BILL NO. 3009 ORDINANCE NO. 2828

AN ORDINANCE REPEALING ORDINANCE 2284 AS EMBODIED IN CHAPTER 14, FLOOD DAMAGE PREVENTION, OF THE CITY CODE AND REPLACING IT WITH A REVISED ARTICLE 05 OF THE CITY OF CHESTERFIELD, MISSOURI UNIFIED DEVELOPMENT CODE AND REPEALING AND AMENDING THE FOLLOWING: ARTICLE 02-05, ARTICLE 02-18.C, ARTICLE 03-02, ARTICLE 03-05, ARTICLE 03-08, ARTICLE 07-05.D, ARTICLE 07-06, ARTICLE 09-03.B, AND ARTICLE 10-12 RELATED TO THE SAME (P.Z. 15-2014 CITY OF CHESTERFIELD-UNIFIED DEVELOPMENT CODE UPDATES).

WHEREAS, the City of Chesterfield is responsible under Chapter 89 RSMo for adoption of regulations designed to promote the public health, safety and general welfare of its citizenry and has been designated by the Federal Emergency Management Agency as the local floodplain administrator; and

WHEREAS, the City of Chesterfield is obligated to institute and enforce requirements that meet or exceed minimum standards set by the National Flood Insurance Program (NFIP), which are designed to minimize damage and losses from floods, in order for property owners in the City of Chesterfield to be eligible to purchase flood insurance under the NFIP; and

WHEREAS, the Federal Emergency Management Agency has issued new Flood Insurance Rate Maps which more accurately reflect Special Flood Hazard Areas; and

WHEREAS, in conjunction with these FEMA mandated updates, subsequent updates to various Articles within the Unified Development Code were also necessary; and

WHEREAS, a Public Hearing was held before the Planning Commission on November 24, 2014 at which time City residents were afforded the opportunity to comment on the new Flood Insurance Rate Maps; and

WHEREAS, the Planning Commission, having considered said request, recommended approval; and,

WHEREAS, the Planning and Public Works Committee, having considered said request, recommended approval; and,

WHEREAS, the City Council, having considered said request, recommended approval of the updates to Article 02, Article 03, Article 05, Article 07, Article 09, and Article 10.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI, AS FOLLOWS:

Section 1. The City of Chesterfield hereby repeals Chapter 14 of the City Code and Article 05 of the Unified Development Code in its entirety and replaces it with a new Article 05 as set out in Attachment "A" which is attached hereto and made part thereof.

Section 2. The City of Chesterfield hereby repeals Article 02-18.C, Article 07-05.D, Article 07-06 and Article 09-03.B and incorporates said requirements into the new Article 05 as set out in Attachment "A" which is attached hereto and made part thereof; and includes new language amending Article 02-05, and Article 10-12 as set out in Attachment "B" which is attached hereto and made part thereof.

Section 3. The City of Chesterfield hereby amends Article 03-02, Article 03-05, and Article 03-08 and replaces with new language as set out in Attachment "C" which is attached hereto and made part thereof.

Section 4. If any section, paragraph, subsection, clause or provision of this Ordinance shall be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of this Ordinance as whole, or any part thereof.

Section 5. The provisions of the Ordinance may be amended in the future by the City Council of the City of Chesterfield, after notice and hearing as provided by law.

Section 6. Where this Ordinance differs or conflicts with other laws, rules and regulations, unless the right to do so is preempted or prohibited by the County, State, or Federal government, the more restrictive or protective of the City and the public shall apply.

Section 7. The City Council, pursuant to the petition filed by the City of Chesterfield in P.Z. 15-2014, requesting amendments embodied in this Ordinance and pursuant to the recommendations of the City of Chesterfield Planning Commission, Planning and Public Works Committee and City Council that said petition be granted and after public hearing, held by the Planning Commission on the 24th day of November, 2014, does hereby adopt this ordinance pursuant to the power granted to the City of Chesterfield under Chapter 89 of the Revised Statutes of the State of Missouri authorizing the City Council to exercise legislative power pertaining to planning and zoning.

Section 8. This Ordinance shall be codified within the Municipal Code of the City of Chesterfield.

Section 9. This Ordinance shall take effect immediately upon its publication, pursuant to applicable legal and procedural requirements.

Section 10. This Ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this 5th day of January, 2015.

Bob Nation

MAYOR

ATTEST:

Jeanie Black

CITY CLERK, Deputy

First Reading Held: December 1, 2014

Attachment A

Sec. 05-01. GENERAL

A. Statutory Authorization.

The legislature of the State of Missouri has in RSMo ch. 89 delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. Therefore, the City Council of the City of Chesterfield, Missouri, does ordain as follows in this Article.

B. Findings of Fact.

1. The flood hazard areas of the City are subject to periodic inundation, which result in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

2. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas of uses vulnerable to floods or hazards to other lands which are inadequately elevated, flood proofed, or otherwise unprotected from flood damage.

C. Statement of Purpose.

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

1. To protect human life and health;

2. To minimize expenditure of public money for costly control projects;

3. To minimize the need of rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

4. To minimize prolonged business interruptions;

5. To minimize damage to public facilities and utilities such as water and gas mains, electrical, telephone and sewer lines, streets and bridges located in floodplains;

6. To help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas;

7. To ensure that potential home buyers are notified that property is in a flood area; and

8. To ensure that those who occupy the special flood hazard areas assume responsibility for their actions.

D. Methods of Reducing Flood Losses.

In order to accomplish its purposes, this Article includes methods and provisions for:

1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion or to flood heights or velocities;

2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;

4. Controlling filling, grading, dredging, and other development which may increase erosion or flood damage; and

5. Preventing or regulating the construction of flood barriers which will unnaturally divert floodway waters or which may increase flood hazards in other areas.

E. Lands to which This Article Applies.

This Article shall apply to all lands within the jurisdiction of the City of Chesterfield identified as numbered and unnumbered A zones, AE, AO, and AH Zones, on the Flood Insurance Rate Map (FIRM) for St. Louis County on map panels 29189C0135K, 29189C0145K, 29189C0160K, 29189C0163K, 29189C0164K, 29189C0165K, 29189C0170K, 29189C0178K, 29189C0186K, 29189C0188K, 29189C0277K, 29189C0281K, and 29189C0282K as amended, and any future revisions thereto. In all areas covered by this Article, no development shall be permitted except through the issuance of a floodplain development permit, granted by the City Council or its duly designated representative under such safeguards and restrictions as the City Council or its duly designated representative may reasonably impose for the promotion and

maintenance of the general welfare, health of the inhabitants of the community, and as specifically noted in Section 05-03.

This Article shall also apply to areas of 100 year high water in the Chesterfield Valley, and the Supplemental Protection Area within the jurisdiction of the City of Chesterfield

F. Methods Used to Analyze Flood Hazards.

The Flood Insurance Study (FIS) that is the basis of this Article uses a standard engineering method of analyzing flood hazards which consists of interrelated steps:

1. Selection of a base flood that is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The base flood selected for this ordinance is representative of large floods which are characteristic of what can be expected to occur on the particular streams subject to this Article. It is the general order of a flood which could be expected to have a one percent chance of occurrence in any one year as delineated on the Federal insurance Administrator's FIS, and illustrative materials for St. Louis County dated February 4, 2015 as amended, and any future revisions thereto.

2. Calculation of water surface profiles is based on a standard hydraulic engineering analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood.

3. Computation of a floodway required to convey this flood without increasing flood heights more than one (1) foot at any point.

4. Delineation of floodway encroachment lines within which no development is permitted that would cause any increase in flood height.

5. Delineation of flood fringe, i.e., that area outside the floodway encroachment lines, but still subject to inundation by the base flood.

The current version of the Chesterfield Valley Master Stormwater Plan Model is hereby adopted by reference and declared to be part of this Article. Both the Flood Insurance Study and the Chesterfield Valley Master Stormwater Plan Model are on file at the City of Chesterfield City Hall.

In areas where both the special flood hazard area data and the Chesterfield Valley Master Stormwater Plan data apply, the higher of the

base flood elevation or the 100 year high water elevation in Chesterfield Valley shall be used.

The supplemental protection area is a 200-foot area immediately adjacent to the special flood hazard area or 100-year high water area in the Chesterfield Valley which is hereby created to enhance the purposes of this Article, as stated in Section 05-01.C., by putting in place requirements to reduce the flood damage risk on those properties immediately adjacent to the special flood hazard areas. The requirements associated with this zone are intended to protect structures, principally those on properties that have been elevated by the placement of fill, against subsurface flood conditions and flooding from events that exceed the base flood elevation.

G. Penalties for Non-Compliance.

See Article 08 of this Unified Development Code (UDC) for enforcement and penalties.

H. Abrogation and Greater Restrictions.

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

I. Interpretation.

In the interpretation and application of this Article, all provisions shall be (1) considered as minimum requirements; (2) liberally construed in favor of the governing body and (3) deemed neither to limit or repeal any other powers granted under State statutes.

J. Warning and Disclaimer of Liability.

The degree of flood protection required by this Article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Article does not imply that land outside the special flood hazard areas or uses permitted within such areas will be free from flooding or flood damages. This Article shall not create liability on the part of the City of Chesterfield or by any officer or employee thereof for any flood damages that result from reliance on this Article or any administrative decision lawfully made thereunder.

K. Non-conforming Use.

1. A structure or the use of a structure or premises which was lawful before the passage or amendment of the chapter, but which is not in conformity with the provisions of this chapter, may be continued subject to the following conditions:

   a.) If such use is discontinued for twelve (12) consecutive months, any future use of the building premises shall conform to this chapter.

   b.) Uses or adjuncts thereof which are or become nuisances, shall not be entitled to continue as nonconforming uses.

   c.) No such structure shall be expanded, changed, enlarged or altered in a way which increases its nonconformity.

2. If any nonconfrming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than fifty (50) percent of the market value of the structure before the damage occurred unless it is reconstructed in conformity with the provisions of this chapter. This limitation does not include the cost of any alteration to comply with existing State or local health, sanitary, building or safety codes or regulations or the cost of any alteration of a structure listed on the National Register of Historical places or a State Inventory of Historical Places.

L. Amendments.

1. The regulations, restrictions and boundaries set forth in this Article may from time to time be amended, supplemented, changed or appealed to reflect any and all changes in the National Flood Disaster Protection Act of 1973, provided, however, that no such action may be taken until after a Public Hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the time and place of such hearing shall be published in a newspaper of general circulation in the City of Chesterfield.

2. At least twenty (20) days shall elapse between the date of said publication and the Public Hearing. A copy of such amendments will be provided to the FEMA. The regulations of this Article are in compliance with the National Flood Insurance Program Regulations as published in Title 44 of the Code of Federal Regulations.

Sec. 05-02. ADMINISTRATION

A. Establishment of a Development Permit.

A development permit shall be obtained before construction or development begins, including the placement of manufactured homes, within any special flood hazard area or supplemental protection area established in Section 05-01.F. No person, firm, or corporation or unit of government shall initiate any development or substantial improvement or cause the same to be done without first obtaining separate permits for each development as defined in Article 10 of this UDC. Application for a development permit shall be made on forms furnished by the Director of Public Services (the Director) and may include, but not be limited to; plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

1. Elevation in relation to mean sea level, of the lower floor (including basement) of all structures;

2. Elevation in relation to mean sea level to which any non-residential structure is to be floodproofed;

3. Certification from a registered professional engineer or architect that the non-residential floodproofed structure will meet the floodproofing criteria in Section 05-03.C.; and

4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

B. Designation of the Local Administrator.

The Director or his designee is hereby appointed to administer and implement the provisions of this Article, by granting or denying development permit applications in accordance with its provisions.

C. Duties and Responsibilities of the Director.

Duties of the Director shall include, but not be limited to:

1. Review all development permits to assure that sites are reasonably safe from flooding and that the permit requirements of this Article have been satisfied;

2. Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State

or local governmental agencies from which prior approval is required by Federal, State, or local law;

3. When base flood elevation data has not been provided in accordance with Section 05-01.F., then the Director shall obtain, review and reasonably utilize any base flood elevation or floodway data available from a Federal, State or other source, in order to administer the provisions of this Article.

4. Verify, record and maintain record of the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures.

5. Verify, record and maintain record of the actual elevation (in relation to mean sea level) to which the new or substantially improved non-residential structures have been floodproofed.

6. When floodproofing is utilized for a particular non-residential structure, the Director shall obtain certification from a registered professional engineer or architect.

7. Notify adjacent communities and the Missouri State Emergency Management Agency (MO SEMA) prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

8. Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

9. Where interpretation is needed as to the exact location of the boundaries of the special flood hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), the Director shall make the necessary interpretations. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this Section.

10. Serve notices of violation, issue stop work orders, revoke permits, and take corrective actions necessary to achieve compliance with Section 05-03.

D. Variance Procedures.

1. The Board of Adjustment as established by the City of Chesterfield shall hear and decide appeals and requests for variances from the requirements of this chapter.

2. The Board of Adjustment shall hear and decide appeals when it is alleged that there is an error in any requirement, decision or determination made by the Director of Public Services in the enforcement or administration of this chapter.

3. Any person aggrieved by the decision of the Board of Adjustment or any taxpayer may appeal such decision to the Circuit Court of St. Louis County as provided in RSMo ch. 89.

4. In passing upon such applications, the Board of Adjustment shall consider all technical evaluations, all relevant factors, standards specified in other Sections of this chapter, and:

   a.) The danger that materials may be swept onto other lands to the injury of others;

   b.) The danger to life and property due to flooding or erosion damage;

   c.) The susceptibility of proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

   d.) The importance of the services provided by the proposed facility to the community;

   e.) The necessity to the facility to a waterfront location, where applicable;

   f.) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

   g.) The compatibility of the proposed use with existing and anticipated development;

   h.) The relationship of the proposed use with existing and anticipated development;

   i.) The safety of access to the property in times of flood for ordinary and emergency vehicles;

   j.) The expected height, velocity, duration, rate of rise and sediment transport of the flow waters and the effects of wave action, if applicable, expected at the site; and

   k.) The costs of providing governmental services during and after flood conditions including maintenance and repair of

public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

E. Conditions for Variances.

1. Generally, variances may be issued for a new construction and substantial improvements to be erected on a lot of one-half (1/2) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing paragraphs 2 through 6 below, have been fully considered. As the lot size increases beyond the one-half (1/2) acre, the technical justification required for issuing the variance increases.

2. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historical Places or the State Inventory of Historical Places, without regard to the procedures set forth in the remainder of this Section.

3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

5. Variances shall only be issued upon:

   a.) A showing of good and sufficient cause;

   b.) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

   c.) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety or extraordinary public expense, or will not create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

6. Any Applicant to whom a variance is granted shall be given a written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

Sec. 05-03. PROVISION FOR FLOOD REDUCTION

A. General Standards.

1. In all special flood hazard areas (Zones A, AE, A1-30, AO, AH) the following provisions are required:

a.) All new construction, including manufactured homes and substantial improvements, shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

b.) All new construction and substantial improvements shall be constructed with materials resistant to flood damage.

c.) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damage.

d.) All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

e.) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

f.) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.

g.) Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

h.) The storage or processing of materials that are in time of flooding buoyant, flammable, explosive or could be injurious to human, animal or plant life is prohibited.

i.) Storage of other material or equipment may be allowed if not subject to major damage by floods and firmly

anchored to prevent flotation or if readily removable from the area within the time available after flood warning.

j.) That until a floodway has been designated, no development, including landfill, may be permitted within Zones A1-30 and AE on the City's FIRM unless the Applicant for the land use has demonstrated that the proposed use, when combined with all other existing and reasonably anticipated uses, will not increase the water surface elevation of the 100-year flood more than one (1) foot on the average cross section of the reach in which the development or landfill is located as shown on the flood insurance rate study incorporated by reference; Section 05-01.F. of this Article.

2. All new construction and substantial improvements located within the supplemental protection area, as defined in Article 10 of this UDC, shall comply with the requirements of Section 05-03.C. of this Article.

B. Standards for Subdivision Proposals.

All subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, shall be reviewed to determine whether such proposals will be reasonably safe from flooding. Any such subdivision proposal shall:

1. Minimize flood damage;

2. Include public utilities and facilities which are constructed so as to minimize flood damage;

3. Ensure adequate drainage is provided;

4. Include base flood elevations for any proposal which exceeds 50 lots or five acres.

C. Specific Standards.

In all supplemental protection areas and special flood hazard areas where base flood elevation data has been provided as set forth in Section 05-01.F. or Section 05-02.C.3., (Zones A1-30, AE and AH) the following provisions are required:

1. *Residential construction in special flood hazard areas outside the Chesterfield Valley.* New construction or substantial improvement of any residential structure shall have the lowest floor, including

basement, elevated to a minimum of two (2) feet above the base flood elevation.

2. *Residential construction in special flood hazard areas inside the Chesterfield Valley.* New construction or substantial improvement of any residential structure shall have the lowest floor elevated to a minimum of one (1) foot above both the base flood elevation and 100-year high water elevation in the Chesterfield Valley as indicated in Section 05-01.F.

3. *Non-residential construction in special flood hazard areas outside the Chesterfield Valley.* New construction or substantial improvement of any commercial, industrial or other non-residential structure shall either have the lowest floor, including basement, elevated to a minimum of two (2) feet above the level of the base flood elevation or, together with attendant utility and sanitary facilities, be floodproofed so that below such a level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Section 05-02.C.6.

4. *Non-residential construction in special flood hazard areas inside the Chesterfield Valley.* New construction or substantial improvement of any commercial, industrial or other non-residential structure shall either have the lowest floor elevated to a minimum of one (1) foot above both the level of the base flood elevation or 100-year high water elevation in the Chesterfield Valley as indicated in Section 05-01.F., or together with the attendant utility and sanitary facilities, be floodproofed so that below such a level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Section 05-02.C.6.

5. *Residential and non-residential construction in special flood hazard areas outside the Chesterfield Valley and within the supplemental protection area.* New construction of any residential or non-residential structure shall meet the following requirements:

Table 1 – Supplemental Protection Area Requirements (outside Chesterfield Valley)

Distance from the SFHA Boundary to Structure (Feet)	Minimum Residential Lowest Floor/Sill Elevation*	Minimum Non-residential Lowest Sill or Lowest Floor/Floodproofing Elevation*
0 – 49.99	lowest floor 2 feet above BFE**	lowest floor 2 feet above BFE
50 – 99.99	lowest sill 2 feet above BFE	lowest sill 2 feet above BFE
100 – 200	lowest sill 1 foot above BFE	lowest sill 1 foot above BFE

* Including basement

** Lowest floor of proposed structures in subdivisions for which improvements plans were approved after October 1, 2005 and before February 28, 2006 shall be at least one (1) foot above the BFE.

Structures which existed in the supplemental protection area, and were lawful prior to the passage of the above listed requirements, shall be allowed to remain insomuch as the structure remains unchanged. At such time that a non-conforming structure is razed or an addition added to the structure, the new construction or addition must meet the requirements of this Section.

6. *Residential and non-residential construction in areas inside the Chesterfield Valley and within the supplemental protection area.* New construction of any residential or non-residential structure shall meet the following requirements:

Table 2 – Supplemental Protection Area Requirements (inside Chesterfield Valley)

Distance from the SFHA Boundary or 100-Year High Water to Structure (Feet)	Minimum Residential Lowest Floor Elevation	Minimum Non-residential Lowest Floor or Floodproofing Elevation
0 - 200	1 foot above BFE or 100-Year High Water	1 foot above BFE or 100-Year High Water

7. *All new construction and substantial improvements in the special flood hazard area.* Fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of

enclosed area subject to flooding shall be provided. The bottom of all openings shall be higher than one (1) foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

8. *Manufactured homes.*

a.) All manufactured homes shall be anchored to resist flotation, collapse, or lateral movement. Manufactured homes must be anchored in accordance with State and local building codes and FEMA guidelines. In the event that over-the-top frame ties to ground anchors are used, the following specific requirements (or their equivalent) shall be met:

(1) Over-the-top ties be provided at each of the four (4) corners of the manufactured home, with two (2) additional ties per side at intermediate locations and manufactured homes less than 50 feet long requiring an additional tie per side;

(2) Frame ties be provided at each corner of the home with five (5) additional ties per side at intermediate points and manufactured homes less than 50 feet long requiring four (4) additional ties per side;

(3) All components of the anchoring system be capable of carrying a force of 4,800 pounds;

(4) Any additions to the manufactured home be similarly anchored.

b.) Require that all manufactured homes within Zones A1-30, AH and AE on the community's FIRM, be elevated on a permanent foundation such that the lowest floor of the manufactured home is a minimum of one (1) foot above the base flood elevations. The manufactured home chassis shall be supported by reinforcing piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and shall be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement, in accordance with the provisions of Section 05-02.C.

9. *Recreational vehicles.* Require that recreational vehicles placed on sites within the identified floodplain on the community's FIRM either:

   a.) Be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use,*

   OR

   b.) Meet the permit requirements and the elevation and anchoring requirements for manufactured homes of this Article.

   * A recreational vehicle is ready for highway use if it is on its wheels or jacking system is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

10. *Roadways.* All roadways within and adjacent to the special flood hazard areas shall be constructed at least one (1) foot above the base flood elevation or 100-year high water elevation in the Chesterfield Valley as indicated in Section 05-01.F. This requirement is only applicable to roadways constructed after the passage of these requirements. Repairs and improvements to roadways which were existing prior to passage of the above listed requirements shall not be required to adhere to the requirements of this Section.

D. Floodways.

Located within special flood hazard areas established in Section 05-01.F., are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall apply.

1. Prohibit encroachments, including fill, new construction, substantial improvements and other developments unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge.

2. If Section 05-03.D.1. is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 05-03.

3. In Zone A unnumbered, obtain, review and reasonably utilize any floodway data available through Federal, State and other sources in meeting the standards of this Article.

E. Areas of Shallow Flooding (AO and AH Zones).

Located within the special flood hazard areas established in Section 05-01.F., are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply:

1. Within AO Zones.

a.) All new construction and substantial improvements of residential structures shall have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as one (1) foot more than the depth number specified in feet on the community's FIRM (at least two (2) feet if no depth number is specified).

b.) All new construction and substantial improvements of non-residential structures shall:

(1) Have the lowest floor (including basement) elevated above the adjacent grade at least as high as one (1) foot above the depth number specified in feet on the community's FIRM (at least two (2) feet if no depth number is specified), or

(2) Together with attendant utility and sanitary facilities be completely floodproofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

c.) Adequate drainage paths around structures on slopes shall be required in order to guide floodwaters around and away from proposed structures.

d.) The anchoring requirements for manufactured homes as established in Section 05-03.C. shall be required.

2. Within AH Zone.

a.) The specific standards for all special flood hazard areas where base flood elevation data has been provided shall be required as set forth in Section 05-03.C.

b.) Adequate drainage paths around structures on slopes shall be required in order to guide floodwaters around and away from proposed structures.

F. Proof of Compliance.

1. Certification of compliance from the Director is required after completion of work related to a development permit. In no case shall any structure be inhabited or occupied for use prior to such time as an elevation certificate has been submitted to and approved by the Department.

2. Penalties for violation of this requirement are listed in Article 08 of this UDC.

Sec. 05-04. DEFINITIONS

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

100-year high water elevation in the Chesterfield Valley - Refers to the flood elevations throughout the Chesterfield Valley for a 100-year rainfall event as determined by the current version of the Chesterfield Valley Master Storm Water Plan Model.

Actuarial or risk premium rates - Those rates established by the Administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with Section 1307 of the Act and the accepted actuarial principles. "Risk premium rates" include provisions for operating costs and allowances.

Appeal - A request for a review of the Director of Public Services.

Area of shallow flooding - A designated AO or AH zone on a community's flood insurance rate map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one (1) to three (3) feet where a clearly defined channel is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Base flood - The flood having a one percent chance of being equaled or exceeded in any given year.

Base flood elevation (BFE) - The water surface elevation of the base flood in relation to a specified datum, usually the National Geodetic Vertical Datum of 1929 or the North American Vertical Datum of 1988, and usually expressed in feet above mean seal level (MSL). This elevation is used for regulatory purposes in this chapter.

Basement - Any area of the structure having its floor below ground level on all sides.

Chesterfield Valley - The area roughly bounded by the Missouri River on the north, Eatherton Road on the west, the Missouri Central Railroad on the south, and Bonhomme Creek on the East. Most of this area is encompassed by the Monarch-Chesterfield levee system.

Development - Any manmade change to improve or unimproved real estates including, but not limited to, building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operation.

Existing construction - (for the purposes of determining rates) structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRM's effective before that date. "Existing construction" may also be referred to as "existing structures."

Existing Manufactured Home Park or Subdivision - A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the City of Chesterfield.

Expansion to an Existing Manufactured Home Park or Subdivision - The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or flooding - A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters.

2. The unusual or rapid accumulation or runoff of surface waters from any source.

Flood insurance rate map (FIRM) - An official map of a community on which the flood insurance study has delineated the flood hazard boundaries and the zones establishing insurance rates applicable to the community.

Flood insurance study - The official report provided by the Federal Emergency Management Agency. The report contains flood profile as well as the flood boundary/floodway map and the water surface elevation of the base flood.

Floodway or regulatory floodway - The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Floodway fringe - That area of the floodplain, outside of the floodway, that on the average is likely to be flooded once ever one hundred (100) years (i.e., that has a one percent chance of flood occurrence in any one year).

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

Highest adjacent grade - The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure - Any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance or a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on State inventory of historic places in States with historic preservation programs which have been approved by the Secretary of the Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

    a.) By an approved State program as determined by the Secretary of the Interior; or

    b.) Directly by the Secretary of the Interior in States without approved programs.

Lowest floor - The lowest enclosed area (including basement) of a structure. This definition excludes an "enclosure below the lowest floor" which is an unfinished or flood resistant enclosure usable solely for parking of vehicles, building access or storage in an area other than a basement area, provided that such enclosure is built in accordance with the applicable design requirements specified in Section 14-33 for enclosures below the lowest floor.

Lowest sill - The member forming the lowest side of an opening by which surface water may enter a structure (e.g., window sill, door sill, etc.).

Manufactured home - A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty (180) consecutive days. For insurance purposes, the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.

Manufactured home park or subdivision - A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

Market value of a structure - The established value of the existing structure, as determined by the St. Louis County Department of Revenue for taxing purposes, prior to any improvements are made or prior to any flooding condition. The value of any land shall not be included in the value of the structure.

New construction - Structures for which the "start of construction" or substantial improvement is commenced on or after the effective date of the FIRM.

New Manufactured Home Park or Subdivision - A manufactured home park or subdivision for which the construction of facilities for serving the lot on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by the City of Chesterfield.

Recreational vehicle - A vehicle which is:

1. Built on a single chassis;
2. Four hundred (400) square feet or less when measured at the largest horizontal projections;
3. Designed to be self-propelled or permanently towable by a light duty truck;
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Roadway - Pavement designed and installed for the purpose of conveying vehicular traffic with the intent of providing access to legal land divisions. For the purpose of this chapter, the term roadway does not refer to private driveway and parking areas.

Special flood hazard area - The land in the floodplain subject to a one percent or greater chance of flooding in any given year.

Start of construction - (for other than new construction or substantial improvements under the Coastal Barrier Resources Act [Pub. L. 97-3481]), includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eight (180) days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

Structure - A walled and roofed building that is principally above ground, as well as a manufactured home, and a gas or liquid storage tank that is principally above ground.

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

Substantial improvement - Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either, 1) before the improvement or repair is started, or 2) if the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either, 1) any project for improvement of a structure to comply with existing State or local health, sanitary or safety code specifications, or 2) any alteration of a structure listed on the National Register of Historical Places or a State Inventory of Historical Places.

Supplemental protection area - Land located outside the special flood hazard area and within two hundred (200) feet of the special flood hazard area boundary or 100-year high water elevation in the Chesterfield Valley as indicated in Section 14-7.

Variance - A grant of relief to a person from the requirements of this chapter which permits construction in a manner otherwise prohibited by this chapter where specific enforcement would result in unnecessary hardship.

Violation - The failure of a structure or other development to be fully compliant with the City of Chesterfield's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required by this ordinance is presumed to be in violation until such time as that documentation is provided.

Attachment B

SEC. 02-05 FLOOD PLAIN "FP" OVERLAY DISTRICT USE AND DEVELOPMENT

A. Use and Development of Floodway.

All development or use of the floodway is prohibited involving any encroachment, including fill, new construction or material improvement of any existing structure unless certification by a registered professional engineer is provided to and approved by the Department that the development will not result in any increase in flood levels during occurrence of the base flood discharge. If and only if this subsection is complied with, use or development of the floodway may be carried out subject to the restrictions of the remainder of this Section.

B. Use and Development in the "FP" Overlay District.

No use or development in this district shall increase the flooding problems of other properties. Prior to any use or development of property pursuant to the permitted or conditional uses designated in this district, if such use or development involves manmade change to real property below the flood elevation, including construction or erection of any building or structure, or any filling, grading, paving, mining, dredging, excavation or drilling, the following procedure shall be complied with:

1. The property owner or user shall submit to the City of Chesterfield a development plan. The plan shall be approved if it demonstrates that its implementation will not increase the flooding problems of other properties. With respect to any stream for which a floodway has not been designated, the flooding problems of other properties will be deemed increased if implementation of the plan would decrease the water storage or conveyance capacity of the stream.

2. The plan shall include a report by a registered professional engineer of demonstrated competence in hydrology as to the adequacy of the proposed plan to avoid flooding problems of other properties and such other hydrologic problems as may result from the improvements. Where the plan only delineates the floodplain elevation on the ground and no change or construction is proposed involving land below the floodplain elevation, the plan may be submitted under the seal of a registered land surveyor.

3. The City of Chesterfield may require such additional data or engineering studies from the applicant as may be necessary to determine the adequacy of the proposed plan.

C. Use and Development under Underlying District Regulations.

Property in this district may be used and developed in accordance with the regulations of the underlying zoning upon compliance with Article 5 of this UDC and the following procedure:

1. The property is placed in such conditions as to effectively and without increasing the flooding problems of other properties, remove the property from flooding based on the flood elevation study approved by the United States Federal Emergency Management Agency (FEMA) and used as basic data for determining the boundaries of the Flood Hazard Boundary Map, being the "FP" Floodplain District as governed by this Section. Effective removal of the property from flooding requires provision of adequate freeboard as determined by the City of Chesterfield in light of the reasonably anticipated ultimate development of the watershed. If the standards required by this subsection are satisfactorily met in respect to any lot or tract of land in the "FP" Floodplain District, the property may then be used for such uses and under such regulations as are contained in the district regulations of the district designated after the "FP" code designation as the underlying district for the particular property.

   a.) The property owner or user shall submit to the City of Chesterfield a plan for flood protection. The plan shall be approved if its implementation would adequately protect against the amount of water that would flow past the property in cubic feet per second during the base flood, as determined by the flood elevation study approved by FEMA and used as basic data for determining the boundaries of the Flood Insurance Rate Map and the Flood Hazard Boundary Map, and if the plan further demonstrates that its implementation will not increase the flooding problems of other properties. With respect to any stream for which a floodway has not been designated, the flooding problems of other properties will be deemed increased if implementation of the plan would decrease the water storage or conveyance capacity of the stream.

   b.) The plan must include a report by a registered professional engineer of demonstrated competence in hydrology as to the adequacy of the proposed plan for flood protection relative to the elevation of the floodplain and the flow as determined in the flood elevation study approved by FEMA, the effect of the proposed improvement on the flood problems of other properties, and such other hydrologic problems as may result from the improvements. Where the plan only delineates the floodplain elevation on the ground and no change or construction is proposed involving land below the floodplain elevation, the plan may be submitted under the seal of a registered land surveyor.

c.) The City of Chesterfield may require such additional data or engineering studies from the applicant as may be necessary to determine the adequacy of the proposed plan for flood protection.

D. Effect of Plan Approval.

1. The approval by the City of Chesterfield of such plans for flood protection does not constitute a representation, guarantee, or warranty of any kind by the City of Chesterfield or by any officer or employee of either as to the practicality or safety of any protective measure and shall create no liability upon or cause of action against such public body, officers, or employees for any damage that may result pursuant thereto.

2. Approval of the plan by the City of Chesterfield does not relieve an owner or user from fulfilling the requirements set forth in Article 5 of this UDC and any other City ordinance regarding construction or development within the floodplain.

E. Floodplain Boundary.

In order to establish a minimum lot area outside of the floodplain, an engineer's seal and signature verifying the location of the floodplain boundary must be submitted. for review and approval by the Department. The plat must be certified by a registered professional engineer, of demonstrated competence, licensed to practice in the State of Missouri.

SEC 10-12 FLOOD PLAIN DEVELOPMENT AND FLOOD PLAIN DAMAGE PREVENTION

All definitions pertaining to flood plain development and flood plain damage prevention are located in Article 5: Flood Damage Prevention of this Unified Development Code.

Attachment C

SEC. 03-02 ESTABLISHMENT OF DISTRICTS

A. Districts.

For the purposes of this UDC, all land in the City of Chesterfield is zoned into districts. Changes of zoning, Conditional Use Permits and special procedure applications not included in Section 03-02.E. of this Article, may only be filed for one of the following districts on Table A-1. For purposes of this UDC, text amendments to existing planned district ordinances are referred to and treated as a Special Procedure.

B. Overlay Districts and Special Procedures.

An Overlay District or Special Procedure is an additional zoning requirement that is placed on a geographic area but does not change the zoning of the site. These zoning tools may add additional restrictions or provide certain incentives in specific geographic areas or for land with specific physical features or characteristics. The purpose of using an overlay district or special procedure is to address certain community interests such as historic preservation or protection of environmentally sensitive areas. Requests for an Overlay District or Special Procedure may only be sought for land zoned to one of the districts listed in Table A-1 above. Overlay Districts and Special Procedures found in the City of Chesterfield are as listed in Table B-1 below:

TABLE B-1	
Museum and Arts Area	MAA
Residential Business Use Procedure	RBU
Wild Horse Sub Area Overlay	WH
Chesterfield Historic Register	H
Landmarks Preservation Area	LPA

C. District Boundaries.

The boundaries of these districts are hereby established as shown in the City of Chesterfield Zoning Map consisting of a series of maps at a scale of one (1) inch equals 200 feet, as adopted by Ordinance 624 (1991), together with all subsequent amendments thereto. All district classifications, however, need not appear on the zoning map at one time. Official copies of said map shall be maintained in the Department of Public Services (the Department) and shall be public records. All subsequent amendments to the zoning maps shall be designated on said official copies. The Planning Commission may, at its discretion, cause the City of Chesterfield Zoning Map and its official copies thereof to be photographed, microphotographed, photostated or reproduced on file, which maps when so reproduced shall be deemed to be an original record for all purposes.

D. Inactive Districts and Inactive Special Procedures List.

Table C-1 provides a list of zoning district categories and special procedures which are inactive. While parcels do exist within the City of Chesterfield which are zoned to these districts or which have one of these special procedures applied to it; any changes, modifications, or amendments to any of these districts or special procedures is prohibited, except as described in Section 03-02.A. of this Article. Any site specific ordinance establishing any of these districts or procedures on any given parcel, enacted prior to the passage date of this UDC is still valid. See City of Chesterfield Zoning Ordinance dated November 17, 1997 for specific information on any inactive district or procedure.

TABLE C-1	
R-1 Residence	R1
R-1A Residence	R1A
Estate Residential District (two acre)	E1
Estate Residential District (one acre)	E2
Estate Residential District (half acre)	E3
Non-Urban	NU
C2 Shopping	C2
C3 Shopping	C3
C4 Highway Service Commercial	C4
C6 Office and Research Service	C6
C7 General Extensive Commercial	C7
C8 Planned Commercial	C8
M1 Industrial	M1
M2 Industrial	M2
M3 Planned Industrial	M3
Commercial Service Procedure	CSP
Planned Environment Unit	PEU
Commercial Industrial Density Development	CIDD
Flood Plain Overlay District	FP

*The E1, E2, and E3 Estate Residential Districts are now inactive and have been replaced with the E-2AC, E-1AC, and E-1/2AC Districts. The inactive Estate Districts, along with the Special Procedure known as the Planned Environment Unit or "PEU" and the Flood Plain Overlay District or "FP" Overlay District, may be found in the City of Chesterfield Zoning Ordinance dated November 17, 1997.

SEC. 03-08 USE TABLE FOR OVERLAYS AND SPECIAL PROCEDURES

Use Table for Overlays and Special Procedures

Uses: P-Permitted C-Conditional

* means the use is allowed with conditions. See the district regulations for the underlying district in this Article for additional regulations

	Overlay District or Special Procedure			
	MAA	**PUD**	**RBU**	**WH**
Church and other places of worship				P
Community center				C
Library				C
Open air performance and educational facility	P*			
Parks				P
Public safety facility				P
Retreat center				C
Wildlife reservations and forests including conservation projects				P
Dwelling, single-family attached				P
Dwelling, single-family detached				P
Dormitories				C
Group residential facility				C
Art gallery	P			
Cemetery				C*
Club				C*
Mortuary				C
Museum	P			
Riding stable				C
Theatre	P			
Office-dental			P*	
Office-general	P		P	
Office-medical			P*	
Newspaper stand		P*		
Restaurant, sit-down		P*		

Retail sales establishment, neighborhood		P*	P*	
Commercial sales facility			P*	
[redacted]				
Barber or beauty shop		P*		
Day care center		P*		C
Drug store and pharmacy		P*		
Hospice				C
Hospital				C
Kennel, boarding				C
Kennel, private				C
Laundromat		P*		
Nursing home				C
[redacted]				
College/university				P
Educational facility	P			P
Kindergarten or nursery school				P
Specialized private school				C
[redacted]				
Public utility facilities				P
Public facilities over 60 ft. in height				C
Radio, television, and communication transmitting, receiving, or relay towers and facilities				C
Sewage treatment facilities, other than facilities permitted as an accessory use				C