City of Flagstaff Water Services Division **Stormwater Management Section**
2323 N Walgreens St., Flagstaff, AZ 86004 **www.flagstaff.az.gov**

September 9, 2020

RE: FLOOD INSURANCE RATE MAP AND FLOODPLAIN INFORMATION

TO: Lenders, Realtors, Architects, Insurance Agents & Appraisers in the Flagstaff area:

Please distribute this letter to all of your employees, co-workers and colleagues involved.

The City of Flagstaff participates in the National Flood Insurance Program (NFIP) Community Rating System (CRS) program. Under this program, the City's Stormwater Management Section provides Flood Insurance Rate Map (FIRM) and related floodplain information for all areas within the Flagstaff City Limits.

This service includes determining: 1) if a property and/or structure is located in a Special Flood Hazard Area, 2) the flood map and zone for the property and/or structure, and 3) the 100-year flood elevation for the property (if available). The City also provides information on the NFIP flood insurance purchase requirements, elevating residential structures, flood proofing non-residential structures, installation of manufactured homes in the floodplain, and development guidelines and restrictions pertaining to stormwater runoff control and floodplains. Please see the attached Substantial Improvement Regulation (4 pages) that serves as a development restriction for those non-conforming buildings located in the regulatory floodplain. Copies of Elevation Certificates for all new and substantially improved Post-FIRM structures are kept on file and are available upon request. Additionally, FIRM's and other flood hazard information are available on our web site at: https://www.flagstaff.az.gov/4315/Flood-Information

These services are currently provided free of charge, but those properties that are clearly more than 100 feet outside of any shaded flood zones or marked map revision areas will require a $30 fee for a formal written flood zone determination per our floodplain regulations. FEMA has a good interactive GIS-based website that can be used for determining whether a property is in or close to a flood zone but the address identifier will need to be checked carefully. Coconino County also has a website that several GIS-based maps including Floodplain Inquiry app that has floodzone mapping overlaid onto parcels. The website links are listed below respectfully:
FEMA Map Service Center: https://msc.fema.gov/portal/search#searchresultsanchor
Coconino County: https://www.coconino.az.gov/389/View-County-Maps

Note: We offer other services related to flood hazards as listed in the attached Flood Hazard Summary sheet.
Please call me at (928) 213-2472, or email me at jjanecek@flagstaffaz.gov if you need a regulatory flood zone determination or have questions regarding stormwater runoff. I will be sending this notice annually, so please notify me if you have moved or want to be removed from our mailing list.

Sincerely,

James A. Janecek, PE, CFM
Stormwater Section Project Manager

Enclosures: Flood Hazard Summary Sheet (1 page), Substantial Improvement Regulations (4 pages)
NFIP Grandfathering Rules for Agents (4 pages)

Flood Hazard Summary Sheet

The City of Flagstaff Stormwater Section offers the following services:

1. Flood Hazard Zone Determinations - $30 unless with 100 feet of a flood zone, then free of charge.
2. We keep a drainage complaint database. If you have a drainage problem, we will collect your information and investigate. Our investigations include site visits and discussions with you on what steps you can take to correct the problem. If you have a drainage problem, please contact Chris Palmer at 928-213-2474, or email him at cpalmer@flagstaffaz.gov.
3. The City has a basic flood warning service when our City gages receive intense rainfall. You can get connected to this service via email and/or text message.
4. Advise on basic flood insurance requirements, but we will defer to the flood insurance providers. We have information on older FIRM's and Floodway maps that may help properties qualify for Preferred Risk Policies.
5. Advise on ADEQ Stormwater Pollution Prevention Plan requirements and general erosion control requirements for development. Please contact Chris Palmer at 928-213-2474, or email at cpalmer@flagstaffaz.gov.
6. We do have limited information not on the FIRM including the following:
   a. Detailed reports, changes to flood hazard boundaries, calculations and hydraulic models related to LOMR's, CLOMR's and other flood studies.
   b. Emergency Action Plans for Dams in the Community and the Coconino County Multi-Hazard Mitigation Plan.
   c. LOMA's, LOMR-F's, Elevation certificates
   d. Cumulative substantial improvements, assessor's office value, and details for property appraisals.
   e. Administrative floodplains (floodplains not yet recognized by FEMA but regulated as such) including Steves Blvd Wash administrative floodplain from Route 66 to its confluence with the Rio de Flag.
   f. Older FIRM and Floodway maps as early as 1983.
   g. Protected natural functions open space floodplains through the City Rural Floodplain ordinance and Picture Canyon reserve.
      The Rural Floodplain Map can be found at https://www.flagstaff.az.gov/3726/Rural-Floodplains
      Our Picture Canyon Preserve information/map can be found at
      https://www.flagstaff.az.gov/2881/Picture-Canyon
   h. Approximate flood depths using City 2' contours derived from aerial LiDAR surveys
   i. Old building permit information
   j. Historic flooding information including flood photos and logs of flooding in a particular area.
   k. Detailed forest fire burn scenario maps and associated flood maps in the Dry Lake Hills region.
   l. Alluvial Fan Flood Hazard area mapping created from historic documentation of uncertain drainage channels.

Please be advised and advise your clients about our aforementioned services and the following flood guidance:

Contact your property insurance agent to see if a flood insurance policy would help you. Even if you're not in the mapped floodplain, you may be subject to flooding from local drainage. In either case, flood insurance can be a good investment because most homeowner's insurance policies do not cover damage caused by surface water flooding.

Do not walk or drive through flood waters. Currents are deceptive – six inches of moving water can knock you off your feet. Do not drive around barriers, as the road or bridge may be washed out.

Talk to us about protecting your house or business. There are ways to modify your building to minimize flood damage. Where flooding is shallow, measures such as small floodwalls, regarding the yard, and floodproofing the walls or utilities can be relatively inexpensive. Where flooding is deep, a building may need to be elevated.

Check with the Building Department before you build on, alter, regrade or fill on your property. Call the City of Flagstaff Community Development 928-213-2600 first. A permit may be needed to ensure that a project is compliant with all regulations. These regulations are designed to protect your property from flood damage and to make sure you don't cause a water problem for your neighbors.

Don't pour oil, grease, pesticides, or other pollutants down storm drains or into the ditches and streams. Our streams and wetlands help moderate flooding and are habitat for fish, frogs, and other species that provide us with recreation or food. Let's protect them and their homes.

City of Flagstaff
Stormwater Management Section
Public Information Series:

Substantial Improvement Regulation (The 50% Rule)

The National Flood Insurance Program (NFIP) Regulations, Subpart A, 60.3 - *Flood plain management criteria for flood prone areas*, establishes requirements for ***"Substantial Improvements"*** to structures within the Special Flood Hazard Areas (SFHA) shown on the Flood Insurance Rate Maps (FIRM's). These requirements, which are also part of the City of Flagstaff Floodplain Regulations, are commonly known as ***"The 50% Rule".*** The following text discusses the concepts of substantial improvement and substantial damage and provides guidance on meeting the requirements of the City and Federal regulations.

Substantial Improvement is defined as any combination of repairs, reconstruction, rehabilitation, addition, or other improvements of a structure, the cost of which equals or exceeds fifty (50) percent of the "market value" of the structure before the "start of construction" of the improvements.

The term includes structures that have incurred substantial damage, regardless of the actual amount of repair work performed. For the purposes 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 building. The term **does not** include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

When a Pre-FIRM non-conforming building (i.e., those structures built prior to 01/19/83) is proposed to be remodeled, renovated, rehabilitated, added to, or in any way improved, the proposed modifications must be evaluated for substantial improvement. If the cumulative total cost of the proposed improvements, plus any previous improvements (adjusted for inflation) that have occurred during the previous 10 years, exceeds 50% the building's market value, the building must be elevated (if residential) or structurally dry-floodproofed (if non-residential or commercial) to a minimum elevation of one (1) foot above the 100-year flood elevation.

Substantial Damage is considered to be damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% percent of the market value of the structure before the damage occurred. Substantially damaged Pre-FIRM residential buildings (built before 01/19/83) must be elevated a minimum of one (1) foot above the 100-year flood elevation. This requirement applies regardless of the source of the damage (e.g. flooding, fire, earthquake, wind, or man) and applies to all buildings in the SFHA, regardless of whether the building is covered by flood insurance.

The costs to repair must be calculated for full repair to the "before damaged condition", even if the owner elects to do less. The total costs to repair include both structural and finish materials and labor (see Costs To Be Included section).

Building Value is equivalent to the market value of the structure only. Land and exterior improvements (e.g., a swimming pool, pool enclosure, landscaping, paving, etc.) are excluded. The market value of the structure is determined by either:

1. The current Coconino County Assessor Tax assessed value of the building prior to the initial repair or improvement; or

2. The applicant may provide a determination of market value of the existing structure, prior to the initial repair or improvement, by a professional appraiser (See Ord. 2001-06 for appraisal methodology); or

3. In the case of substantial damage, the assessed or appraised value of the structure prior to the damage occurring.

Additions are considered an alteration to an existing structure that results in an increase in the structure's floor area (footprint or square footage). If an existing structure in a 100-year floodplain is physically enlarged and the cost of the enlargement (or addition) equals or exceeds 50% of the market value of the structure before the addition, then the existing structure is considered to have been substantially improved and must then be brought into conformance with floodplain regulations (e.g., elevated). The lowest floor of any addition on a residential structure must elevated a minimum of one (1) foot above the 100-year flood elevation, even if it does not constitute a substantial improvement. Additions to existing structures located within the floodway are not permitted.

Second Story Additions are considered as rehabilitation since this normally involves tearing off the existing roof. If the cost of construction the second story, including removal of the existing roof, is equal to or exceeds 50% of the market value of the existing structure before construction, the entire existing structure must be brought into conformance with floodplain regulations.

Map Revisions, also referred to as Letters of Map Revision, or "LOMR's", can also affect Post-FIRM structures due to substantial improvement/damage requirements. If a community FIRM is revised and the base flood elevations have increased, Post-FIRM buildings constructed prior to the map revision may be affected. The substantial improvement requirement would apply to them as well. So, check the FIRM to determine what flood elevation was in effect when the building was constructed and the current flood elevation. All additions to Pre and Post-FIRM residential structures must be elevated to a minimum of one (1) foot above the effective 100-year flood elevation, whether they are substantial improvements or not.

Costs To Be Included for the calculation of substantial improvement or substantial damage mean the "total costs", including labor and materials, for both structural and finish work, profit, and overhead. The cost to demolish undamaged building components must be established and included as well. A detailed list of items to be included and excluded is given on Pages 3 and 4. All material and labor associated with the construction or demolition of a structure are applied towards the substantial improvement cumulative cost regardless of whether the material and labor are donated or performed by an owner-builder.

Many of these costs are not normally calculated for purposes of a building permit, nor are they regulated as part of the International Building Code, but they must be calculated for compliance with the substantial improvement requirement. Remember, substantial damage and substantial improvements are cumulative for 10 years prior to the date improvements are considered during the building permit application, therefore the homeowner or prospective buyer needs to be cognizant of the potential hidden expense and development restrictions represented by the substantial improvement requirement.

SUBSTANTIAL IMPROVEMENT/DAMAGE ITEMS:

ITEMS TO BE INCLUDED:

All structural elements, including:

- Spread or continuous foundation footings and pilings
- Monolithic or other type of concrete slabs
- Bearing walls, tie beams and trusses
- Wood or reinforced concrete decking or roofing
- Floors and ceilings
- Attached decks and porches
- Interior wall finishes (e.g., brick, stucco, or siding) including painting and decorative moldings
- Windows and doors
- Reshingling or retiling a roof
- Hardware

All interior finish elements, including:

- Tiling, linoleum, stone, or carpet over subflooring
- Bathroom tiling and fixtures
- Wall finishes (e.g., drywall, painting, stucco, plaster, paneling, marble or other decorative features)
- Kitchen, utility and bathroom cabinets
- Built-in bookcases, cabinets, and furniture
- Hardware

All utility and service equipment, including:

- HVAC equipment
- Repair or reconstruction of plumbing and electrical services
- Light fixtures and ceiling fans
- Security systems
- Built-in kitchen appliances
- Central vacuum systems
- Water filtration, conditioning or recirculation systems

Also:

- Labor and other costs associated with demolishing, removing or altering building components
- Overhead and profit

ITEMS NOT INCLUDED:

- Plans and specifications
- Survey costs
- Permit fees
- Demolition costs associated with clean-up, debris removal, and preparation of the site
- Debris removal (e.g., removal of debris from building or lot, dumpster rental, transport fees to landfill and landfill tipping fees), and clean up (e.g., dirt and mud removal, building dry out, etc.)
- Structural fill for elevating a structure
- Carpeting and re-carpeting installed over finished flooring such as finished wood or tiling
- Items not considered real property such as throw rugs, plug in type appliances, window air-conditioning units, dehumidifiers, furniture, refrigerators, stoves (not built-in), etc.

Outside improvements, including:

- Landscaping
- Sidewalks
- Fences
- Yard lights
- Swimming pools
- Screened pool enclosures
- Sheds
- Gazebos
- Detached structures (including garages)
- Landscape irrigation systems

Get FloodSavvy
Agents.FloodSmart.gov

NFIP Grandfathering Rules for Agents

Know the Options

To reflect current flood risks, the Federal Emergency Management Agency (FEMA) is updating the nation's Flood Insurance Rate Maps (FIRMs) using the latest data-gathering and mapping technology. New FIRMs are being issued nationwide. When the new FIRMs take effect, some residents and business owners will learn that their properties' flood risks have changed and that their homes or buildings are now shown in high-risk areas. Such zones are known as Special Flood Hazard Areas (SFHAs) and are noted on FIRMs as zones beginning with the letters "A" or "V." In these zones, property owners with mortgages from federally regulated or insured lenders are required to purchase flood insurance. Other property owners will learn that the Base Flood Elevations (BFEs) for their properties have increased. These changes also could result in higher flood insurance premiums. As an insurance professional, it is important for you to know the best option for your client.

What Is the Grandfathering Rule?

When flood map changes occur, the National Flood Insurance Program (NFIP) provides a lower-cost flood insurance rating option known as "grandfathering." It is available for property owners who:

- Already have flood insurance policies in effect when the new flood maps become effective and then maintain continuous coverage; or
- Have built in compliance with the FIRM in effect at the time of construction.

While grandfathering typically will provide cost savings to a property owner when the new FIRM takes effect, there may be cases when using the rating based on elevation will result in lower premiums. So both options should always be evaluated.

Timing is important as owners of most pre-FIRM buildings (built before the first flood map became effective) have only one chance to grandfather and lock in the existing zone for future rating. For a pre-FIRM property in a high-risk area that is mapped into a higher-risk zone (e.g., Zone AE to Zone VE), the last chance to qualify for grandfathering is to buy or renew a policy ***before*** the new FIRM becomes effective.
The same applies for a pre-FIRM property newly mapped into a high-risk area for the first time (e.g., Zone X to Zone AE or VE) that does not qualify for a Preferred Risk Policy (PRP).

Newly Mapped into the SFHA Option

Buildings newly mapped into a high-risk flood area initially may be eligible for a lower-cost PRP rate in the year following a map change.

However, premiums may increase up to 18 percent each year as part of the premium rate revisions put in place by the Homeowner Flood Insurance Affordability Act of 2014.

If a building has been substantially damaged or improved, it is not eligible to be grandfathered to the FIRM in effect at the time of the building's original construction date. The FIRM in effect at the time of the last substantial improvement or damage must be used.

Below are conditions and examples of applying grandfather rules.

Pre-FIRM (construction prior to the date of the community's initial FIRM or prior to January 1, 1975)

- If a policy was obtained before the effective date of a map change, the policyholder is eligible to maintain the prior zone as long as continuous coverage is maintained. The policy can be assigned to a new owner at the option of the policyholder.
    - **Example A:** A house was built in 1974, and the community's first FIRM became effective in 1986. When the insured's policy was written, the structure was in Zone A. As a result of a 2014 FIRM revision, the new flood zone is Zone VE. As long as there was no interruption in coverage and there have been no substantial improvements or damage, the customer's policy can continue to be rated using pre-FIRM Zone A rates.
    - **Example B:** A house that was built in 1983 was mapped into Zone X in the community's first and only FIRM in 1984. In anticipation of the upcoming FIRM and the house being mapped into Zone A, the homeowner purchased a standard-rated policy (due to loss history, the building did not qualify for a PRP) 30 days before the new FIRM's effective date of November 1, 2014. Consequently, when the standard-rated Zone X policy comes up for renewal, it will be renewed using Zone X standard rates. At subsequent renewals, coverage must be continuously maintained in order to keep using the Zone X rates.
- If a policy was obtained prior to a FIRM revision but then the building was substantially improved, the building must be re-rated using the FIRM in effect at the time that the substantial improvement occurred.
    - **Example:** A house was built in 1968, and the community's first FIRM was in 1976. When the insured's policy was written, the pre-FIRM structure was in Zone AE. As a result of a 2009 map revision, the new flood zone is Zone VE. In 2014, the property owner completely renovated the building. As a result, grandfathering is not an option. The property owner will be required to use the Zone VE rates, and the year of construction will change to 2014. The building must be rated as post-FIRM.

Pre-FIRM Exception: If the community's first FIRM was effective *prior* to January 1, 1975, and a building has not been substantially damaged or improved since its original construction, the rates can be based on the FIRM zone and/or the BFE on the FIRM in effect at the time of construction (i.e., it can be treated like a post-FIRM structure) if construction is after the initial FIRM date but before January 1, 1975. In this case, proper documentation must be provided. In all other instances, new policies for pre-FIRM buildings must use the FIRM in effect when coverage is applied for.

- **Example:** A small office building was built in 1974; the community's first FIRM was 1971. The building is located in Zone B, behind a levee. In 2011, a new FIRM becomes effective showing the levee as no longer providing the required protection ("de-accredited"), placing the structure into Zone AE. The property owner decides not to purchase flood insurance as there is no mortgage on the building. Three years later, the building is sold and the new owner's lender requires flood insurance. Even though the building is technically classified as a pre-FIRM structure, Zone B can be grandfathered for rating as there was a FIRM in effect at the time of construction (see Post-FIRM below).

Post-FIRM (construction on or after the date of the community's initial FIRM)

- Post-FIRM buildings have two opportunities to have a previous zone or BFE grandfathered. The simplest way to do this, and to avoid having to provide additional documentation, is the continuous coverage option. When a policy is obtained before the effective date of a map change, the prior zone and BFE can be used for rating as long as continuous coverage is maintained (Example A). If coverage is not purchased before the new effective date of a FIRM, a building still can be grandfather-rated by providing the proper documentation to show it was built in compliance as of the date of construction (as long as there has been no substantial improvement or damage since its construction; Example B). In either example, the policy can be assigned to a new owner at the option of the policyholder.
    - **Example A (Continuous Coverage):** In 1986, a house was built in an Unnumbered Zone A with no estimated BFE. The community's first FIRM was issued in 1978. There was no mortgage on this post-FIRM building, and the property owner did not purchase flood insurance initially. In 1994, the zone changed to Zone AE with a BFE of 10 feet. The property owner applied for a loan soon afterward, and the lender required flood insurance on the building. The owner applied for insurance, and an Elevation Certificate submitted with the Flood Insurance Application indicated that the lowest floor was constructed at the current BFE. The policy was issued using the new FIRM, because it provided a more favorable rate than the Unnumbered Zone A in effect when the house was built. In 2013, another map revision occurred, and the house remained in the Zone AE but the BFE increased to 11 feet. As long as there was no interruption in coverage and no substantial improvement or damage, the property owner's policy can continue to be rated using the BFE of 10 feet in Zone AE at each subsequent renewal.
    - **Example B (Built in Compliance):** A small restaurant was built in 2001 in Zone AE. The community's first FIRM was in 1993 and was still in effect on the date of construction. The BFE was 10 feet on the 1993 FIRM, and the lowest floor elevation (LFE) was 11 feet, resulting in a +1 elevation difference for rating. A new FIRM for the community took effect in 2013. The building remained in Zone AE but the BFE became 12 feet, resulting in an elevation difference of -1 foot. Since the building had not been altered and was in compliance when constructed, it can continue using +1 elevation difference.

Summary of Rules

When a map change is approaching, it is important to remember that most pre-FIRM structures have only one opportunity to lock in the current flood zone for future rating[1] —before the new FIRMs take effect. The policy must then be renewed each year. The benefits of the grandfathered zone can be transferred to the new owner if the building is sold. Post-FIRM buildings have two chances to lock in the BFE and/or flood zone[1]—before the maps become effective or after the effective date, but with the proper documentation. Continuous coverage is not required. If, however, a building is substantially damaged or improved or if it was not built in compliance, grandfathering of previous zones or BFEs can no longer be applied.

[1] Buildings newly mapped into an SFHA that qualify for the PRP should be rated using the Newly Mapped procedure.

Grandfathering Premium Savings Examples[2]

The NFIP's grandfathering provision often offers premium savings to property owners. The examples below show how an agent can utilize a variety of cost-saving options available through the NFIP. To simplify the examples, potential annual premium increases were *not* applied to any of the premiums. Note that examples related to properties newly mapped into high-risk zones are not provided here, as those would use the Newly Mapped procedure.

- **Example 1:** A home was constructed in 1974. The first (and current) FIRM took effect in 1984 and placed the home into Zone C. A new FIRM will become effective July 1, 2013, and the property will be mapped into Zone A. The home is considered to be a pre-FIRM building, and due to losses on a previous policy that is no longer in effect, it is not eligible for a PRP. If no standard-rated Zone X policy is purchased before the FIRM's effective date, the building will not qualify for grandfathering; a Zone A rate will be used and the annual premium will be $3,492. However, if a policy is purchased before July 1, 2013, the property will be eligible for grandfathering. By purchasing a policy before the maps become effective, the homeowner will pay $2,058. Compared to the non-grandfathered Zone A–rated premium, grandfathering results in savings of more than $1,400 a year.

- **Example 2:** A community's first FIRM was issued 7 years ago. A home was built a year later in Zone X. The original homeowner carried a PRP, but due to losses the building is no longer eligible for the PRP. Now, new FIRMs are being issued that will place it in a Zone AE. If the property owner purchases a policy using Zone X standard rates ($2,058), the building can be grandfathered using standard Zone X rates for subsequent years.

  NOTE: If the property owner purchases an Elevation Certificate after the new map takes effect and the survey indicates that the lowest floor is 2 feet above the BFE, then using the new map, the elevation rating would actually provide additional savings, as the rate for an elevation difference of +2 is only $735. So, by using the new FIRM information to rate, premiums will be less than half the grandfathered premium and the insured will save more than $1,300 a year.

- **Example 3:** A home was built in Zone AE in 1995. The community's first FIRM was issued in 1991. The difference between BFE and LFE was +1 foot. When the new FIRMs took effect, the BFE increased 2 feet, so that the elevation difference is now -1 foot. The property received a notice requiring flood insurance and the premium calculated out to be $4,811. However, because it was a post-FIRM structure, it can be grandfathered using the previous BFE, resulting in a premium of $1,098 or a savings of more than $3,700 a year.

Additional Resources

The following are resources regarding map changes and grandfathering:

- NFIP Help Desk: **1-800-427-4661**
- Rating using the Grandfather Rule: **fema.gov/flood-insurance-manual**
- For information about effects of mapping changes and a status of mapping projects nationwide: **Agents.FloodSmart.gov/mapupdates**
- NFIP's consumer site about flood insurance and PRP Eligibility Extension: **FloodSmart.gov**
- View and print current and past (historic) flood maps for grandfathering: **msc.fema.gov**
- For flood hazard mapping questions, contact the FEMA Map Information Exchange (FMIX): **1-877-336-2627**
- For more information about FEMA's latest efforts in updating FIRMs: **fema.gov/risk-mapping-assessment-planning**
- For more information on substantial damage and substantial improvements: **fema.gov/library/viewRecord.do?id=4160**

[2] Premiums are based on $200,000 in building coverage and $80,000 in contents, using minimum deductibles and **April 2016** rates for a single-family residence, one floor, without a basement.