

FLOODPLAIN REGULATIONS TECHNICAL GUIDANCE DOCUMENT



*To Prevent Loss of Life, Reduce Property
Damage and Protect and Enhance the
Natural and Beneficial Functions of
Floodplains*

**Developed for:
The City of Charlotte and Mecklenburg County**

**Developed by:
Charlotte-Mecklenburg Storm Water Services
Charlotte-Mecklenburg Storm Water Services Flood Mitigation
Program**

March 2008

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SECTION 1.0 - INTRODUCTION

1.1 Floodplain Management Overview

The responsibility for reducing flood losses is shared by all units of government—local, state and federal—and the private sector. In order to fulfill this responsibility, land owners and/or professionals planning any “Development” activity within the Floodplain should have the knowledge and skills to plan, design, and construct their project in compliance with the Floodplain Regulations. For purposes of Floodplain management, “Development” means any manmade change to improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating or drilling operations.



Good Floodplain management begins with an effective set of regulations that have as their ultimate goal to effectively promote public health, safety, and general welfare and minimize losses to life and property due to flood conditions. This should result in a safe and viable community, while providing for lower flood insurance premiums for policyholders.

1.2 Purpose of Technical Guidance Document

The purpose of the Floodplain Technical Guidance Document is to supplement the Floodplain Regulations. This document can be used to help explain the applicability of the provisions of the regulations, specifically the Floodplain Development Permit provisions. Guidance is included on the permitting process and information is provided to help clarify the most common and/or unique requirements. In addition, this document will contain many forms and notices that may be required as part of the permitting process. While any interested person may use this Technical Guidance Document, it is written specifically for individuals planning “Development” within the Floodplain.

This document is not part of the Floodplain Regulations, and shall be solely for illustrative and educational purposes. If there is any discrepancy between the Technical Guidance Document and the Floodplain Regulations, the provisions of the Floodplain Regulations shall control.

1.3 Process for Amending the Technical Guidance Document

The Technical Guidance Document may be updated and expanded from time to time, based on changes to the Floodplain Regulations, feedback from applicants, a need to update forms, or a desire to further clarify common compliance issues, etc. The Floodplain Administrator is responsible for all amendments to the Technical Guidance Document. A minimum two (2) week public comment period shall be provided for all

proposed amendments to this document. Longer comment periods shall be allowed for significant modifications. Notification of proposed amendments shall be made to the general public via email and posted on the Charlotte-Mecklenburg Storm Water Services website. The Floodplain Administrator shall maintain an email database of past applicants or other persons interested in receiving updates regarding the Floodplain Regulations. The Floodplain Administrator shall carefully consider all comments received during the comment period and modify the proposed amendments as appropriate. Following the completion of modifications, the Floodplain Administrator will present the proposed modifications to the Charlotte-Mecklenburg Storm Water Advisory Committee (SWAC) for their input and final approval.

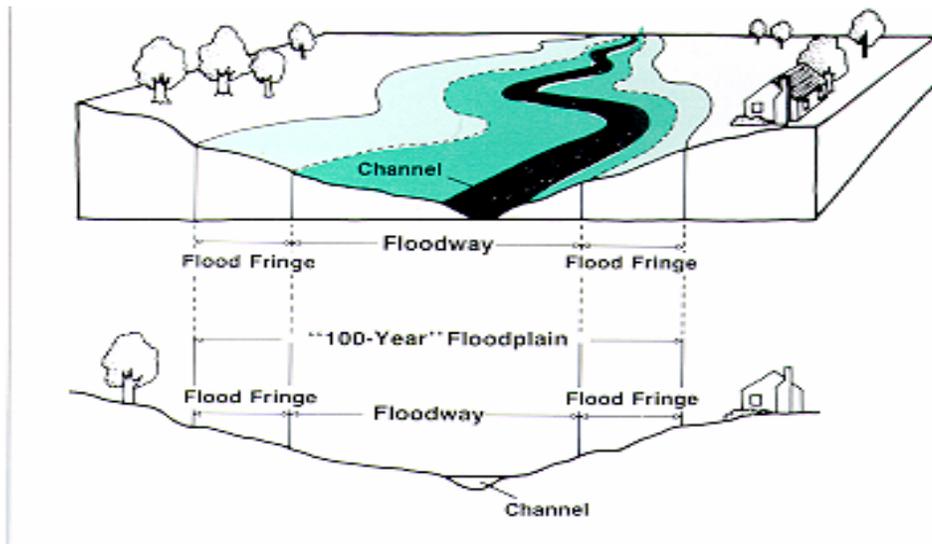
After approval by the SWAC, the amended Technical Guidance Document shall go into effect. The Floodplain Administrator shall use the email database to notify the general public. The amended Technical Guidance Document shall be made available on the Charlotte-Mecklenburg Storm Water Services website at <http://stormwater.charmeck.org>.

SECTION 2.0 - PURPOSE AND BACKGROUND OF FLOODPLAIN REGULATIONS

2.1 Purpose of Regulations

The purpose of the Floodplain Regulations is to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

1. Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities;
2. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
3. Control the alteration of natural Floodplains, stream channels and natural protective barriers which are involved in the accommodation of flood waters;
4. Control filling, grading, dredging and other Development which may increase erosion or flood damage; and
5. Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.



2.2 Local Floodplain Management Jurisdictions

For the purposes of Floodplain Management within Mecklenburg County, there are eight jurisdictions including, Charlotte, Mecklenburg County, Cornelius, Davidson, Huntersville, Matthews, Mint Hill, and Pineville. Each municipality has its own Floodplain Regulations to regulate Floodplain development, which is applicable within its entire sphere of influence.

Figure 2-1 shows the municipal spheres of influence to aid in determining which jurisdictions Floodplain Regulations must be followed.

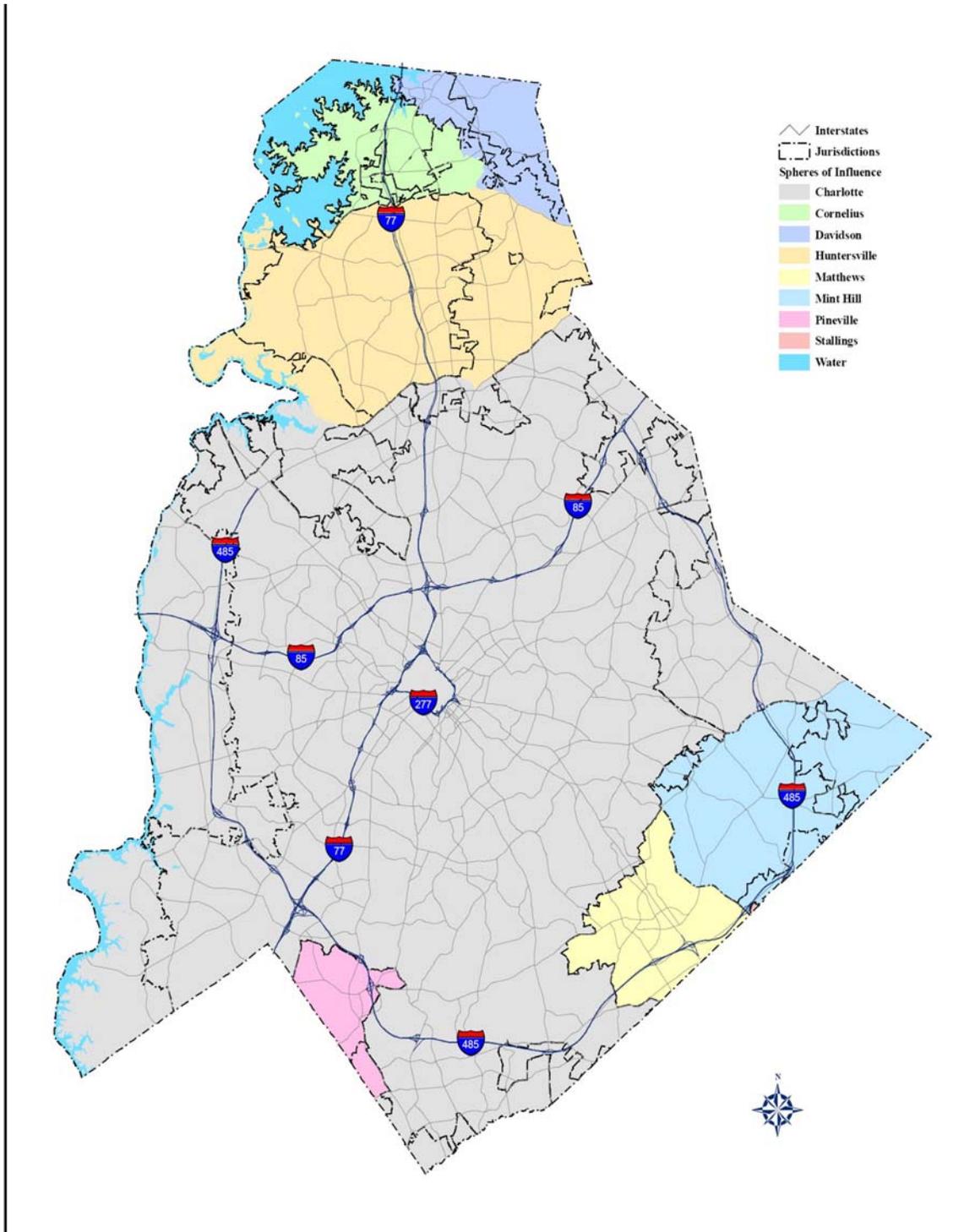


Figure 2-1 Municipal Spheres of Influence

2.3 Exceeding FEMA minimum standards

The Floodplain Regulations for the City of Charlotte, Mecklenburg County and the six small towns exceed the FEMA minimum Floodplain management standards in order to reduce the vulnerability due to flood events that will occur in the future. Past adoption of these higher standards will reduce the risk of loss of life and decrease the amount of damage in future floods. The existence of these higher standards has also provided for reduced flood insurance premiums for all policy holders in the communities that opt to participate in FEMA's Community Rating System program.

The factors considered locally in exceeding FEMA minimum standards may be divided into two groups. The general factors for exceeding the FEMA minimum Floodplain requirements include:

- Floods may occur that are greater than the 100-year level;
- Culverts or bridges may become blocked with debris during a flood and cause flooding above the 100-year elevations; and
- Sediment may accumulate in culverts over time and reduce their carrying capacity.



In addition, several of the factors that impact project design, include:

- Impact that future growth/development will have on flood levels;
- Access to buildings during a flood that results in water levels above the driveway and/or street level to allow for safer ingress and egress of people and property; and
- Protecting personal property from flooding by reducing the flood risk to vehicles in new parking lots.

Below is a summary of the most significant standards within the Floodplain Regulations which exceed the FEMA minimum. Nearly all these higher standards are described in detail in later sections of the Technical Guidance Document.

- Wider floodways (FEMA Floodway and Community Encroachment Area);
- Community (future) Floodplain;

- Dryland Access to Habitable Buildings;
- Cumulative Substantial Improvement/Damage;
- Parking lot elevation requirements;
- “Freeboard” above the Base Flood Elevation; and
- Levee Standards.

2.4 Community Floodplain and Two Floodways

2.4.1 Community (Future) Floodplain

Charlotte-Mecklenburg’s Flood Insurance Rate Maps (FIRMS) were the first in the country to show two Floodplains, the FEMA Floodplain and the Community Floodplain. The FEMA Floodplain is set by the Federal Emergency Management Agency (FEMA) and is used primarily for Flood Insurance Rating purposes. The Community or “Ultimate/Future” Floodplain is a higher standard that was established within Charlotte-Mecklenburg in the year 2000. Continued growth within the County will result in increased storm water runoff to the Floodplains, especially in large events such as the 100-year flood. The Community Floodplain is primarily used to regulate development activities so they are at less risk to future flooding.

The City of Charlotte, Mecklenburg County and each of the six Towns have Floodplain regulations. These regulations place additional restrictions on building or renovations in a Floodplain. Floodplain development regulations apply to both the FEMA Floodplain and the Community Floodplain.

Before the adoption of new maps and amended Floodplain Regulations in 2000, two pilot hydrologic and hydraulic studies were performed to evaluate the benefits of a Community Floodplain and a wider floodway. The studies showed the projected impacts of man-made activities on potential flooding in the future. These pilot studies indicated that by continuing to use existing conditions land use (FEMA minimum standard) as the basis for determining runoff and resulting flood heights, the base flood elevations would be under predicted an average of about 2.2’.

2.4.2 Two Floodway (Encroachment) Areas

FEMA employs a “Floodway” concept for certain streams mapped in detail to regulate development within a specified distance to the creek centerline. The method employs engineering modeling which sets the location of FEMA Floodway Encroachment Lines on both sides of the stream. Filling is then allowed outside of these FEMA Floodway Encroachment Lines and no fill is allowed within the lines. Theoretically, if all the floodplain (flood fringe) outside of the FEMA Floodway Encroachment Lines is filled in, FEMA’s minimum standards indicate that the flood level would increase a maximum of one (1) foot above the Base Flood Elevation.

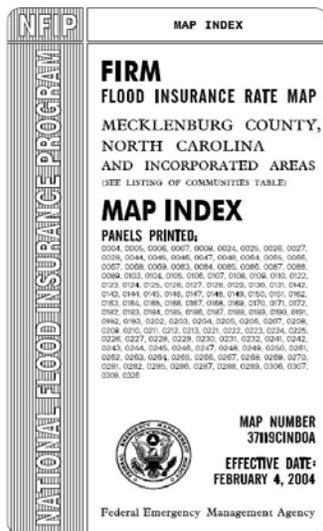
However, the above mentioned pilot studies indicated that allowing fill material to be placed in the flood fringe area up to the FEMA floodway line (FEMA minimum standard) could actually increase flood depths in the area by 2.3’ instead of FEMA’s standard of 1.0 feet. Because of this Charlotte-Mecklenburg decided to map a wider, Community Floodway Encroachment Line. If all the area outside of the Community Floodway Encroachment Line is filled the water surface level would rise about 0.2’ (accounting for current water quality buffer regulations).

The development of the FEMA and Community Encroachment areas, along with their impacts on development, came after extensive input from developers, engineers, and other interested parties. Some of the issues considered included:

- The amount of land that could be developed;
- Water quality benefits;
- The impacts of current buffer regulations;
- The resulting water surface elevations; and
- The resulting widths of the Floodplains.

Implementing a more conservative floodway (Community Encroachment Area) for regulating new development, makes development within the Floodplain more restrictive and will reduce the potential loss of life and property due to flooding. Citizens currently living and working in the Floodplain, and those moving into new developments within the Floodplain, will be safer. The more conservative Community Encroachment Area shown on the current maps is an average of 45% wider than the FEMA minimum. The resulting FEMA and Community Encroachment Areas provide a higher level of protection while still allowing development opportunity in and around the Floodplain.

2.5 Revision History



The City of Charlotte adopted its initial Floodplain Regulations on August 15, 1978. This is also the date that the initial Flood Insurance Rate Maps (FIRMS) became effective. The initial maps were based on studies that were completed by the US Geological Survey in 1976. The maps were revised on February 2, 1982. This revision involved the combination of the previous Flood Boundary Floodway Maps and the Flood Insurance Rate Maps into one revised set of Flood Insurance Rate Maps. New Roads and road names were also added.

Taggart Creek was restudied by the USGS and a revised FIRM panel for the area became effective on January 6, 1994.

A Countywide restudy was performed for the City of Charlotte, Mecklenburg County and the six small towns beginning in 1999. The restudy was conducted by a professional engineering firm, Watershed Concepts, and the US Army Corps of Engineers. Maps for individual watersheds were adopted by local Governing bodies for local regulatory purposes in 2000. The maps became effective by FEMA (for flood insurance and other purposes) on February 4, 2004. These new FEMA Flood Insurance Rate Maps included updated maps and Flood Insurance Studies for all streams with a drainage area of over one square mile, including the portion of the Catawba River in Mecklenburg County.

2.5.1 Charlotte Floodplain Regulations

The timeline below provides a general chronology of major revisions to the City of Charlotte Floodplain Regulations.

- December 1972** – Initial Floodplain Regulations to regulate development in and near major streams.
- August 1978** - Floodplain Regulations revised to recognize new Flood Insurance Rate Maps (FIRMs).
- October 1999** – Numerous changes including:
- Revisions to add Future Land Use Map (FLUM) and Community Encroachment Area concepts;
 - Language included adopting new flood maps on a watershed by watershed basis;
 - Cumulative Substantial Improvement added; and
 - Interim Freeboard Requirements.
- May 2003** – Major changes included:
- Variance needed for any development in FEMA Floodway or Community Encroachment Area (CEA);
 - Permanent Vehicular Access required if in CEA;
 - Administrative Approval Process; and
 - Two (2) foot Freeboard on Catawba River.
- July 2007** – Major changes included:
- Two Types of Floodplain Development Permits;
 - Access to Buildings During Flooding;
 - Parking Lot Elevation Requirements;
 - Levee Requirements;
 - Variance to Development in the Community Encroachment Area;
 - Property Owner Requirements;
 - Permit Time Limits;
 - Flood Increases on Existing Buildings;
 - Floodplain Fill Certification; and

2.5.2 Mecklenburg County and Towns Floodplain Regulations

Mecklenburg County's initial Floodplain Regulations is dated June 1, 1981. Most of the small towns also used the Mecklenburg County Floodplain Regulations for several years to regulate development in or near Floodplains in their jurisdiction. Today, each small town has its own Floodplain regulations which in most cases, closely follows the City of Charlotte Floodplain Regulations. However, many of the Floodplain regulations differ from each other in a number of areas. The most recent version of each jurisdiction's Floodplain regulations may be found at the Charlotte-Mecklenburg Storm Water Services website: <http://stormwater.charmeck.org>

SECTION 3.0 - FLOODPLAIN DEVELOPMENT PERMITS

3.1 Permitting Overview

FEMA requires all communities that participate in the National Flood Insurance Program (NFIP) to regulate “Development” that occurs within the Special Flood Hazard Area (SFHA). FEMA defines Development as *any manmade change to improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating or drilling operations*. This definition creates administrative and compliance challenges for communities due to its broad applicability. Very small and insignificant actions within the Floodplain are literally considered “Development”. Examples include adding mulch to a garden, basic landscaping, farming, installing underground utilities, and installing on-grade walkways.



In order to avoid undue hardship within the community, yet remain in compliance with FEMA regulations regarding Floodplain permitting, the Floodplain Administrator may issue a General Floodplain Development Permit. Any Development within the Floodplain that does not meet the requirements of the General Floodplain Development Permit requires an Individual Floodplain Development Permit prior to beginning the work. These two permit types are discussed briefly, with examples, below.

3.1.1 General Floodplain Development Permit

The intent of the General Floodplain Development Permit (GFDP) is to allow uses or activities in the Floodplain which inherently will not increase Base Flood Elevations. A variety of uses will be allowed under a GFDP. A separate permit, paper or digital, is not required for an activity that qualifies for a GFDP. These activities and conditions are approved by right and may take place without prior approval. The one exception are those activities included in item “c” below which require written notification to the Floodplain Administrator prior to commencement of work.

- a. General farming, pasture, horticulture, forestry, wildlife sanctuaries, gardens, lawns, landscaping and other similar activities;
- b. Utility infrastructure (poles, sewer manholes, vent pipes, underground utilities, etc.), sign poles, non-solid fences, and other similar activities;
- c. On-grade driveways, trails, sidewalks, boardwalks, roads and road maintenance; storm drainage system construction, repairs and maintenance (Major and Minor

system), and other similar activities. The Floodplain Administrator must be notified in writing, including a project description and sketch plan, prior to commencement of these activities;

- d. Interior renovations with a value of less than \$10,000, to a structure with its Lowest Floor not meeting the requirements of Sections 9-102 (1) and (2); and
- e. Interior renovations of any value, to a structure with its Lowest Floor meeting the requirements of Sections 9-102 (1) and (2).

3.1.2 General Permit – Activity Project Descriptions

This section contains a list of project descriptions for activities that the Floodplain Administrator has determined will inherently not increase the Base Flood Elevations (BFE's), or would result in no Technically Measurable increase in the BFE's. These projects are all approved under the General Floodplain Development Permit.

Anyone considering a project in the Floodplain that varies from those described below should contact the Floodplain Administrator and may need to submit an Individual Floodplain Development Permit Application. If the Floodplain Administrator determines such an application should fall under the General Floodplain Development Permit, no permit fee will be charged to the applicant. The Floodplain Administrator must be notified in writing (email is preferable) for all projects listed under item "c", prior to commencement of these activities.

The Charlotte Floodplain Regulations specifically list the following as possibly being allowed under the General Floodplain Development Permit:

- General farming, pasture, horticulture, forestry, wildlife sanctuaries, gardens, lawns, landscaping and other similar activities.
- Utility infrastructure (poles, sewer manholes, vent pipes, underground utilities, etc.), sign poles, non-solid fences, and other similar activities.
- On-grade driveways, trails, sidewalks, boardwalks, roads and road maintenance; storm drainage system construction, repairs and maintenance (Major & Minor system), and other similar activities. The Floodplain Administrator must be notified in writing, including a project description and sketch plan, prior to commencement of these activities.
- Interior renovations with a value of less than \$10,000, to a structure with its Lowest Floor not meeting the requirements of Section 9-102 (1),(2).
- Interior renovations of any value, to a structure with its Lowest Floor meeting the requirements of Section 9-102 (1),(2).

To provide additional guidance on other similar activities that may be considered under the General Floodplain Development Permit, the list below is provided.

- a) ***Passive land use activities, typically on-going and routine in nature.***
- General farming that does not involve earthwork that permanently alters the topography.
 - Pasture uses and related operational activities.
 - Horticulture use.
 - Forestry involving planting and removing vegetation for maintenance and management purposes. This should not involve earthwork and/or wholesale clearing and grubbing.
 - Wildlife sanctuaries and related operational activities.
 - Gardening that does not involve earthwork that results in permanently altered topography.
 - Lawns and lawn maintenance activities.
 - Routine maintenance of easement and utility corridors.
 - Landscaping that involves “softscaping” such as plantings, landscaping beds, and mulching. This should not involve “hardscaping” that permanently alters the topography such as retaining walls, terraces, and pools.
- b) ***Construction activities, typically underground or above ground activities that are not technically measurable in hydraulic modeling.***
- Underground utilities that do not permanently alter the topography. Excess soil from new pipes larger than 2 feet in diameter must be disposed of outside the Floodplain.
 - Sewer vent pipes no larger than 2 feet in diameter. These can not be located within the creek (top-of-bank to top-of -bank).
 - Sewer manholes no larger than 5 feet in diameter and projecting no more than 4 feet tall. These can not be located within the creek (top-of-bank to top-of - bank).
 - Overhead utilities, transmission towers, and standard utility boxes constructed completely on-grade. This may also include clearing/grubbing necessary for installation. These can not be located within the creek (top-of-bank to top-of -bank).
 - Poles for signs, overhead utilities, billboards, and alike that are no larger than 2 feet in diameter. These can not be located within the creek (top-of-bank to top-of -bank).
 - Non-solid fences that do not block the flow of water during a flood event.
- c) ***Construction /maintenance activities, typically above ground and known to not increase flood levels.***
- Driveways constructed completely on-grade. This may also include clearing/grubbing necessary for project construction.

- Greenway trails constructed completely on-grade. This may also include clearing/grubbing necessary for project construction.
- Sidewalks constructed on-grade. This may also include clearing/grubbing necessary for project construction.
- Boardwalks that are open underneath and do not contain hand rails. This should not involve earthwork that permanently alters the topography.
- Roads and streets constructed completely on or below grade (if allowed to be constructed below the Community Base Flood Elevation by the City and County Floodplain Regulations). This may also include non-solid guardrails/barriers and clearing/grubbing necessary for project construction.
- Road widening projects constructed completely on or below grade. This may also include non-solid guardrails/barriers and clearing/grubbing necessary for project construction.
- Road maintenance involving repaving or patching an existing road.
- Storm drainage system construction that involves installation of new underground pipes or below grade ditches/swales. Excess soil from new pipes larger than 2 feet in diameter must be disposed of outside the Floodplain.
- Repairs and maintenance to the “Major” (FEMA mapped streams) storm drainage system (within the creek banks). This includes planting and removing vegetation, spot repairs that armor/stabilizing the creek banks, and culvert maintenance/cleanouts.
- Repairs and maintenance to the “Minor” (creeks and pipes flowing into the FEMA streams) storm drainage system (outside the creek banks). This includes planting and removing vegetation, spot repairs that armor/stabilizing the ditches, and repairing storm sewer outfalls/headwalls.
- Repair and maintenance (such as armoring, stabilizing, securing, or replacing with similar) of existing infrastructure within the creek banks (such as bridge piers, sewer supports, and storm sewer outfalls/headwalls). This should not involve replacement with larger or additional above ground infrastructure.

3.1.3 Individual Floodplain Development Permits

An Individual Floodplain Development Permit (IFDP) is required for all other projects that do not meet the requirements of a General Floodplain Development Permit. The application and review process for an Individual Floodplain Development Permit is described in Section 3.5 of this document.

3.2 Individual vs. General Permit FAQ

This section contains some of the most frequently asked questions regarding the concept of Individual and General Floodplain Development Permits.

- Q. Who makes the final determination if a project or activity would qualify for a General Floodplain Development Permit?

- A. The Floodplain Administrator.
- Q. What happens if someone begins an activity that they assume qualifies under a General Floodplain Development Permit but the Floodplain Administrator determines it does not?
- A. They will be required to stop the activity and apply for and obtain an Individual Floodplain Development Permit. Until the permit is approved, the project is considered a violation of the Floodplain Regulations.
- Q. Is there an actual paper or digital document issued for a General Floodplain Development Permit?
- A. No.
- Q. Would all like activities always qualify for a General Floodplain Development Permit? For example, would all greenway trails automatically qualify for a General Floodplain Development permit?
- A. No, it is not only the activity or use that must be considered, but also the impact that the proposed activity or use may have on flood elevations. For example, an at grade or excavated trail would have no impact and would qualify for the General Floodplain Development Permit, while a trail that involves significant fill in certain areas would not qualify.
- Q. Is there a fee for a General Floodplain Development permit?
- A. No.
- Q. Will the list of activities and uses that qualify under the General Floodplain Development Permit ever be updated?
- A. The list may be updated by the Floodplain Administrator based on data and circumstances occurring from previous permitting experience.
- Q. Why do items listed under item “c” of the GFDP require written notification to the Floodplain Administrator?
- A. The Floodplain Administrator must be aware of the activities listed under item “c” so they may be inspected if desired.

3.3 Permitting Guidance

Compliance with the permitting requirements of the Floodplain Regulations is based not only on the type of activity or use but also its location within the various areas of the Floodplain. To aid in determining the submittal and regulatory requirements for Floodplain development under the General and Individual Floodplain Development Permits, several figures are included in this section. Figure 3.1 graphically depicts which areas of the Floodplain will require a flood/engineering study under an Individual Floodplain Development Permit application. The tables in Figures 3.2 and 3.3 summarize the major submittal and regulatory requirements for numerous types of development in various areas within the Floodplain.

Figure 3.2 GENERAL FLOODPLAIN DEVELOPMENT PERMIT MATRIX

GENERAL PERMIT				
Floodplain Regulations Section	DEVELOPMENT / "ACTIVITY" (Examples)	AREA OF FLOODPLAIN	SUBMITTAL REQUIREMENTS	FLOODPLAIN IMPACTS
9-62(b) 1.a	General farming, pasture, horticulture, forestry, wildlife, sanctuaries, gardens, lawns, landscaping and other similar activities.	Any Area of Floodplain	None	The "Activity" will result in no Technically Measurable increases on Base Flood Elevations (BFE). Property Owner Notification is not required.
9-62(b) 1.b	Utility infrastructure (poles, sewer manholes and vent pipes, etc.), sign poles, non-solid fences, and other similar activities.	Any Area of Floodplain	None	The "Activity" will result in no Technically Measurable increases on Base Flood Elevations (BFE). Property Owner Notification is not required.
9-62(b) 1.c	On-grade improvements such as driveways, trails, boardwalks, sidewalks, roads and road maintenance; storm drainage system improvements, repairs and maintenance (Major & Minor system), and other similar activities.	Any Area of Floodplain	Letter Notification to the Floodplain Administrator prior to commencement of these activities.	The "Activity" will result in no Technically Measurable increases on Base Flood Elevations (BFE). Property Owner Notification is not required.

Figure 3.2 GENERAL FLOODPLAIN DEVELOPMENT PERMIT MATRIX (cont.)

GENERAL PERMIT				
Floodplain Regulations Section	DEVELOPMENT / “ACTIVITY” (Examples)	AREA OF FLOODPLAIN	SUBMITTAL REQUIREMENTS	FLOODPLAIN IMPACTS
9-62(b) 1.d	Interior renovations valued less than \$10,000 to a noncompliant structure	Any Area of Floodplain	Supply construction cost estimate with Building Permit Application	The “Activity” will result in no Technically Measurable increases on Base Flood Elevations (BFE). Property Owner Notification is not required.
9-62(b) 1.e	Interior renovations of any value to a compliant structure	Any Area of Floodplain	None	The “Activity” will result in no Technically Measurable increases on Base Flood Elevations (BFE). Property Owner Notification is not required.

Notes:

- 1) The table above is to be used for illustrative purposes only. If there is any discrepancy between information shown in the table and the Floodplain Regulations, the Floodplain Regulations will apply.
- 2) If a proposed activity is covered within more than one of the layers, then the more stringent requirements will apply.

Figure 3.3- INDIVIDUAL FLOODPLAIN DEVELOPMENT PERMIT MATRIX

INDIVIDUAL PERMITS					
Section	DEVELOPMENT / "ACTIVITY"	AREA of FLOODPLAIN	SUBMITTAL REQUIREMENTS	FLOODPLAIN IMPACTS	REGULATORY REQUIREMENTS
9-62(b) (2).	Interior renovations valued greater than \$10,000 to a noncompliant structure	Any area of Floodplain	<ul style="list-style-type: none"> ▪ Individual Floodplain Development Permit (IFDP) Application ▪ Owner Affidavit with total construction cost 	None	<ul style="list-style-type: none"> ▪ Applicable requirements of Sections 9-101 and 9-102.
9-62(b) 2.	Any Development and corresponding Floodplain Impacts not described under the General Permit	Within the Community Flood Fringe Area	<ul style="list-style-type: none"> ▪ IFDP Application ▪ Final Construction Plans ▪ Documentation on Applicable Check sheet 	Not Applicable	<ul style="list-style-type: none"> ▪ Applicable requirements of Sections 9-101 and 9-102.
9-62(b) 2. and 9-102 (6)(a)	Any Development and corresponding Floodplain Impacts not described under the General Permit	Within the Community Encroachment Area but outside of the FEMA Floodway	<ul style="list-style-type: none"> ▪ All Above Submittal Requirements Apply ▪ Flood Impact Assessment Using the Community Discharges 	No-rise ($\leq 0.00'$) in Community BFE	<ul style="list-style-type: none"> ▪ All Above Regulatory Requirements Apply
				Increase of $\leq 0.10'$ in Community BFE	<ul style="list-style-type: none"> ▪ All Above Regulatory Requirements Apply ▪ Notification of the impacted property owner(s) ▪ Variance required for increases on Habitable buildings
				Increase of $>0.10'$ in Community BFE	<ul style="list-style-type: none"> ▪ All Above Regulatory Requirements Apply ▪ Variance required ▪ Notification of the impacted property owner(s) ▪ Community CLOMR ▪ Post-project Community LOMR

Figure 3.3- INDIVIDUAL FLOODPLAIN DEVELOPMENT PERMIT MATRIX (cont.)

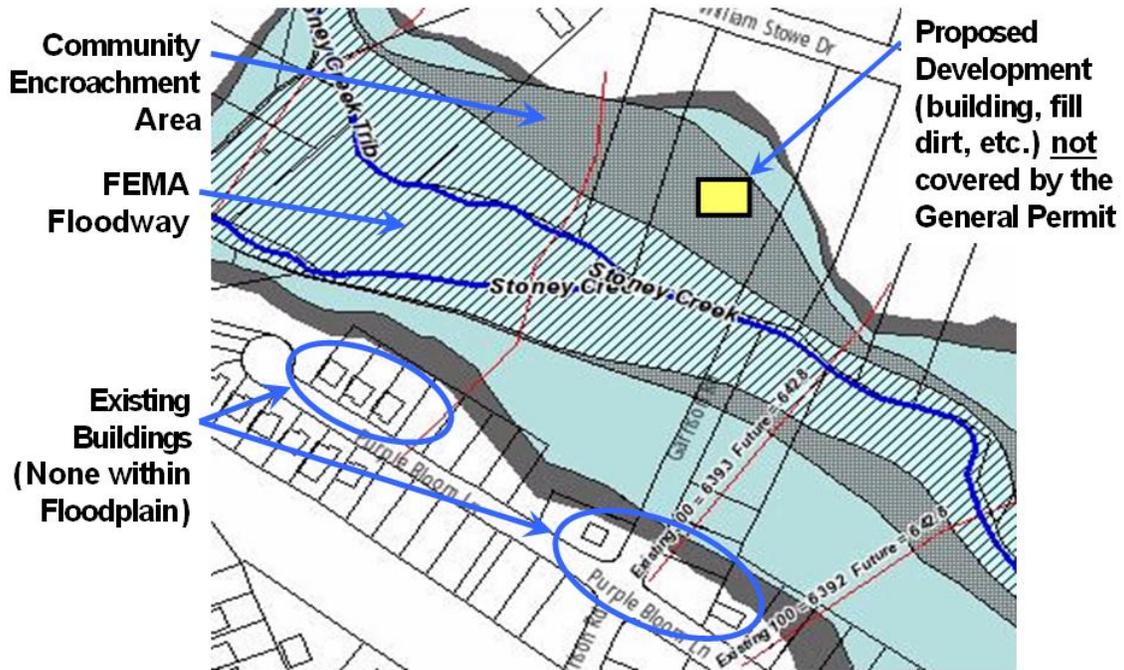
INDIVIDUAL PERMITS					
Section	DEVELOPMENT / "ACTIVITY"	AREA of FLOODPLAIN	SUBMITTAL REQUIREMENTS	FLOODPLAIN IMPACTS	REGULATORY REQUIREMENTS
9-62(b) 2. and 9-102 (6)(b)	Any Development and corresponding Floodplain Impacts not described under the General Permit	Within the FEMA Floodway	<ul style="list-style-type: none"> ▪ All Above Submittal Requirements Apply ▪ Flood Impact Assessment Using the FEMA <u>and</u> Community Discharges 	No-rise ($\leq 0.00'$) in FEMA and Community BFE	<ul style="list-style-type: none"> ▪ All Above Regulatory Requirements Apply
				Rise ($> 0.00'$) in FEMA or Community BFE	<ul style="list-style-type: none"> ▪ All Above Regulatory Requirements Apply ▪ Variance required for increases to the Community BFE on Habitable buildings ▪ Notification of the impacted property owner(s) ▪ CLOMR and/or Community CLOMR ▪ Post-project LOMR and/or Community LOMR

Notes:

- 1) The table above is to be used for illustrative purposes only. If there is any discrepancy between information shown in the table and the Floodplain Regulations, the Floodplain Regulations will apply.
- 2) If a proposed activity is covered within more than one of the layers, then the more stringent requirements will apply.
- 3) CLOMR is a Conditional Letter of Map Revision. FEMA's comments on whether a project, if built as proposed, would meet the minimum NFIP standards.
- 4) Community CLOMR is a letter from the Floodplain Administrator that provides conditional approval of a study that proposes to change the location of the Community Encroachment Lines and/or Community Base Flood Elevations.

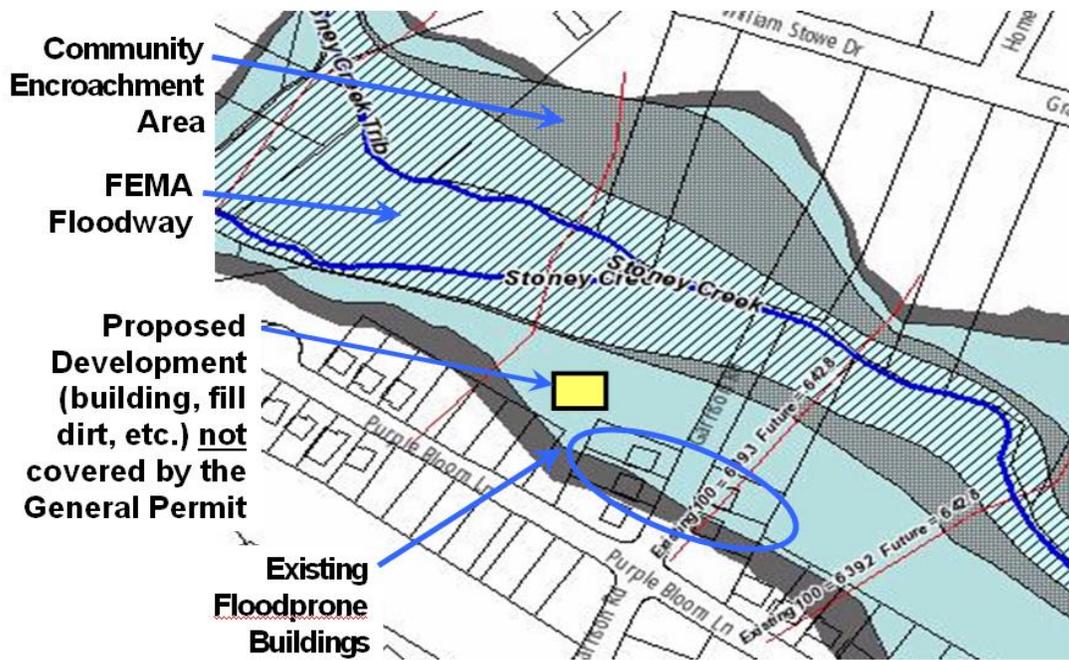
3.4 Graphical Examples of Permit Submittal Requirements

This section shows four examples (Figures 3-4 through 3-7) representing typical development scenarios that may occur in the Floodplain. The scenarios depict any type of development (building, fill, etc) and its location with respect to the various Floodplain areas on the Charlotte-Mecklenburg Floodplain maps. Below each example is a list of the permitting requirements for that scenario.



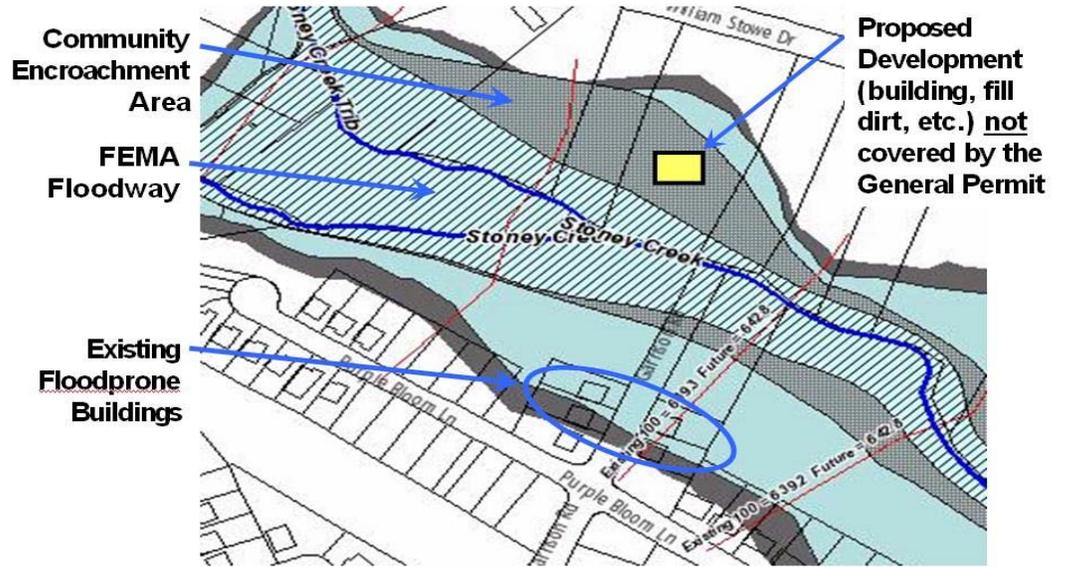
- Flood Study Required
- If No-rise in Community BFE, As-built survey required
If rise in Community BFE, Community CLOMR & LOMR required
- Elevation Certificate required prior to Issuance of Certificate of Occupancy

Figure 3.4 Proposed Development in Community Encroachment Area



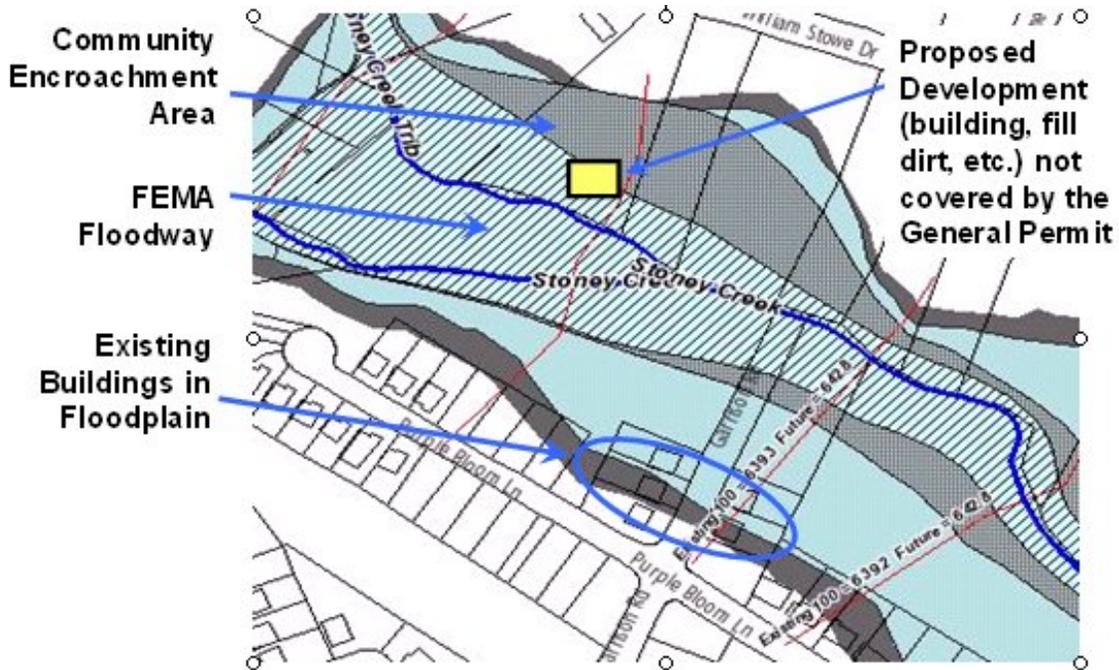
- Flood Study not required
- Certification of fill placement required after construction
- Elevation Certificate required prior to Issuance of Certificate of Occupancy

Figure 3.5 Proposed Development in the FEMA Flood Fringe Area



- Flood Study Required
- Must show no-rise only in Community BFE
- Elevation Certificate required prior to Issuance of Certificate of Occupancy
- As-built survey required after construction

Figure 3.6 Proposed Development in the Community Encroachment Area



- Flood Study Required
- Must show no-rise in FEMA & Community BFE
- Elevation Certificate required prior to Issuance of Certificate of Occupancy
- As-built survey required after construction

Figure 3.7 Proposed Development in the FEMA Floodway

3.5 Application Submission and Review Process

An Individual Floodplain Development Permit is required for all grading or development in the Floodplain or on lots that touch the Floodplain that do not meet the conditions in the General Permit. To determine if a proposed development or lot is touching the community flood fringe, please check with the Floodplain Administrator or check the Floodzone Interactive Map on the Charlotte-Mecklenburg Storm Water Services website at <http://stormwater.charmeck.org>.

Regulations for an Individual Floodplain Development Permit vary greatly depending on the type of development (**TYPE**) and where development is located in the Floodplain (**AREA**). Figure 3-8 shows the Floodplain areas and lines as defined in the Floodplain Regulations. It also attempts to convey the “layering” effect of the various Floodplain areas in relation to each other.

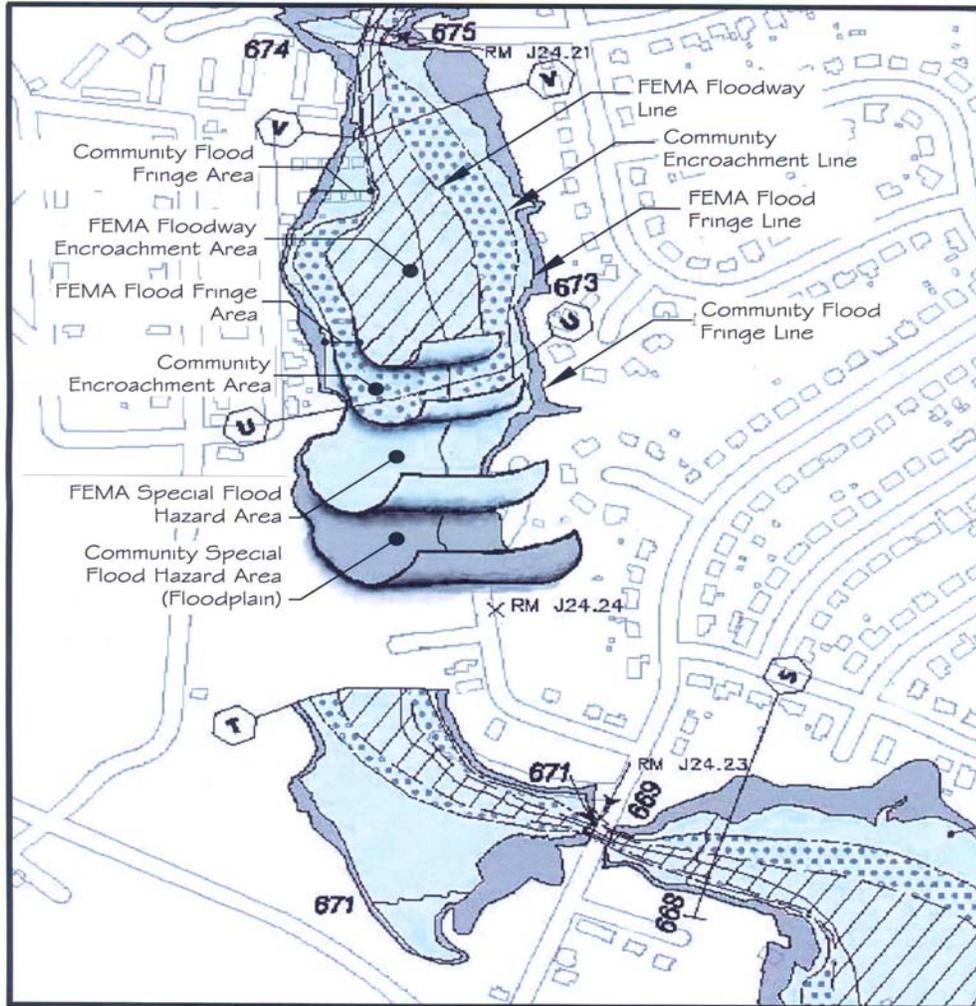


Figure 3.8 – Lines and Areas on Charlotte-Mecklenburg Floodplain Maps

Along with the permit application, the submittal must include the CHECK SHEET(S) for the TYPE/AREA of Development Activity listed on the Application, and the required supporting documentation. There are Check Sheets for the following:

- Substantial Improvement Check Sheet - use for Improvements to Existing Structures in the Floodplain for TYPE/AREA 2A, 2B, 2C
- Floodplain Development Check Sheet - use for development in the flood fringe for TYPE/AREA 3C
- Floodway Development Check Sheet - use for development in the floodway for TYPE/AREA 1A, 1B, 3A, & 3B

If your TYPE of development is not listed, a Check Sheet is not required to be attached to the permit application. For the purpose of Floodplain review and approval, the three type(s) of development are as follows:

- Type 1 - New Structure/Building
- Type 2 - Improvement of Existing Structure/Building
- Type 3 - Other Development Activity (Mining, Dredging, Filling, Grading, Excavating, Drilling, Etc.)

These “Development” activities can be proposed in several areas in and around the Floodplain. For Floodplain Management purposes, the locations/areas of development are as follows:

- Area A - Within FEMA Floodway
- Area B - Within Community Encroachment Area
- Area C – Within the Community Flood Fringe Area

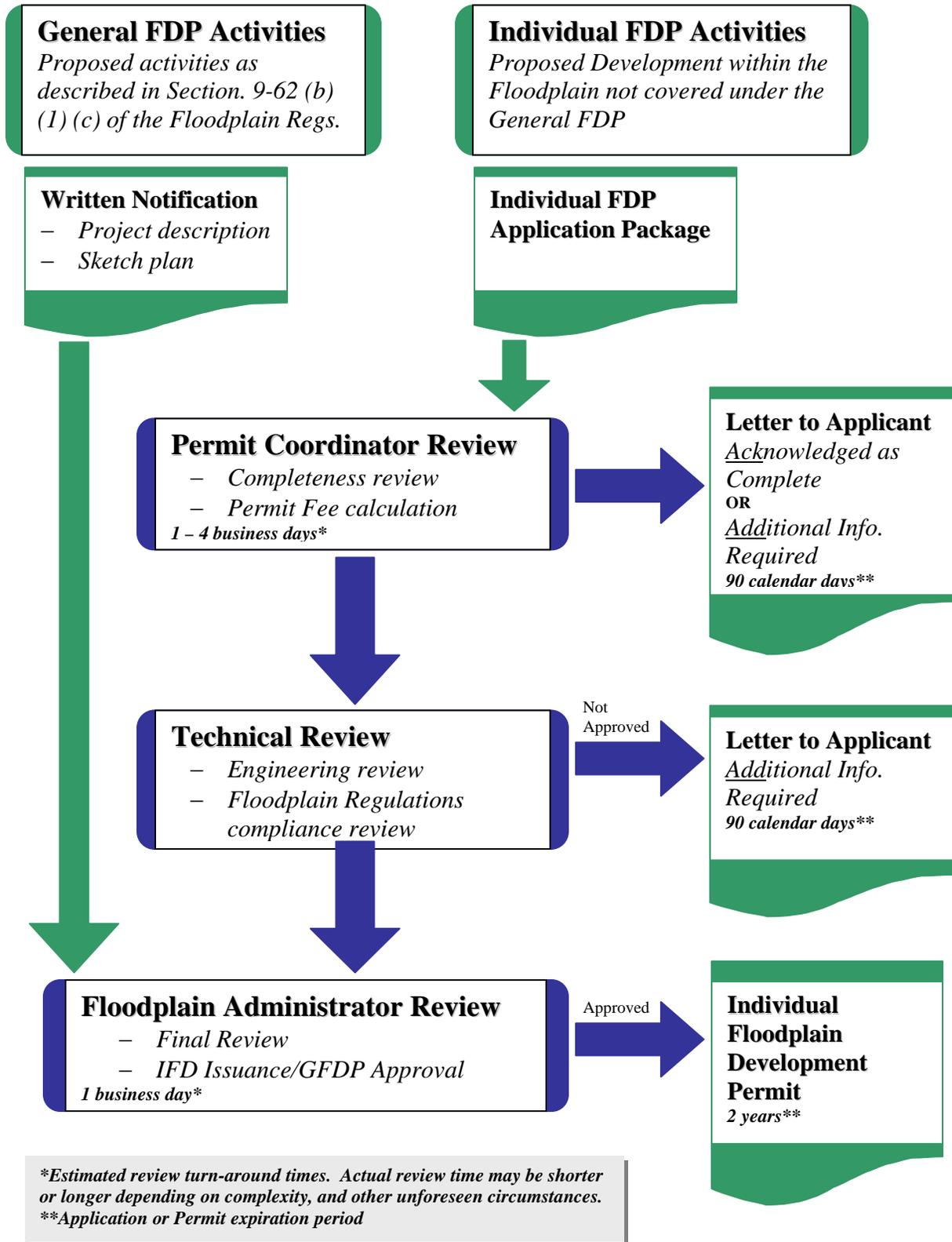
The applicant should select all types and all the areas where the proposed development is planned. If your project involves unique circumstances that are not covered by the TYPE/AREA(s) listed on the Individual Floodplain Development Permit Application, you should contact the Permit Coordinator or Floodplain Administrator for assistance.

Mecklenburg County uses a "Permit Coordinator Process" to ensure efficient and effective review of all Individual Floodplain Development Permit Applications. The applicant should submit the permit application, along with all applicable Check Sheet(s), and other supporting documentation, to the Permit Coordinator in person or through the mail at the following location:

Mecklenburg County Flood Mitigation Program
700 N. Tryon Street
Charlotte, NC 28202
Attn: Floodplain Permit Coordinator

The most common problem with permit applications is that they are incomplete. Appropriate Check Sheet(s) should be thoroughly reviewed and all the information listed should be included. Applications do not get forwarded to the technical review staff until they contain all the information needed for review. Figure 3-9 shows the review and approval process for all development activities that require a submittal to the Charlotte-Mecklenburg Storm Water Services Flood Mitigation Program.

Figure 3-9 - Floodplain Permits - Review & Approval Process



Upon receipt of the Individual Floodplain Development Permit Application, the Permit Coordinator will review the application for completeness and compute the permit fee (if applicable).



The applicant will receive either an Additional Information "ADD" Letter (if the application package is incomplete and cannot be reviewed), OR an Acknowledgement "ACK" Letter (if the application is complete and will begin the technical review). All correspondence/letters are generally sent via email and/or telephone. Email addresses should be included on the application along with other contact information such as phone and fax numbers.

Once the Permit Coordinator determines that the permit submittal includes all the necessary information, the Technical Review Staff will begin the review for compliance with the applicable Floodplain Regulations. The applicant will receive either an Additional Information "ADD" Letter (requiring additional or corrected information), OR an approved Individual Floodplain Development Permit. Due to the wide variation in the complexity of the submittal reviews, the review times will vary. The anticipated review times for each type of submittal are listed at the bottom of each Check Sheet.

If the application is approved, the Floodplain Administrator or Authorized Designee will issue the Permit and send it to the applicant. Applicants should review the Terms & Conditions listed on the Permit. The following conditions apply to all Floodplain Development Permits.

1. The Floodplain Development Permit applies to the parcel(s) of land listed on the application;
2. The Floodplain Development Permit does not change the Flood Insurance Rate Map (FIRM) Floodplain and/or floodway lines;
3. Permittee must obtain all other permits required for construction;
4. The Floodplain Development Permit expires when/if the current Effective Flood Insurance Rate Map (FIRM) applicable to the project is revised or updated;
5. The Floodplain Development Permit expires within two years unless substantial work begins, or a written extension is granted by the Floodplain Administrator; and
6. If development activities do not commence within 30 days of the Date of Issuance, the permittee must notify the Floodplain Administrator or Authorized Designee (in writing) prior to beginning any work.

3.6 Building Permits & Floodplain Review

Many projects reviewed by the Charlotte-Mecklenburg Storm Water Services Flood Mitigation Program permitting staff involve the construction of new buildings within or near the Floodplain. Any new building built on a lot that touches the Floodplain will automatically be reviewed for compliance with the Floodplain Regulations as part of the Building Permitting process. In most cases, additional information is not necessary and the building permit will not be delayed from being issued. In other cases, a separate

Individual Floodplain Development Permit is necessary to ensure compliance with the Floodplain Regulations.

The typical steps for permitting a building within or near the Floodplain are listed below.

1. Apply for a building permit from Mecklenburg County Code Enforcement;
2. Permit and Occupancy Hold are automatically placed if the lot touches the Floodplain;
3. Charlotte-Mecklenburg Storm Water Services Flood Mitigation staff reviews the Building Permit Application and will either a) remove the Permit Hold (example, if the proposed building or improvement is far from the floodplain), or b) require additional information, (if it is unclear of the building/improvement location in relation to the floodplain, or c) require additional information along with an Individual Floodplain Development Permit application and Permit Fee (for example, proposed improvements to a building are over \$10,000 in value, therefore a IFDP is required).;
4. After reviewing additional information (if necessary) the Charlotte-Mecklenburg Storm Water Services Flood Mitigation Program staff may issue an Individual Floodplain Development Permit and would then release the Building Permit Hold; and
5. Most buildings will still have a Floodplain Occupancy Hold that will only be removed upon submittal and review of an approved FEMA Elevation Certificate. The Elevation Certificate is available at <http://www.fema.gov/business/nfip/elvinst.shtm>.



3.7 Interpretations by the Floodplain Administrator

The Floodplain Administrator may need to make an interpretation of any provision within the Floodplain Regulations from time to time. Interpretations or guidance are usually issued under unique and unusual circumstances. Any interpretation or guidance that is not project-specific and may affect future applicants will be published in the "Floodplain Regulations Interpretations Document". Any interpretation made by the Floodplain Administrator pursuant to or regarding the Floodplain Regulations, may be appealed to the Zoning Board of Adjustment by the aggrieved party.

3.8 Individual Floodplain Development Permit Fees

Individual Floodplain Development Permit Applications are subject to a permit fee for services associated with reviewing the proposed project for compliance with Floodplain Regulations. The Fee Schedule is included in Appendix A. Also included in Appendix A is the Individual FDP Fee Calculator Reference Guide. This guide provides a method to view the required fees in a matrix which shows the most common activities and the area of the Floodplain the activity occurs within.

Projects meeting the criteria of the General Floodplain Development Permit will not be charged a fee. Projects owned and funded by local governments within Mecklenburg County are exempt from Fee Charges.

The Individual Floodplain Development Permit Fee Charges are based on the average review time and are categorized based on the following factors:

- Type of proposed development activities;
- Location of development activities within the Floodplain ; and
- Whether the proposed development activities are located on one or more parcels.

Applicants may attempt to compute the fee and submit it along with the initial Individual Floodplain Development Permit Application. Upon initial review for completeness, the Permit Coordinator will compute the Permit Fee and notify the applicant of the total fee before the plans are sent to the technical reviewer. All Individual Floodplain Development Permit Fees should be paid once the application is deemed complete and prior to the County beginning the technical review. All Individual Floodplain Development Permit Fees must be paid in full prior to issuance of the Floodplain Development Permit. A permit will not be issued until the Permit Fee is received by the County. **FEE Appeals** will be heard by the Director of Mecklenburg County Storm Water Services.

Development activities sometimes occur prior to issuance of a permit. In many cases these are treated as violations to the Floodplain Regulations and must be quickly brought into compliance. Violation corrections typically take twice the staff time of a normal review, therefore the fees are higher than the normal Permit Fee. They are not meant to be punitive in nature.

Individual Floodplain Development Permit fees may be paid via cash, check, or charged to an existing account in Land Use and Environmental Services (LUESA).

To pay by cash or check:

- Confirm payment amount with Floodplain Permit Coordinator;
- Make check payable to Mecklenburg County; and
- Deliver payment to the Floodplain Permit Coordinator located at 700 N. Tryon Street, Charlotte, NC 28202.

To charge to existing LUESA account:

- Make sure you have an active account with LUESA; and
- Provide written authorization (via letter or email) to charge against your account to Floodplain Permit Coordinator.

SECTION 4.0 - SPECIFIC DEVELOPMENT STANDARDS & ACTIVITIES

4.1 Standards and Activities Overview

The City of Charlotte Floodplain Regulations includes a number of unique development standards for activities occurring in the Floodplain. The section of the Technical Guidance Document is designed to further clarify and explain a few of the most common or unique regulations. The three main topics detailed herein include improvements/renovations/repairs to floodprone buildings (substantial improvement), parking lot elevation requirements, and dryland access.

4.2 Pre-FIRM and Post-FIRM Buildings

Many of the requirements in the Floodplain Regulations have dual purposes: to regulate safe construction for compliance with local building code and Floodplain management requirements and for proper rating for flood insurance purposes. One area where this is exhibited is in the definition of New Construction.

Pre-FIRM buildings are those constructed before the adoption of the initial Flood Insurance Rate Maps (FIRM) on August 15, 1978. The flood insurance rates for Pre-FIRM buildings are subsidized and the owner does not pay actuarial rates. **Post-FIRM** buildings are those constructed after the date of the initial Flood Insurance Rate Maps (after August 15, 1978), and policy holders do pay actuarial flood insurance rates. For flood insurance purposes, buildings built after August 15, 1978 are considered New Construction. This definition is only for flood insurance purposes.

4.3 Improvements/Renovations/Repairs to Floodprone Buildings

4.3.1 Substantial Improvement Overview

Any improvements, renovations, or repairs to buildings in the Floodplain fall under the Substantial Improvement/Substantial Damage requirements of the Floodplain Regulations. Generally speaking, Substantial Improvement occurs when the value of improvements or repairs to a building exceed either: 1) 50% of the building market value on a one-time improvement/repair, or 2) 25% of the building value on each of two improvement occurrences within a ten-year period. The purpose of these regulations is to ensure that lives and substantial additional investment in flood hazard areas will be protected from flooding. This is accomplished by bringing non-conforming, “Pre-FIRM” structures into compliance with current NFIP rules.

The rules not only address pre-FIRM buildings—they cover all structures, including post-FIRM buildings. In most cases, a post-FIRM building will be properly elevated or otherwise compliant with regulations for new construction. However, sometimes map changes result in a higher Base Flood Elevation (BFE) or change in FIRM zone due to revisions to maps as a result of construction or other changes in the watershed. A substantial improvement to a post-FIRM building may require that the building be elevated to protect it from the new, higher, regulatory BFE.

All additions to a post-FIRM building must be elevated at least as high as the BFE in effect when the building was built (a compliant building cannot be allowed to become noncompliant by allowing additions at grade). If a new, higher BFE has been adopted since the building was built, additions that are substantial improvements must be elevated to the new BFE.

4.3.2 Determining Substantial Improvement

A substantial improvement may occur in two ways. The FEMA minimum standard for substantial improvement is when the proposed project improvement cost is greater than 50% of the market value of the building for one event. In addition, the Floodplain Regulations contain a higher standard to the substantial improvement definition. This defines substantial improvement as a proposed project improvement cost that is greater than 25% of the market value of the building on two occasions in a 10-year period. Below are two examples to illustrate both of these substantial improvement definitions.

Example 1 - One Improvement Over 50% - If a proposed improvement project will cost \$30,000 and the value of the building is \$50,000:

$$\frac{\text{Project Cost (\$)}}{\text{Market Value (building) (\$)}} \times 100 = \text{Percent Improvement}$$

$$\frac{\$30,000}{\$50,000} = 0.6 \text{ (60 \%)}$$

In this example, the cost of the project exceeds 50 percent of the building's value, so it is a substantial improvement. The Floodplain Regulations for new construction apply and the building must meet the post-FIRM construction requirements. If the project is an addition, only the addition has to be elevated.



The formula is based on the cost of the project and the value of the building. These two numbers will be reviewed in detail by the Floodplain Administrator prior to issuing the building permit.

Example 2 - Two Improvements Over 25% – A non-compliant building is valued at \$100,000. One improvement takes place in 2007 and costs \$26,000 (over 25% of the building value). In 2016 (within ten years of the first improvement) the existing value of the building is now \$150,000. Another improvement is made and it costs \$40,000 (over 25% of the current value). The building must now become compliant, which means the lowest floor of the existing building as well as the improvements, must be elevated to the current Flood Protection Elevation.

In order to determine the percent improvements, both the “Project Cost” and the “Market Value” must be accurately determined. The permit applicant/contractor is responsible for providing an accurate Project Cost as discussed below.

Project Cost must include all structural costs, including:

- All materials;
- Labor;
- Overhead and profit;
- Built-in appliances; and
- Repairs made to damaged parts of the building worked on at the same time.

To determine substantial improvement, a detailed cost estimate is required for the project, prepared by a licensed general contractor, or professional construction estimator.

There are two possible exemptions to be aware of:

- Improvements to correct code violations do not have to be included in the cost of an improvement or repair project; and
- Historic buildings can be exempted from substantial improvement requirements.

Market value is commonly thought of as the price a willing buyer and seller agree upon. The market value of a structure reflects its original quality, subsequent improvements, physical age of building components and current condition. However, market value for property can be different than the value of the building itself. Market value of developed property varies widely due to the desirability of its location. For example, two houses of similar size, quality and condition will have far different prices if one is on the coast, or in the best school district, or closer to town than the other—but the value of the building materials and labor that went into both houses will be nearly the same.

For the purposes of determining substantial improvement, market value pertains only to the current value of the structure. It does not pertain to the land, landscaping or detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building. Market value may be determined by one or more of the following means:

- An independent appraisal by a professional appraiser using the “Cost Approach Method”. This is the preferred method to be used. The appraisal must exclude the value of the land and not use the “income capitalization approach” which bases value on the use of the property, not the structure;
- Detailed estimates of the structure’s actual cash value— the replacement cost for a building, minus a depreciation percentage based on age and condition.

For most situations, the building's actual cash value should approximate its market value.

- Property values used for tax assessment purposes;
- The value of buildings taken from NFIP claims data; and
- Qualified estimates based on sound professional judgment made by the staff of the local building department or tax assessor's office.

For an initial determination of building value, the Floodplain Administrator will use the value of the building as determined by the tax office. If the applicant does not agree with this value, a certified appraisal that uses the Cost Approach Method to determine the building's current value may be submitted in lieu of the tax value.

4.3.3 Building Improvements Valued Less than 25%

If the value of an improvement is less than 25% of the building's market value the project is exempt from the Substantial Improvement requirements. In order to ensure the proposed improvements are in compliance with the Floodplain Regulations, a permit hold will be automatically placed on the project when the building permit application is received. If the proposed improvements are greater than \$10,000, the applicant is required to submit an Individual Floodplain Development Permit Application and meet with Charlotte-Mecklenburg Storm Water Services Flood Mitigation Program Staff in order to present the cost information for the proposed project. If the cost of the improvements are less than 25% of the buildings market value than the building permit hold will be released. To ensure that the final project cost is accurate and will not increase, the applicant must submit a signed "Owner Affidavit of Building Improvements" for any improvements that are greater than \$10,000. A copy of the required Affidavit is in Appendix A of the Technical Guidance Document.

4.3.4 Building Improvements Valued Between 25% and 50%

The Substantial Improvement rule also regulates multiple improvements to a building that occur within a ten (10) year periods. The reason for this rule is to prevent a combination of numerous, lesser valued improvements that eventually add up to over 50% of the buildings value. This will prevent multiple improvements that will place additional building value in the Floodplain that will be at risk of being damaged by flooding in the future. The specific wording in the Floodplain Regulations that govern this requirement are *"any repair, reconstruction, or improvement to a structure on two separate occasions during a 10 year period beginning after October 11, 1999, for which the total cost of repairs, reconstruction or improvement at the time of each alteration, equals or exceeds 25 percent of the market value of the structure before the damage occurred or the Substantial Improvement began"*

There is the potential that an existing property owner could make an improvement valued over 25% of the market value of the building and then sell the house. The new homeowner could then be unaware that he/she is allowed only one more improvement valued over 25% of the market value of the building before the requirement to elevate the

existing house would be applied. In order to provide notice to potential buyers, an instrument must be recorded in the chain of title indicating that previous improvements, (greater than 25% of the building value) have occurred on the building. The applicant must record a copy of the “Affidavit of Non-Substantial Improvements - Between 25% and 50% of Market Value” at the Registrar of Deeds office. Before a building permit can be issued, the applicant must submit a copy of the receipt from the Registrar of Deeds showing the Affidavit was recorded. A copy of the required Affidavit is in Appendix A of the Technical Guidance Document.

There may be circumstances when the “Affidavit of Non-Substantial Improvements - Between 25% and 50% of Market Value” is recorded, and then later needs to be canceled. The two circumstances when this may occur are; 1) if the proposed construction project is canceled, or 2) if the scope of the project is reduced and the values of the improvements drop below the 25% threshold. In these cases, the owner could request that the City of Charlotte Floodplain Administrator draft and sign a cancellation Affidavit and subsequently record this at the Registrar of Deeds.

If the cost of the improvements are determined not to be a substantial improvement (less than one improvement at 50% or less than two improvements at 25% over 10-years), the building permit hold will be released. To ensure that the final project cost is correct and will not increase, the applicant must submit a signed “Owner Affidavit of Building Improvements” for any improvements that are greater than \$10,000. A copy of the required Affidavit is in Appendix A of the Technical Guidance Document.

4.3.5 Building Improvements Valued Greater than 50%

If the cost of the improvements are determined to be a substantial improvement (one project greater than 50% or two projects greater than 25% over 10-years), the owner has one of two choices; 1) scale back the magnitude and resulting cost of the project so the project no longer a substantial improvement or, 2) elevate the structure (or floodproof if nonresidential) to or above the flood protection elevation and meet other applicable local Floodplain Regulations requirements. Elevating a building usually involves raising it on foundation walls or piles so that the lowest habitable floor is raised above the flood protection elevation, as illustrated in Figure 4.1.

This type of building elevation project is usually completed by house moving contractors with specific experience in raising houses. When a house is elevated, it is separated from its foundation, raised on hydraulic jacks and held up by temporary supports while a new or extended foundation is constructed below.

The new foundation can be continuous walls or separate piers, posts, columns or pilings.



Figure 4.1 Elevated Building

If the Substantial Improvement is the result of flood damage, the owner may be eligible for up to \$30,000 from the NFIP to help pay for the cost to elevate the building or other wise make it compliant. To qualify for these Increased Cost of Compliance funds, the owner must have had an effective flood insurance policy at the time of the flood event. More information may be found from an insurance agent or FEMA.

4.3.6 Substantial Improvement Exemptions for Code Violations

The definition of Substantial Improvement exempts costs related to certain improvements required by building code. Specifically the definition states that Substantial Improvement... *does not, however, include either: any correction of existing violations of State or Community health, sanitary, or safety code specifications which have been identified by the community code enforcement official and which are the minimum necessary to assure safe living conditions.*

Note the key words in this exemption: *correction of existing violations, identified by the local official, and minimum necessary to assure safe conditions.* This language was included in order to avoid penalizing property owners who have no choice but to make improvements to their buildings or face condemnation or revocation of a business license. This exemption is intended for involuntary improvements or violations that existed before the improvement permit was applied for or before the damage occurred—for example, a restaurant owner who must upgrade the wiring in his kitchen in order to meet current local and state health and safety codes.

Only the items specifically required by code can be exempt. For example, if a single stair tread was defective and had to be replaced, the cost of rebuilding the entire stairway can not be exempt. Similarly, only replacement of in like kind and what is minimally necessary shall be included as exempt. If an owner chooses to upgrade the quality of a code-required item, the extra cost is not exempt from the formula—it is added to the true cost of the improvement or repairs.

Example - Improvements/Repairs with Code Violations

A small business in a 40-year old building was damaged by a fire. The building's pre-fire market value was \$100,000. The insurance adjuster and the permit office concluded that the total cost, including code upgrades, to repair the damage would be \$53,000. In many cases, local building code states that whenever an applicant applies for a permit to modify or improve a building, the building must be brought up to code. This building would need the following additional work:

- Replace unsafe electrical wiring.
- Install missing fire exit signs, smoke detectors and emergency lighting.
- Widen the front door and install a ramp to make the business accessible to handicapped and mobility-impaired people.

The total cost of these code requirements would be an additional \$8,000. However, since these were required by the code before the fire occurred, they would not have to be counted toward the cost to repair. Based on the basic formula:

$$\frac{\text{Repair Cost}}{\text{Building Value}} = \frac{(\$53,000 - \$8,000)}{\$100,000} = 0.45 \text{ or } 45\%$$

The building is not declared Substantially Damaged.

In this example, the building can be repaired without elevating or floodproofing. However, these repairs would count toward the cumulative substantial improvement, as one improvement that is greater than 25%. If another repair is needed (flood, fire, etc.) over the next 10 years that is greater than 25% of the Building Value, the building will be declared as Substantially Damaged . Similarly, if another improvement or renovation occurs over the next 10 years that is greater than 25% of the Building Value, it would be considered a Substantial Improvement.

4.3.7 Community Substantial Improvement Exemption

The City of Charlotte Floodplain Regulations provides a Substantial Improvement exemption for some buildings within the Floodplain. Projects proposing a Substantial Improvement to an existing building having its Lowest Floor located at least one foot above the FEMA Base Flood Elevation, but less than one foot above the Community Base Flood Elevation (Flood Protection Elevation), may qualify for an exemption. This would eliminate the requirement to elevate the Lowest Floor of the existing building to or above the Flood Protection Elevation. In order to qualify for this exemption the applicant must record a copy of the “Affidavit of Substantial Improvement – Community Exemption” at the Registrar of Deeds office. Before a building permit can be issued, the applicant must submit a copy of the receipt from the Registrar of Deeds showing the Affidavit was recorded. A copy of the required Affidavit is in Appendix A of the Technical Guidance Document.

There may be circumstances when the Affidavit of Substantial Improvement – Community Exemption is recorded, and then later needs to be canceled. The two circumstances when this may occur are; 1) if the proposed construction project is canceled, or 2) if the scope of the project is reduced and the values of the improvements drop below the Substantial Improvement percentage threshold. In these cases, the owner could request that the City of Charlotte Floodplain Administrator draft and sign a cancellation Affidavit and subsequently record this at the Registrar of Deeds.

4.3.8 Substantial Improvement FAQ

Below are some of the most frequently asked questions regarding the substantial improvement rules.

- Q. In terms of NFIP regulations, if the proposed work to a structure is determined to be a substantial improvement, what must happen to that structure?

- A. A substantially improved structure must be brought into compliance with Floodplain Regulations and other requirements in the local regulations for new construction; that is, the structure must be elevated (or floodproofed if it is a non-residential structure) to or above the level of the 100-year or base flood, and meet other applicable requirements.
- Q. What are some examples of the ways in which structures can be substantially improved?
- A. Generally, structures are substantially improved in one of four ways:
- Rehabilitations -improvements made to an existing structure which do not affect the external dimensions of the structure;
 - Additions - improvements that increase the square footage of a structure. Commonly this includes the structural attachment of a bedroom, kitchen, den, recreational room, or other type of addition to an existing structure;
 - Reconstructions - cases where an entire structure is destroyed by damage or is purposefully demolished or razed and a new structure is built on the old foundation or slab;
 - Substantial Damage - structures are considered to be substantially improved when they incur substantial damage. It should be noted that substantial improvement commonly occurs in non-disaster, everyday situations through the renovation, rehabilitation of, or addition to structures.
- Q. What happens when a structure is damaged, but not substantially, and during the repair the owner also makes an addition, rehabilitation or other improvement to the structure?
- A. It is not uncommon for a homeowner who has sustained damage to his/her structure to decide to simultaneously improve the structure while repairs are being made. For example, the owner of a building which was 30% damaged in a flood may, while repairing the damage, have an additional room (30% improvement) constructed. Under circumstances where two types of improvements (e.g., an addition and repair due to damage as given above) are made to a structure, and the combined total of these improvements is equal to or greater than 50% of the structure's pre-damage market value, the structure is considered a substantial improvement.
- Q. How are estimates for donated or discounted materials determined?
- A. The value placed on materials should be equal to the actual or estimated cost of all materials to be used or considered necessary in repairing all damages sustained by a building, and should be no less than that required to restore the building to its pre-damaged condition. Where materials or servicing equipment are donated or discounted below normal market values, the value should be adjusted to an amount which would be equivalent to –that estimated through normal market transaction. These adjustments and estimates should be made by the local permit official based on his professional judgment and knowledge of the local or regional cost of construction materials and servicing equipment.

Q. How are estimates for self or volunteered labor determined?

A. The value placed on labor should be equal to the actual or estimated labor charge for repair of all damages sustained by the structure. Where non-reimbursed labor is involved, the value of, the labor should be estimated based on applicable minimum-hour wage scales for the type of construction work that is done. This estimate should be made by the local permit official based on his professional judgment and knowledge of the local or regional wage scales for various types of construction work.

Q. What items can be excluded from the cost of repair?

A. Items that should not be counted toward the cost of repair include plans, specifications, survey and building permits, and other items which are separate from or incidental to the repair of the damaged building.

4.4 Parking Lot Elevation Requirements

One of the standards exceeding FEMA's minimum requirements is related to construction of new parking lots. Regulating the height to which parking lots should be constructed around a Floodplain is important due to the flash flooding nature of creeks in Charlotte-Mecklenburg. The primary purpose of the Floodplain Regulations is to reduce damage to habitable buildings that may result from flooding. However, a large amount of damage can also occur to vehicles in low lying parking lots and the owners may not even be



aware of the risk when parking in these area. Because of this, the Floodplain Regulations have a provision that requires new parking lots, for non-single family residential developments to be elevated so that the elevation of the lowest parking space is no more than 6 inches below the Community Base Flood Elevation.

Figure 4.2 shows an example of a parking lot that was built before this requirement. The building is above the Community Base Flood Level, but vehicles in the parking lot will flood.



Figure 4.2 Floodprone Parking Lot

4.5 Dryland Access

Another one of the higher standards in the Floodplain Regulations is Dryland Access. It relates to the ability to access a habitable building during a flood conditions. Due to the flash flooding nature of creeks in Charlotte-Mecklenburg, ingress and egress from a building is an important consideration. Occupants may be trapped and unable to reach safer ground during a flood. Emergency responders and vehicles must be able to access buildings during flood events, in case of illness, injury, fire etc. The Dryland Access provisions of the Floodplain Regulations were created to ensure safe access for vehicles to habitable buildings. Below is a summary of the Dryland Access provisions in the Floodplain Regulations.



- Access to buildings during flood events;
- Applies within Community Floodplain;
- Applies to new or "substantially improved" buildings; and
- If the property does not have access to a dry public street, the property owner could request a variance.

If the property does not have access to a Dry Public Street, exemptions are available for:

- Substantially Improved buildings anywhere within the Floodplain; and
- New buildings outside the Community Encroachment Area.

Figure 4.3 illustrates the applicability of the dry land access requirements under several different scenarios.

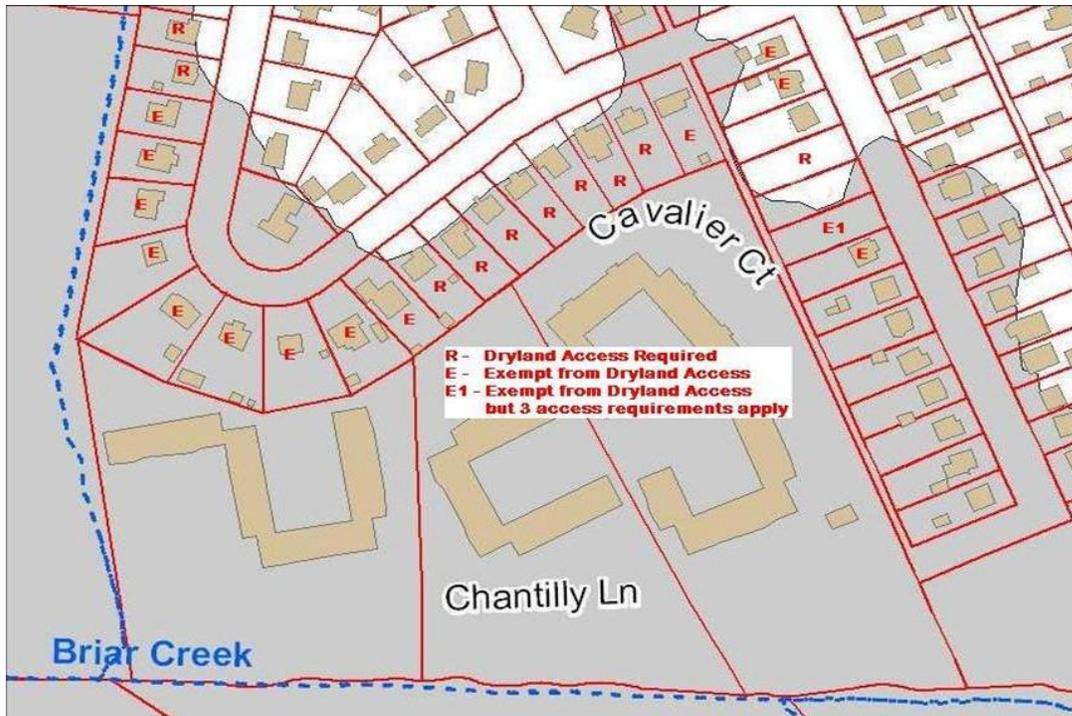


Figure 4.3 Dryland Access Example

This example assumes the following:

- Lots showing existing building footprints are proposing a Substantial Improvement;
- Lots that are vacant are proposing construction of a new habitable building; and
- None of these lots are within the Community Encroachment Area.

All lots shown with an “R” require Dryland Access. Those showing an “E” are fully exempt from this requirement. Lots shown as “E1” are exempt; however the access to the property must:

1. Connect to the highest point of the public street;
2. Be gravel/pavement/concrete;
3. Be at least 12’ wide; and
4. Be constructed so that the level of the driveway does not dip down below street level before reaching the building.

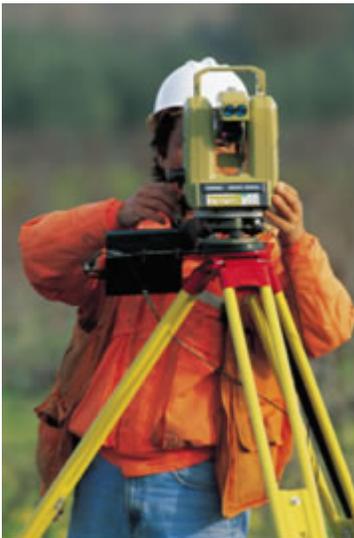
SECTION 5.0 - PROJECT COMPLETION AND CLOSEOUT

5.1 Letters of Map Change (LOMA, LOMR-F)

Flood Insurance is required for buildings with a mortgage and that are located within the FEMA Special Flood Hazard Area (SFHA). This mandatory flood insurance purchase requirement may be officially removed by obtaining a Letter of Map Amendment (LOMA) or a Letter of Map Revision based on Fill (LOMR-F) from FEMA. The LOMA is applicable if the ground elevation has not been elevated by the placement of fill being placed on the property. The LOMA is a method that corrects the flood determination for an individual lot or building; it does not change the map or flood elevations.

The LOMR-F is a method used to remove the mandatory flood insurance purchase requirement for a parcel of land or a building that has been elevated by the placement of fill. It too does not change the map or the flood elevations.

Instructions and forms for the LOMA and the LOMR-F can be found on FEMA's website at www.fema.gov. When Mecklenburg County receives the actual LOMA or LOMR-F document from FEMA, a notation is placed on the parcel when viewed on Charlotte-Mecklenburg Storm Water Services Interactive Floodzone Mapping website (<http://stormwater.charmeck.org>). When the parcel is displayed following a search of the address, parcel number or name, a link is provided that displays the actual letter from FEMA that indicates that the parcel is no longer considered to be in the FEMA Floodplain and flood insurance is not required, even though it is recommended that insurance be purchased.



5.2 Submittal of Certification of Fill Placement

The placement of fill material and the construction of new buildings in or near the Floodplain have an impact on the accurate location of the Floodplain lines. It is important that fill is actually placed in accordance with the approved plans for a project. Therefore proper certification and/or as-built topographic mapping is required prior to final approval of projects in or near the Floodplain. The required documentation depends on where the development activity occurred in the Floodplain. For projects outside the Community Encroachment Area, a certification form is required as described in section 5.2.1. For projects within the Community Encroachment Area, a final as built topographic map is required as described in Section 5.2.2 Both documents must be sealed by a either a Professional Land Surveyor or Professional Engineer.

5.2.1 Development Within the Floodplain But Outside of the Community Encroachment Area

Section 9-62.3.b of the Charlotte Floodplain Regulations requires that after a project is completed, a certification form be completed by a registered Professional Land Surveyor or Professional Engineer that states that no fill material was placed within the FEMA Floodway or Community Encroachment Area of any watercourse. The completed certification form will be required prior to issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy. The Certification of Development Outside the Community Encroachment Area is included in the Appendix A of this Technical Guidance Document.

5.2.2 Submittal of As-Built Plans and Approval Process

Development is sometimes permitted within the Community Encroachment Area or FEMA Floodway Encroachment Area. If development is proposed in these areas the requirements of Section 9-62.3.c of the City of Charlotte Floodplain Regulations will apply. Specifically, this section requires that an as-built topographic map prepared by a registered Professional Land Surveyor or Professional Engineer will be required prior to issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy. The topographic map should be of sufficient scale with contour intervals no greater than one foot. The topographic map should indicate the ground elevations prior to construction and the ground elevations after construction is complete. A properly geo-referenced digital submittal of the topographic map is required.

5.3 Elevation Certificates and Occupancy Holds

All projects that take place within the Community and/or FEMA Floodplain will automatically have a permit and occupancy hold placed on the project in the Mecklenburg County Code Enforcement building permitting system. This ensures that construction in or near the Floodplain will be completed in a compliant and safe manner.

Applicants will be notified at the beginning of the permitting process of the flood risk and the Floodplain permitting requirements. Prior to project completion, A FEMA Elevation Certificate (EC), completed by a professional land surveyor will be required. The EC must be completely filled out with no sections left blank.

New construction within the City of Charlotte must have the lowest floor elevated at least one foot (two feet on the Catawba River) above the Community Base Flood Elevation. It is important to note that there is not a line on the EC to enter the Community Base Flood Elevation. This elevation must be entered in the “Comments” section which is located in Section D on page 2 of the EC. The completed EC must be submitted and approved by Charlotte-Mecklenburg Storm Water Services Flood Mitigation Program staff. Once approved, the Occupancy Hold placed on the permit will be released.

The data from the EC will be available through the Floodzone Interactive Map on the Storm Water Services website shortly after it is approved (stormwater.charmeck.org).

SECTION 6.0 - APPEALS AND VARIANCES

6.1 Overview

Variations and appeals to the requirements of the Floodplain Regulations are governed under Sections 9-81 through 9-90 of the Floodplain Regulations. These sections provide a means for relief from provisions of these regulations for persons wishing to operate outside the requirements of the Floodplain Regulations. It also provides a means for persons to appeal orders, decisions, determinations or interpretations made by the Floodplain Administrator.

6.2 Zoning Board of Adjustment

Variations and Appeals are heard by the City of Charlotte Zoning Board of Adjustment (ZBA). The ZBA is a five-member body whose members are appointed by the City Council. The ZBA meets on the third Tuesday of the month. The schedule may be altered based on case load or holidays.

6.3 Variations

The ZBA can hear **variation** requests for almost any provision of the Floodplain Regulations. The most typical Floodplain variation requests that may be heard by the ZBA include:

- Placement of fill material within the Community Encroachment area that increases the water surface elevations more than 0.00' on existing buildings (Section 9-102 6.a.); and
- Variations to the Dryland Access requirements (Section 9-102.5 and 9-88(a)).

6.4 Appeals

A notice of **appeal** must be filed with the ZBA Clerk, with a copy to the Floodplain Administrator, within twenty (20) days of the order, decision, determination or interpretation. **Please note that this is different from the Zoning Ordinance requirement of 30 days which is listed on the appeals form.** The appeal request must be accompanied by a nonrefundable filing fee as established by the city council. Typical appeals that may be heard by the ZBA include:

- Appeals to the issuance of a Floodplain Development Permit;
- Appeals to an interpretation of a requirement of the Floodplain Regulations; and
- Appeal to a corrective action made pursuant to a violation of the Floodplain Regulations.

6.5 Forms, Instructions, Procedures and Fees

The forms, instructions, procedure and fee information for filing a variation or appeal are included in the document entitled, City of Charlotte Zoning Administration Variation, Appeal and Administrative Deviations Application and Procedures Packet. The entire document may be viewed or downloaded in a pdf format at:

<http://www.charmeck.org/Departments/Planning/Subdivision/Subdivision+Applications/Home.htm>

You may also call 704-336-3818 for administrative and procedural information about the Variance and Appeals process.

SECTION 7 - VIOLATIONS OF THE FLOODPLAIN REGULATIONS

7.1 Violation Overview

Section 9-64 of the Floodplain Regulations sets the parameters for correction of potential violations to provisions of the Floodplain Regulations. The following are the actions taken in response to a potential violation

7.2 Notification

The property owner or occupant is notified by certified mail that there is an alleged violation of the Floodplain Regulations on the property. Items in the letter include:

- Date of inspection that revealed the violation;
- Specific sections of the Floodplain Regulations that are being violated;
- Instructions to immediately remove the violation; and
- Time and date (not later than 20 calendar days from the notice) for a hearing to discuss the violation.

7.3 Hearing

A hearing will be held at Charlotte-Mecklenburg Storm Water Services Flood Mitigation Program office located at 700 N. Tryon St in Charlotte. Actions at the hearing include:

- Discussion of the possible violation;
- A determination if the site is still in violation;
- Discussion and agreement of corrective actions to be taken; and
- The property owner or occupant will be given no less than sixty (60) days to remedy the violation (if there is imminent danger to life or other property, corrective action may be required in less than sixty (60) days).
- If the property owner does not appear for the hearing at the scheduled time, the site will be deemed in violation. The property owner will be given no less than sixty (60) days from the date the NOV letter was received by the property owner to remedy the violation.

7.4 Corrective Actions Taken

If corrective actions are taken as required, the site will be deemed in compliance and the violation resolved.

7.5 Corrective Actions Not Taken – Penalties

If corrective actions are not completed within the prescribed time, the property owner or occupant may be guilty of a misdemeanor. Penalties may include a fine of not more than

five hundred dollars (\$500.00) or imprisonment for not more than thirty (30) days. Each day such violation continues shall be considered a separate offense.

APPENDIX A

This section of the Technical Guidance Document contains Forms, Notices, or other official documents that may be needed during the permit application process. Additional forms, checklists and other documents and graphics may be found at the Charlotte Mecklenburg Storm Water Services Website at <http://stormwater.charmeck.org>.



Mecklenburg County Land Use and Environmental Services

Individual Floodplain Development Permit (IFDP) Fees

Effective Date: July 1, 2007

Fees must be submitted to Mecklenburg County for an IFDP Application to be accepted for review. Checks are to be made payable to Mecklenburg County.

Fee Information:

- Fee Charges apply to projects with proposed Development within the limits of the Community Special Flood Hazard Area "Floodplain".
 - Activities listed below that meet the criteria for a General Floodplain Development Permit are not charged a Fee.
 - Fee Charges for projects involving multiple activities in multiple areas of the Floodplain are assessed a single fee in the highest applicable category.
 - Phased projects submitted under a single application will be charged a new fee for each phase requiring a separate review.
 - Projects owned and funded by local governments within Mecklenburg County are exempt from Fee Charges.
 - Expired IFDP Applications and Permits will require a new Application and a new Fee Charge will apply.
 - Fee Charges for IFDP Applications submitted after development activities have commenced, will be doubled due to additional staff time investigating and reviewing the violation.
-

Fee Charges for IFDP Applications:

No Fee	Fee Exempt
--------	------------

*Between the creek centerline Community Flood Fringe Line
(Community Special Flood Hazard Area - "Floodplain")*

- Interior Improvements/Repairs to existing building

*Between the Community Encroachment Line and
the Community Flood Fringe Line
(Community Flood Fringe Area)*

- Lateral Additions to existing building- Residential Parcel-Single lot & Commercial Parcel-Single lot
- Other Development (non habitable building-shed/garage, fill/landscaping, Infrastructure-utilities, storm water, sewer, roads)* - Residential Parcel-Single lot

\$250

Minor F.P. Impact

*Between the Community Encroachment Line and
the Community Flood Fringe Line
(Community Flood Fringe Area)*

- New Habitable Building (building only)* - Residential Parcel-Single lot & Commercial Parcel-Single lot
- Other Development (Land/Site Development) - Residential Parcel-Single lot & Commercial Parcel-Single lot
- Other Development (non habitable building-shed/garage, fill/landscaping, Infrastructure-utilities, storm water, sewer, roads)* - Commercial Parcel-Single lot

- \$650** **Minor Encroach. Study**
Between the creek centerline and the Community Encroachment Line
(Community Encroachment Area)
-
- New Habitable Building (building only)* - Residential Parcel-Single lot
 - Lateral Additions to existing building- Residential Parcel-Single lot
 - Other Development (Land/Site Development) - Residential Parcel-Single lot
 - Other Development (bridge/culvert crossing, non habitable building-shed/garage, fill/landscaping, Infrastructure-utilities, storm water, sewer, roads)* - Residential Parcel-Single lot
- \$1,000** **Major F.P. Impact**
Between the Community Encroachment Line and the Community Flood Fringe Line
(Community Flood Fringe Area)
-
- Other Development (Land/Site Development) - Residential Subdivision-Multi lot & Commercial Subdivision-Multi lot
 - Other Development (non habitable building-shed/garage, fill/landscaping, Infrastructure-utilities, storm water, sewer, roads)* - Residential Subdivision-Multi lot & Commercial Subdivision-Multi lot
 - Other Development (non habitable building-shed/garage, fill/landscaping, Infrastructure-utilities, storm water, sewer, roads)* - Other Use (Non-Residential/Commercial)
- \$2,300** **Major Encroach. Study**
Between the creek centerline and the Community Encroachment Line
(Community Encroachment Area)
-
- New Habitable Building (building only)* - Commercial Parcel-Single lot
 - Lateral Additions to existing building- Commercial Parcel-Single lot
 - Other Development (Land/Site Development) - Residential Subdivision-Multi lot & Commercial Parcel-Single lot & Commercial Subdivision-Multi lot
 - Other Development (bridge/culvert crossing, non habitable building-shed/garage, fill/landscaping, Infrastructure-utilities, storm water, sewer, roads)* - Residential Subdivision-Multi lot & Commercial Parcel-Single lot & Commercial Subdivision-Multi lot & Other Use (Non-Residential/Commercial)

* For stand alone activities that are not clearly included in another IFDP Application.

Additional Charges and Credits for Other Reviews:

- \$2,300** **Map Revision**
Community Letter of Map Revision (CoLOMR)
(Fee applies only if a FEMA LOMR is not required)
- \$2,300** **Levee**
Levee/Floodwall Review
- \$250** **Permit Revision**
Minor revisions** to an Approved Floodplain Development Permit

** Minor revisions are changes to the plans that do not require another full review of the proposed development. Major revisions will require either a full re-review or a new IFDP application, and a new fee charge will apply.

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

**Affidavit of Non-Substantial Improvements
Between 25% and 50% of Market Value**

Parcel ID Number: _____ Acquisition Reference:
Property Address _____ Bk _____ Pg _____
_____ File No. _____

Brief Legal Description _____

The undersigned real property owner fully understands and hereby acknowledge(s):

1. Ownership of the building or other improvement located upon the property referenced herein above.
2. That the lowest floor of the above referenced building is below the Community Flood Protection Elevation as of _____, 20____ and, therefore, is non-compliant with the minimum Specific Standards in the City of Charlotte Floodplain Regulations.
3. That in _____, 20____ improvements were made to this building, the cost of which was determined to be between 25% and 50% of the market value of the building.
4. That any additional repairs, reconstruction, rehabilitation, addition, or other improvement to this building, conducted on one occasion, exceeding 25% of the market value of this building at the time of the repairs, reconstruction, rehabilitation, addition, or other improvement, and occurring before _____ (10 YEARS AFTER INITIAL DATE ABOVE) will require that the lowest floor of the existing building and any additions or improvements, be elevated to the Flood Protection Elevation.
5. That any subsequent cancellation or alteration of this affidavit must be approved by the City of Charlotte Floodplain Administrator and would require his/her signature on the recorded affidavit.

Drawn by and return to:

Char-Meck Storm Water Services
Floodplain Administrator
700 North Tryon Street
Charlotte, NC 28202

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

Affidavit of Substantial Improvement - Community Exemption

Parcel ID Number: _____ Acquisition Reference: _____
Property Address _____ Bk _____ Pg _____
_____ File No. _____

Brief Legal Description _____

The undersigned real property owner fully understands and hereby acknowledge(s):

1. Ownership of the building or other improvement located upon the property referenced herein above.
2. That the lowest floor of such building or improvement is below the Community Flood Protection Elevation but is at least one foot above the FEMA Base Flood Elevation as of _____, 20____ and, therefore, is non-compliant with the current minimum Specific Standards of the City of Charlotte Floodplain Regulations.
3. That the value of the improvements made to the herein referenced building on the above referenced date exceeds the amount allowed under the City of Charlotte Floodplain Regulations, Substantial Improvement and/or Substantial Damage definitions. I have been granted an exemption to these requirements pursuant to Section 9-102(a) 1.a of the City of Charlotte Floodplain Regulations.
4. That such exemption allows this building to be Substantially Improved
5. That the following apply because I voluntarily choose to obtain this exemption:
A. There is potential for increased risk of future flooding and flood losses

Drawn by and return to:

Char-Meck Storm Water Services
Floodplain Administrator
700 North Tryon Street
Charlotte, NC 28202

- B. There is the potential for the mandatory purchase of flood insurance in the future.
- C. There is the potential for the FEMA Substantial Improvement rules to apply to the above referenced property in the future and,
- D. There will be no local funds made available in the future for flood mitigation assistance (buyouts, elevations, etc.) for the said building or improvement.

6. That any subsequent cancellation or alteration of this Affidavit must be approved by the City of Charlotte Floodplain Administrator and will require such officer's signature upon the recorded Affidavit.

Witness the hand and seal of the owner of the subject property this _____ day of _____, 20____,

_____(Seal)
 OWNER NAME (please print) Owner Signature

_____(Seal)
 OWNER NAME (please print) Owner Signature

_____ CORPORATION/LLC NAME (print)	_____(Seal) Vice President /Managing Member /Authorized Agent Signature
Attest: _____ Asst. Secretary / Corporate Officer	(Corporate Seal) (Optional)

_____ LIMITED/GENERAL PARTNERSHIP NAME (please print)	_____(Seal) AUTHORIZED GENERAL PARTNER
---	---

State of North Carolina

County of Mecklenburg

I, _____, a North Carolina Notary Public,

do hereby certify that _____

personally appeared before me this day and acknowledged the due execution of the foregoing

instrument. Witness my hand and official seal this _____ day of _____, 20____.

(Official Seal)

 Notary Public

My Commission expires: _____

(NCGS 47-38, 2007)

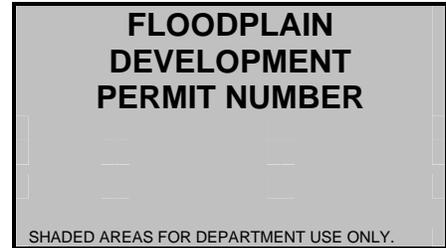
Drawn by and return to:

Char-Meck Storm Water Services
 Floodplain Administrator
 700 North Tryon Street
 Charlotte, NC 28202



Owner Affidavit of Building Improvements

Parcel ID Number: _____
Property Address _____
Owner Name: _____
Contractor Name: _____
Contractor License #: _____



I hereby acknowledge that I am the owner of the above-referenced building.

I hereby attest to the fact that the improvements and/or repairs list submitted for this Substantial Damage/Improvement Review is all of the improvement work that will be done to the existing structure; and that the total cost estimate is all inclusive of the work to be performed on the subject property. No other contractor has made nor will make improvements or repairs that have not been included as part of this project.

Total Cost of Construction \$ _____
(Including labor, materials, overhead, and profit)

I also understand that I am subject to the enforcement actions and/or fines if the final inspection of the property reveals that improvements and/or repairs have been made that were NOT INCLUDED ON THE LIST. I understand that any project modifications that will exceed the Total Cost of Construction submitted for the Substantial Damage/Improvement Review MUST BE APPROVED BY THE CHARLOTTE-MECKLENBURG STORM WATER SERVICES FLOOD MITIGATION PROGRAM PRIOR TO COMMENCING THE ADDITIONAL WORK.

Signature of Owner Date

State of _____

County of _____

Sworn and subscribed before me this _____ day of _____, 20____,

Name (Print)

Signature of Notary Commission Expires



Certification of Development Outside the Community Encroachment Area

Parcel ID Number: _____

Property Address _____

Owner Name: _____

Project Name (If Applicable) _____

FDP # (If Applicable) _____

Type of Construction (residential, commercial, addition, fill, etc) _____

Description of the construction project _____

Date Construction was Completed _____

I certify that the construction at this location did not involve the placement of a building, fill, or other structures or material above the ground within the Community Encroachment Area.

Name (Print)

Signature

Date

Registration Number