

MEMORANDUM

TO: District of Columbia Zoning Commission

FROM: Elisa Vitale Development Review Specialist
^{JLS}
Jennifer Steingasser, Deputy Director Development Review & Historic Preservation

DATE: January 3, 2020

SUBJECT: Zoning Commission Case 20-XX – Setdown Report for a Proposed Text Amendment to Subtitle C, Chapter 11 General Waterfront Regulations

I. RECOMMENDATION

At its December 16, 2019, public hearing, the Zoning Commission asked the Office of Planning (OP) to provide more information with regard to the Waterfront Regulations (Subtitle C, Chapter 11) and the use prohibitions within a one-hundred year floodplain (C § 1102.4), the basis for the distinction between residential and lodging uses, whether the Waterfront Regulations should be changed, or whether there is a different path forward.

This proposal is to eliminate the use prohibitions within a 100-year floodplain from the zoning regulations as the flood plains are regulated by the Flood Hazard Rules (20 DCMR Chapter 31) administered by the Department of Energy and Environment (DOEE).

OP requests the following actions by the Commission:

1. **Set down** of the proposed modifications for a public hearing;
2. Authorization of the immediate publication of a Notice of Proposed Rulemaking for the proposed amendments; and
3. Grant OP flexibility to work with OAG on the preparation of final text for advertising in the Notice of Proposed Rulemaking.

This report also serves as the prehearing report required by Subtitle Z § 501.

Title 11 (DCMR) is proposed to be amended as follows, with proposed new text in **bold and underlined** and deleted text with **~~striketrough~~**:

Subsection 1100.2 of Section 1100, INTRODUCTION, of Chapter 11, WATERFRONT, of Subtitle C, GENERAL RULES, is amended by deleting paragraph (d), to read as follows:

- 1100.2 Waterfront regulations are intended to provide for:
- (a) Physical and visual public accessibility to and along the waterfront;
 - (b) Protection of natural resources along the waterfront; **and**
 - (c) Open space along the waterfront; ~~and~~
 - ~~(d) Use restrictions in the one hundred (100)-year flood plain.~~

Subsection 1102.4 of Section 1102, GENERAL WATERFRONT REGULATIONS, of Chapter 11, WATERFRONT, of Subtitle C, GENERAL RULES, is amended by deleting Section 1102.4, to read as follows:

~~**1102.4 — The following uses are prohibited within a one hundred (100)-year floodplain:**~~

- ~~**(a) — Residential uses with only one (1) or two (2) dwelling units;**~~
- ~~**(b) — Animal sales, care, and boarding;**~~
- ~~**(c) — Community-based institutional facilities;**~~
- ~~**(d) — Daytime care;**~~
- ~~**(e) — Education;**~~
- ~~**(f) — Emergency shelter;**~~
- ~~**(g) — Hospital; and**~~
- ~~**(h) — Lodging.**~~

II. BACKGROUND

The Waterfront Zone Districts (W zones) were created in 1974, specifically for Georgetown, with the intent of providing a transition from Georgetown’s industrial past to a more modern mixed-use zone. The W-1, W-2, and W-3 zones were designed to revitalize blighted, declining industrial areas along the river. The W-0 zone was created in 2004 and was an open-space zone designed to limit development and protect the natural waterfront areas of the City. The only uses permitted as a matter-of-right are open space and recreation.

In 2016, the W zones were carried forward (MU-11, MU-12, MU-13, MU-14, SEFC-4, CG-5, CG-6, and CG-7) and the overarching waterfront-related provisions were included in Subtitle C, Chapter 11, Waterfront Regulations. The bulk of the Waterfront Regulations apply to properties with frontage on the Anacostia or Potomac Rivers (C § 1101.2) and address the relationship between the built form and the Anacostia and Potomac Rivers. However, the Waterfront Regulations prohibit certain uses within a 100-year floodplain (C § 1102.4), which extends beyond property adjacent to the Anacostia or Potomac Rivers (see Attachment 1 for a map of the 100-year and 500-year floodplain).

The use prohibitions within a 100-year floodplain were added to the Waterfront Regulations (Subtitle C, Chapter 11) as part of the Zoning Regulations Review (ZRR) and were based on the work of the Flood Plain Working Group. The Working Group, in its final white paper, recommended that the following uses be prohibited in flood plain areas.

- Nonconforming dwelling additions that do not meet Flood Hazard Rules;
- Child/elderly development centers;
- Community-based residential facilities;
- Embassies, which are generally one-family residences;
- Emergency shelters;
- Flats;

- Health care facilities, hospitals, and sanitariums;
- One-family detached/semi-detached; row dwellings;
- Rehabilitation and substance abuse homes;
- Residences for teachers and staff of private schools, and
- Youth residential care facilities.

The Working Group found that these land uses could present challenges to emergency management personnel. The Working Group did not express concerns about more intense residential, commercial, and industrial uses, but did recommend that all garages in flood plain areas be above-grade. The Zoning Commission considered the Working Group guidance on June 22, 2009. At this time, the Commission expressed some concern about creating redundant regulations and stated that it would not want to duplicate existing environmental regulations. Ultimately, the Waterfront Regulations were adopted to include the recommended use prohibitions, as well as animal sales, care, and boarding and lodging uses.

Recent cases before the Zoning Commission (ZC) and the Board of Zoning Adjustment (BZA) have raised the issue of specific uses being prohibited within a 100-year floodplain. The Office of Attorney General (OAG) has indicated that these provisions are inappropriate for the Zoning Regulations as life/safety and environmental concerns would be better regulated by the Building Code and District Department of Energy and Environment (DOEE) regulations.

OP has been advised by DOEE that it is assessing the Flood Hazard Rules, which regulate development in special flood hazard areas. For a copy of the existing regulations, see Attachment 2: Flood Hazard Rules. DOEE is considering modifications to the Flood Hazard Rules that would:

- Expand the regulated floodplain from the 100-year to the 500-year;
- Restrict new construction in any areas of the District forecasted to be “permanently inundated in the year 2100” (using the high tide mark as basis);
- Restrict new construction or substantial improvement of critical facilities in the flood hazard area, and,
- For projects that lie within the 500-year floodplain:
 - Prohibit underground parking for 100% housing projects, unless a code modification is approved; and
 - Allow underground parking "by right" for mixed-use projects.

Furthermore, DOEE is proposing to define critical facilities. The **draft** definition is as follows:

Critical facility – *a building or structure intended to remain operational in the event of extreme environmental loading from flood, wind, snow, or earthquake, that contains essential equipment, houses services necessary for emergency response and recovery, or would pose a substantial risk to the public or significant disruption to the community at large in the event of failure, disruption of function during or after flooding, or damage by flooding. Critical facilities include:*

- (a) *Hospitals and health care facilities having surgery or emergency treatment facilities;*
- (b) *Fire, rescue, ambulance, and police stations and emergency vehicle garages;*

- (c) *Designated emergency shelters;*
- (d) *Designated emergency preparedness, communication, and operation centers and other facilities required for emergency response;*
- (e) *Power generating stations and other public utility facilities required in emergencies;*
- (f) *Critical aviation facilities such as control towers, air traffic control centers, and hangars for aircraft used in emergency response;*
- (g) *Ancillary structures such as communication towers, electrical substations, fuel or water storage tanks, or other structures necessary to allow continued functioning of a critical facility during and after an emergency;*
- (h) *Jails, correctional facilities, and detention facilities;*
- (i) *Care facilities where residents have limited mobility or ability, including nursing homes but not including care facilities for five or fewer persons;*
- (j) *Housing owned or operated by the DC Housing Authority;*
- (k) *Shelters and short-term family housing facilities for individuals experiencing homelessness;*
- (l) *Elementary schools, secondary schools, and buildings with college or adult education classrooms; and*
- (m) *Preschool and child care facilities not located in one- and two-family dwellings.*

Given the existing Flood Hazard Rules and DOEE’s expertise in regulating development in the floodplain, the floodplain-based use restrictions in Zoning should be eliminated.

III. PROPOSAL

With the advice of OAG, the proposal is to eliminate the prohibition for specified uses within a 100-year floodplain. OP would continue to work with DOEE to ensure that the Flood Hazard Rules (20 DCMR Chapter 31) include adequate protections for both the natural environment, and vulnerable populations within areas prone to flooding.

Other provisions of this Chapter, related to waterfront setback requirements, waterfront viewsheds, and parking space and access requirements would remain in effect. The existing use permissions for W zones (MU-11, MU-12, MU-13, MU-14, SEFC-4, CG-5, CG-6, and CG-7) also would remain in place.

IV. COMPREHENSIVE PLAN

The Comprehensive Plan does not include language instructing zoning to address flood plain criteria. It does, in the Environmental Protection Citywide Element, include language regarding the need to ensure that regulations consider “*the long term effects of global warming and sea-level rise on flood hazard*” (E-4.7.4)

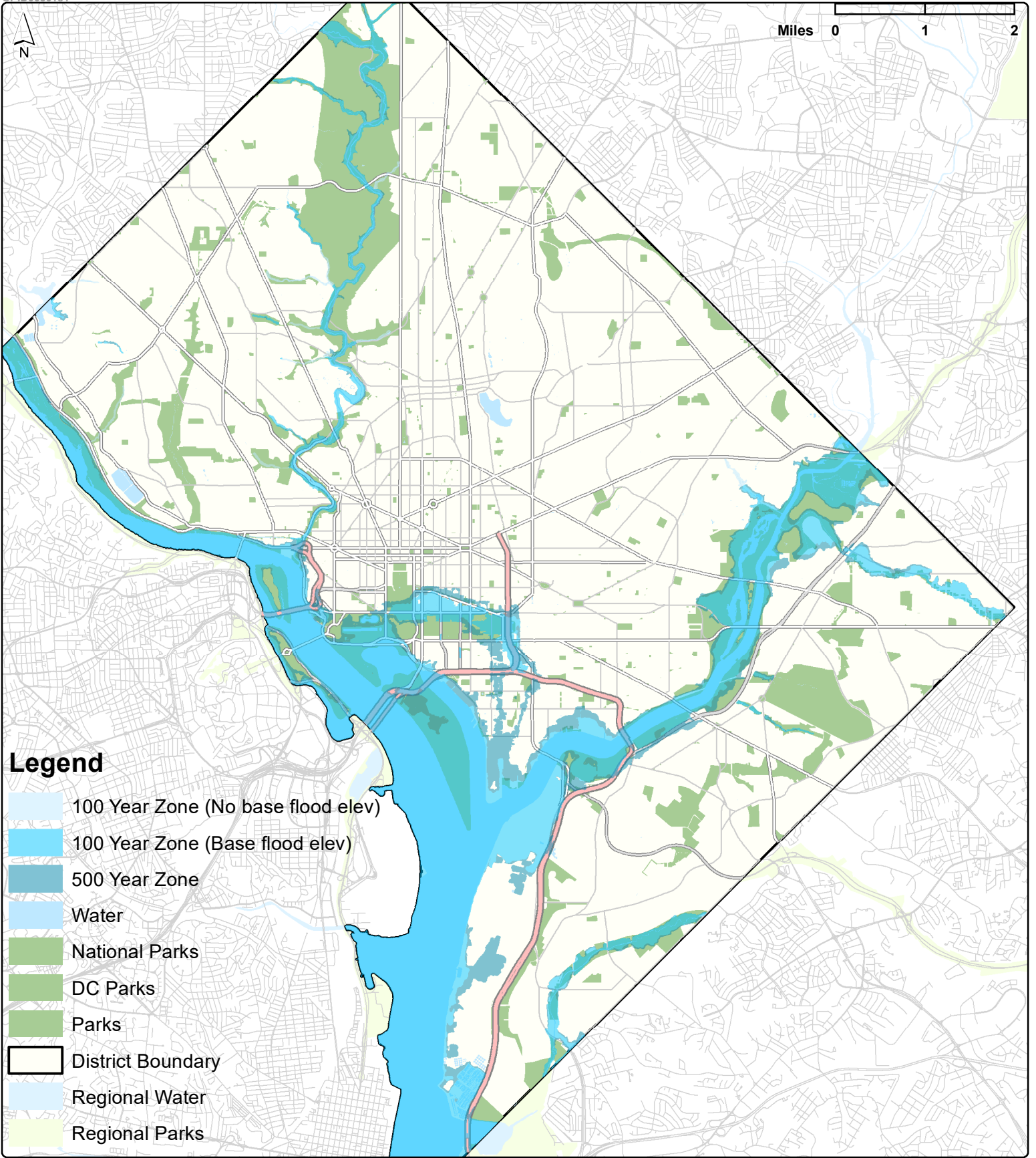
Chapter 6 Environmental Protection Element

Policy E-4.7.4: Flood Plains

Restrict development within FEMA-designated flood plain areas. Consistent with the Federal Elements of the Comprehensive Plan, prohibit activities within these areas that could pose public health or safety hazards in the event of a flood. Regulation of land uses in flood plains, waterfronts, and other low-lying areas should consider the long-term effects of global warming and sea-level rise on flood hazards. 624.7

Attachments:

1. 100-year and 500-year Floodplain Map
2. Flood Hazard Rules, 20 DCMR Chapter 31



Legend

- 100 Year Zone (No base flood elev)
- 100 Year Zone (Base flood elev)
- 500 Year Zone
- Water
- National Parks
- DC Parks
- Parks
- District Boundary
- Regional Water
- Regional Parks

The District of Columbia



Office of Planning ~ January 2, 2020

Government of the District of Columbia



This map was created for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

3100 PURPOSE AND AUTHORITY

3100.1 The Department has authority to implement and enforce this Chapter pursuant to the District Department of the Environment Establishment Act of 2005, effective February 15, 2006 (D.C. Law 16-51; D.C. Official Code § 8-151.01 *et seq.*), the Water Pollution Control Act of 1984, as amended, effective March 16, 1985 (D.C. Law 5-188; D.C. Official Code § 8-103.01, *et seq.*), the Soil Erosion and Sedimentation Control Act of 1977 (D.C. Law 2-23; codified at Chapter 21 of District of Columbia Municipal Regulations [DCMR], §§ 500 through 507), the District of Columbia Applications Insurance Implementation Act, (District of Columbia Law 1-64, D.C. Official Code § 6-501, *et seq.*), and Mayor's Order 2006-61, dated June 14, 2006.

3100.2 The purpose of this Chapter is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by:

- (a) Regulating uses, activities, and development which, acting alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies;
- (b) Restricting or prohibiting certain uses, activities, and development from locating within areas subject to flooding;
- (c) Requiring all those uses, activities, and developments that do occur in flood-prone areas to be protected in order to prevent flood damage; and
- (d) Protecting individuals from buying lands and structures which are unsuited for intended purposes because of flood hazards.

SOURCE: Final Rulemaking published at 32 DCR 6547 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10764 (November 19, 2010).

EDITOR'S NOTE: Chapter 41, Flood Hazard Rules was renumbered Chapter 31.

3101 APPLICABILITY

3101.1 This Chapter shall apply to all special flood hazard areas (SFHAs) within the jurisdiction of the District of Columbia (the District) as designated in the Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) for the District prepared by the Federal Emergency Management Agency (FEMA), effective September 27, 2010.

- 3101.2 The FIS for the District, effective September 27, 2010, and the accompanying FIRM are incorporated by reference as a part of this Chapter and serve as the basis for establishing SFHAs.
- 3101.3 This Chapter shall be applicable to all applicants for building permits for new construction or development, including substantial improvements, in an SFHA.

SOURCE: Final Rulemaking published at 32 DCR 6547 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10764, 10765 (November 19, 2010).

3102 ROLES AND RESPONSIBILITIES

- 3102.1 The Director of the District Department of the Environment (the Department or DDOE) is designated as the Floodplain Administrator.
- 3102.2 The duties and responsibilities of the Floodplain Administrator shall include, but not be limited to:
- (a) Coordinating the review and approval process between the Department of Consumer and Regulatory Affairs (DCRA) and DDOE in order to ensure that the applicant for a building permit in an SFHA complies with the applicable requirements of this chapter, and that the site is reasonably safe from flooding;
 - (b) As necessary, interpreting SFHA boundaries where there appears to be a conflict between a mapped boundary and actual field conditions, and providing available base flood elevation and flood hazard information;
 - (c) Reviewing additional hydrologic, hydraulic, or other engineering data and studies required to support the request for a Letter of Map Change from FEMA;
 - (d) Maintaining copies of the FIRM and FIS, and all revisions and amendments to the flood maps and studies, which shall be on file at the Watershed Protection Division, District Department of the Environment, and posted on the Department's website at <http://ddoe.dc.gov>;
 - (e) Ensuring that all records that are necessary for the administration of this Chapter are maintained and permanently kept, and made available for public inspection, including FIRMs, FISs, Letters of Map Amendment, and Letters of Map Revision, required certifications and documentation specified by this Chapter;

- (f) Either requiring that applicants for building permits provide notifications to adjacent communities and FEMA related to alterations of watercourses, or providing public notification of alterations of watercourses;
- (g) Ensuring that records of as-built lowest floor elevations or Elevation Certificates, Floodproofing Certificates, and other certifications or proof of compliance required by § 3104 are maintained; and
- (h) Providing annual progress reports to Council and reports to the Federal Insurance Administrator, as required by FEMA.

3102.3 The duties and responsibilities of DCRA, by the Code Official, shall include but not be limited to:

- (a) Issuing building permits for all new construction and development, including substantial improvements, within any SFHA; and
- (b) Ensuring that all new construction and development, including substantial improvements, in any SFHA is compliant with all of the adopted Construction Codes and ASCE 24, and the requirements of this Chapter where specified.

3102.4 Each agency identified in this Chapter shall be responsible for the implementation of the substantive requirements of this Chapter. For example, the provisions of this Chapter regarding structural requirements are regulated and enforced by DCRA under the District's Building Code, while land disturbing activities such as excavation, filling, grading, and determination of base flood elevations and impacts on flood elevations, continue to be regulated and enforced by DDOE. Applicants for construction and development in the flood hazard areas are required to obtain a building permit from DCRA, the application for which will be reviewed by the relevant agencies identified in this Chapter for compliance with this Chapter. Subdivision applications will be filed with DCRA, and then sent to DDOE for review of the SFHA boundaries. If a subdivision is greater than fifty (50) lots or five (5) acres, whichever is the lesser, then the applicant will be required to provide base flood elevation data with the subdivision application to be reviewed by DDOE.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6548 (November 15, 1985) as amended by Final Rulemaking published at 35 DCR 962 (February 12, 1988); as amended by Notice of Final Rulemaking published at 57 DCR 10765 (November 19, 2010).

3104 APPLICATION PROCEDURES AND REQUIREMENTS

- 3104.1 In addition to the information and documentation required for a building permit under DCMR Title 12, Building Code, applicants shall include the information required under § 3104 with any application for new construction or development within any SFHA in the District.
- 3104.2 If any new construction or development is located entirely or partially within any SFHA, applicants for building permits shall provide all the necessary information in sufficient detail and clarity to enable DCRA and DDOE to determine whether the following conditions are met:
- (a) All proposals are consistent with the need to minimize flood damage and conform to the requirements of this and all other applicable codes and regulations;
 - (b) All utilities and facilities, such as sewer, gas, electrical, and water systems, are located and constructed to minimize or eliminate flood damage; and
 - (c) Adequate drainage is provided so as to reduce exposure to flood hazards.
- 3104.3 The applicant shall file the following minimum information with DCRA, and any other pertinent information as may be required by DCRA in the issuance of permits to make the determinations required by § 3104.2:
- (a) A completed building permit application that indicates whether the property is located in an SFHA;
 - (b) A plan of the entire site, clearly and legibly drawn at a scale of one inch (1 in.) being equal to one hundred feet (100 ft.) or less, showing the following information:
 - (1) North arrow, scale, and date;
 - (2) Topographic contour lines based upon the North American Vertical Datum (NAVD) of 1988, showing existing and proposed contours at maximum intervals of two feet (2 ft.);
 - (3) All property and lot lines including dimensions, and the size of the site expressed in acres or square feet;
 - (4) Lot number, square number, or parcel number designation (if applicable);
 - (5) The location of all existing and proposed buildings, structures, and other improvements, including the location

of any existing or proposed subdivision and land development;

- (6) The location of all existing streets, drives, and other access ways;
 - (7) The location of all existing bodies of water or watercourses; and
 - (8) Delineation of SFHAs, floodway boundaries with designated flood zones and the base flood elevation, and if available, information pertaining to the floodway, and the flow of water including direction and velocities;
- (c) Plans of all proposed buildings, structures, and other improvements, drawn at suitable scale showing the following information:
- (1) The proposed lowest floor elevation of any proposed structure;
 - (2) The base flood elevation;
 - (3) If available, information concerning flood depth, pressures, velocities, impact and uplift forces, and other factors associated with a base flood;
 - (4) Detailed information concerning any proposed floodproofing measures; and
- (d) Documentation of whether a substantial improvement will be made.

3104.4

In addition to the information required by § 3104.3, the following additional data and documentation shall be filed by applicants:

- (a) For any non-residential structure which will not be elevated, a Floodproofing Certificate (FEMA Form 81-65) or its latest available version from www.fema.gov, certified by a District registered professional engineer or architect that the structure is designed and constructed to be floodproof;
- (b) For any elevated structure, an Elevation Certificate (FEMA Form 81-31) or its latest available version from www.fema.gov, certified by a District registered professional engineer, land surveyor, or architect;

- (c) Detailed information needed to determine compliance with §§ 3105.6(f) and 3106.2 including the following:
 - (1) The amount, location, and purpose of any materials or substances referred to in §§ 3105.6(f) and 3106.2 which are intended to be used, produced, stored, or otherwise maintained on site; and
 - (2) A description of the safeguards incorporated into the design of the proposed structure to prevent leaks or spills of the dangerous materials or substances listed in § 3106.2 during a base flood; and
- (d) Where any excavation or grading is proposed, an applicant shall submit a plan meeting the requirements of the Title 21 of DCMR, Chapter 5 to implement and maintain erosion and sedimentation control.

3104.5 All applicants for new subdivision proposals (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, shall include base flood elevation data with such proposals.

3104.6 The applicant shall submit a copy of all plans and applications for any new construction or development in an SFHA to any other appropriate agencies or individuals, including the D.C. Office of Planning, for review and comment.

3104.7 The applicant shall consult with DDOE and the District of Columbia Homeland Security and Emergency Management Agency (HSEMA) and, if deemed necessary by HSEMA, develop an evacuation plan to ensure that it does not conflict with other emergency plans prepared for the area under consideration as a building site.

3104.8 If the specific base flood elevation for an SFHA has not been provided in the Flood Insurance Study (FIS) and FIRM (such as Zone A), then the applicant shall:

- (a) Obtain and reasonably use available detailed data, including floodway data, from a Federal or state agency, or other source, such as the U.S. Army Corps of Engineers Floodplain Information Reports, U.S. Geological Survey, or similar acceptable reports, which may be accessed from the FEMA library at www.fema.gov; or

- (b) Develop base flood data at the discretion of the Floodplain Administrator, prepared in accordance with currently accepted hydrologic and hydraulic engineering practices and shall submit the information, together with sufficient supporting studies, analyses, and computations to allow a thorough technical review, to the Department for review.

3104.9 If the base flood data is to be used to support a request for a Letter of Map Change from FEMA, the applicant shall provide the analyses prepared by a District registered professional engineer in a format required by FEMA. It shall be the responsibility of the applicant to satisfy the submittal requirements. Application forms and instructions for Letters of Map Change are available at www.fema.gov.

3104.10 As applicable to the location and nature of the proposed construction or development, and in addition to the requirements of this section, the applicant shall have the following analyses prepared and sealed by a District registered professional engineer for submission with the site plan:

- (a) For activities proposed to be located in a floodway:
 - (1) A floodway encroachment analysis that demonstrates that the encroachment of the proposed development or work will not cause any increase in the base flood elevation; or
 - (2) If the applicant proposes to undertake activities that increase the base flood elevation, the applicant shall submit such analysis to FEMA as specified in § 3105.7 of this chapter and shall have received a Conditional Letter of Map Revision from FEMA;
- (b) For activities proposed to be located in any SFHA for which base flood elevations are included in the FIS or on the FIRM and floodways have not been designated, an encroachment analysis which demonstrates that the cumulative effect of the proposed development, when combined with all other existing and anticipated flood hazard area encroachment, will not increase the base flood elevation more than one foot (1 ft.) at any point; and
- (c) For alteration of a watercourse, an engineering analysis prepared in accordance with standard engineering practices which demonstrates that the flood-carrying capacity of the altered or relocated portion of the watercourse will not be decreased, and certification that the altered watercourse shall be maintained in a manner which preserves the channel's flood-carrying capacity.

3104.11 If additional hydrologic, hydraulic, or other engineering data and studies are required to support an application, the applicant has the right to seek a Letter of Map Change from FEMA to change the base flood elevations, change floodway boundaries, or change boundaries of SFHAs shown on the FIRM, and to submit new technical data to FEMA for such purposes. The applicant for a Letter of Map Change shall:

- (a) Have analyses prepared by a District registered professional engineer in a format required by FEMA;
- (b) Be responsible for submittal requirements and reviewing and processing fees; and
- (c) Notify the Floodplain Administrator of such submittal.

3104.12 The applicant shall submit to FEMA the data and information necessary to maintain the FIRM, including hydrologic and hydraulic engineering analyses, prepared to support a building permit application. Such submission shall be made within six (6) months of such data becoming available.

3104.13 An applicant shall have the right to appeal the rejection of a building permit application to DCRA, as provided in the Building Code (12 DCMR §§ 105.3.1 and 112). Appeals of the determination of base flood elevations, SFHA boundaries, floodway locations, or other FIRM-related determinations shall be made directly to DDOE, as provided in 20 DCMR § 104 and 21 DCMR § 507.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6551 (November 15, 1985); as amended by Final Rulemaking published at 35 DCR 962, 963 (February 12, 1988); as amended by Notice of Final Rulemaking published at 57 DCR 10767 (November 19, 2010).

3105 TECHNICAL PROVISIONS

3105.1 In order to prevent excessive damage to buildings and structures due to flooding, the provisions of this section shall apply to all proposed construction or development occurring in any SFHA.

3105.2 Within SFHAs, the lowest floor (including basement) of any new construction of, or substantial improvement to, *residential structures* shall be at least one and one-half feet (1-1/2 ft.) above the base flood elevation and shall be verified by an Elevation Certificate (FEMA Form 81-31) or its latest available version from www.fema.gov.

3105.3 Within SFHAs, the lowest floor (including basement) of any new construction of, or substantial improvement to, *non-residential structures* shall be at least one and one-half feet (1-1/2 ft.) above the base flood

elevation or be designed and constructed to be floodproofed during any flood up to that height. Elevation and floodproofing shall be verified by an Elevation Certificate (FEMA Form 81-31) and a Floodproofing Certificate (FEMA 81-65), or their latest available versions from www.fema.gov.

3105.4 For any new construction of, or substantial improvement to, non-residential structures within SFHAs, enclosed space below the lowest floor (including basement) which will be used solely for the parking of a vehicle, building access, or incidental storage in an area other than a basement, shall be designed and constructed to allow for the automatic entry and exit of flood waters for the purpose of equalizing hydrostatic forces on exterior walls.

Designs shall be certified by a District registered professional engineer or architect that designs are in accordance with ASCE 24 publication (Flood Resistant Design and Construction) or shall meet or exceed the following minimum criteria:

- (a) A minimum of two (2) openings having a net total area of not less than one square inch (1 in.²) for every square foot (1 ft.²) of enclosed space;
- (b) The bottom of all openings shall be no higher than one foot (1 ft.) above grade; and
- (c) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

3105.5 Any non-residential structure, or part thereof, which will not be completely or adequately elevated, shall be designed and constructed to be floodproofed in accordance with the standards contained in the publication entitled “Non-Residential Floodproofing – Requirements and Certification (Technical Bulletin 3-93)” or its latest available version by FEMA from www.fema.gov, or some other equivalent standard for that type of construction. Designs shall be certified by a District registered professional engineer or architect, and floodproofing shall be verified by a Floodproofing Certificate (FEMA 81-65) or its latest available version from www.fema.gov.

3105.6 The following minimum standards shall apply for all new construction or development proposed to be undertaken within any SFHA:

- (a) If fill is used, it shall:

- (1) Extend laterally at least fifteen feet (15 ft.) beyond the building line from all points;
 - (2) Consist of soil or small rock materials only. Sanitary landfills shall not be permitted;
 - (3) Be compacted to provide the necessary permeability and resistance to erosion, scouring, or settling;
 - (4) Be no steeper than one (1) vertical to two (2) horizontal, unless substantial data, justifying steeper slopes are submitted to, and approved by DCRA; and
 - (5) Be used only to the extent that it does not adversely affect adjacent properties;
- (b) Storm drainage systems shall:
- (1) Be designed to convey the flow of stormwater run-off in a safe and an efficient manner;
 - (2) Ensure proper drainage along streets, and provide positive drainage away from buildings.
 - (3) Be designed to prevent the discharge of excess run-off onto adjacent properties and maintain the rate of stormwater run-off at pre-construction or development rates;
- (c) Water and sanitary sewer facilities and systems shall be designed as follows:
- (1) All new or replacement water and sanitary facilities and systems shall be designed in accordance with ASCE 24 publication (Flood Resistant Design and Construction), and located and constructed to minimize or eliminate flood damage and the infiltration of flood waters;
 - (2) Sanitary sewer facilities and systems shall be designed in accordance with ASCE 24 publication (Flood Resistant Design and Construction) to prevent the discharge of untreated sewage into flood waters; and
 - (3) No part of any on-site sewage system, and waste disposal system shall be located within any SFHA except in strict compliance with all local regulations for such systems. If any such system is permitted, it shall be located so as to

avoid impairment to it, or contamination from it, during a flood;

- (d) All gas lines, electrical, meters, transformers, generators, and telephone systems, and utilities other than water and sanitary sewer systems, shall be located, elevated (wherever possible), and constructed to minimize the chance of impairment during a flood;
- (e) The finished elevation of all new streets shall be no more than one foot (1 ft.) below the regulatory flood elevation, and meet the requirements of the District's water pollution control regulations (20 DCMR §§ 500, *et seq.*);
- (f) The storage of any and all materials that may affect the base flood elevation or the floodway, and which are not listed in § 3106.2, shall be stored at or above the Regulatory Flood Elevation, or else be anchored and floodproofed to the maximum extent possible;
- (g) All buildings and structures shall be designed, located, and constructed so as to offer the minimum obstruction to the flow of water and shall be designed to have a minimum effect upon the flow and height of flood water;
- (h) Anchoring shall be used as follows:
 - (1) All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement; and
 - (2) All air ducts, large pipes, storage tanks, and other similar objects or components located below the regulatory flood elevation shall be securely anchored or affixed to prevent flotation;
- (i) Floors, walls, and ceilings shall be designed as follows:
 - (1) Wood flooring used at or below the regulatory flood elevation shall be installed to accommodate a lateral expansion of the floor, perpendicular to the flowing grain without causing structural damage to the building;
 - (2) Plywood used at or below the regulatory flood elevation shall be of a "marine" or "water resistant" variety;

- (3) Walls and ceilings at or below the regulatory flood elevation shall be designed and constructed of materials that are water resistant and will withstand flooding;
 - (4) Windows, doors, and other components at or below the regulatory flood elevation shall be made of metal or other water resistant material; and
 - (5) Wood fasteners used at or below the regulatory flood elevation shall be of a corrosive resistant type (such as hot dipped galvanized or stainless steel);
- (j) Paints and adhesives shall be used as follows:
- (1) Paints or other finishes used at or below the regulatory flood elevation shall be of a "marine" or "water resistant" quality;
 - (2) Adhesives used at or below the regulatory flood elevation shall be of a "marine" or "water resistant" quality; and
 - (3) All wooden components (such as doors, trim, and cabinets) shall be finished with a "marine" or "water resistant" paint or other finishing material;
- (k) Electrical distribution panels shall be at least three feet (3 ft.) above the base flood elevation. Separate electrical circuits shall serve lower levels and shall be dropped from above;
- (l) Water heaters, furnaces, air conditioning and ventilating units, and other electrical, mechanical, or utility equipment or apparatuses shall not be located below the regulatory flood elevation; and
- (m) All gas and oil supply systems shall be designed to prevent the infiltration of flood waters into the system and discharges from the system into the flood waters. Additional provisions shall be made for drainage of these systems in the event that flood water infiltration occurs.

3105.7 Within any floodway as designated in the FIRM, no development which would result in any increase in the base flood elevation shall be permitted unless the increase in flood elevation is fully offset by stream or channel improvements which have been approved by the Department.

3105.8 Within any SFHA without a floodway, no new construction or development shall be allowed unless it is demonstrated to the satisfaction

of the Department that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the base flood elevation more than one foot (1 ft.) at any point.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6554 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10772 (November 19, 2010).

3106 SPECIAL PROVISIONS

3106.1 In addition to the provisions of §3105 and all other applicable provisions of this Chapter, the special provisions in this section shall apply to new construction and development involving the production and storage of certain materials and other kinds of activities occurring in any of the SFHAs in the District of Columbia.

3106.2 Any new or substantially improved structure which will be used for the production or storage of any of the following materials or substances or which will be used for any activity requiring the maintenance of a supply (more than five hundred fifty (550) gallons or other comparable volume, or any amount of radioactive substances) of any of the following potentially dangerous materials or substances on the premises shall be subject to §§ 3106.3 and 3106.4 in addition to any other provisions of this Chapter:

- (a) Acetone;
- (b) Ammonia;
- (c) Benzene;
- (d) Calcium Carbide;
- (e) Carbon Disulfide;
- (f) Celluloid;
- (g) Chlorine;
- (h) Hydrochloric Acid;
- (i) Hydrocyanic Acid;
- (j) Magnesium;
- (k) Nitric Acid and Oxides of Nitrogen;
- (l) Petroleum Products (such as gasoline, fuel, and oil);

- (m) Phosphorus;
- (n) Potassium;
- (o) Sodium;
- (p) Sulfur and Sulfur Products;
- (q) Pesticides (such as insecticides, fungicides, and rodenticides); and
- (r) Radioactive substances, insofar as these substances are not otherwise regulated.

3106.3 Where permitted within any SFHA, any structure of the kind described in § 3106.2 shall be constructed as follows:

- (a) Elevated or designed and constructed to remain completely dry, up to at least one and one-half feet (1-1/2 ft.) above the base flood; and
- (b) Designed to prevent pollution from the structure or activity during the course of a base flood.

3106.4 Any structure as described in § 3106.2, or part thereof, that will be built below the regulatory flood elevation shall be designed and constructed in accordance with the standards for completely dry floodproofing contained in the publication Non-Residential Floodproofing – Requirements and Certification (Technical Bulletin 3-93)” or its latest available version by FEMA from www.fema.gov, or with other equivalent watertight standards available in the FEMA library.

SOURCE: Final Rulemaking published at 32 DCR 6547. 6558 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10776 (November 19, 2010).

3107 SPECIAL REQUIREMENTS FOR MANUFACTURED HOMES AND RECREATIONAL VEHICLES

3107.1 This section applies to all new construction of and substantial improvements to manufactured homes, including recreational vehicles which have been on site for one hundred eighty (180) days or more.

3107.2 Within any SFHA with a floodway, manufactured homes are prohibited.

3107.3 Within any SFHAs designated as Zone A, manufactured homes shall be prohibited within the area measured fifty feet (50 ft.) landward from top-of-bank of any watercourse.

3107.4

Where permitted within any SFHA without a floodway, all manufactured homes and any additions thereto shall, in addition to any other requirements of law:

- (a) Be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors in accordance with the American National Standards as specified in the Standard for the Installation of Manufactured Homes, including Manufactured Home Park Requirement (NFPA No. 501A-1974 and ANSI A119.31975) as amended for Manufactured Homes in Hurricane Zones or other appropriate standards such as the following:
 - (1) Over-the-top ties shall be provided at each of the four (4) corners of the manufactured home, with two (2) additional ties per side at intermediate locations for units fifty feet (50 ft.) or more in length, and one (1) additional tie per side for units less than fifty feet (50 ft.) in length;
 - (2) Frame ties shall be provided at each corner of the manufactured home, with five (5) additional ties per side at intermediate locations for units fifty feet (50 ft.) or more in length, and four (4) additional ties per side for units less than fifty feet (50 ft.) in length; and
 - (3) All components of the anchoring system shall be capable of carrying a force of four thousand eight hundred pounds (4,800 lbs.).
- (b) Be elevated on a permanent foundation in accordance with the following requirements:
 - (1) The stands or lots shall be elevated on compacted fill, or on pilings so that the lowest floor of the manufactured home will be one and one-half feet (1-1/2 ft.) or more above the base flood elevation;
 - (2) Adequate surface drainage shall be provided;
 - (3) Adequate access for a hauler shall be provided; and
 - (4) Where pilings are used for elevation:
 - (i) The lots shall be large enough to permit step;

- (ii) Piling foundations shall be placed in stable soil no more than ten feet (10 ft.) apart; and
- (iii) Reinforcement shall be provided for pilings that will extend for six feet (6 ft.) or more above the ground level.

3107.5 An evacuation plan indicating alternate vehicular access and escape routes shall be filed with the D.C. Homeland Security and Emergency Management Agency.

3107.6 An application for a building permit and any plans for construction or development shall comply with all other applicable building regulations and other laws and regulations of the District.

3107.7 Recreational vehicles placed in any SFHA shall either:

- (a) Be on the site for fewer than one hundred eighty (180) consecutive days;
- (b) Be registered with the Department of Motor Vehicles for operation in the District and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
- (c) Meet the building permit requirements in § 3103 and the elevation and anchoring and elevation requirements for manufactured homes in § 3107.4.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6559 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10777 (November 19, 2010).

3108 VARIANCES

3108.1 Requests for a variance from the requirements of this Chapter may be granted upon a written request to DCRA. Requests for a variance that may affect the base flood elevation as provided by § 3105.8 shall also be submitted to DDOE. Consideration shall be given, but shall not be limited to, the following factors:

- (a) That there is good and sufficient cause to grant the request;
- (b) That the full performance of the requirements of this chapter would result in undue hardship by reason of excessive structural or mechanical difficulty or impracticality of bringing the premises affected into full compliance with this Chapter; and

- (c) Granting the variance would not result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on, or victimization of the public or conflict with any other applicable laws and regulations.
- 3108.2 No variance shall be granted for any construction, development, use or activity within any floodway area that would cause any increase in the base flood elevation.
- 3108.3 Except for a possible modification of the freeboard requirements involved, no variance shall be granted for any of the other requirements pertaining specifically to development which may endanger human life (§ 3106.2).
- 3108.4 A variance shall involve only the least modification necessary to provide relief.
- 3108.5 In granting any variance, the Director of DCRA or his or her delegated representative shall attach reasonable conditions and safeguards considered necessary in order to protect the public health, safety, and welfare, and to achieve the objectives of D.C. Law 1-64 and this Chapter.
- 3108.6 Whenever a variance is granted, the Director of DCRA or his or her delegated representative shall notify the applicant, in writing, of the following:
- (a) The granting of the variance may result in increased premium rates of up to twenty-five dollars (\$25.00) for every one hundred dollars (\$100.00) for flood insurance; and
 - (b) The variances may increase the risks to life and property.
- 3108.7 A complete record of all variance requests and related actions shall be maintained by the Director of DCRA or his or her delegated representative. In addition, a report of all variances granted during the year shall be included in the annual report to the Federal Insurance Administration.
- 3108.8 Notwithstanding any provision of this section, however, all structures shall be designed and constructed so as to have the capability of resisting the base flood.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6560 (November 15, 1985); as amended by Final Rulemaking published at 35 DCR 962, 963 (February 12, 1988); as amended by Notice of Final Rulemaking published at 57 DCR 10779 (November 19, 2010).

3109 SEVERABILITY

- 3109.1 If any portion of this chapter is held invalid for any reason by a court of competent jurisdiction, that portion shall be deemed to be a separate, distinct, and independent provision, and that holding shall not affect the validity of any remaining provision.

Source: Notice of Final Rulemaking published at 57 DCR 10780 (November 19, 2010).

3110 PENALTIES

- 3110.1 Any person who shall engage in new construction or development without a building permit or in violation of the conditions of any building permit, as required by D.C. Law 1-64 and this Chapter, shall be in violation of the Construction Codes (DCMR Title 12), and subject to the penalties provided therein.
- 3110.2 Violations of the provisions of this Chapter that relate to FIRM-related determinations, land disturbing activities, or the addition of any source of pollution affecting the waters of the District, as required by D.C. Official Code § 8-103, *et seq.*, and the Water Quality and Pollution Regulations (21 DCMR §§ 500, *et seq.*) shall be subject to the penalties provided therein.
- 3110.3 For purposes of § 3110.2, any person who has engaged in new construction or development without the elevation certificate, certification, or other evidence of compliance required in §§ 3104 and 3105 of this Chapter, shall be presumed to be in violation of this Chapter, until such time that documentation is provided.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6561 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10781 (November 19, 2010).

3111 ABROGATION AND GREATER RESTRICTION

- 3111.1 This Chapter is not intended to repeal, abrogate, or impair any existing regulations, easements, covenants, or deed restrictions. However, where this chapter and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6562 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10781 (November 19, 2010).

3112 WARNING AND DISCLAIMER OF LIABILITY

- 3112.1 The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur and flood

heights may be increased by manmade or natural causes. This Chapter does not imply that land outside the identified floodplain areas or SFHAs, or uses permitted within these areas will be free from flooding or flood damages.

3112.2 This Chapter shall not create liability on the part of the District or by any officer or employee thereof for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made there under.

SOURCE: Final Rulemaking published at 32 DCR 6547, 6562 (November 15, 1985); as amended by Notice of Final Rulemaking published at 57 DCR 10781 (November 19, 2010).

EDITOR'S NOTE: The Building Code referred to in this section has been superseded by D.C. Law 6-216, Construction Codes Approval and Amendments Act of 1986, effective March 21, 1987. The construction regulations existing prior to March 21, 1987, remain in effect for projects having reached specified stages of completion. D.C. Law 6-216 adopted the 1984 National BOCA Codes, and the 1985 D.C. Supplement to the National BOCA Codes. Effective November 27, 1992 (39 DCR 8665), the 1984 BOCA Codes, and the 1985 D.C. Supplement to the National BOCA Codes were superseded by the adoption of the 1990 BOCA Codes, and the 1992 D.C. Supplement to the BOCA Codes.

3113 SCHEDULE OF FEES

3113.1 The Department may charge fees for floodplain management services as listed below:

Floodplain Management Service	Fee
<u>Flood Zone Determination:</u> Determination of a designated Zone in FIRMs for a given site or address and/or the Base Flood Elevation (BFE) if available	\$ 100.00
<u>Minor Floodplain Study/Report Review</u> Review and approval of small floodplain studies and/or reports, or the request for a single-lot map amendment (e.g., LOMA and CLOMA); Elevation Certificate; Floodproofing Certificate	\$ 800.00
<u>Major Floodplain Study/Report Review:</u> Review and approval of necessary floodplain studies and/or reports for up to one (1) crossing structure	\$ 3,000.00 plus \$ 500.00 per additional bridge/ culvert, channel, levee, berm, dam, or other structure

<u>Additional FEMA Request Review:</u> Review the request for FEMA maps change (e.g., CLOMR, LOMR, CLOMR-F, LOMR-F) as part of the minor or major floodplain study/report.	\$ 500.00 per request

Source: Notice of Final Rulemaking published at 57 DCR 10782 (November 19, 2010).

3199 DEFINITIONS

3199.1 When used in this chapter, the following words and phrases shall have the meaning ascribed:

Alteration of a Watercourse – an alteration of a watercourse includes, but is not limited to, any dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area or capacity, which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.

Base Flood – the flood having a one percent (1%) chance of being equaled or exceeded in any given year, also known as “the one-hundred (100) year flood.”

Base Flood Elevation – the elevation of the base flood, including wave height, relative to the National Geodetic Vertical Datum (NGVD), North America Vertical Datum (NAVD) or other datum specified on the Flood Insurance Rate Map (FIRM).

Basement – the portion of a building having its floor subgrade (below ground level) on all sides.

Code Official – the officer or other designated authority charged with the administration and enforcement of the building codes, or a duly authorized representative, as designated by 12 DCMR A 103.1.

Construction – the construction, reconstruction, renovation, repair, extension, expansion, alteration, or relocation of a building structure.

DCRA – the Department of Consumer and Regulatory Affairs.

DDOE – the District Department of the Environment, also referred to as “Department.”

Development – any manmade change to improved or unimproved real estate, including but not limited to: buildings or other structures, streets and other paving, utilities, filling, grading, excavation, mining, dredging, drilling operations, storage of equipment or materials, and the subdivision of land.

Department – the District Department of the Environment, also referred to as “DDOE.”

Dry Floodproofing – a combination of design modifications that result in a building or structure, including the attendant utility and sanitary facilities, being water tight with walls substantially impermeable to the passage of water and with structural components have the capacity to resist loads as identified in ASCE 7 (see floodproofing).

Elevation Certificate – a certificate used to certify building and grade and other building information, and elevations to provide elevation information necessary to ensure compliance with this chapter, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on Fill (LOMR-F).

Encroachment – the advancement or infringement of uses, fill, excavation, buildings, permanent structures or other development into a special flood hazard area which may impede or alter the flow capacity of a floodplain.

FEMA – the Federal Emergency Management Agency.

Flood or Flooding – a general and temporary condition of partial or complete inundation of normally dry land from:

- (a) The overflow of inland or tidal waters; or
- (b) The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM) – an official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study (FIS) – an official report including a Flood Insurance Rate Map by the Federal Insurance Administrator evaluating flood hazards and containing flood profiles and water surface elevations of the base flood.

Floodplain – a relatively flat or low land area which is subject to partial or complete inundation from an adjoining or nearby stream, river or watercourse; or any area subject to the usual and rapid accumulation of surface waters from any source.

Floodplain Administrator – the official or office charged with the administration and enforcement of this Chapter, for these purposes, DDOE.

Floodproofing – any combination of structural and non-structural additions, changes, adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

Floodway – the channel or a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Freeboard – a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Historic Structure – any structure that is:

- (a) Individually listed in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- (d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (1) By an approved state program as determined by the Secretary of the Interior; or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

Land Disturbing Activity – any earth movement or land change which may result in soil erosion from water or wind and the movement of sediments in the District of Columbia, including, but not limited to, stripping, grading, excavating, transporting and filling of land, construction or demolition of buildings or structures.

Lowest Floor – the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access, or storage, in an area other than basement, is not considered a building’s lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this chapter.

Manufactured Home – a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For flood plain management purposes, the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred and eighty (180) consecutive days.

Market Value – the price at which a property will change hands between a willing buyer and a willing seller, neither party being under compulsion to buy or sell and both having reasonable knowledge of relevant facts.

National Flood Insurance Program (NFIP) – a Federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. Participation in the NFIP is based on an agreement between local communities and the Federal Government that states if a community will adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction and development in special flood hazard areas, the Federal Government will make flood insurance available within the community as a financial protection against flood losses.

New Construction/Date – for floodplain management purposes, structures for which the start of construction commenced on or after the effective date of the initial FIRM (i.e., November 15, 1985) and includes any subsequent improvements to such structures.

Obstruction – any wall, dam, wharf, embankment levee, dike, pile abutment, projection, excavation, channel, rectification, culvert, building, fence, stockpile, refuse, fill, structure, or matter in, along, across or projecting into any channel, watercourse, or flood-prone area, which may impede, retard, or change the direction of the flow of water either by itself or by catching or collecting debris carried by such water or is placed where the flow of the water might carry the same downstream to the damage of life and property.

Recreational Vehicle – a vehicle that is:

- (a) Built on a single chassis;
- (b) Having total outside dimensions not exceeding four hundred square feet (400 ft.²) or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable by a light duty truck;
and
- (d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory Flood Elevation – the base flood elevation plus a freeboard safety factor of one and one-half feet (1-1/2 ft.).

Special Flood Hazard Area (SFHA) – the land in the floodplain within the community subject to a 1-percent (1%) chance or greater chance of flooding in any given year. The area may be designated in the FIRM as Zone A, A1-30, AE, A99, AR/A1-30, AR/AE, AR/AO, AR/AH, or AR/A.

Zone A – an area subject to inundation by the one (1)-percent (1%) chance or greater chance of flooding in any given year. Because detailed hydraulic analyses have not been performed, no base flood elevation or depths are shown.

Zone AE – an area subject to inundation by the one (1)-percent (1%) chance or greater chance of flooding in any given year determined by detailed methods. Base flood elevations are shown within these zones.

Zone X – an area identified in the FIRM and FIS as an area of moderate or minimal hazard from the principal source of flood in the area.

Start of Construction – the date of permit issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within one hundred eighty (180) days after the date of issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns.

Structure – for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home or recreational vehicle that is on-site for more than one hundred eighty (180) days.

Subdivision – the division or redivision of a lot, tract, or parcel of land by any means into two (2) or more lots, tracts, parcels or other divisions of land including changes in existing lots lines.

Substantial Damage – damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

Substantial Improvement – any repair, reconstruction, rehabilitation, addition, or improvement of a building or structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before the start of construction. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include either:

- (a) Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and which are the minimum necessary to assure safe living conditions; or
- (b) Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

Violation – the failure of new construction or development to be fully compliant with requirements of this Chapter, the Construction Codes (DCMR Title 12), the District's Water Quality and Pollution Control Regulations (20 DCMR 500 *et. seq.*). A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided.

Wet Floodproofing – floodproofing method that relies on the use of flood-damage-resistant materials and construction techniques to minimize flood damages to areas below the base flood elevation of a structure intentionally allowed to flood (see floodproofing).

Zone A – see Special Flood Hazard Area

Zone AE – see Special Flood Hazard Area

Zone X – see Special Flood Hazard Area

SOURCE: Final Rulemaking published at 32 DCR 6547, 6562 (November 15, 1985); as amended by Final Rulemaking published at 35 DCR 962, 963 (February 12, 1988); as amended by Notice of Final Rulemaking published at 57 DCR 10782 (November 19, 2010).