUFACTURED HOMES LOCATED OUTSIDE OF FLOODWAYS, REPLACEMENT
14 MANUFACTURED HOMES IN ANY FLOOD HAZARD AREAS, AND SUBSTANTIAL IMPROVEMENT
15 (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING MANUFACTURED HOMES IS
16 PROHIBITED IN ALL FLOOD HAZARD AREAS.

17 (H)RECREATIONAL VEHICLES. RECREATIONAL VEHICLES SHALL:

18 (1) MEET THE REQUIREMENTS FOR MANUFACTURED HOMES IN SECTION 4.716.703(G) OF THIS
19 SUBTITLE; OR

20 (2) BE FULLY LICENSED AND READY FOR HIGHWAY USE; OR

21 (3) BE ON A SITE FOR LESS THAN 180 CONSECUTIVE DAYS.

22 (I)CRITICAL AND ESSENTIAL FACILITIES. CRITICAL AND ESSENTIAL FACILITIES SHALL:

23 (1) NOT BE LOCATED IN FLOODWAYS.

24 (2) IF LOCATED IN FLOOD HAZARD AREAS OTHER THAN FLOODWAYS, BE ELEVATED TO THE
25 HIGHER OF ELEVATION REQUIRED BY THESE REGULATIONS PLUS ONE (1) FOOT, THE
26 ELEVATION REQUIRED BY THE BUILDING CODE, OR THE ELEVATION OF THE 0.2 PERCENT
27 CHANCE (500-YEAR) FLOOD.

28 (3) DEPARTMENT OF PUBLIC WORKS CRITICAL AND ESSENTIAL FACILITIES, INCLUDING BUT
29 NOT LIMITED TO WASTEWATER TREATMENT PLANTS, PUMPING STATIONS, AND DRINKING
30 WATER TANKS, ARE EXEMPT FROM THE PROHIBITIONS OF THIS SECTION AT THE DISCRETION

1 OF THE FLOODPLAIN ADMINISTRATOR, BUT MUST ADDRESS ALL OTHER REQUIREMENTS OF
2 THESE REGULATIONS.

3 (J) TEMPORARY STRUCTURES AND TEMPORARY STORAGE. IN ADDITION TO THE APPLICATION
4 REQUIREMENTS OF SECTION 16.702(E) OF THIS SUBTITLE, APPLICATIONS FOR THE PLACEMENT
5 OR ERECTION OF TEMPORARY STRUCTURES AND THE TEMPORARY STORAGE OF ANY GOODS,
6 MATERIALS, AND EQUIPMENT, SHALL SPECIFY THE DURATION OF THE TEMPORARY USE.
7 TEMPORARY STRUCTURES AND TEMPORARY STORAGE IN FLOODWAYS SHALL MEET THE
8 LIMITATIONS OF SECTION 16.704(C)(1) OF THIS SUBTITLE. IN ADDITION:

9 (1) TEMPORARY STRUCTURES SHALL:

10 (I) BE DESIGNED AND CONSTRUCTED TO PREVENT FLOTATION, COLLAPSE OR LATERAL
11 MOVEMENT RESULTING FROM HYDRODYNAMIC LOADS AND HYDROSTATIC LOADS
12 DURING CONDITIONS OF THE BASE FLOOD;

13 (II) HAVE ELECTRIC SERVICE INSTALLED IN COMPLIANCE WITH THE ELECTRIC CODE; AND

14 (III) COMPLY WITH ALL OTHER REQUIREMENTS OF THE APPLICABLE STATE AND LOCAL
15 PERMIT AUTHORITIES.

16 (2) TEMPORARY STORAGE SHALL NOT INCLUDE HAZARDOUS MATERIALS.

17 (K) GAS OR LIQUID STORAGE TANKS

18 (1) UNDERGROUND TANKS IN FLOOD HAZARD AREAS SHALL BE ANCHORED TO PREVENT
19 FLOTATION, COLLAPSE OR LATERAL MOVEMENT RESULTING FROM HYDROSTATIC LOADS,
20 INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

21 (2) ABOVE-GROUND TANKS IN FLOOD HAZARD AREAS SHALL BE ANCHORED TO A SUPPORTING
22 STRUCTURE AND ELEVATED TO OR ABOVE THE BASE FLOOD ELEVATION, OR SHALL BE
23 ANCHORED OR OTHERWISE DESIGNED AND CONSTRUCTED TO PREVENT FLOTATION,
24 COLLAPSE, OR LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC
25 LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

26 (3) IN FLOOD HAZARD AREAS, TANK INLETS, FILL OPENINGS, OUTLETS AND VENTS SHALL BE:

27 (I) AT OR ABOVE THE BASE FLOOD ELEVATION OR FITTED WITH COVERS DESIGNED TO
28 PREVENT THE INFLOW OF FLOODWATER OR OUTFLOW OF THE CONTENTS OF THE TANKS
29 DURING CONDITIONS OF THE BASE FLOOD; AND

1 (II) ANCHORED TO PREVENT LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC AND
2 HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF
3 THE BASE FLOOD.

4 (L) FUNCTIONALLY DEPENDENT USES. APPLICATIONS FOR FUNCTIONALLY DEPENDENT USES THAT
5 DO NOT CONFORM TO THE REQUIREMENTS OF THESE REGULATIONS SHALL BE APPROVED ONLY
6 BY ALTERNATIVE COMPLIANCES ISSUED PURSUANT TO SECTION 16.706 OF THIS SUBTITLE. IF
7 APPROVED, FUNCTIONALLY DEPENDENT USES SHALL BE PROTECTED BY METHODS THAT
8 MINIMIZE FLOOD DAMAGE DURING THE BASE FLOOD, INCLUDING MEASURES TO ALLOW
9 FLOODWATERS TO ENTER AND EXIT, USE OF FLOOD DAMAGE-RESISTANT MATERIALS, AND
10 ELEVATION OF ELECTRIC SERVICE AND EQUIPMENT TO THE EXTENT PRACTICAL GIVEN THE USE
11 OF THE BUILDING.

13 **SECTION 16.704. ADDITIONAL REQUIREMENTS IN FLOOD HAZARD AREAS**

14 (A) GENERAL REQUIREMENTS. IN ADDITION TO THE GENERAL REQUIREMENTS OF SECTION 16.703
15 OF THIS SUBTITLE, THE REQUIREMENTS OF THIS SECTION SHALL:

16 (1) APPLY IN FLOOD HAZARD AREAS, INCLUDING SPECIAL FLOOD HAZARD AREAS ALONG
17 NONTIDAL WATERS OF THE STATE.

18 (2) APPLY TO ALL DEVELOPMENT, NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENTS
19 (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE), EXCLUDING THE PLACEMENT,
20 REPLACEMENT, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL
21 DAMAGE) OF MANUFACTURED HOMES, WHICH ARE PROHIBITED IN SPECIAL FLOOD HAZARD
22 AREAS.

24 WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS
25 AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, NO DEVELOPMENT SHALL BE PERMITTED
26 EXCEPT AS PROVIDED IN THIS SUBTITLE, THE HOWARD COUNTY BUILDING CODE ADOPTED AT
27 TITLE 3, SUBTITLE 1 OF THIS CODE AND THE SUBDIVISION REGULATIONS ADOPTED AT TITLE
28 16, SUBTITLE 1 OF THIS CODE. THE MAINTENANCE AND REPAIR OF EXISTING PRINCIPAL AND
29 ACCESSORY STRUCTURES WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL
30 FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE,
31 SUBJECT TO OBTAINING ALL RELEVANT PERMITS. DEMOLITION, EITHER VOLUNTARY OR

1 INVOLUNTARY, AND REPLACEMENT OF A HOME WITHIN A SPECIAL FLOOD HAZARD AREA,
2 INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD
3 HAZARD AREAS, SHALL BE EVALUATED ON A CASE-BY-CASE BASIS AND SHALL MEET THE
4 REQUIREMENTS OF THE HOWARD COUNTY BUILDING CODE, THE DPW DESIGN MANUAL, AND
5 THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, INCLUDING SUBTITLE 7,
6 FLOODPLAIN.

7 (B) FLOOD PROTECTION SETBACKS. WITHIN AREAS DEFINED BY FLOOD PROTECTION SETBACKS
8 ALONG NONTIDAL WATERS OF THE STATE:

9 (1) NO NEW BUILDINGS, STRUCTURES, OR OTHER DEVELOPMENT SHALL BE PERMITTED UNLESS
10 THE APPLICANT DEMONSTRATES THAT THE SITE CANNOT BE DEVELOPED WITHOUT SUCH
11 ENCROACHMENT INTO THE FLOOD PROTECTION SETBACK AND THE ENCROACHMENT IS THE
12 MINIMUM NECESSARY AFTER CONSIDERATION OF VARYING OTHER SITING STANDARDS SUCH
13 AS SIDE, FRONT, AND BACK LOT LINE SETBACKS.

14 (2) DISTURBANCE OF NATURAL VEGETATION SHALL BE MINIMIZED AND ANY DISTURBANCE
15 ALLOWED SHALL BE VEGETATIVELY STABILIZED.

16 (3) PUBLIC WORKS AND TEMPORARY CONSTRUCTION MAY BE PERMITTED.

17 (C) DEVELOPMENT THAT AFFECTS FLOOD-CARRYING CAPACITY OF NONTIDAL WATERS OF THE
18 STATE.

19 (1) DEVELOPMENT IN DESIGNATED FLOODWAYS. FOR PROPOSED DEVELOPMENT THAT WILL
20 ENCROACH INTO A DESIGNATED FLOODWAY, SECTION 16.702(E)(1)(VII) OF THIS CODE
21 REQUIRES THE APPLICANT TO SUBMIT AN EVALUATION OF ALTERNATIVES TO SUCH
22 ENCROACHMENT, INCLUDING DIFFERENT USES OF THE SITE OR THE PORTION OF THE SITE
23 WITHIN THE FLOODWAY, AND MINIMIZATION OF SUCH ENCROACHMENT. THIS
24 REQUIREMENT DOES NOT APPLY TO FENCES THAT DO NOT BLOCK THE FLOW OF
25 FLOODWATERS OR TRAP DEBRIS. PROPOSED DEVELOPMENT IN A DESIGNATED FLOODWAY
26 MAY BE PERMITTED ONLY IF:

27 (I) THE APPLICANT HAS BEEN ISSUED A PERMIT BY MDE; AND

28 (II) THE APPLICANT HAS DEVELOPED HYDROLOGIC AND HYDRAULIC ENGINEERING
29 ANALYSES AND TECHNICAL DATA PREPARED BY A LICENSED PROFESSIONAL ENGINEER
30 REFLECTING SUCH CHANGES, AND THE ANALYSES, WHICH SHALL BE SUBMITTED TO THE

1 DEPARTMENT OF PLANNING AND ZONING, DEMONSTRATE THAT THE PROPOSED
2 ACTIVITY WILL NOT RESULT IN ANY INCREASE IN THE BASE FLOOD ELEVATION; OR
3 (III) IF THE ANALYSES DEMONSTRATE THAT THE PROPOSED ACTIVITIES WILL RESULT IN AN
4 INCREASE IN THE BASE FLOOD ELEVATION, THE APPLICANT HAS OBTAINED A
5 CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION FROM
6 FEMA UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES
7 SHALL BE THE RESPONSIBILITY OF THE APPLICANT.

8 (2) DEVELOPMENT IN AREAS WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED
9 FLOODWAYS. FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS OF NONTIDAL WATERS
10 OF THE STATE WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS:

11 (I) THE APPLICANT SHALL DEVELOP HYDROLOGIC AND HYDRAULIC ENGINEERING
12 ANALYSES AND TECHNICAL DATA REFLECTING THE PROPOSED ACTIVITY AND SHALL
13 SUBMIT SUCH TECHNICAL DATA TO THE DEPARTMENT OF PLANNING AND ZONING, THE
14 DEPARTMENT OF PUBLIC WORKS, AND THE FLOODPLAIN ADMINISTRATOR AS
15 REQUIRED IN SECTION 16.702(E)(1)(VI) OF THIS CODE. THE ANALYSES SHALL BE
16 PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN A FORMAT REQUIRED BY FEMA
17 FOR A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION UPON
18 COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES SHALL BE THE
19 RESPONSIBILITY OF THE APPLICANT.

20 (II) THE PROPOSED DEVELOPMENT MAY BE PERMITTED IF THE APPLICANT HAS RECEIVED A
21 PERMIT BY MDE AND IF THE ANALYSES DEMONSTRATE THAT THE CUMULATIVE EFFECT
22 OF THE PROPOSED DEVELOPMENT, WHEN COMBINED WITH ALL OTHER EXISTING AND
23 POTENTIAL FLOOD HAZARD AREA ENCROACHMENTS WILL NOT INCREASE THE BASE
24 FLOOD ELEVATION MORE THAN 0.00 FOOT AT ANY POINT.

25 (3) CONSTRUCTION OF ROADS, BRIDGES, CULVERTS, DAMS AND IN-STREAM PONDS.
26 CONSTRUCTION OF ROADS, BRIDGES, CULVERTS, DAMS, AND IN-STREAM PONDS IN
27 NONTIDAL WATERS OF THE STATE SHALL NOT BE APPROVED UNLESS THEY COMPLY WITH
28 THIS SECTION AND THE APPLICANT HAS RECEIVED A PERMIT FROM MDE.

29 (4) ALTERATION OF A WATERCOURSE. FOR ANY PROPOSED DEVELOPMENT THAT INVOLVES
30 ALTERATION OF A WATERCOURSE NOT SUBJECT TO PARAGRAPH (2), UNLESS WAIVED BY
31 MDE, THE APPLICANT SHALL DEVELOP HYDROLOGIC AND HYDRAULIC ENGINEERING

1 ANALYSES AND TECHNICAL DATA REFLECTING SUCH CHANGES, INCLUDING THE FLOODWAY
2 ANALYSIS REQUIRED IN SECTION 16.702(E)(1) OF THIS CODE, AND SUBMIT SUCH
3 TECHNICAL DATA TO THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF
4 PUBLIC WORKS, THE FLOODPLAIN ADMINISTRATOR AND TO FEMA. THE ANALYSES SHALL
5 BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN A FORMAT REQUIRED BY MDE
6 AND BY FEMA FOR A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP
7 REVISION UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES
8 SHALL BE THE RESPONSIBILITY OF THE APPLICANT. ALTERATION OF A WATERCOURSE MAY
9 BE PERMITTED ONLY UPON SUBMISSION, BY THE APPLICANT, OF THE FOLLOWING:

10 (I) A DESCRIPTION OF THE EXTENT TO WHICH THE WATERCOURSE WILL BE ALTERED OR
11 RELOCATED;

12 (II) A CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER THAT THE FLOOD-
13 CARRYING CAPACITY OF THE WATERCOURSE WILL NOT BE DIMINISHED;

14 (III) EVIDENCE THAT ADJACENT COMMUNITIES, THE U.S. ARMY CORPS OF ENGINEERS, AND
15 MDE HAVE BEEN NOTIFIED OF THE PROPOSAL, AND EVIDENCE THAT SUCH
16 NOTIFICATIONS HAVE BEEN SUBMITTED TO FEMA; AND

17 (IV) EVIDENCE THAT THE APPLICANT SHALL BE RESPONSIBLE FOR PROVIDING THE
18 NECESSARY MAINTENANCE FOR THE ALTERED OR RELOCATED PORTION OF THE
19 WATERCOURSE SO THAT THE FLOOD CARRYING CAPACITY WILL NOT BE DIMINISHED.
20 THE FLOODPLAIN ADMINISTRATOR MAY REQUIRE THE APPLICANT TO ENTER INTO AN
21 AGREEMENT WITH HOWARD COUNTY, MARYLAND, SPECIFYING THE MAINTENANCE
22 RESPONSIBILITIES; IF AN AGREEMENT IS REQUIRED, THE PERMIT SHALL BE CONDITIONED
23 TO REQUIRE THAT THE AGREEMENT BE RECORDED ON THE DEED OF THE PROPERTY,
24 WHICH SHALL BE BINDING ON FUTURE OWNERS.

25 (D) RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES. NEW
26 RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES, AND
27 SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING
28 RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES SHALL COMPLY
29 WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS CODE AND THIS SECTION. THE
30 REPLACEMENT OF A PORTION OF AN EXISTING RESIDENCE (DECK, BUILDING WING, ETC.) LOCATED
31 WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND

COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE PROVIDED THE SUBJECT IMPROVEMENT EXISTED AS OF JULY 14, 2014, AND PROVIDED IT IS BEING REPLACED IN KIND OR WITH A SMALLER VERSION, UNLESS APPROVED BY AN ALTERNATIVE COMPLIANCE. ALL REPLACEMENTS OF A PORTION OF AN EXISTING RESIDENCE ARE SUBJECT REVIEW UNDER SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE REQUIREMENTS. SEE SUBSECTION (F) OF THIS SECTION FOR REQUIREMENTS FOR HORIZONTAL ADDITIONS.

(1) ELEVATION REQUIREMENTS

(I) LOWEST FLOORS SHALL BE ELEVATED TO OR ABOVE THE FLOOD PROTECTION ELEVATION.

(II) IN AREAS OF SHALLOW FLOODING (ZONE AO), THE LOWEST FLOOR (INCLUDING BASEMENT) SHALL BE ELEVATED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FIRM PLUS TWO (2) FEET, OR AT LEAST FOUR (4) FEET IF A DEPTH NUMBER IS NOT SPECIFIED.

(III) ENCLOSURES BELOW THE LOWEST FLOOR SHALL MEET THE REQUIREMENTS OF PARAGRAPH (3).

(IV) BASEMENT FLOORS THAT ARE BELOW GRADE ON ALL SIDES ARE PROHIBITED.

(2) LIMITATIONS ON USE OF FILL TO ELEVATE STRUCTURES. UNLESS OTHERWISE RESTRICTED BY THESE REGULATIONS, ESPECIALLY BY THE LIMITATIONS IN SUBSECTIONS (C)(1) AND (C)(2) OF THIS SECTION, FILL PLACED FOR THE PURPOSE OF RAISING THE GROUND LEVEL TO SUPPORT A BUILDING OR STRUCTURE SHALL:

(I) CONSIST OF EARTHEN SOIL OR ROCK MATERIALS ONLY.

(II) EXTEND Laterally FROM THE BUILDING FOOTPRINT TO PROVIDE FOR ADEQUATE ACCESS AS A FUNCTION OF USE; THE FLOODPLAIN ADMINISTRATOR MAY SEEK ADVICE FROM THE STATE FIRE MARSHAL'S OFFICE AND/OR THE LOCAL FIRE SERVICES AGENCY;

(III) COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND BE PLACED AND COMPACTED TO PROVIDE FOR STABILITY UNDER CONDITIONS OF RISING AND FALLING FLOODWATERS AND RESISTANCE TO EROSION, SCOUR, AND SETTLING;

(IV) BE SLOPED NO STEEPER THAN ONE (1) VERTICAL TO TWO (2) HORIZONTAL, UNLESS APPROVED BY THE FLOODPLAIN ADMINISTRATOR;

(V) BE PROTECTED FROM EROSION ASSOCIATED WITH EXPECTED VELOCITIES DURING THE OCCURRENCE OF THE BASE FLOOD; UNLESS APPROVED BY THE FLOODPLAIN

ADMINISTRATOR, FILL SLOPES SHALL BE PROTECTED BY VEGETATION IF THE EXPECTED VELOCITY IS LESS THAN FIVE FEET PER SECOND, AND BY OTHER MEANS IF THE EXPECTED VELOCITY IS FIVE FEET PER SECOND OR MORE; AND

(VI) BE DESIGNED WITH PROVISIONS FOR ADEQUATE DRAINAGE AND NO ADVERSE EFFECT ON ADJACENT PROPERTIES.

(3) ENCLOSURES BELOW THE LOWEST FLOOR

(I) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE USED SOLELY FOR PARKING OF VEHICLES, BUILDING ACCESS, CRAWL/UNDERFLOOR SPACES, OR LIMITED STORAGE.

(II) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE CONSTRUCTED USING FLOOD DAMAGE-RESISTANT MATERIALS.

(III) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE PROVIDED WITH FLOOD OPENINGS WHICH SHALL MEET THE FOLLOWING CRITERIA: [NOTE: SEE NFIP TECHNICAL BULLETIN #1, "OPENINGS IN FOUNDATION WALLS AND WALLS OF ENCLOSURES."]

1. THERE SHALL BE A MINIMUM OF TWO FLOOD OPENINGS ON DIFFERENT SIDES OF EACH ENCLOSED AREA; IF A BUILDING HAS MORE THAN ONE ENCLOSURE BELOW THE LOWEST FLOOR, EACH SUCH ENCLOSURE SHALL HAVE FLOOD OPENINGS ON EXTERIOR WALLS.
2. THE TOTAL NET AREA OF ALL FLOOD OPENINGS SHALL BE AT LEAST 1 SQUARE INCH FOR EACH SQUARE FOOT OF ENCLOSED AREA (NON-ENGINEERED FLOOD OPENINGS), OR THE FLOOD OPENINGS SHALL BE ENGINEERED FLOOD OPENINGS THAT ARE DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER TO AUTOMATICALLY ALLOW ENTRY AND EXIT OF FLOODWATERS; THE CERTIFICATION REQUIREMENT MAY BE SATISFIED BY AN INDIVIDUAL CERTIFICATION OR AN EVALUATION REPORT ISSUED BY THE ICC EVALUATION SERVICE, INC.
3. THE BOTTOM OF EACH FLOOD OPENING SHALL BE 1 FOOT OR LESS ABOVE THE HIGHER OF THE INTERIOR FLOOR OR GRADE, OR THE EXTERIOR GRADE, IMMEDIATELY BELOW THE OPENING.
4. ANY LOUVERS, SCREENS OR OTHER COVERS FOR THE FLOOD OPENINGS SHALL ALLOW THE AUTOMATIC FLOW OF FLOODWATERS INTO AND OUT OF THE ENCLOSED AREA.

- 1 5. IF INSTALLED IN DOORS, FLOOD OPENINGS THAT MEET REQUIREMENTS OF
2 PARAGRAPHS (A) THROUGH (D), ARE ACCEPTABLE; HOWEVER, DOORS WITHOUT
3 INSTALLED FLOOD OPENINGS DO NOT MEET THE REQUIREMENTS OF THIS SECTION.
- 4 (E) NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE STRUCTURES.
5 NEW NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE
6 STRUCTURES, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL
7 DAMAGE) OF EXISTING NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF
8 MIXED USE STRUCTURES SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION
9 16.703 OF THIS SUBTITLE AND THE REQUIREMENTS OF THIS SECTION. SEE SUBSECTION (F) OF
10 THIS SECTION FOR REQUIREMENTS FOR HORIZONTAL ADDITIONS.
- 11 (1) ELEVATION REQUIREMENTS. ELEVATED STRUCTURES SHALL:
- 12 (I) HAVE THE LOWEST FLOOR (INCLUDING BASEMENT) ELEVATED TO OR ABOVE THE FLOOD
13 PROTECTION ELEVATION; OR
- 14 (II) IN AREAS OF SHALLOW FLOODING (ZONE AO), HAVE THE LOWEST FLOOR (INCLUDING
15 BASEMENT) ELEVATED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS
16 THE DEPTH NUMBER SPECIFIED IN FEET ON THE FIRM PLUS TWO (2) FEET, OR AT LEAST
17 FOUR (4) FEET IF A DEPTH NUMBER IS NOT SPECIFIED; AND
- 18 (III) HAVE ENCLOSURES BELOW THE LOWEST FLOOR, IF ANY, THAT COMPLY WITH THE
19 REQUIREMENTS OF SUBSECTION (D)(3) OF THIS SECTION; OR
- 20 (IV) IF PROPOSED TO BE ELEVATED ON FILL, MEET THE LIMITATIONS ON FILL IN
21 SUBSECTION (D)(2) OF THIS SECTION.
- 22 (V) BASEMENT FLOORS THAT ARE BELOW GRADE ON ALL SIDES ARE PROHIBITED.
- 23 (2) FLOODPROOFING REQUIREMENTS
- 24 (I) FLOODPROOFING OF NEW NONRESIDENTIAL BUILDINGS IS NOT ALLOWED IN NONTIDAL
25 WATERS OF THE STATE (COMAR 26.17.04.11(B)(7)).
- 26 (II) FLOODPROOFING FOR SUBSTANTIAL IMPROVEMENT OF NONRESIDENTIAL BUILDINGS IS
27 ALLOWED IN NONTIDAL WATERS OF THE STATE.
- 28 (III) IF FLOODPROOFING IS PROPOSED, STRUCTURES SHALL:
- 29 A. BE DESIGNED TO BE DRY FLOODPROOFED SUCH THAT THE BUILDING OR STRUCTURE
30 IS WATERTIGHT WITH WALLS AND FLOORS SUBSTANTIALLY IMPERMEABLE TO THE

PASSAGE OF WATER TO THE LEVEL OF THE FLOOD PROTECTION ELEVATION PLUS 2 FEET, OR

- B. IF LOCATED IN AN AREA OF SHALLOW FLOODING (ZONE AO), BE DRY FLOODPROOFED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED ON THE FIRM PLUS THREE (3) FEET, OR AT LEAST FIVE (5) FEET IF A DEPTH NUMBER IS NOT SPECIFIED; AND
- C. HAVE STRUCTURAL COMPONENTS CAPABLE OF RESISTING HYDROSTATIC AND HYDRODYNAMIC LOADS AND EFFECTS OF BUOYANCY;
- D. HAVE FLOODPROOFING MEASURES THAT ARE DESIGNED TAKING INTO CONSIDERATION THE NATURE OF FLOOD-RELATED HAZARDS; FREQUENCY, DEPTH AND DURATION OF FLOODING; RATE OF RISE AND FALL OF FLOODWATER; SOIL CHARACTERISTICS; FLOOD-BORNE DEBRIS; AT LEAST 12 HOURS OF FLOOD WARNING TIME FROM A CREDIBLE SOURCE; AND TIME NECESSARY TO IMPLEMENT ANY MEASURES THAT REQUIRE HUMAN INTERVENTION;
- E. HAVE AT LEAST ONE DOOR ABOVE THE APPLICABLE FLOOD ELEVATION THAT ALLOWS HUMAN INGRESS AND EGRESS DURING CONDITIONS OF FLOODING;
- F. HAVE AN OPERATIONS AND MAINTENANCE PLAN THAT IS FILED WITH LOCAL EMERGENCY MANAGEMENT OFFICIALS AND THAT SPECIFIES THE OWNER/OCCUPANT'S RESPONSIBILITIES TO MONITOR FLOOD POTENTIAL; THE LOCATION OF ANY SHIELDS, DOORS, CLOSURES, TOOLS, OR OTHER GOODS THAT ARE REQUIRED FOR IMPLEMENTATION; MAINTENANCE OF SUCH GOODS; METHODS OF INSTALLATION; AND PERIODIC INSPECTION; AND
- G. BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT, THROUGH EXECUTION OF A FLOODPROOFING CERTIFICATE THAT STATES THAT THE DESIGN AND METHODS OF CONSTRUCTION MEET THE REQUIREMENTS OF THIS SECTION. THE FLOODPROOFING CERTIFICATE SHALL BE SUBMITTED WITH THE CONSTRUCTION DRAWINGS AS REQUIRED IN SECTION 16.702(E)(1)(XIII) OF THIS SUBTITLE.

(F) ADDITIONS AND EXPANSIONS

- (1) VERTICAL AND/OR HORIZONTAL ADDITIONS AND EXPANSIONS PROPOSED FOR A BUILDING OR STRUCTURE THAT WAS CONSTRUCTED AFTER THE MARCH 15, 1977, ARE PROHIBITED

1 UNLESS APPROVED BY ALTERNATIVE COMPLIANCE. IF APPROVED, VERTICAL AND
2 HORIZONTAL ADDITIONS AND EXPANSIONS SHALL COMPLY WITH THE APPLICABLE
3 REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

4 (2) IN NONTIDAL WATERS OF THE STATE THAT ARE SUBJECT TO THE REGULATORY AUTHORITY
5 OF MDE, ALL HORIZONTAL ADDITIONS SHALL COMPLY WITH THE APPLICABLE
6 REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION AND:

7 (I) IF THE ADDITION IS STRUCTURALLY CONNECTED TO THE BASE BUILDING, THE
8 REQUIREMENTS OF PARAGRAPH (3) APPLY.

9 (II) IF THE ADDITION HAS AN INDEPENDENT FOUNDATION AND IS NOT STRUCTURALLY
10 CONNECTED TO THE BASE BUILDING AND THE COMMON WALL WITH THE BASE BUILDING
11 IS MODIFIED BY NO MORE THAN A DOORWAY, THE BASE BUILDING IS NOT REQUIRED TO
12 BE BROUGHT INTO COMPLIANCE.

13 (3) VERTICAL AND/OR HORIZONTAL ADDITIONS THAT ARE STRUCTURALLY CONNECTED TO THE
14 BASE BUILDING OF NONCONFORMING STRUCTURES LOCATED WITHIN SPECIAL FLOOD
15 HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY
16 SPECIAL FLOOD HAZARD AREAS, SHALL NOT BE EXPANDED OR ENLARGED, UNLESS
17 APPROVED BY ALTERNATIVE COMPLIANCE.:

18 (I) IF THE ADDITION COMBINED WITH OTHER PROPOSED REPAIRS, ALTERATIONS, OR
19 MODIFICATIONS OF THE BASE BUILDING CONSTITUTES SUBSTANTIAL IMPROVEMENT,
20 THE BASE BUILDING AND THE ADDITION SHALL COMPLY WITH THE APPLICABLE
21 REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

22 (II) IF THE ADDITION CONSTITUTES SUBSTANTIAL IMPROVEMENT, THE BASE BUILDING AND
23 THE ADDITION SHALL COMPLY WITH ALL OF THE APPLICABLE REQUIREMENTS OF
24 SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

25 (4) FOR VERTICAL AND/OR HORIZONTAL ADDITIONS WITH INDEPENDENT FOUNDATIONS THAT
26 ARE NOT STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE COMMON WALL
27 WITH THE BASE BUILDING IS MODIFIED BY NO MORE THAN A DOORWAY, THE BASE BUILDING
28 IS NOT REQUIRED TO BE BROUGHT INTO COMPLIANCE.

29 (5) A VERTICAL AND/OR HORIZONTAL ADDITION TO A BUILDING OR STRUCTURE THAT IS NOT
30 SUBSTANTIAL IMPROVEMENT, AND IS NOT LOCATED IN NONTIDAL WATERS OF THE STATE, IS
31 NOT REQUIRED TO COMPLY WITH THIS SECTION.

[NOTE: SEE “SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE” (FEMA P-758).]

(G) ACCESSORY STRUCTURES.

(1) REPLACEMENT OF AN EXISTING ACCESSORY STRUCTURE LOCATED IN A SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE PROVIDED THE SUBJECT STRUCTURE EXISTED AS OF JULY 15, 2014, AND PROVIDED IT IS BEING REPLACED IN KIND OR WITH A SMALLER VERSION LIMITED TO NOT MORE THAN 300 SQUARE FEET IN TOTAL FLOOR AREA. IF THERE IS A DISCRETIONARY ELEMENT IN THE REPLACEMENT LOCATION FOR AN ACCESSORY STRUCTURE, AN ALTERNATIVE LOCATION THAT WOULD PLACE THE STRUCTURE OUTSIDE A SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PREFERRED.

(2) ACCESSORY STRUCTURES SHALL COMPLY WITH THE ELEVATION REQUIREMENTS AND OTHER REQUIREMENTS OF SUBSECTION (D) OF THIS SECTION, THE FLOODPROOFING REQUIREMENTS OF SUBSECTION (E)(2) OF THIS SECTION, OR SHALL:

(I) BE USEABLE ONLY FOR PARKING OF VEHICLES OR LIMITED STORAGE;

(II) BE CONSTRUCTED WITH FLOOD DAMAGE-RESISTANT MATERIALS BELOW THE BASE FLOOD ELEVATION;

(III) BE CONSTRUCTED AND PLACED TO OFFER THE MINIMUM RESISTANCE TO THE FLOW OF FLOODWATERS;

(IV) BE ANCHORED TO PREVENT FLOTATION;

(V) HAVE ELECTRICAL SERVICE AND MECHANICAL EQUIPMENT ELEVATED TO OR ABOVE THE BASE FLOOD ELEVATION; AND

(VI) HAVE FLOOD OPENINGS THAT MEET THE REQUIREMENTS OF SUBSECTION (D)(3) OF THIS SECTION.

SECTION 16.705. RESERVED.

SECTION 16.706. ALTERNATIVE COMPLIANCE.

(A) GENERAL.

- (1) *STANDARD.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL HAVE THE POWER TO CONSIDER AND APPROVE, APPROVE WITH CONDITIONS OR DENY ALTERNATIVE COMPLIANCE FROM THE STRICT APPLICATION OF THE REQUIREMENTS OF THESE REGULATIONS AND SECTION 3115 OF THE HOWARD COUNTY BUILDING CODE UNDER THE ALTERNATIVE COMPLIANCE PROCESS. AN ALTERNATIVE COMPLIANCE SHALL BE APPROVED ONLY IF IT IS DETERMINED TO NOT BE CONTRARY TO THE PUBLIC INTEREST AND WHERE, OWING TO SPECIAL CONDITIONS OF THE LOT OR PARCEL, A LITERAL ENFORCEMENT OF THE PROVISIONS OF THESE REGULATIONS, AN UNNECESSARY HARDSHIP WOULD RESULT.
- (2) *CONDITIONS.* UPON CONSIDERATION OF THE PURPOSES OF THESE REGULATIONS, THE INDIVIDUAL CIRCUMSTANCES, AND THE CONSIDERATIONS AND LIMITATIONS OF THIS SECTION, THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS MAY ATTACH SUCH CONDITIONS TO ALTERNATIVE COMPLIANCE AS IT DEEMS NECESSARY TO FURTHER THE PURPOSES OF THESE REGULATIONS.
- (3) *SPECIFIC PROHIBITIONS.* NO ALTERNATIVE COMPLIANCE SHALL BE GRANTED FOR AN ACCESSORY STRUCTURE EXCEEDING 600 SQUARE FEET.
- (4) *RECORDED AGREEMENTS REQUIRED.* A SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT) IS REQUIRED AS A CONDITION OF RECEIVING THE ALTERNATIVE COMPLIANCE. THE AGREEMENT MUST BE RECORDED WITH THE DEED. IF AN ALTERNATIVE COMPLIANCE IS GRANTED AND THE ACCESSORY STRUCTURE IS NOT ELEVATED OR DRY FLOOD PROOFED, THE CONDITIONS IN SECTION 16.704(G) OF THIS SUBTITLE APPLY.
- (5) *COUNTY NOTIFICATION – LOWEST FLOOR BELOW REQUIRED ELEVATION.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL NOTIFY, IN WRITING, ANY APPLICANT TO WHOM AN ALTERNATIVE COMPLIANCE IS GRANTED TO CONSTRUCT OR SUBSTANTIALLY IMPROVE A BUILDING OR STRUCTURE WITH ITS LOWEST FLOOR BELOW THE ELEVATION REQUIRED BY THESE REGULATIONS THAT THE ALTERNATIVE COMPLIANCE IS TO THE FLOODPLAIN MANAGEMENT REQUIREMENTS OF THESE REGULATIONS ONLY, AND THAT

1 THE COST OF FEDERAL FLOOD INSURANCE WILL BE COMMENSURATE WITH THE INCREASED
2 RISK, WITH RATES UP TO \$25 PER \$100 OF INSURANCE COVERAGE.

3 (6) *RECORDS*. A RECORD OF ALL ALTERNATIVE COMPLIANCE ACTIONS, INCLUDING
4 JUSTIFICATION FOR ISSUANCE SHALL BE MAINTAINED PURSUANT TO SECTION 16.702(B)(11)
5 OF THIS SUBTITLE.

6 (B) *APPLICATION FOR AN ALTERNATIVE COMPLIANCE*.

7 (1) THE OWNER OF PROPERTY, OR THE OWNER'S AUTHORIZED AGENT, FOR WHICH AN
8 ALTERNATIVE COMPLIANCE IS SOUGHT SHALL SUBMIT AN APPLICATION FOR AN
9 ALTERNATIVE COMPLIANCE TO THE DEPARTMENT OF PLANNING AND ZONING.

10 (2) AT A MINIMUM, THE APPLICATION SHALL CONTAIN THE FOLLOWING INFORMATION: NAME,
11 ADDRESS, AND TELEPHONE NUMBER OF THE APPLICANT AND PROPERTY OWNER; LEGAL
12 DESCRIPTION OF THE PROPERTY; PARCEL MAP; DESCRIPTION OF THE EXISTING USE;
13 DESCRIPTION OF THE PROPOSED USE; SITE MAP SHOWING THE LOCATION OF FLOOD HAZARD
14 AREAS, DESIGNATED FLOODWAY BOUNDARIES, FLOOD ZONES, BASE FLOOD ELEVATIONS,
15 AND FLOOD PROTECTION SETBACKS; DESCRIPTION OF THE ALTERNATIVE COMPLIANCE
16 SOUGHT; AND REASON FOR THE ALTERNATIVE COMPLIANCE REQUEST. ALTERNATIVE
17 COMPLIANCE APPLICATIONS SHALL SPECIFICALLY ADDRESS EACH OF THE CONSIDERATIONS
18 IN SUBSECTION (C) OF THIS SECTION.

19 (3) IF THE APPLICATION IS FOR AN ALTERNATIVE COMPLIANCE TO ALLOW THE LOWEST FLOOR
20 OF A BUILDING OR STRUCTURE BELOW THE APPLICABLE MINIMUM ELEVATION REQUIRED BY
21 THESE REGULATIONS, THE APPLICATION SHALL INCLUDE A STATEMENT SIGNED BY THE
22 OWNER THAT, IF GRANTED, THE CONDITIONS OF THE ALTERNATIVE COMPLIANCE SHALL BE
23 RECORDED ON THE DEED OF THE PROPERTY.

24 (C) *CONSIDERATIONS FOR ALTERNATIVE COMPLIANCE*. THE FLOODPLAIN ADMINISTRATOR MAY
25 REQUEST COMMENTS ON ALTERNATIVE COMPLIANCE APPLICATIONS FROM MDE (NFIP STATE
26 COORDINATOR) AND SHALL PROVIDE SUCH COMMENTS TO THE HOWARD COUNTY DEPARTMENT OF
27 PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS,
28 LICENSES, AND PERMITS. IN CONSIDERING ALTERNATIVE COMPLIANCE APPLICATIONS, THE
29 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS,
30 AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL CONSIDER AND MAKE

FINDINGS OF FACT ON ALL EVALUATIONS, ALL RELEVANT FACTORS, REQUIREMENTS SPECIFIED IN OTHER SECTIONS OF THESE REGULATIONS, AND THE FOLLOWING FACTORS:

(1) THE DANGER THAT MATERIALS MAY BE SWEEPED ONTO OTHER LANDS TO THE INJURY OF OTHERS.

(2) THE DANGER TO LIFE AND PROPERTY DUE TO FLOODING OR EROSION DAMAGE.

(3) THE SUSCEPTIBILITY OF THE PROPOSED DEVELOPMENT AND ITS CONTENTS (IF APPLICABLE) TO FLOOD DAMAGE AND THE EFFECT OF SUCH DAMAGE ON THE INDIVIDUAL OWNER.

(4) THE IMPORTANCE OF THE SERVICES TO THE COMMUNITY PROVIDED BY THE PROPOSED DEVELOPMENT.

(5) THE AVAILABILITY OF ALTERNATIVE LOCATIONS FOR THE PROPOSED USE WHICH ARE NOT SUBJECT TO, OR ARE SUBJECT TO LESS, FLOODING OR EROSION DAMAGE.

(6) THE NECESSITY TO THE FACILITY OF A WATERFRONT LOCATION, WHERE APPLICABLE, OR IF THE FACILITY IS A FUNCTIONALLY DEPENDENT USE.

(7) THE COMPATIBILITY OF THE PROPOSED USE WITH EXISTING AND ANTICIPATED DEVELOPMENT.

(8) THE RELATIONSHIP OF THE PROPOSED USE TO THE COMPREHENSIVE PLAN AND HAZARD MITIGATION PLAN FOR THAT AREA.

(9) THE SAFETY OF ACCESS TO THE PROPERTY IN TIMES OF FLOOD FOR PASSENGER VEHICLES AND EMERGENCY VEHICLES.

(10) THE EXPECTED HEIGHTS, VELOCITY, DURATION, RATE OF RISE, AND SEDIMENT TRANSPORT OF THE FLOODWATERS AND THE EFFECTS OF WAVE ACTION, IF APPLICABLE, EXPECTED AT THE SITE.

(11) THE COSTS OF PROVIDING GOVERNMENT SERVICES DURING AND AFTER FLOOD CONDITIONS, INCLUDING MAINTENANCE AND REPAIR OF PUBLIC UTILITIES AND FACILITIES SUCH AS SEWER, GAS, ELECTRICAL, AND WATER SYSTEMS, AND STREETS AND BRIDGES.

(12) THE COMMENTS PROVIDED BY MDE (NFIP STATE COORDINATOR).

(D) *LIMITATIONS FOR GRANTING ALTERNATIVE COMPLIANCE.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL MAKE AN AFFIRMATIVE DECISION ON AN ALTERNATIVE COMPLIANCE REQUEST ONLY UPON:

- 1 (1) A SHOWING OF GOOD AND SUFFICIENT CAUSE. GOOD AND SUFFICIENT CAUSE DEALS
2 SOLELY WITH THE PHYSICAL CHARACTERISTICS OF THE PROPERTY AND CANNOT BE BASED
3 ON THE CHARACTER OF THE IMPROVEMENT, THE PERSONAL CHARACTERISTICS OF THE
4 OWNER/INHABITANTS, OR LOCAL PROVISION THAT REGULATE STANDARDS OTHER THAN
5 HEALTH AND PUBLIC SAFETY.
- 6 (2) A DETERMINATION THAT FAILURE TO GRANT THE ALTERNATIVE COMPLIANCE WOULD
7 RESULT IN EXCEPTIONAL HARDSHIP DUE TO THE PHYSICAL CHARACTERISTICS OF THE
8 PROPERTY. INCREASED COST OR INCONVENIENCE OF MEETING THE REQUIREMENTS OF
9 THESE REGULATIONS DOES NOT CONSTITUTE AN EXCEPTIONAL HARDSHIP TO THE
10 APPLICANT.
- 11 (3) A DETERMINATION THAT THE GRANTING OF AN ALTERNATIVE COMPLIANCE FOR
12 DEVELOPMENT WITHIN ANY DESIGNATED FLOODWAY, OR FLOOD HAZARD AREA WITH BASE
13 FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAY, WILL NOT RESULT IN INCREASED
14 FLOOD HEIGHTS BEYOND THAT WHICH IS ALLOWED IN THESE REGULATIONS.
- 15 (4) A DETERMINATION THAT THE GRANTING OF AN ALTERNATIVE COMPLIANCE WILL NOT
16 RESULT IN ADDITIONAL THREATS TO PUBLIC SAFETY; EXTRAORDINARY PUBLIC EXPENSE,
17 NUISANCES, FRAUD OR VICTIMIZATION OF THE PUBLIC, OR CONFLICT WITH EXISTING LOCAL
18 LAWS.
- 19 (5) A DETERMINATION THAT THE BUILDING, STRUCTURE OR OTHER DEVELOPMENT IS
20 PROTECTED BY METHODS TO MINIMIZE FLOOD DAMAGES.
- 21 (6) A DETERMINATION THAT THE ALTERNATIVE COMPLIANCE IS THE MINIMUM NECESSARY TO
22 AFFORD RELIEF, CONSIDERING THE FLOOD HAZARD.

23 (E) ALTERNATIVE COMPLIANCE PROHIBITED.

- 24 (1) AN ALTERNATIVE COMPLIANCE SHALL NOT BE ISSUED WITHIN ANY DESIGNATED REGULATORY
25 FLOODWAY IF ANY INCREASE IN FLOOD LEVELS DURING THE BASE FLOOD DISCHARGE WOULD
26 RESULT.
- 27 (2) AN ALTERNATIVE COMPLIANCE MAY NOT BE ISSUED FOR ANY PROPERTY LOCATED IN THE TIBER
28 BRANCH WATERSHED UNLESS THE ALTERNATIVE COMPLIANCE:
- 29 (I) WAS REQUESTED ON OR BEFORE NOVEMBER 7, 2016;
- 30 (II) IS NECESSARY FOR THE RECONSTRUCTION OF EXISTING STRUCTURES OR INFRASTRUCTURE
31 DAMAGED BY FLOOD, FIRE, OR OTHER DISASTER;

(III) IS NECESSARY FOR THE CONSTRUCTION OF A STORMWATER MANAGEMENT OR FLOOD CONTROL FACILITY AS PART OF A REDEVELOPMENT PROJECT;

(IV) IS NECESSARY FOR THE RETROFIT OF EXISTING FACILITIES OR INSTALLATION OF NEW FACILITIES INTENDED SOLELY TO IMPROVE STORMWATER MANAGEMENT OR FLOOD CONTROL FOR EXISTING DEVELOPMENT;

(V) IS REQUESTED AS PART OF A DEVELOPMENT PROPOSAL AND THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS, OR HIS DESIGNEE SERVING AS FLOODPLAIN ADMINISTRATOR, FINDS THAT UPON COMPLETION OF CONSTRUCTION OF THE DEVELOPMENT, WHICH MAY INCLUDE OFF-SITE IMPROVEMENTS WITHIN THE TIBER BRANCH WATERSHED, THERE WILL BE IMPROVEMENT TO FLOOD CONTROL IN THE TIBER BRANCH WATERSHED AT LEAST TEN PERCENT MORE THAN WHAT WOULD OTHERWISE BE REQUIRED BY LAW; OR

(VI) IS NECESSARY FOR THE CONSTRUCTION OF AN ADDITION, GARAGE, DRIVEWAY OR OTHER ACCESSORY USE IMPROVEMENT OF AN EXISTING RESIDENTIAL STRUCTURE ON PROPERTY LOCATED WITHIN THE TIBER BRANCH WATERSHED THAT INCREASES THE SQUARE FOOTAGE OF THE IMPERVIOUS SURFACES ON THE PROPERTY BY NO MORE THAN 25 PERCENT OVER THE SQUARE FOOTAGE OF IMPERVIOUS SURFACES THAT EXISTED ON THE PROPERTY PRIOR TO THE EFFECTIVE DATE OF THIS BILL.

SECTION 16.707. ENFORCEMENT.

(A) COMPLIANCE REQUIRED.

- (1) NO BUILDING, STRUCTURE OR DEVELOPMENT SHALL HEREAFTER BE LOCATED, ERECTED, CONSTRUCTED, RECONSTRUCTED, IMPROVED, REPAIRED, EXTENDED, CONVERTED, ENLARGED OR ALTERED WITHOUT FULL COMPLIANCE WITH THESE REGULATIONS AND ALL OTHER APPLICABLE REGULATIONS, UNLESS APPROVED BY AN ALTERNATIVE COMPLIANCE OR NECESSARY DISTURBANCE UNDER SECTION 16.115.
- (2) FAILURE TO OBTAIN A PERMIT SHALL BE A VIOLATION OF THESE REGULATIONS AND SHALL BE SUBJECT TO PENALTIES IN ACCORDANCE WITH SUBSECTION (C) OF THIS SECTION.
- (3) PERMITS ISSUED ON THE BASIS OF PLANS AND APPLICATIONS APPROVED BY THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR AUTHORIZE ONLY THE SPECIFIC ACTIVITIES SET FORTH IN SUCH APPROVED PLANS AND APPLICATIONS OR AMENDMENTS THERETO. USE, ARRANGEMENT, OR CONSTRUCTION OF SUCH SPECIFIC ACTIVITIES THAT ARE CONTRARY TO THAT AUTHORIZATION SHALL BE DEEMED A VIOLATION OF THESE REGULATIONS.

(B) NOTICE OF VIOLATION AND STOP WORK ORDER. IF THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS DETERMINES THAT THERE HAS BEEN A VIOLATION OF ANY PROVISION OF THESE REGULATIONS, THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS SHALL GIVE NOTICE OF SUCH VIOLATION TO THE OWNER, THE OWNER'S AUTHORIZED AGENT, AND THE PERSON RESPONSIBLE FOR SUCH VIOLATION, AND MAY ISSUE A STOP WORK ORDER. THE NOTICE OF VIOLATION OR STOP WORK ORDER SHALL BE IN WRITING AND SHALL:

(1) INCLUDE A LIST OF VIOLATIONS, REFERRING TO THE SECTION OR SECTIONS OF THESE REGULATIONS THAT HAVE BEEN VIOLATED;

(2) ORDER REMEDIAL ACTION WHICH, IF TAKEN, WILL AFFECT COMPLIANCE WITH THE PROVISIONS OF THESE REGULATIONS;

(3) SPECIFY A REASONABLE PERIOD OF TIME TO CORRECT THE VIOLATION;

(4) ADVISE THE RECIPIENTS OF THE RIGHT TO APPEAL; AND

(5) BE SERVED IN PERSON; OR

(6) BE POSTED IN A CONSPICUOUS PLACE IN OR ON THE PROPERTY AND SENT BY REGISTERED OR CERTIFIED MAIL TO THE LAST KNOWN MAILING ADDRESS, RESIDENCE, OR PLACE OF BUSINESS OF THE RECIPIENTS.

(C) VIOLATIONS AND PENALTIES. VIOLATIONS OF THESE REGULATIONS OR FAILURE TO COMPLY WITH THE REQUIREMENTS OF THESE REGULATIONS OR ANY CONDITIONS ATTACHED TO A PERMIT OR ALTERNATIVE COMPLIANCE SHALL CONSTITUTE A MISDEMEANOR. ANY PERSON RESPONSIBLE FOR A VIOLATION SHALL COMPLY WITH THE NOTICE OF VIOLATION OR STOP WORK ORDER. WHERE THERE IS ANY VIOLATION OF THIS SUBTITLE OR ANY ACTION TAKEN THEREUNDER, THE COUNTY SHALL INSTITUTE APPROPRIATE ACTION TO PREVENT, ENJOIN, OR COMPEL COMPLIANCE WITH THE PROVISIONS OF THIS SUBTITLE. IN ADDITION TO AND CONCURRENT WITH ALL OTHER REMEDIES AT LAW OR EQUITY, THE COUNTY MAY ENFORCE THE PROVISIONS OF THIS SUBTITLE WITH CIVIL PENALTIES PURSUANT TO THE PROVISIONS OF TITLE 24, "CIVIL PENALTIES" OF THE HOWARD COUNTY CODE. A VIOLATION IS A CLASS B OFFENSE. EACH DAY A VIOLATION CONTINUES SHALL BE CONSIDERED A SEPARATE OFFENSE. NOTHING HEREIN CONTAINED SHALL PREVENT HOWARD COUNTY, MARYLAND, FROM TAKING SUCH OTHER LAWFUL ACTION AS IS NECESSARY TO PREVENT OR REMEDY ANY VIOLATION.

1
2 **SECTION 16.708. SEVERABILITY.**

3 SHOULD ANY SECTION OR PROVISION OF THESE REGULATIONS BE DECLARED BY A COURT OF
4 COMPETENT JURISDICTION TO BE UNCONSTITUTIONAL OR INVALID, SUCH DECISION SHALL NOT
5 AFFECT THE VALIDITY OF THIS SUBTITLE OR SUBTITLE 1 OF TITLE 16 AS A WHOLE, OR ANY PART
6 THEREOF OTHER THAN THE PART SO DECLARED TO BE UNCONSTITUTIONAL OR INVALID.
7

8 **Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.**

9 **Subtitle 12. Forest Conservation.**

10
11 **Section 16.1201. Definitions.**

12 Except as provided in subsection (ff) of this section, words and phrases used in this subtitle have their usual
13 meaning unless defined in the Subdivision and Land Development Regulations as set forth in subtitle 1 of this title
14 or as follows in this section:

- 15 (v) *Net Tract Area*. "Net tract area" means the total area to the nearest one-tenth acre, whether forested or
16 not, of a proposed development, exclusive of any 100-year floodplain INCLUDING ANY SPECIAL
17 FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD
18 AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, utility transmission line
19 easements, or preservation parcel as referenced in the zoning regulations. "Net tract area" is to be used in
20 calculating any reforestation or afforestation obligations that may be created by the proposed
21 development.
- 22 (bb) *Stream Restoration Project*. "Stream Restoration Project" means an activity that:
- 23 (1) Is designed to stabilize stream banks or enhance stream function or habitat located within an
24 existing stream, waterway or floodplain;
- 25 (2) Avoids and minimizes impacts to forests and provides for replanting on-site an equivalent number
26 of trees to the number removed by the project;
- 27 (3) May be performed under a municipal separate storm sewer system permit, a watershed
28 implementation plan growth offset, or another plan administered by the state or Howard County to
29 achieve or maintain water quality standards; and
- 30 (4) Is not performed to satisfy stormwater management, wetlands mitigation, or any other regulatory
31 requirement associated with proposed development activity.
32

33 **Section 16.1205. Forest retention priorities.**

- 34 (b) *On-Site Forest Retention Priorities*. The following vegetation and specific areas are considered priority and
35 are listed in order of preference for on-site retention and protection in the County. Subdivision, site

development, and grading shall leave the following vegetation and specific areas in an undisturbed condition unless demonstrated, to the satisfaction of the Department, that reasonable efforts have been made to protect them and the plan cannot be reasonably altered or that forest planting in an alternate location would have greater environmental benefit:

- (1) Howard County Green Infrastructure Network.
- (2) 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, as defined in the Subdivision Regulations.
- (3) Stream buffers as defined in the Subdivision Regulations;
- (4) Forested wetlands and wetland buffers as defined in the Subdivision Regulations;
- (5) Critical habitat areas and forest corridors with a minimum width of 300 feet, where practical, for wildlife movement;
- (6) Steep slopes as defined in the Subdivision Regulations and slopes of 15 percent or greater with a soil erodibility factor greater than 0.35;
- (7) Forest contiguous with the priority areas listed above;
- (8) Forest contiguous with off-site forest, if the off-site forest is also protected by a Forest Conservation Easement; and
- (9) Property line and right-of-way buffers, particularly adjacent to scenic roads.

Section 16.1208. Reforestation and afforestation location priorities, preferred location, and preferred methods.

(a) *Location Priorities.* The following are priority locations for reforestation and afforestation, and are listed in order of preference. The Department may approve lower priority locations on this list when such locations better achieve the intent of this subtitle or County land use regulations. If off-site planting would have greater environmental benefit, the Department may approve off-site reforestation or afforestation in high-priority locations within Howard County, preferably within the same subbasin or watershed:

- (1) Establish or enhance forest in the Howard County Green Infrastructure Network;
- (2) Establish or enhance forest in 100-year floodplains INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, and buffers to intermittent and perennial streams as defined in the Subdivision Regulations;
- (3) Establish or enhance forest in wetlands and wetland buffers as defined in the Subdivision Regulations;

- (4) Establish or enhance critical habitat buffers and forest corridors for wildlife movement, the corridors, where practical, being a minimum of 300 feet in width;
- (5) Establish plantings to stabilize slopes of 25 percent or greater and slopes of 15 percent or greater with a soil K value greater than 0.35;
- (6) Establish forest areas adjacent to existing forests to increase the overall area of contiguous forest cover;
- (7) Establish forest areas between small forest and tree stands to build a forest community; and
- (8) Establish buffers along property lines between differing land uses when appropriate, or adjacent to highways or utility rights-of-way, particularly adjacent to scenic roads.

Title 18. Public Works.

Subtitle 9. Stormwater Management.

Section 18.901. Definitions.

The following terms have the meanings indicated:

- (a) *Administration* means the Maryland Department of the Environment (MDE) Water Management Administration (WMA).
- (b) *Adverse impact* means any deleterious effect on waters or wetlands, including their quality, quantity, surface area, species composition, aesthetics or usefulness for human or natural uses which are or may potentially be harmful or injurious to human health, welfare, safety or property, to biological productivity, diversity or stability, or which unreasonably interfere with the enjoyment of life or property, including outdoor recreation.
- (c) *Agricultural land management practices* means those methods and procedures used in the cultivation of land in order to further crop and livestock production and conservation of related soil and water resources.
- (d) *Applicant* means a person, firm, or governmental agency who applies for approval of a project to carry out construction activities involving stormwater management.
- (e) *Approving agency* means the entity responsible for the review and approval of stormwater management plans. As set forth in the Howard County Design Manual and depending on the

nature of the project, the approving agency is the Department of Planning and Zoning or the Department of Public Works.

(f) *Best management practice (BMP)* means any structural device or nonstructural practice designed to temporarily store or treat stormwater runoff in order to mitigate flooding, reduce pollution, or provide other amenities.

(g) *Channel protection storage volume (cPv)* means the volume used to design structural management practices to control stream channel erosion. Methods for calculating the channel protection storage volume are specified in the 2000 Maryland Stormwater Design Manual.

(h) *Clearing* means the removal of trees and brush from the land, but shall not include the ordinary mowing of grass.

(i) *Concept stage* means the first stage of the stormwater management design process. Approval of the environmental concept plan constitutes the approval of the concept stage.

(j) *County* means Howard County, Maryland.

(k) *Design manual* means the 2000 Maryland Stormwater Design Manual, and all subsequent revisions, that serves as the official guide for stormwater management principles, methods, and practices. The 2000 Maryland Stormwater Design Manual VOLUME I AND II MAY be supplemented by the Howard County Design Manual.

(l) *Develop land* means to change the runoff characteristics of a parcel of land or lot in conjunction with residential, commercial, industrial, or institutional construction or alteration.

(m) *Drainage area* means an area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridge line.

(n) *Easement* means a grant or reservation by the owner of land for the use of such land by others for a specific purpose, and which shall be recorded in the land records of Howard County.

(o) *Environmental concept plan* means the first of three required plan approvals that includes the information necessary to allow an initial evaluation of a proposed project.

(p) *Environmental site design (ESD)* means using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic

runoff characteristics and minimize the impact of land development on water resources.

Methods for designing ESD practices are specified in the design manual.

(q) *Exemption* means those land development activities that are not subject to the stormwater management requirements of this subtitle.

(r) *Extended detention* means a stormwater design feature that provides gradual release of a volume of water in order to increase settling of pollutants and protect downstream channels from frequent storm events. Methods for designing extended detention BMPs are specified in the design manual.

(s) *Extreme flood volume (Q_f)* means the storage volume required to control those infrequent but large storm events in which the overbank flows reach or exceed the boundaries of the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

(t) *Final stage* means the third stage of the stormwater management design process. Approval of the grading plan constitutes the approval of the final stage.

(u) *Flow attenuation* means prolonging the flow time of runoff to reduce the peak discharge.

(v) *Grading* means any act by which soil is cleared, stripped, stockpiled, excavated, scarified, filled, or any combination thereof.

(w) *Grading plan* means the last of a multi-step plan-approval process that includes the information necessary to allow all approvals and permits to be issued by the approving agency.

(x) *Impervious area or impervious surface* means any surface that does not allow stormwater to infiltrate into the ground.

(y) *Infiltration* means the passage or movement of water into the soil surface.

(z) *Maximum extent practicable (MEP)* means designing stormwater management systems so that all reasonable opportunities for using ESD planning techniques and treatment practices are exhausted and, only where absolutely necessary, implementing a structural BMP.

(aa) *Off-site stormwater management* means the design and construction of a facility necessary to control stormwater from one or more properties other than the one on which the stormwater management facility lies.

(bb) *On-site stormwater management* means the design and construction of a facility necessary to control stormwater from one property within the boundary of the subject property.

- 1 (cc) *Overbank flood protection volume (Qp)* means the volume controlled by structural practices
2 to prevent an increase in the frequency of the out of bank flooding by development.
3 Methods for calculating the overbank flood protection volume are specified in the design
4 manual.
- 5 (dd) *Person* means the Federal Government, the State, any County, Municipal Corporation, or
6 other political subdivision of the State, or any of their units; an individual, receiver, trustee,
7 guardian, executor, administrator, fiduciary, or representative of any kind; or any
8 partnership, firm, association, public or private corporation, or any other entity.
- 9 (ee) *Planning techniques* means a combination of strategies employed early in project design to
10 reduce the impact from development and to incorporate natural features into a stormwater
11 management plan.
- 12 (ff) *Private stormwater management facility* means any best management practice which is not
13 to be owned and maintained by the County.
- 14 (gg) *Recharge volume (REv)* means that portion of the water quality volume used to maintain
15 groundwater recharge rates at development sites. Methods for calculating the recharge
16 volume are specified in the design manual.
- 17 (hh) *Redevelopment* means any construction, alteration, or improvement performed on sites
18 where existing site impervious area exceeds 40 percent and where existing land use is
19 commercial, industrial, institutional, or multifamily.
- 20 (ii) *Retrofitting* means the implementation of ESD practices, the construction of a structural
21 BMP in a previously developed area, the modification of an existing structural BMP, or the
22 implementation of a nonstructural practice to improve water quality over current conditions.
- 23 (jj) *Sediment* means soil or other surficial materials transported or deposited by the action of
24 wind, water, ice, or gravity as a product of erosion.
- 25 (kk) *Site* means a tract of land, lot or parcel of land or combination of tracts, lots, or parcels of
26 land, which are in one ownership, or are contiguous and in diverse ownership where
27 development is to be performed as part of a unit, subdivision or project.
- 28 (ll) *Site development stage* means the second stage of the stormwater management design
29 process. Approval of one of the following plans constitutes the approval of the site
30 development stage: sketch plan, preliminary plan, preliminary equivalent sketch plan, final
31 plan, or site development plan as defined in section 16.108 of the Howard County

Subdivision and Land Development Regulations. The applicable plan will act as the second of three required plan approvals that include the information necessary to allow a detailed evaluation of a proposed project.

(mm) *Stabilization* means the prevention of soil movement by any of various vegetative or structural means.

(nn) *Stormwater management design process* means the three stage process required by MDE for the review of stormwater management. The three stages include concept, site development and final stages as defined herein.

(oo) *Stormwater management system* means natural areas, ESD practices, stormwater management measures, and any other structure through which stormwater flows, infiltrates, or discharges from a site.

(pp) *Stripping* means any activity which removes the vegetative cover including tree removal, clearing, grubbing, and storage or removal of topsoil.

(qq) *Waiver* means the reduction of stormwater management requirements for a specific development on a case-by-case basis.

(rr) *Watershed* means the total drainage area contributing runoff to a single point.

(ss) *Watershed management plan* means a plan developed by the County for the purpose of implementing different stormwater management policies for waivers and redevelopment. A watershed management plan shall contain the items set forth in section 18.908 of this subtitle.

(tt) *Watershed protection and restoration fee* means a fee, as set forth in title 20, subtitle 11 of this Code.

(uu) *Water quality volume (WQv)* means the storage needed to capture and treat the runoff from 90 percent of the average annual rainfall at a development site. Methods for calculating the water quality volume are specified in the design manual.

Section 18.905. Stormwater management design process.

(b) *Contents and Submission of Stormwater Management.* Stormwater management design shall contain the following:

- (1) A concept stage that provides sufficient information for an initial assessment of the proposed project and whether stormwater management can be provided according to

1 this subtitle. Plans submitted for concept stage approval shall include, but are not
2 limited to:

- 3 (i) A map at a scale specified by the Department of Planning and Zoning showing
4 site location, existing natural features, water and other sensitive resources,
5 topography, and natural drainage patterns;
- 6 (ii) The anticipated location of all proposed impervious areas, buildings, roadways,
7 parking, sidewalks, utilities, and other site improvements;
- 8 (iii) The location of the proposed limit of disturbance, erodible soils, steep slopes, and
9 areas to be protected during construction;
- 10 (iv) Preliminary estimates of stormwater management requirements, the selection and
11 location of ESD practices to be used, and the location of all points of discharge
12 from the site;
- 13 (v) A narrative that supports the concept design and describes how ESD will be
14 implemented to the MEP; and
- 15 (vi) Any other information required by the County.

- 16 (2) Following concept stage approval by the County, the owner or developer shall submit
17 plans meeting requirements for the site development stage.

18 Plans submitted for site development stage approval shall be of sufficient detail to
19 allow the plan to be reviewed and shall include, without limitation, the following
20 items:

- 21 (i) All information provided during the concept stage;
- 22 (ii) Site layout, exact impervious area locations and acreages, proposed topography,
23 delineated drainage areas at all points of discharge from the site, and stormwater
24 volume computations for ESD practices and quantity control structures;
- 25 (iii) A proposed erosion and sediment control plan that contains the construction
26 sequence, any phasing necessary to limit earth disturbances and impacts to natural
27 resources, and an overlay plan showing the types and locations of ESD and
28 erosion and sediment control practices to be used;
- 29 (iv) A narrative that supports the site design, describes how ESD will be used to meet
30 the minimum control requirements, and justifies any proposed structural
31 stormwater management measure; and

- 1 (v) Any other information required by the County.
- 2 (3) Following site development stage approval by the County, the owner or developer shall
- 3 submit plans meeting requirements for final stage. Plans submitted for final stage
- 4 approval shall be of sufficient detail to allow all approvals and permits to be issued
- 5 according to the following:
- 6 (i) Final erosion and sediment control plans shall be submitted according to COMAR
- 7 26.17.01.05; and
- 8 (ii) Final stormwater management design shall be submitted for approval in the form
- 9 of construction drawings and shall be accompanied by a report that includes
- 10 sufficient information to evaluate the effectiveness of the proposed runoff control
- 11 design.
- 12 (4) Reports submitted for final stormwater management design shall include, but are not
- 13 limited to:
- 14 (i) Geotechnical investigations including soil maps, borings, site specific
- 15 recommendations, and any additional information necessary for the final
- 16 stormwater management design;
- 17 (ii) Drainage area maps depicting post development runoff flow path and land use;
- 18 (iii) Hydrologic computations of the applicable ESD and unified sizing criteria
- 19 according to the design manual for all points of discharge from the site;
- 20 (iv) Hydraulic and structural computations for all ESD practices and structural
- 21 stormwater management measures to be used;
- 22 (v) A narrative that supports the final stormwater management design; and
- 23 (vi) Any other information required by the County.
- 24 (5) Construction drawings submitted for final stormwater management design approval
- 25 shall include, but are not limited to:
- 26 (i) A vicinity map;
- 27 (ii) Existing and proposed topography and proposed drainage areas, including areas
- 28 necessary to determine downstream analysis for proposed stormwater
- 29 management facilities;
- 30 (iii) Any proposed improvements including location of buildings or other structures,
- 31 impervious surfaces, storm drainage facilities, and all grading;

- (iv) The location of existing and proposed structures and utilities;
 - (v) Any easements and rights-of-way;
 - (vi) The delineation, if applicable, of the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS and any on-site wetlands;
 - (vii) Structural and construction details including representative cross sections for all components of the proposed drainage system or systems, and stormwater management facilities;
 - (viii) All necessary construction specifications;
 - (ix) A sequence of construction;
 - (x) Data for total site area, disturbed area, new impervious area, and total impervious area;
 - (xi) A table showing the ESD and unified sizing criteria volumes required in the design manual;
 - (xii) A table of materials to be used for stormwater management facility planting;
 - (xiii) All soil boring logs and locations;
 - (xiv) An inspection and maintenance schedule;
 - (xv) Certification by the owner/developer that all stormwater management construction will be done according to this plan;
 - (xvi) An as-built certification signature block to be executed after project completion; and
 - (xvii) Any other information required by the County.
- (6) If a stormwater management plan involves direction of some or all runoff off of the site, the developer shall obtain from adjacent property owners any easements or other necessary property interests concerning flowage of water.

Section 3. And Be It Further Enacted by the County Council of Howard County, Maryland that this Act shall become effective 61 days after its enactment.