



ADMINISTRATIVE PROCEDURES GUIDE

For Floodplain Management and Flood Hazard Reduction

*In accordance with Chapter 10 of the
Maryland Heights Municipal Code of
The City of Maryland Heights, Missouri*

The City of Maryland Heights, Missouri has established this guide to establish the procedures for compliance with the National Flood Insurance Program. All permits shall follow the policies and procedures set forth in this guide to ensure that all structures in Maryland Heights are reasonably safe from flooding. The actual floodplain management authority has been established through Ordinance 2014-3959, as adopted by the City of Maryland Heights on December 18, 2014, also found in Chapter 10, Article III in the City of Maryland Heights Municipal Code.

SECTION I

Establishment of Office and Duties of the Floodplain Administrator

Section 10-31 of the Maryland Heights Municipal Code establishes the position of Floodplain Administrator. The Building Commissioner is designated as the Floodplain Administrator and shall administer and implement the provisions of Chapter 10, Article III of the Maryland Heights Municipal Code. According to Section 10-32 of the Maryland Heights Municipal Code, the duties of the Floodplain Administrator shall include, but not be limited to, the following:

1. Review of all applications for floodplain development permits to assure that sites are reasonably safe from flooding and that the floodplain development permit requirements of this article have been satisfied;
2. Review of all applications for floodplain development permits for proposed development to assure that all necessary permits have been obtained from federal, state, or local governmental agencies from which prior approval is required by federal, state, or local law;
3. Review all subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding;
4. Issue floodplain development permits for all approved applications;
5. 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 (FEMA);
6. Assure that the flood carrying capacity is not diminished and shall be maintained within the altered or relocated portion of any watercourse;
7. Verify and maintain a record of the actual elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures;
8. Verify and maintain a record of the actual elevation (in relation to mean sea level) that the new or substantially improved non-residential structures have been floodproofed;
9. When floodproofing techniques are utilized for a particular non-residential structure, the building commissioner shall require certification from a registered professional engineer or architect.

As the agent for implementing the Floodplain Ordinance, the Floodplain Administrator has the practical responsibilities as follows:

1. Understands the regulations governing the floodplain.

2. Reviews and evaluates Floodplain Development Permit Applications; determines whether or not the development will take place in the Special Flood Hazard Area.
3. Interprets floodplain boundaries and provide base flood elevation (BFE) data when available.
4. Reviews plans and specifications for compliance with NFIP floodplain management criteria.
5. Advises applicant of other state, federal, or local permits or approvals that may be necessary.
6. Provides required notifications of changes in existing watercourses to FEMA.
7. Issues or denies Floodplain Development Permits.
8. Inspects development in progress to field check development location and to verify that construction proceeds in conformance with approved plans.
9. Maintains records of floodplain development, including number of Floodplain Development Permits granted, documentation of any variance actions, and copies of Elevation Certificates and Floodproofing Certificates.
10. Investigates violations of floodplain management ordinance requirements and takes corrective action.
11. Advises both community officials and the public on matters involving floodplain management regulation.
12. Counsels permit applicants and local officials on variance criteria.
13. Coordinates map appeals and revisions.
14. Maintains floodplain maps, flood data, and keeps updated administrative forms.
15. Disseminates floodplain management information.

SECTION II

Establishment and Maintenance of a Floodplain Development Permitting System

Section 10-30 of the Maryland Heights Municipal Code establishes that permits are required for development within the floodplain. In establishing and maintaining a Floodplain Development Permitting system, all floodplain development in the special flood hazard areas must be included.

Section 10-33 lists the requirements to obtain a permit. To obtain a Floodplain Development Permit, the applicant shall first file a Floodplain Development Application. Every such application shall:

1. Describe the land on which the proposed work is to be done by lot, block and tract, house and street address, or similar description that will readily identify and specifically locate the proposed structure or work;
2. Identify and describe the work to be covered by the floodplain development permit;
3. Indicate the use or occupancy for which the proposed work is intended;
4. Indicate the assessed value of the structure and the fair market value of the improvement;
5. Specify whether development is located in designated flood fringe or floodway;
6. Identify the existing base flood elevation and the elevation of the proposed development;
7. Give such other information as reasonably may be required by the building commissioner;
8. Be accompanied by plans and specifications for proposed construction; and
9. Be signed by the permittee or his authorized agent who may be required to submit evidence to indicate such authority.

Application for a development permit shall be made to the Floodplain Administrator on the appropriate forms and may include, but not be limited to, the following: 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 lowest floor; including basement, of all structures.
2. Elevation in relation to mean sea level to which any nonresidential structure has been floodproofed.

3. A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure meets the floodproofing criteria or evidence that the residential structure will be constructed outside the floodplain and/or the basement floor elevation is above base flood elevation (BFE).

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

5. All necessary permit applications must accompany submittal of construction documents and flood relative information. All permits are available upon request from the City of Maryland Heights, 11911 Dorsett Road, Maryland Heights, Missouri or from the City website at: www.marylandheights.com. All administrative forms must be completed and signed. The specifics of the property and the proposed development must be included and contain such information as the existing and proposed topography, including spot elevations, boundaries of the flood way and the floodplain, building elevations for all structures showing the level of the base flood elevation (BFE), proposed obstructions in the floodway, illustration of all proposed development, anchoring requirements, construction materials and methods, utilities, subdivisions encroachments, elevation of the lowest floor and floodways. This information should bear a professional registered architect, engineer or land surveyor seal, as appropriate.

6. Building plans should include the type of structure and proposed use, the placement and elevation of the lowest floor, the type of foundation system, the existence of an enclosure below the lowest floor (if any), the elevation of the lowest floor in relation to the base flood elevation (BFE), the kind of potential use of the structure, the height to which a nonresidential structure is to be floodproofed and anchoring systems to stabilize the structure during flooding.

7. Subdivision Applications

a. All subdivision proposals and other proposed new developments, including manufactured home parks or subdivisions shall be consistent with the need to minimize flood damage.

b. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.

d. Base flood elevation (BFE) data shall be provided for subdivision proposals and any other proposed development (including proposals for manufactured home parks and subdivisions), which is greater than the lesser of 50 lots or five acres.

8. Engineering documents are reviewed by the Floodplain Administrator relative to hydrologic and hydraulic calculations concerning proposed floodway encroachments,

loading calculations and methods of construction relative to floodproofing and alternative designs for meeting the minimum opening requirements for enclosures below the lowest floor.

9. When someone applies for a Floodplain Development Permit, it must be on a Floodplain Development Permit Application provided by the Department of Community Development. All entities, whether private, corporate or governmental, shall be required by law to obtain a Floodplain Development Permit.

10. It is customary for site plans and construction documents to be submitted prior to or accompanying a Floodplain Development Permit Application. Please check the building permit application to determine if the applicant has stated that the property is in or out of the flood plain.

11. Zoning personnel should check any subdivision plat involved for flood information. The plan reviewer shall check the flood maps for verification of parcel floodplain status. An elevation certificate or floodproofing certificate and a site survey is submitted and a floodplain development permit is issued.

12. The elevation certificate must state the base flood elevation (BFE) for that parcel and the flood plain boundaries shall be clearly indicated and show path of travel and relationship to any structure on the parcel. The survey must stipulate what the base flood elevation (BFE) is and the lowest (including basement and cellars) structure floor elevation.

13. Substantial renovation or remodeling of an existing structure within a known flood plain boundary shall not be permissible unless some engineered method of making the existing portions comply with current regulations.

14. Using the flood boundary and floodway map, locate the property, cross section and street intersections. The plat maps can be utilized to verify or cross check actual locations. If an actual location is difficult to verify, a professional engineer or professional land surveyor must submit location data with the required documentation.

15. An engineer or a land surveyor must address any inquiry regarding actual elevation of a parcel. Estimated elevations can be determined by reviewing the flood maps or the subdivision plat.

16. Upon finding an area to be in the floodway (the crosshatched area on the flood map), all procedures listed are applicable.

17. In order to make any change to a floodway, a State of Missouri professional engineer must perform a hydrological study. The study must be formulated indicating no change of elevation or direction of flow of water will occur at, below or above the improvement due to the improvement. The Board of Adjustment must approve any such change to the floodway.

18. Should the applicant propose to fill the flood plain (not floodway) in order to locate a proposed structure or usable greenspace higher than the base flood elevation (BFE) this action could be permitted, provided the appropriate surveying is performed, an elevation certificate is submitted reviewed and approved. Failure to properly submit documents or meet the necessary criteria will result in the denial of the Floodplain Development Permit.

19. In the event the surveyor discovers an error in the flood hazard boundary map, the certified surveys may be submitted to the FEMA (Federal Emergency Management Agency) office for consideration of a map amendment. When technical questions are not addressed by information in the flood information file cabinet, call the region VII FEMA office in Kansas City.

20. The Floodplain Administrator maintains the permit file and an annual report is composed reflecting all permits issued and Board of Adjustment variances granted. A copy of this report is on file and is available for public viewing at reasonable times.

General Standards

- (a) No permit for floodplain development shall be granted for new construction, substantial improvements, and other improvements, including the placement of manufactured homes, within any numbered or unnumbered A zones, AE, AO, and AH zones, unless the conditions of this section are satisfied.
- (b) All areas identified as unnumbered A zones on the FIRM are subject to inundation of the 100-year flood; however, the base flood elevation is not provided. Development within unnumbered A zones is subject to all provisions of this article. If a flood insurance study data is not available, the community shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from federal, state, or other sources.
- (c) Until a floodway is designated, no new construction, substantial improvements, or other development, including fill, shall be permitted within any numbered A zone or AE zone on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community.
- (d) All new construction, subdivision proposals, substantial improvements, prefabricated structures, placement of manufactured homes, and other developments shall require:
 - (1) Design or adequate anchorage to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 - (2) Construction with materials resistant to flood damage;
 - (3) Utilization of methods and practices that minimize flood damages;

- (4) All electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (5) New or replacement water supply systems and/or sanitary sewage systems be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems be located so as to avoid impairment or contamination; and
- (6) Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, located within special flood hazard areas are required to assure that:
 - a. All such proposals are consistent with the need to minimize flood damage;
 - b. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage;
 - c. Adequate drainage is provided so as to reduce exposure to flood hazards; and
 - d. All proposals for development, including proposals for manufactured home parks and subdivisions, of five (5) acres or fifty (50) lots, whichever is lesser, include within such proposals base flood elevation data.
- (e) Storage, material, and equipment.
 - (1) The storage or processing of materials within the special flood hazard area that are in time of flooding: buoyant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited.
 - (2) Storage of other material or equipment may be allowed if not subject to major damage by floods, if firmly anchored to prevent flotation, or if readily removable from the area within the time available after a flood warning.

Approval or Denial of Floodplain Development Permit Application

Approval If all documentation satisfies the plan review requirements, the applicant will be notified that the plans are approved and construction may commence. The Floodplain Development Permit becomes the official authorization from the City allowing the applicant to proceed based upon the information submitted in the application package. An approved set of drawings will be stamped and returned to the applicant, and one set shall remain on file with the Floodplain Administrator.

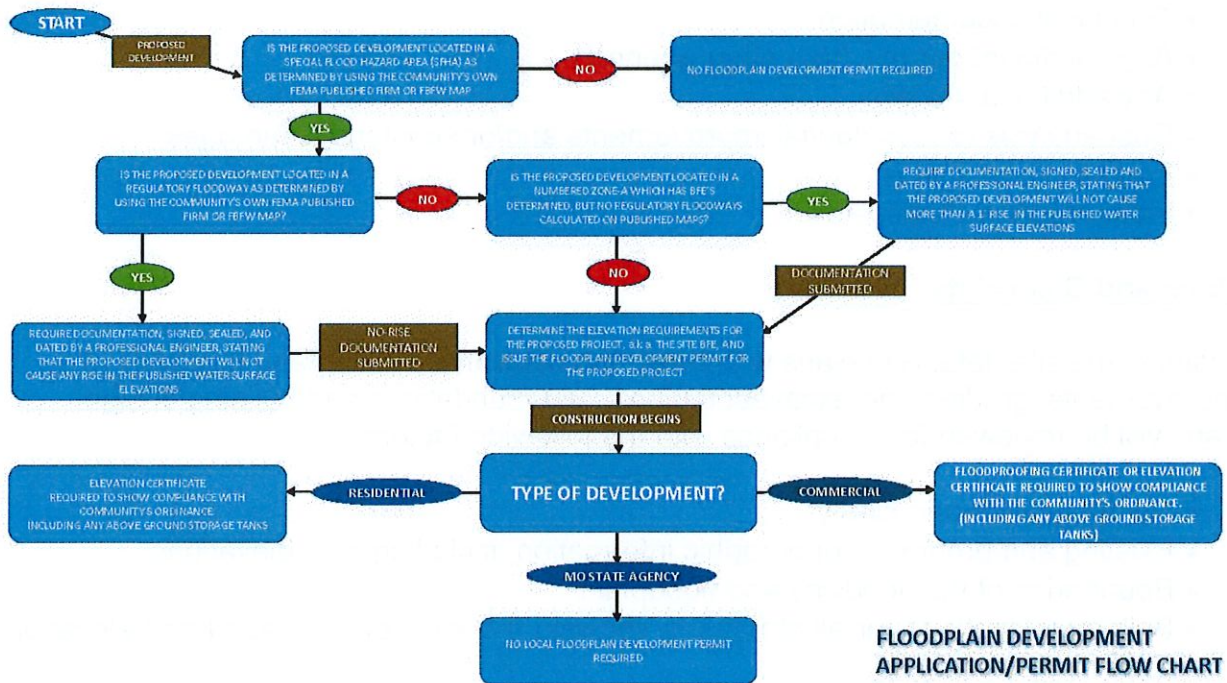
Conditional Approval Conditional Approval would be granted when one portion or phase of a project does not completely comply with all the necessary requirements and would not be affected by another portion or phase, such as approval of a footing and foundation plan. These conditions are to be

clearly indicated on all records of the Floodplain Development Permit approval. All conditions or revisions must be responded to within a given period or any permit issued would be invalid. Any work performed under a conditionally approved permit would be performed at the risk of the applicant. The City of Maryland Heights will not be responsible for failure to satisfy the requirements set forth, nor will the City take responsibility for failure to submit required documentation.

Denial Denial of a Floodplain Development Permit Application will occur if the construction documents fail to comply with applicable regulations. Written notification will be sent to the applicant specifying the reasons supporting the denial.

Floodplain Development Permit Process

STEP 1. Review the Floodplain Development Permit Application Package for Completeness.



The Floodplain Administrator will conduct the review and must be able to assess the accuracy and completeness of the Floodplain Development Permit application package and evaluate site plans, topographic data and building design plans. Special flood-related considerations during permit review are:

- Maintenance of unobstructed floodways
- Allowable floodway uses
- Watercourse alterations
- Nonresidential structures
- Residential structures
- Subdivisions
- Manufactured homes
- AO Zones (Shallow floodplain)
- Substantial Damage
- “No-Rise” requirements
- Substantial improvements

The documents required to obtain a permit are the following, specific list of information to comply with the requirements of Section 10-33 of the Maryland Heights Municipal Code and the aforementioned considerations:

- Floodplain Development Permit Application
- Plans and blueprints (Signed and sealed)
- Technical documentation
- Any additional permits from other agencies
- Any additional reviews
- Cost analysis for substantial improvements and/or substantial damages
- Elevation certificates
- Floodproofing Certificates

Plans and Blueprints:

Examine the site data: Site plans with base flood elevations (BFE) and locations of improvements, grading and excavation plans, and foundations and building design plans will be reviewed for compliance with the following factors:

- Completeness and clarity
- Existing and proposed topographic information, including spot elevations
- Boundaries of the floodway and floodplain
- Building elevations for all structures showing the level of the base flood elevation (BFE)
- Proposed obstructions in the floodway
- Professional registered architect, engineer or land surveyor seal, if prepared by same
- Illustration of all proposed development
- Other considerations:
 - Anchoring requirements
 - Construction materials and methods
 - Utilities

- Subdivisions
- Encroachments
- Elevation of the lowest floor
- Floodways

Technical Documentation:

- Elevation / Floodproofing Certificates as detailed follows:
 - **NFIP Floodproofing Certificate:** Provides a record of the height of floodproofing.
 - Ensure all necessary technical documents are included and properly certified.
- Four (4) conditions that necessitate the filing of certified documentation:
 1. **Floodway Encroachment / “No-Rise” Certificate.** If any part of the proposed project is to be located in a designated floodway, the applicant must submit engineering documentation demonstrating that the proposed encroachment would not result in any increase in base flood heights. The “No-Rise” form should be submitted on a State of Missouri Emergency Management Agency Engineering No-Rise Certificate. It may also be a written statement, supported by hydraulic computations, signed and sealed by a registered professional engineer, who certifies that the development will result in no increase in flood heights.
 2. **Watertight Floodproofing.** In the event a nonresidential structure is to be floodproofed according to the NFIP standards, the applicant must submit a statement or floodproofing certificate from a registered professional engineer or architect certifying that the design and methods of construction meet these standards. Note: To receive a flood insurance rate based on 100-year flood protection, the nonresidential structure must be dry floodproofed to an elevation at least one (1) foot above the base flood elevation (BFE) to be rated at the base flood elevation (BFE) rate (i.e. one foot of freeboard).
 3. **Enclosures Below the Lowest Floor.** When an applicant designs an enclosure below the lowest floor using an alternative to the minimum standard for openings prescribed in the NFIP requirements, a registered professional architect or engineer must certify the design accounts for the effects of hydrodynamic loads and buoyancy.
 4. **Wet Floodproofing.** Wet floodproofing without a variance is limited to enclosed areas that are solely for parking, building access, or limited storage. These areas must:

- be used for parking, building access or limited storage,
- be designed to allow for the automatic entry and exit of flood waters through the use of openings, and
- be constructed of flood resistant materials.

Additional Review:

If the project involves an alteration or relocation of a watercourse, the Floodplain Administrator must notify adjacent communities and the State NFIP coordinating agency and the FEMA Regional Office.

A proposal to change a floodway delineation or a floodplain boundary must be reviewed and approved by FEMA as well as by the community.

STEP 2. Review the Floodplain Development Permit Application Package for Compliance with the Technical Requirements of the Ordinance

Examine **SITE INFORMATION** in detail. A licensed surveyor or professional engineer should prepare the site plan, and it should convey:

- Location of property lines and proposed development
- Streets
- Watercourses
- Existing and proposed structures
- Topographic information
- Floodway and floodplain boundaries
- References to any special regulations due to location of property.

Assess the **ELEVATION DATA** provided in the application by a licensed surveyor.

- Scrutinize the elevations using the elevation data contained in the Flood Insurance Study (FIS and other available local data).
- The flood-related delineations must be consistent with the FIS data.
- No elevation data provided in unnumbered A zones: The developer, as a cost of doing business must provide elevations for development in unnumbered A zones.
- All elevation information should be accurate as the application package will serve as the record substantiating the issuance of the permit.
- NFIP requirements also stipulate that the lowest flood elevations be recorded.
- Utilize the following Elevation Certificate checklist as a guide to verify accurate and complete information is present on the document. **There are to be no blank spaces on the elevation certificate.**

CRS EC Checklist

OMB No. 1660-0008
 Expiration Date: November 30, 2022

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION		FOR INSURANCE COMPANY USE
A1. Building Owner's Name		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Either A2 or A3 must be completed, with City, State and Zip		Company NAIC Number:
City	State	ZIP Code
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Either A2 or A3 must be completed, with City, State and Zip		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Mandatory field on forms signed 2-21-2020 and after		
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983		
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number Must be: 1A, 1B, 2A, 2B, 3, 4, 5, 6, 7, 8, 9		
A8. For a building with a crawlspace or enclosure(s): Enter "N/A" in fields that are not applicable. Blank fields are assumed to be "N/A".		
a) Square footage of crawlspace or enclosure(s) _____ sq ft		
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____		
c) Total net area of flood openings in A8.b _____ sq in actual opening size here, engineered size in D. Comments		
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No If marked "Yes", must attach certification from engineer or ICC-ES		
A9. For a building with an attached garage: Enter "N/A" in fields that are not applicable. Blank fields are assumed to be "N/A".		
a) Square footage of attached garage _____ sq ft		
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____		
c) Total net area of flood openings in A9.b _____ sq in actual opening size here, engineered size in D. Comments		
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No If marked "Yes", must attach certification from engineer or ICC-ES		
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION		
B1. NFIP Community Name & Community Number Correct # or Correct Name & Correct #		B2. County Name
B3. State		
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date
B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____		
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____		
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA		

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
City	Must match page 1 and all other pages	State	ZIP Code
			Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete. **Only submit Fin. Const. ECs**

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO.
 Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.
 Benchmark Utilized: _____ Vertical Datum: _____

Indicate elevation datum used for the elevations in items a) through h) below.
 NGVD 1929 NAVD 1988 Other/Source: _____

Datum used for building elevations must be the same as that used for the BFE.

Items a), f) and g) must always have a value. If items b) – e) are not applicable, enter "N/A" Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only) May be filled out for other zones	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments.

Certifier's Name	License Number	Place Seal Here
Title		
Company Name	All 4 highlighted items must be in this Section	
Address		
City	State ZIP Code	

Signature	Date	Telephone	Ext.
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Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

Use this space to describe type of equipment in C2e and location, engineered flood openings if present, datum conversions if needed and other relevant information not specified elsewhere on the certificate.

ELEVATION CERTIFICATE

OMB No. 1660-0008
 Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.		FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.		Policy Number:	
City	Must match page 1 and all other pages	State	ZIP Code
		Company NAIC Number	

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED)
 FOR ZONE AO AND ZONE A (WITHOUT BFE)**

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1.** Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ feet meters above or below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ feet meters above or below the LAG.
- E2.** For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ feet meters above or below the HAG.
- E3.** Attached garage (top of slab) is _____ feet meters above or below the HAG.
- E4.** Top of platform of machinery and/or equipment servicing the building is _____ feet meters above or below the HAG.
- E5.** Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? Yes No Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name Complete Section F if there is no BFE and Section E is used

Address City State ZIP Code

Signature Date Telephone

Comments

Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
City	Must match page 1 and all other pages	State	ZIP Code
			Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
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G7. This permit has been issued for: New Construction Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ feet meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ feet meters Datum _____

G10. Community's design flood elevation: _____ feet meters Datum _____

Local Official's Name	Title
Complete and sign if G1, G2, G8 or G9 are checked	
Community Name	Telephone
Signature	Date

Comments (including type of equipment and location, per C2(e), if applicable)

The local floodplain manager can use this section to add any additional notes or to make corrections to the form.

Check here if attachments.

Review **BUILDING DESIGN PLANS**. Building plans are required and provide the basis for determining which regulations apply to the placement and construction of the proposed building. Building plans should be prepared by an Architect or Engineer registered in the State of Missouri and contain the following:

- Type of structure and proposed use
- The placement and elevation of the lowest floor
- The type of foundation system
- The existence of an enclosure below the lowest floor, if any
- The elevation of the lowest floor in relation to the base flood elevation (BFE)
- The kind and potential use of the structure
- The height to which a nonresidential structure is to be floodproofed
- Anchoring systems to stabilize the structure during flooding.

Have **ENGINEERING DOCUMENTS** reviewed by the Floodplain Administrator. Four separate engineering documents linked to the applicable NFIP requirements are required:

- Hydrologic and hydraulic calculations concerning proposed floodway encroachments
- Loading calculations and methods of constructions relative to floodproofing
- Alternative designs for meeting the minimum opening requirements for enclosures below the lowest floor
- Design and methods of construction for breakaway walls that exceed SOP loading resistance of twenty pounds per square foot.

STEP 3. Coordinate Floodplain Development Permit Reviews with Other Community Officials

The Floodplain Administrator shall work with any other City of Maryland Heights departments as necessary in order to provide timely and accurate review data. This will include the City Engineer or his designee for review of any sanitary sewer facilities proposed and for the application of the City's storm water detention regulations.

STEP 4. Determine Compliance / Noncompliance Acting on the Floodplain Development Permit Application: Approve / Deny the Application

When review of a Floodplain Development Permit Application is complete, there are three options for action:

- Approve the permit application.
- Conditionally approve the permit application, or
- Deny the permit.

The Floodplain Development Permit Application will be marked as to the outcome, provide a copy to the owner, and then filed in the designated file for floodplain activity.

Approve the permit

- If the proposal is found to be compliant, then the Floodplain Administrator must issue the permit.

The Floodplain Development Permit becomes the official authorization from the community allowing the applicant to proceed based on the information submitted in the application package.

Conditionally approve the permit

- The Floodplain Administrator may elect to approve a Floodplain Development Permit application only when certain development conditions are met. These conditions should be clearly indicated on all records of the Floodplain Development Permit approval.

Denial of the permit

- If the proposal fails to comply with the regulations, then a Floodplain Development Permit application must be denied. It is helpful to the applicant to have the major area(s) of noncompliance pointed out so the appropriate correction(s) can be made.
- Clarification of deficiencies can help reduce the number of unnecessary appeals to administrative and regulatory decisions.
- As stated in the previous section, the decision must be sent to the applicant in writing.

SECTION III

Establishment of an On-Site Inspection Process

Upon issuance of the Floodplain Development Permit, inspections of the site and construction work are performed on a periodic basis as work progresses. Inspectors are aware of the floodplain development requirements and have been directed to report any suspicious activity in the floodplain to the Floodplain Administrator. The site shall be inspected prior to issuance of any permit. No inspection shall take place more than 180 days from the last inspection.

- All inspections performed are recorded by the Inspector performing the inspection and computerized records are kept within the Department of Community Development. The Inspector will relate any deficiencies to the applicant by issuing a Field Correction Notice at the jobsite. A duplicate will be attached to the inspection record and shall be maintained within the Department of Community Development.
- Construction documents will be routinely reviewed prior to inspections to verify lowest floor elevation. A registered land surveyor or engineer must submit sealed documents verifying elevations and actual location of floodplain boundaries as prescribed in the approved set of drawings. Elevations must be verified prior to placement of the lowest floor of the structure.
- At or near the final inspection, several areas of flood development will be reviewed. These areas would include landscaping, berms, retention areas, storm water management, floodway encroachments, etc.

The Floodplain Administrator or his designee shall perform periodic and timely on-site inspections to confirm that the actual construction/development is proceeding in compliance with the approved plans. Site inspections will be performed to minimize and prevent violations.

Inspection of the Site Work

Inspection One:

1. With plans in hand, determine that the site identified on the proposed plans is consistent with actual ground conditions
2. Verify the location of floodplain and floodway boundaries, if applicable.

This inspection will be performed immediately after completion of surveyor's location of base flood elevation (BFE) and precise construction location in the field. The inspection results will be entered on the Floodplain Development Inspection Form. The permit holder will be provided with the Inspection results

and a copy of the inspection form at the time of inspection or at a subsequent meeting in person.

Inspection Two:

Where an elevated floodproofed structure is involved, this inspection should be scheduled just prior to the placement of the lowest floor of the building to:

1. Determine whether the lowest floor will be situated to the height stipulated in the permit application.
2. Ensure that the type of foundation used is the type specified in the plans.
3. Check floodway encroachments, if applicable.

This inspection will be performed immediately after foundation is formed and prior to placement of concrete.

Inspection Three:

At or near the completion of the development, inspect to:

1. Determine whether the placement of fill, if used, meets the necessary slope and protection standards contained in local regulations.
2. Inspect enclosures below the lowest floors to ensure adequately sized openings exist.
3. Check breakaway walls.
4. Check for floodway encroachments, if applicable.
5. Check anchoring system used in securing manufactured homes.

This inspection will be performed after the improvements are fully completed.

Future / Additional Inspections:

The property must remain in compliance with floodplain management regulations and the Floodplain Administrator should periodically check to ensure that the property remains so. Subsequent inspections are particularly important when a structure contains enclosures below the lowest floor as these areas can be easily modified and made into habitable spaces in violation of regulations. Inspecting new construction serves to field verify "as-built" conditions. Routine inspections of special flood hazard areas can serve to check for unpermitted development. Inspections are useful in identifying unpermitted substantial improvements.

SECTION IV

Establishment of Enforcement Actions and Penalties

If an infraction is found during an inspection of ongoing construction, the Floodplain Administrator will notify the violator in writing to correct the problem by stating any deficiencies and a method of correction to comply with applicable regulations. If the violation is of a serious nature or continues after the follow-up inspection, the City of Maryland Heights will issue a Stop Work Order and begin procedures to revoke the permit. Should the violation persist, formal legal action is pursued.

According to Section 10-60, any violation of the provisions of this article or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variances or special exceptions) shall constitute a misdemeanor. Any person who violates this article or fails to comply with any of its requirements shall upon conviction thereof be fined in accordance with Section 10-60 of the Maryland Heights Municipal Code, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense.

Nothing herein contained shall prevent the city or other appropriate authority from taking such other lawful action as is necessary to prevent or remedy any violation.

Administrative Methods

If the infraction is found during an inspection of ongoing construction, the Floodplain Administrator can take initial steps to correct the problem by pointing out any deficiencies to the developer and following up with another timely visit to ensure compliance.

If the violation is serious or if the problem continues after follow-up inspection, the city will issue a stop work order. The stop work order will be hand delivered in the field and followed with a letter via certified mail. The letter will state the violation, reference the ordinance and allow 30 days to initiate corrective actions.

Failure to initiate corrective actions or continuously pursue such actions will result in matters being referred to legal counsel for formal legal action. Such actions may be:

1. **Injunction.** Most often in the form of a temporary restraining order, injunctive relief is the court directed order to the defendant to cease any further noncompliant conduct. The activity is usually shown to be of danger to the public and that immediate irreparable harm can occur. Once the illegal activity is stopped, the community can proceed to request a mandatory injunction to abate the violations as a public nuisance.

2. **Fines.** Fines are penalties established through Section 1-13 of the Maryland Heights Municipal Code. A maximum fine of One thousand dollars (\$1000) is established per offense and each day a violation is a separate offense. See Section 1-13 of the Maryland Heights Municipal Code for specific information.
3. **Imprisonment.** The court may invoke imprisonment as a result of the applicant's failure to pay the required fines or in addition thereto for not more than 90 days. See Section 1-13 of the Maryland Heights Municipal Code for specific information.

SECTION V

Establishment of Variance and Appeals Processes

General Information

1. A variance is a waiver of one or more of the specified standards required in ordinances. It represents a community's approval to set aside floodplain regulations that were adopted to reduce loss of life and property damages due to flood. While the impact of a single variance on a flood hazard may not be significant, the cumulative impact of several variances may be severe. Therefore, variances should be discouraged when possible. Variance applications are heard in front of the Board of Adjustment.
2. The applicant must submit a completed Application for Board of Adjustment Review. Variance request fees are three hundred (\$300.00) dollars. The application, is available on the City of Maryland Heights website – www.marylandheights.com and should be submitted to the Director of Community Development.
3. When the community grants a variance, the Floodplain Administrator should properly document the justification for the variance, which will include detailed minutes of the meeting where specific justifications are delineated. This documentation is required by FEMA when the community is audited.
4. The primary criteria for granting a variance is predicated on the clear establishment of an unnecessary hardship created for the property owner. The following is a list of demonstrated unnecessary hardships:
 - Loss of all beneficial or productive use
 - Deprivation of reasonable return on property
 - Deprivation of all or any reasonable use
 - Rendering property valueless
 - Inability to develop property in compliance with the regulations
 - Reasonable use cannot be made consistent with regulations.

Following is a list of insufficient reasons:

- Less than a drastic depreciation of property
- Convenience of property owner
- Additional costs to build in conformance with codes
- Circumstances of owner not the land
- To obtain better financial return
- Property similar to others in neighborhood
- Hardship created by owner's own actions.

Variations and Appeals

All variations and appeals must be carried out in accordance with the rules and guidelines set forth in the Maryland Heights Municipal Code. Should a variance be approved, the City will send a letter to the applicant, in accordance with the Flood Hazards Ordinance, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. Should a variance be denied, the aggrieved party may appeal the decision to the Circuit Court of St. Louis County within 30 days of the decision.

1. Establishment of Appeal Board. The Board of Adjustment, as established by the City, shall hear and decide appeals and requests for variations from the floodplain management requirements of this chapter.
2. Responsibility of Board of Adjustment. According to Section 10-51, 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 Floodplain Administrator in the enforcement or administration of this article.
3. In passing upon such applications, the board of adjustment shall consider all technical evaluation, all relevant factors, standards specified in other sections of this article, and:
 - a. The danger that materials may be swept on to other lands to the injury of others.
 - b. The danger to life and property due to flooding or erosion damage.
 - c. The susceptibility of the 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 of 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 to the comprehensive plan and floodplain management program for that area.
 - h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area.
 - i. The expected heights, velocity, duration, rate of rise and sediment transport

of the flood waters and the effects of wave action, if applicable, expected at the site.

- j. The costs of providing governmental services during and after flood condition including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.
4. Further, Section 10-54 of the Maryland Heights Municipal Code establishes the following conditions that need to be satisfied by the Board of Adjustment:
- a. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (0.5) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing subsections (b) through (f) have been fully considered. As the lot size increases beyond the one-half (0.5) acre, the technical justification required for issuing the variance increases.
 - b. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places, the State Inventory of Historic Places, or local inventory of historic places upon determination provided the proposed activity will not preclude the structure's continued historic designation.
 - c. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
 - d. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - e. 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, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - f. A community shall notify the applicant in writing over the signature of a community official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars (\$25.00) for one hundred dollars (\$100.00) of insurance coverage, and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this article.
5. Further Appeals; 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.
6. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

7. The applicant must contact the Floodplain Administrator with their intent to seek any variance. The office of Community Development shall supply the application forms and collect the required fee. Any documentation supporting a request for a variance should be submitted with the application and written request.

SECTION VI

Establishment of a Record Keeping System for Floodplain Development Permits; Biennial Reports; Collection of Fees; Investigation of Complaints; Unnumbered A Zones

The Floodplain Administrator has established a standard numbered procedure for Floodplain Development Permits for filing, construction and other development located in the floodplain. The Floodplain Administrator maintains all records pertaining to any development in the floodplain. These records include Floodplain Development Permits and applications, floodproofing and elevation certificates, recorded 'as built' elevation, findings of fact relative to variances and appeals, NFIP biennial report forms, other NFIP correspondence, floodplain management data, "no rise" certifications in cases of floodway development and copies of "submit for rate" on all structures built below 100-year base flood elevation (BFE).

The type of flood-related information that should be retained includes:

- Floodplain Development Permits/Applications [Includes all elevations and floodproofing certificates] Recorded "As-built" elevations
- Findings of fact relative to variance and appeal
- NFIP Biennial Report forms
- Other NFIP correspondence
- Floodplain management data
- "No-Rise" Certifications in cases of floodway development
- Copies of "Submit for Rate" on all structures built below base flood elevation (BFE)

This information is kept in the Floodplain Administrator's Office at City Hall in a designated file cabinet. They are available to the public for review upon request. A copy of the Floodplain Map is posted in the Floodplain Administrator's Office for public review.

The Floodplain Administrator is responsible for making biennial reports to FEMA. The reports provide information regarding development pressure on the floodplain. Necessary information to be provided includes changes in corporate limits, man made physical changes which affect the characteristics of flooding, construction of dikes or drainage projects, the number of permits issued and variances granted since the previous report was made, estimated city population and an estimate of the City's population in the flood hazard areas.

- Every two years, FEMA sends a pre-printed form to the Floodplain Administrator that should be completed and returned within thirty days. It requests information concerning any changes to the community's flood hazard area, development activities that have taken place in the floodplain, and verification of the number of floodplain residents and structures.

- The report must be completed and signed by the Floodplain Administrator and returned to the FEMA at the address provided. A copy of the completed report will be retained in the community's files for future reference.
- The Biennial Report indicates to FEMA the degree of development pressure on the floodplain.
- Variances issued in the floodplain are of particular interest to FEMA.

Administrative forms such as Application for Floodplain Development Permits and variance requests are available from the Floodplain Administrator. Administrative forms are maintained and revised as necessary by the Floodplain Administrator.

Administrative forms should be periodically revised to reflect legislative changes within the community.

Form management should include these operations:

- Forms should include a listing of the application information outlined in the administrative provisions of the ordinance.
- Forms should reflect the technical provisions of the ordinance by requiring information relative to those provisions.
- The forms should be revised periodically to remain current with the changes in the floodplain management ordinance and to include pertinent informational needs.
- Floodplain Development Permit Applications, variance requests, and other administrative forms should be kept current and in sufficient supply.
- A good administrative form can serve as a checklist for identifying the other kinds of information that should accompany the application submission.
- Specific forms include: Floodplain Development Permit Application Form, Floodplain Development Permit Application/Review Checklist, Floodplain Development Inspection Form, Floodplain Management Variance Request Form, Elevation Certificate, No-Rise Certificate, and Floodproofing Certificate.

While the Federal Insurance Administration (FIA) is continually updating and revising the flood maps, the Floodplain Administrator is directly aware of development changes within the community. The Floodplain Administrator coordinates map appeals and revisions between the community and FEMA.

Any official revision of the flood maps accomplished through either a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR) will be appended to the official community floodplain map for permanent record. Maps are maintained in the Floodplain Administrator's office at City Hall.

- The Floodplain Administrator is the singular contact for the community to determine the extent of the floodplain. As such, the Floodplain Administrator will:
- Maintain an adequate supply of FEMA maps for administrative purposes
- Record all map corrections and notices of map revision and attached same to the official administrative map(s)
- Maintain other sources of known flood data for approximate floodplain areas in the Floodplain Administrator's Office.
- Ensure that accurate floodplain maps are displayed in the appropriate public place

The Floodplain Administrator ensures that any official revision of the flood maps accomplished through either a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR) is appended to the official City floodplain map for permanent record. The Floodplain Administrator also maintains an adequate supply of FEMA maps for administrative purposes, records all map corrections and notices of map revision and attaches same to the official administrative maps.

Collection of Fees

The Floodplain Administrator does not charge fees to provide the services in this guide, with the exception of applying for a variance. The variance fees are discussed in Section V.

Investigation of Complaints

The Floodplain Administrator will investigate any allegations relating to floodplain hazards ordinance violations. The Floodplain Administrator will monitor any encroachments that may have occurred in the floodway (including fill, construction, placement of mobile homes, etc.). Complaints may be filed to the Floodplain Administrator, who will investigate and take any appropriate action merited and make a written record thereof.

Unnumbered A Zones

Certain portions of the City of Maryland Heights lack sufficient base flood elevation

(BFE)s. The lack of elevations on the map does not remove the requirement for elevating a structure. The City of Maryland Heights requires that Zone A base flood elevation (BFE) be determined by a licensed surveyor or engineer.

NOTE:

All forms related to the floodplain development process are available on the City of Maryland Heights website. www.marylandheights.com

SECTION VII

Appendices

The following appendices shall be attachments to this document:

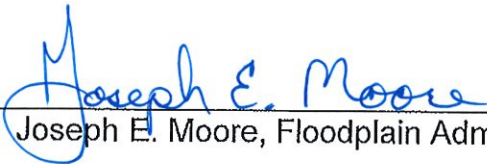
1. Floodplain Development Application / Permit Flow Chart
2. Floodplain Administrator's Review Checklist
3. Manufactured Housing Requirements
4. Recreational Vehicle Requirements

This Administrative Procedures Manual for Implementing Flood Damage Prevention Regulations for the City of Maryland Heights, Missouri, shall be in full force and effect from and after this 19th day of November, 2020.

CITY OF MARYLAND HEIGHTS, MISSOURI



Michael Moeller, Mayor



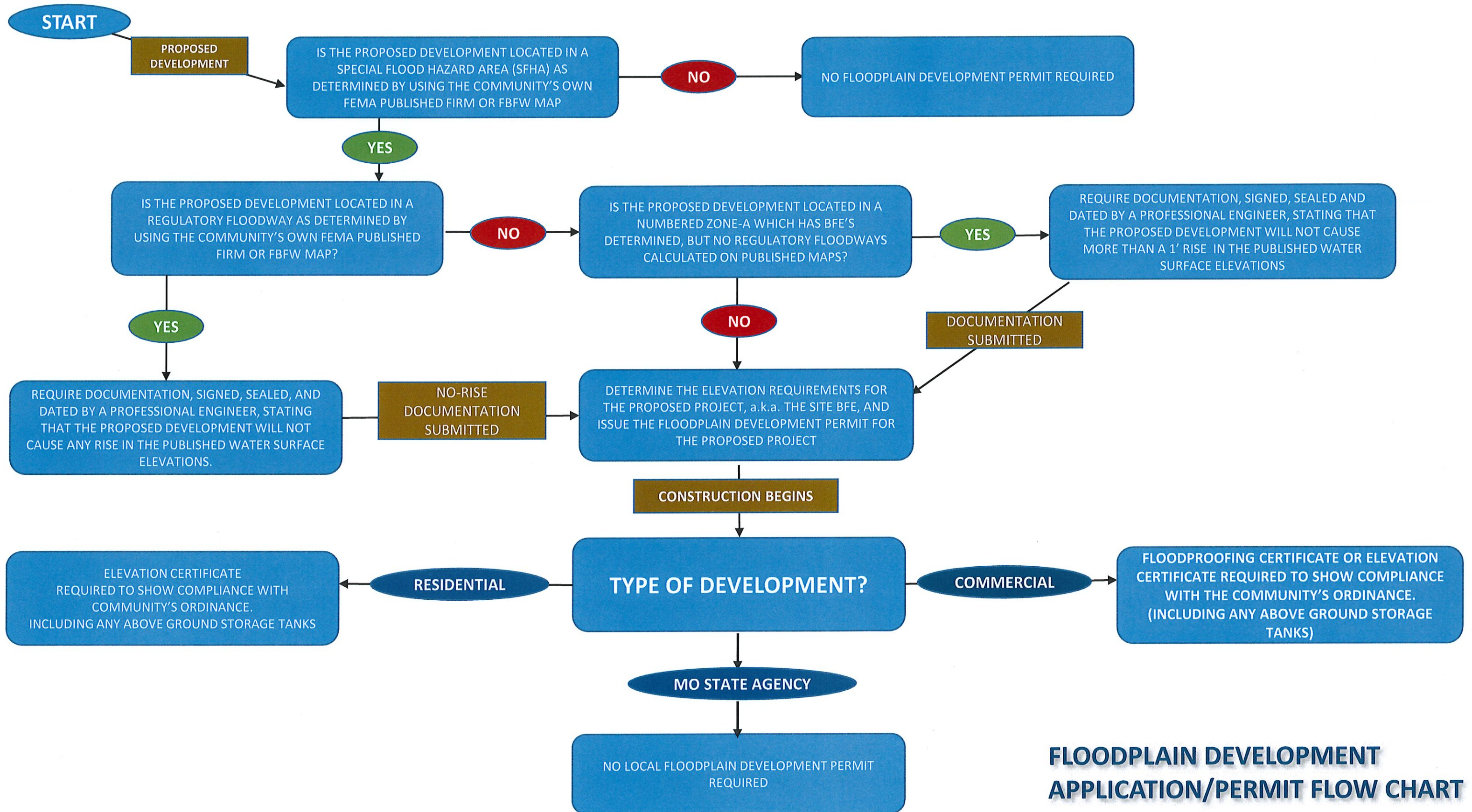
Joseph E. Moore, Floodplain Administrator

ATTEST:



City Clerk





FLOODPLAIN DEVELOPMENT APPLICATION/PERMIT FLOW CHART

Floodplain Administrator Review Checklist

COMMUNITY ORDINANCE REQUIREMENTS

Proposed development is consistent with:
Community Zoning Yes No
Special regulations governing site Yes No

Variances:
 Floodplain Case # Date Issued
 Zoning Case # Date Issued

Proposed development complies with exception granted to community regulations. Yes No
 Is the proposed development within a Historical District or a Historical site or building? Yes No

Floodplain Regulations

Compared proposed development to all existing flood information, the NFIP maps and record map amendments and attendant study profiles.

Meets NFIP development standards? Yes No
 Alteration or relocation of watercourse? Yes No

Affected communities: _____
Notifications made: _____

FEMA Region notified of proposed development

Contact Person: _____ Date: _____

Conditional NFIP Letter of Map Revision Required? Yes No
 NFIP Letter of Map Amendment Required? Yes No
 NFIP Letter of Map Revision Required? Yes No

Building Information

Residential:
Elevated Yes No

Floodplain Administrator Review Checklist - Continued

<input type="checkbox"/> Commercial:			
	Floodproofed	Yes	No
	Elevated	Yes	No
<input type="checkbox"/> Industrial:			
	Floodproofed	Yes	No
	Elevated	Yes	No
<input type="checkbox"/> Auxiliary / Accessory:			
	Floodproofed	Yes	No
	Elevated	Yes	No
<input type="checkbox"/> Other (Specify) _____			

Type of foundation proposed. _____
 Height of nonresidential structure floodproofing. _____
 Special anchoring requirements. _____

Engineering Data

Hydrologic and hydraulic calculations.	Required	Submitted	
Loading calculations and methods of construction.	Required	Submitted	
Alternative designs for meeting minimum openings.	Required	Submitted	
Design and construction details for breakaway walls.	Required	Submitted	

Permit Information

<input type="checkbox"/> Development permit application submitted.	Yes	No	
<input type="checkbox"/> Other permits required:			
U.S. Army Corps of Engineers - 404	Required	Submitted	
State of Missouri DNR – 401	Required	Submitted	
EPA NPDES permit	Required	Submitted	
<input type="checkbox"/> Other reviews required:			
<input type="checkbox"/> Public Works	<input type="checkbox"/> City Engineer		
<input type="checkbox"/> Planning & Zoning	<input type="checkbox"/> Street Department		
<input type="checkbox"/> Building Review	<input type="checkbox"/> Other: _____		
<input type="checkbox"/> Howard Bend Levee District			

Floodplain Administrator Review Checklist - Continued

Technical Certifications

<input type="checkbox"/> NFIP Elevation Certificate	Provided <input type="checkbox"/> Not Required <input type="checkbox"/>
<input type="checkbox"/> NFIP Floodproofing Certificate	Provided <input type="checkbox"/> Not Required <input type="checkbox"/>
<input type="checkbox"/> Enclosure below the lowest floor	Provided <input type="checkbox"/> Not Required <input type="checkbox"/>
<input type="checkbox"/> No-Rise Certificate	Provided <input type="checkbox"/> Not Required <input type="checkbox"/>

Permit Issuance

Permit Issuance Date _____

Permit Conditions: _____

Issued by: _____ (Signature Required)

City of Maryland Heights, Missouri Manufactured Housing Requirements

All manufactured homes to be placed within all unnumbered and numbered A zones, AE, and AH zones, on the community's FIRM shall be required to be installed using methods and practices that minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

1. Require manufactured homes that are placed or substantially improved within unnumbered or numbered A zones, AE, and AH zones, on the community's FIRM on sites:
 - Outside of manufactured home park or subdivision;
 - In a new manufactured home park or subdivision;
 - In an expansion to an existing manufactured home park or subdivision; or
 - In an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to one (1) foot above the base flood elevation and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

2. Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within all unnumbered and numbered A zones, AE and AH zones, on the community's FIRM, that are not subject to the provisions of item (1) above, be elevated so that either:
 - The lowest floor of the manufactured home is one (1) foot above the base flood level, or
 - The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six (36) inches in height above grade and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

City of Maryland Heights, Missouri Recreational Vehicle Requirements

All recreational vehicles placed on sites within all unnumbered and numbered A zones, AO, AE, and AH zones on the community's FIRM must comply with the following:

- (1) Be on the site for fewer than one hundred eighty (180) consecutive days, **or**
- (2) Be fully licensed and ready for highway use, **or**
- (3) Meet the permitting, elevation, and anchoring requirements for manufactured homes of this article.

**Addendum to the Administrative Procedures Guide for
Floodplain Management and Flood Hazard Reduction**
(Originally Adopted November 2020)

Construction Certificate Management Procedures

I. Purpose

The purpose of this document is to explain management procedures for review of Elevation Certificates (ECs) and all other floodplain-related construction certificates including, but not limited to, Floodproofing Certificates, and Engineered Opening Certificates. These procedures outline:

1. The types of certificates required;
2. The collection and review of all certificates;
3. How corrections should be made;
4. Where the certificates are stored/archived; and
5. How these certificates are made available to the general public.

II. Responsible Departments

The Department of Community Development is responsible for the administration of all development issues within the City including permitting, inspection, and review of all construction along with the creation of and maintenance of all building permit files and administrative documents (ordinances, building guides, applications, forms, outreach materials, etc.) related to building, development, and floodplain management. All inspections and permit/plan reviews are conducted by the Department of Community Development as well as all permit approvals.

III. Types of Certificates Required

When any new construction, substantial improvement, or repair for a substantially damaged building is conducted in the Special Flood Hazard Area (SFHA), the Department of Community Development shall require an EC, and any other floodplain-related certificate that is appropriate (including but not limited to Floodproofing Certificates and Engineered Opening Certificates) for the development.

IV. When Certificates are Required

1. *Elevation Certificates.*
 - a. *Prior to Construction.* The applicant shall submit an EC marked “Construction Drawings” with the Building Permit Application. This EC shall be used to determine if the proposed design is in compliance with Chapter 10, Flood Control, of the Municipal Code.
 - b. *During Construction.* After the foundation is built and the elevation of the lowest floor is determined, another EC shall be submitted that is marked, “Building Under Construction”. This will document the elevation of surrounding grades and the lowest floor to ensure they comply with the approved plans before further construction is allowed.
 - c. *Upon Completion.* Once construction on the building is finished and all adjacent grading is finalized, a complete and correct “Finished Construction” EC must be submitted by the applicant to show the as-built characteristics of the building. A “Finished Construction” EC must be received, reviewed and corrected (if necessary) before a Certificate of Occupancy is issued. At this point, all other required certificates must also be submitted and reviewed.
2. *Floodproofing Certificate.* Floodproofing of non-residential building shall require a Floodproofing Certificate in addition to an EC to verify compliance with Chapter 10, Flood

Control, of the Municipal Code. A complete and correct Floodproofing Certificate shall be submitted to the Department of Community Development once construction is finished on the building and prior to issuing a Certificate of Occupancy.

3. *Engineered Flood Openings.* When engineered flood openings are installed in the foundation of a building, and the EC indicates that they were installed (Sections A8d and A9d on the EC), an Engineered Opening Certificate shall be submitted with the EC to help verify compliance and the insurance rate. Either the International Code Council® Evaluation Service (ICC-ES) form for the engineered openings or an individual certification shall be submitted. Individual certifications must include the following at minimum:
 - a. The building (address) with the installed engineered openings;
 - b. The design professional's name, title, address, type of license, the state issuing the license, signature and seal;
 - c. A statement certifying the design of the openings will automatically equalize hydrostatic flood loads on exterior walls by allowing for the automatic entry and exit of floodwaters; and
 - d. A description of the range of flood characteristics tested or computed for which the certification is valid, such as rates of rise and fall of floodwaters.

V. Internal Review Process

1. *Prior to Construction.* ECs shall be submitted with the Building Permit application. The Permits Coordinator in the Department of Community Development shall log the EC in Accela (permit tracking system) with the rest of the permit documentation and assign the review to the Floodplain Administrator. If an error or omission is discovered, the Floodplain Administrator shall take steps to correct it in accordance with VI, Correction/Revision of Elevation Certificates, below. Upon approval, the Floodplain Administrator shall forward the approved EC, along with supporting documentation, to the Building Commissioner or Plans Examiner for review/approval and issuance of a building permit.
2. *During Construction.* ECs shall be submitted to the Permits Coordinator in the Department of Community Development who shall log the EC in Accela and assign the review to the Floodplain Administrator. If an error or omission is discovered, the Floodplain Administrator shall take steps to correct it in accordance with VI, Correction/Revision of Elevation Certificates, below. Upon approval, the Floodplain Administrator shall notify the applicant and Building Commissioner of said approval and document it in Accela.
3. *Upon Completion.* ECs shall be submitted to the Permits Coordinator in the Department of Community Development who shall log the EC in Accela and assign the review to the Floodplain Administrator. If an error or omission is discovered, the Floodplain Administrator shall take steps to correct it in accordance with VI, Correction/Revision of Elevation Certificates, below. Upon approval, the Floodplain Administrator shall forward the approved EC, along with supporting documentation, to the Building Commissioner for issuance of a Certificate of Occupancy.
4. Floodproofing Certificates shall be reviewed in the same manner as ECs submitted upon completion of construction.

VI. Correction/Revision of Elevation Certificates

The Floodplain Administrator shall consult the Community Rating Service (CRS) EC Checklist when reviewing an EC to ensure all required fields are completed correctly. When an error or omission is

discovered on an EC, the Floodplain Administrator shall take the following steps to ensure that it is corrected:

1. The Floodplain Administrator shall prepare a formal letter explaining what information needs to be included or corrected on the EC.
2. When transmitting the letter, the Floodplain Administrator shall also return the original forms to the applicant to be corrected.
3. Upon completion of revisions, the applicant shall resubmit the EC and the review process shall recommence in accordance with V, Internal Review Process, above.
4. All "Finished Construction" ECs with errors or omissions shall be returned to the applicant within ten (10) business days for immediate correction. In no case shall a "Finished Construction" EC be approved until all corrections deemed appropriate by the Floodplain Administrator are addressed. In no case shall a Certificate of Occupancy be granted until the Floodplain Administrator and Building Commissioner have granted approval.

VII. Maintenance of Certificates

1. All ECs and other required construction certificates shall be scanned and saved to Accela under the building permit file. The files are scanned and available in .PDF format.
2. By saving these documents to Accela, they are automatically archived into the City's LaserFiche (electronic archiving tool) files by street address along with any other permit documentation which may be included. The files are scanned and available in .PDF format.
3. The Floodplain Administrator shall keep a separate file (in electronic and paper format) containing all EC information for CRS purposes, labeled "Activity 310", organized by CRS recertification date.

VIII. How Certificates are Made Available to Inquirers

1. Members of the general public may request a copy of an EC, by completing a request for public records through the City Clerk's Office. The request form is available online at: <https://marylandheightscom.rja.revize.com/forms/1436>.
2. The City Clerk's Office shall respond in accordance with Chapter 610, RSMo (The Missouri Sunshine Law). Access to public records or status of such shall be provided within three (3) business days following a request. The response may include a request for additional information required to locate the records or an estimate as to how much staff research time will be required to process the request for records. Requests that require extensive staff research may result in fees that require prepayment in advance of the City processing the request.

This Addendum to the Administrative Procedures Guide for Floodplain Management and Flood Hazard Reduction for the City of Maryland Heights, Missouri shall be in full force and effect from and after this 23rd of February, 2023.




Tracey Anderson, City Administrator



Michael Zeek, Director of Community Development

ATTEST:



Joann Cova, City Clerk

