

# 7. Maintaining and Revising NFIP Maps

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## 7.1. Revising NFIP maps

NFIP maps are vital to effective enforcement of a community's floodplain management responsibilities. They are also key to accurate flood insurance rating and fair determinations of the flood insurance purchase requirement. A community participating in the NFIP is obligated by its agreement with FEMA to submit new or revised map information when it becomes available.

**44 CFR 65.3 Requirement to submit new technical data. A community's base flood elevations may increase or ...a community's 100-year flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, a community shall notify [FEMA] of the changes by submitting technical or scientific data...**

Lenders, insurance agents, and communities must use the published flood maps. Lenders are affected by changes in a FIRM as they enforce the mandatory flood insurance purchase requirements.

Communities are affected by changes in a FIRM and a Floodway Map as they enforce floodplain management regulations. Consequently, uniform procedures have been established for requesting and administering map changes.

No map is perfect and no flood situation is static. From time to time, FEMA, communities or individuals may find it necessary for a FIRM or Floodway Map to be updated, corrected or changed. Common reasons why a map may need to be changed include:

### 7.1.1. Revising to correct an error in non-flood-related features

Maps may contain minor errors, such as streets or corporate limits in the wrong location (or corporate limits changed by annexation). For these instances, the local government should send the correct information to its FEMA Regional Office.

If a community has several annexations each year that affect the floodplain, a revision request should be submitted only once a year. Since it is expensive to reprint and redistribute flood maps, corporate boundary changes are usually made only when maps are revised for new or better flood data.

The community does not need a new map, however, if it has annexed an area that is shown on the county's FIRM. It can regulate floodplain development using the county's FIRM and flood data, if the community adopts the county's

INITIAL IDENTIFICATION: <b>MARCH 8, 1974</b>
FLOOD HAZARD BOUNDARY MAP REVISIONS: JULY 18, 1975
FLOOD INSURANCE RATE MAP EFFECTIVE: <b>DECEMBER 4, 1979</b>
FLOOD INSURANCE RATE MAP REVISIONS: Map revised <b>JULY 5, 1983</b> to change corporate limits, add Special Flood Hazard Area, change zone designation, add date under zones and change to FEMA title block.

**Figure 7-1. The FIRM panel shows the history of map revisions.**

FIRM. This would clarify the regulatory flood data for newly annexed properties and areas in the community's extraterritorial jurisdiction.

### **7.1.2. Revising to include better ground elevation data**

As noted earlier, maps do not always represent site-specific ground elevations. If a detailed contour map shows errors in the floodplain boundaries, copies of the more detailed information should be submitted to FEMA. If the 100-year flood elevation is known (or has been more accurately computed since the map was made), it should be included in the submittal.

Where the best available maps do not clearly show a property higher than the 100-year flood elevation, certification of the property's elevation is needed. The certification must be signed by a licensed architect, engineer or surveyor and must show the elevation. If a building is on the property, the elevation of the adjacent lowest grade and the lowest floor (including basement) of the structure must be shown.

### **7.1.3. Revising to reflect changes in ground elevations in the floodplain**

If there has been a substantial change in ground elevation — for example, fill is placed in the floodplain in order to raise building sites above the 100-year flood elevation — the applicant may request a map change to reflect the new ground elevation information. Revising to reflect new fill requires documentation that the fill was placed according to NFIP criteria.

### **7.1.4. Revising to reflect different flood data**

A request may be made to revise the existing study, based on a new flood study. The study would reflect new information, such as a new, larger bridge opening. Otherwise, the applicant must demonstrate that the original study was in error or that the new study is based on more accurate or better technical data.

### **7.1.5. Revising to submit new flood data**

When a flood study is prepared for a development in an unnumbered A Zone, the data can be submitted to FEMA for later incorporation into the FIS or revised FIRM.

### **7.1.6. To reflect a flood control project**

If a new levee, reservoir or channel modification affects the flow of the 100-year flood, the community must request that the map be revised to reflect the new conditions or new (lower) 100-year flood elevations.

The map cannot be changed until the project is constructed and/or operating. It is important to note that many small projects, such as channel clearing, low level dams, private levees, land treatment or retention basins in new subdivisions, do not have a measurable effect on the 100-year flood and therefore, do not warrant a map change. The request for a change needs to be carefully prepared by an engineer who knows the FEMA flood study guidelines.

## 7.2. Types of map changes

FEMA uses two methods to make flood map changes. The first is to actually change the map and publish new copies. Here the effective date of a map is changed, as shown in Figure 7-1. This approach is expensive and is done only if the change affects a large area.

The other more common method is to issue a letter that describes the map change. This is called a letter of map change. There are four types of letter of map change

### 7.2.1. Letter of Map Amendment (LOMA)

Occasionally, individual structures or parcels of land may be inadvertently included in the Special Flood Hazard Area (SFHA). In other cases it may be difficult for to determine whether a structure or parcel of land is in the SFHA. A LOMA can be requested if it can be shown that the property is on natural high ground, above the 100-year flood elevation.

→ For buildings built *before* the site was designated as a Special Flood Hazard Area, (i.e., before the initial identification date when the first Flood Hazard Boundary Map was published), it must be shown that:

1. The building was built and the fill was placed before the initial identification date (shown below the FIRM or FHBM legend, see example in Appendix G) and
2. The lowest adjacent grade (LAG) is above the 100-year flood elevation.

→ For buildings built *after* the site was designated as SFHA, it must be shown that:

1. The lowest floor (including basement) is above the 100-year flood elevation and
2. The lowest adjacent grade (LAG) is above the 100-year flood elevation.

→ For vacant lots, it must be shown that the *lowest elevation* within the boundaries of the property is above the 100-year flood elevation. Otherwise, a Conditional Letter of Map Amendment or CLOMA can be requested. A CLOMA informs the builder and others (such as the bank financing the project) that when the project is completed, it will qualify for a LOMA.

#### Lowest Adjacent Grade

Lowest Adjacent Grade (LAG) is the grade around the outside of a building, where soil touches the foundation. This includes bottom of basements, patios, decks, porches, posts, and piers. LAG is not the same as top of foundation, lowest opening, building pad elevation, or first floor.



# Federal Emergency Management Agency

Washington, D.C. 20472

July 25, 2000

MR. AND MRS. @#\$%^&\*+  
1234 W. @#\$%^&\*+ STREET  
CLIVE, IA 50325

CASE NO.: 00-07-534A  
COMMUNITY: CITY OF CLIVE, POLK COUNTY, IOWA

COMMUNITY NO.: 190488

DEAR MR. AND MRS. @#\$%^&\*+:

This is in reference to a request that the Federal Emergency Management Agency (FEMA) determine if the property is located within an identified Special Flood Hazard Area, the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), on the effective National Flood Insurance Program (NFIP) map. Using the information submitted and the effective NFIP map, our determination is shown on the attached Letter of Map Amendment (LOMA) Determination Document. This determination document provides additional information regarding the effective NFIP map, the legal description of the property and our determination.

Additional documents are enclosed which provide information regarding the subject property and LOMAs. Please see the List of Enclosures below to determine which documents are enclosed. If you have any questions about this letter or any of the enclosures, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, 12101 Indian Creek Court, Beltsville, MD 20705.

Sincerely,

*Matthew B. Miller*

Matthew B. Miller, P.E., Chief  
Hazards Study Branch  
Mitigation Directorate

**LIST OF ENCLOSURES:**

LOMA DETERMINATION DOCUMENT (REMOVAL)

cc: State/Commonwealth NFIP Coordinator  
Community Map Repository  
Region

**Figure 7- 2. First page of a LOMA.**



**Federal Emergency Management Agency**  
Washington, D.C. 20472

**LETTER OF MAP AMENDMENT  
DETERMINATION DOCUMENT (REMOVAL)**

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	City of Clive, Polk County, Iowa	Lot ##, Arbor Oaks Estates Plat No. 5, as shown on Plat, Instrument No. 42454, filed on May 17, 1990, in the Office of the Recorder, Polk County, Iowa
	COMMUNITY NO.: 190488	
AFFECTED MAP PANEL	NUMBER: 1904880005C	
	NAME: City of Clive, Polk County, Iowa	
	DATE: 10/16/92	
FLOODING SOURCE: WALNUT CREEK		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 41.604, -93.742 SOURCE OF LAT & LONG: MAPBLAST!      DATUM: NAD83

**DETERMINATION**

LOT	BLOCK/SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NGVD29)	LOWEST ADJACENT GRADE ELEVATION (NGVD29)	LOWEST FLOOR ELEVATION (NGVD29)	LOWEST LOT ELEVATION (NGVD29)
32	—	Arbor Oaks Estates Plat No. 5	1234 W. @#%^^&* Street	Structure	X(shaded)	842.4 feet	843.2 feet	—	—

Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

PORTIONS REMAIN IN THE SFHA

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, 12101 Indian Creek Court, Beltsville, MD 20705.

*Matthew B. Miller*

Matthew B. Miller, P.E., Chief  
Hazards Study Branch  
Mitigation Directorate

Version 1.3.2

381303010697

**Figure 7- 3. Second page of a LOMA.**

### **7.2.2. Letter of Map Revision Based on Fill (LOMR-F)**

A LOMR-F removes a structure or property from 100-year floodplain based on the placement and proper compaction of fill outside the floodway. Fill is considered to be those materials placed to raise the ground after the first NFIP map was produced for the area of the map revision.

This process involves existing conditions but does not involve revisions to 100-year flood elevations or floodway boundaries. LOMR-Fs compare lowest lot elevation to 100-year flood elevation for undeveloped properties and compares LAG and lowest floor (including basement) to the 100-year flood elevation for existing structures. In order for a building to be removed from the SFHA, the LAG and lowest floor (including basement) must be at least one foot above the 100-year flood elevation.

The “lowest floor (including basement)” does not mean the first floor or lowest habitable floor. Certification of LAG, lowest floor and fill compaction is required as well as community acknowledgment of the project.

### **7.2.3. Letter of Map Revision (LOMR)**

Changes to floodplain boundaries and flood elevations may be made to an existing FIRM. A LOMR is normally based on revised hydraulic modeling and usually will not involve specific lots, properties or structures. A LOMR must be obtained before a building permit can be issued. Most LOMRs require a processing fee.

Any interested party can request a LOMR. However, because if issued, it will revise official regulatory data for that site, a request for a LOMR must have the approval of the community.

### **7.2.4. Conditional Letter of Map Revision (CLOMR)**

The CLOMR allows for approval of anticipated map revisions based on proposed modifications or conditions that are expected to exist in the future. Under this process, engineering data may be submitted for a proposed project or future condition with a request that FEMA review the data and issue a CLOMR describing the revisions that may be made upon completion of the proposed work.

FEMA only requires a CLOMR for proposed revisions involving the floodway. This process normally involves revised modeling and requires submittal of certified as-built plans of initial filling, grading, etc., so that a LOMR may be issued. As-built elevations must match proposed elevations. There is normally a processing fee for a CLOMR.

### **7.2.5. Areas to be protected by a flood control project**

FEMA will issue a Letter of Map Revision to communities that have a flood control project under construction. The 100-year floodplain is designated as an “A99” Zone. This designation will be changed to an X Zone when the flood control project is completed. The flood insurance purchase requirement remains in effect in an A99 zone floodplain, but the rates are reduced to X Zone rates.

To qualify for an A99 Zone, the project must be 100% authorized, 60% appropriated and 50% expended. FEMA's requirements are outlined in 44 CFR Subpart 61.12.

### **7.2.6. Fees**

A processing fee is charged for LOMRs, CLOMRs and CLOMAs. There is no fee for requesting a LOMA. See [http://www.fema.gov/fhm/frm\\_fees.shtm](http://www.fema.gov/fhm/frm_fees.shtm) for information on fees.

## **7.3. Requesting map changes**

This section provides step by step instructions on how to submit a request to FEMA to revise a FIRM or Floodway Map.

FEMA's maps are based on the best available information at the time the study was completed. As better information becomes available or as changes are proposed in the floodplain, the floodplain maps should be updated. Each of the methods described below requires an applicant to submit data for FEMA to review and approve.

The applicant is often the party that would benefit the most from a new map. Usually, this is the property owner who wants to eliminate the flood insurance purchase requirement or the extra floodplain building regulations. In some cases, the community submits a map revision. If the request is for a map revision (i.e., a change in the regulatory data), the request must have the community's concurrence before FEMA will approve it.

The applications and a list of the necessary supporting information can be downloaded on FEMA website (see Appendix D).

### **7.3.1. Step 1: Obtain FEMA forms**

To request a map change to reflect better ground elevation data, or to reflect a new study that has already been done, use one of the following FEMA forms which can be downloaded from the web sites listed in Appendix D.

**MT-1:** Letter of Map Amendment (LOMA)  
Conditional Letter of Map Amendment (CLOMA)  
Letter of Map Revision (Based on Fill) (LOMR-F)  
Conditional Letter of Map Revision (Based on Fill) (CLOMR-F)

**MT-2:** Letter of Map Revision (LOMR)

Conditional Letter of Map Revision (CLOMR)  
Physical Map Revision

**MT-EZ:** Letter of Map Amendment (LOMA) for a single lot

Letter of Map Revision (Based on Fill) (LOMR-F) for a single lot

**See Appendix H on obtaining copies of the FEMA MT forms. The MT-EZ is the shortest and simplest of the three forms. A copy is included in Appendix D.**

**7.3.2. Step 2: Prepare needed information**

With the exception of the MT-EZ, requests for map changes should be completed by a qualified engineer. The most common reason a map change request is denied is that the applicant did not submit adequate technical data to validate the change.

**Information Needed to Request a Map Amendment or Revision.** Most often, requests for map revisions will be made because of better ground elevation data or because of permitted filling. Anyone (local governments or individuals) can request a map revision of this type.

The request should generally include the following information:

- A completed application for LOMA/R.
- A copy of the recorded deed or plat, indicating the legal description of the property and the official recording information (deed or plat book volume and page number) and bearing the seal of the Recorder of Deeds.
- A map which shows the location of the property, either:
  - A subdivision plat
  - An official county, city, and/or subdivision map indicating the lot location
  - A subdivision map indicating the lot location sealed by a surveyor or engineer
- If the revision involves a building:
  - A plat of survey that shows the location of the building on the lot
  - the elevation of both the lowest floor (including basement) and the lowest adjacent grade to the structure
  - the type of structure (slab, crawlspace, or full basement)
  - the date construction was started
- If the revision involves a building, a topographic map which shows adjacent ground elevations may be required. The elevations must be certified by a licensed professional engineer or professional land surveyor and be written as follows:

Lowest floor elevation (including basement) \_\_\_\_\_.

Lowest adjacent grade elevation is \_\_\_\_\_.

Type of construction is \_\_\_\_\_.

Date construction started \_\_\_\_\_.

**Information Needed to Request a Floodway Revision.** A request to change a floodway map can only be submitted by a local government or must be concurred with by the local government. Communities interested in changing the floodway boundaries should contact FEMA for assistance.

Note that no floodway revision will be granted unless the revision still meets the requirements of the NFIP and DNR regulations. Requests to revise a floodway may be initiated through contact with FEMA, but review by DPS will be required before the revision is final.

### **7.3.3. Step 3: Mail FEMA form and necessary attachments:**

See Appendix B for the correct mailing address.

### **7.3.4. Step 4: FEMA forwards the request**

The request for a map change will be forwarded to FEMA's current Map Coordination Contractor (MCC), Post, Buckley, Schuh & Jernigan, Inc. (PBS & J). The MCC will send an acknowledgment letter that will inform the applicant of additional information that may be required. Upon receipt of the additional information, the MCC will process the map change request.

Note that a bank still has the prerogative to require the purchase of a flood insurance policy on a building that has been removed from the SFHA.

Additional information on map changes can be found in *Answers to Questions about the NFIP*, questions 81 – 95. See <http://www.fema.gov/nfip/qanda.shtm>.

## **7.4. Maintaining maps**

### **7.4.1. Keeping FIRMs updated**

As the primary repository for NFIP maps and studies, it is important that the community maintain adequate copies and keep them updated. It should have at least one master map that includes all the changes, annexations, map revisions, etc.

It is also important to keep copies of old, revised maps and studies. They provide a historical record of what was known and the basis of what was required in the past. For example, a property may not have been shown in the SFHA on an old FIRM, so there were no building requirements. If that property is later flooded, the community would need to show the old map as the basis for the community's action.

Similarly, people who purchased flood insurance based on the FIRM zone in effect at the time are entitled to keep that FIRM zone as the basis for their rates. It would be doing citizens a valuable service if the community were able to have a copy of an old FIRM.



There are two products that can help a community ensure that its file of LOMAs and LOMRs is complete.

1. The FIS Data List identifies the current map panels (FIRM and Floodway), panel by panel and gives the effective date for each. It also lists the current Flood Insurance Study (FIS) report date and all the LOMAs and LOMRs in effect within the community.
2. The Summary of Map Actions (SOMA) is issued when a FIRM is revised. It details the status of all map changes after the new FIRM becomes effective. The SOMA categorizes LOMAs by those that were incorporated into the new FIRM, those that could not be incorporated due to map scale limitations but will be revalidated, and those that will be superseded by updated flood hazard information.

These products can be special ordered through the Mapping Coordination Contractor (see Appendix B).

### **7.4.3. Ordering maps**

Additional copies of a community's FIS report, FIRM and Floodway Map can be ordered by calling the Map Service Center (see Appendix B). The toll-free map distribution center number is staffed Monday through Friday from 8 a.m. to 8 p.m. Eastern time.

Maps are provided at no charge to local government officials. The FIS report and Floodway Maps must be specifically requested, or only the FIRMs will be sent. Be prepared to give the Community Identification Number.

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