

S/D No.: 85-29 Name: WALNUT CREEK 2ND ADDITION

Preliminary Approved: 1/19/84
Scheduled S/D Meeting: 4/11/85

DESCRIPTION

General Location: Southwest corner of 13th Street North and 119th Street West.
Owner: Barbed Wire Associates, Attn: Leonard E. Marotte, 727 N. Waco,
Wichita, KS 67203
Surveyor/Engineer: Baughman Company, P.A.

1. Gross Acreage of Plat: 27 Acres
 2. Number of Lots:
 - Residential: 48
 - Office:
 - Commercial:
 - Industrial:
 - Total: 48
 3. Minimum Lot Area: 6,400 Sq. Ft.
 4. Existing Zoning: "AA"
 5. Proposed Zoning: "AA"
-

STAFF COMMENTS:

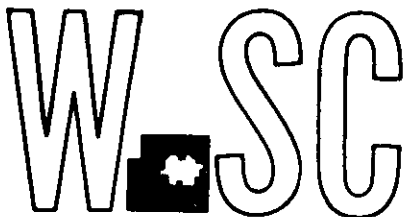
NOTE: This final plat is the southern portion of a preliminary plat reviewed by the Subdivision Committee and Utility Advisory Committee on January 19, 1984. The northern portion of the overall preliminary is now platted as Walnut Creek Addition.

- A. The applicant shall guarantee the extension of municipal water to serve each lot being platted.
- B. The applicant shall guarantee the extension of sanitary sewer to serve each lot being platted.
- C. The applicant shall guarantee the paving of all interior streets.
- D. The applicant shall guarantee any drainage improvements required by the platting of this property.
- E. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording with the plat.
- F. Since all streets are being platted with 58 feet of right-of-way, a covenant shall be submitted which requires that four (4) off-street parking spaces per dwelling unit will be provided.
- G. Provision shall be made for ownership and maintenance of the Reserves. The applicant shall either form a homeowners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and maintain the reserves prior to the association taking over these responsibilities.
- H. The final plat tracing shall express the required minimum building pad in City Datum as well as in Mean Sea Level.
- I. Closure computations shall be submitted with the final plat tracing.
- J. Recording of the plat within 30 days after approval by the Board of City Commissioners.
- K. The representative from the City Engineer's office should be prepared to comment on the status of the applicant's drainage plan. Specifically, are the boundaries of the floodway correct; what drainage improvements need to be guaranteed with this plat; and is the elevation of the minimum building pad correct?

Pre-Sub Apr. 11 Cooper

- 1 Krack's 2nd Addition. Water Line on E side of Gov. Wash. Blvd. ∴ No water problem.
- 2 Ernie Alcorn Addition. The end of the existing 12" AC water main is located 1175' N of E Mac Arthur Road coming N. from Mac Arthur. Existing main also at Haughton from the north. Water to be extended as necessary (12"). Existing
- 3 Middtown 4th Addition. Water available all sides of property. No water in areas to be vacated. except Highway R/W side.
- 4 Penstemon 3rd Addition. Existing water in Greenbriar may be tapped to extend water to Greenbriar Court. Item B.
- 5 Deer Run Addition (Formerly Deerwood, etc.). Item B. Existing 24" water main in Webb to be tapped.
- 6 Pawna Mesa Fourth Addition. Item G. Costs from existing water projects for the area to be transferred as necessary to this project.
- 7 Welch 2nd Addn. Existing 12" AC Water main on E side of Seneca. Water meter shown on sketch plot. No problem
- 8 Copeland Industrial Park. End of existing water main is located 1240' S of the N PC of 33rd St. N. on Hydraulic, coming from the north. 33rd St is the section road. Property should be served now.
- 9 Steve Graham Addition. Existing water available
- 10 Walnut Creek^{2nd} Addition. Item A. Contract underway for Walnut Creek. Water will be available for Walnut Creek 2nd.
- 11 Dilliansburg. No Problem.

WICHITA - SEDGWICK COUNTY



METROPOLITAN AREA PLANNING
COMMISSION

CITY HALL - TENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4561



April 12, 1985

Baughman Company, P.A.
330 Laura
Wichita, KS 67211

Re: S/D 85-29 - Final Plat of Walnut Creek 2nd Addition

Gentlemen:

At the regular meeting of the Subdivision Committee of the Metropolitan Area Planning Commission on Thursday, April 11, 1985, the above-captioned plat was considered. The action of the Committee was to recommend that this plat be approved subject to:

- A. The applicant shall guarantee the extension of municipal water to serve each lot being platted.
- B. The applicant shall guarantee the extension of sanitary sewer to serve each lot being platted.
- C. The applicant shall guarantee the paving of all interior streets.
- D. The applicant shall guarantee any drainage improvements required by the platting of this property.
- E. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording with the plat.
- F. Since all streets are being platted with 58 feet of right-of-way, a covenant shall be submitted which requires that four (4) off-street parking spaces per dwelling unit will be provided.
- G. Provision shall be made for ownership and maintenance of the Reserves. The applicant shall either form a homeowners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and maintain the reserves prior to the association taking over these responsibilities.
- H. The final plat tracing shall express the required minimum building pad in City Datum as well as in Mean Sea Level.

C
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P
Y

Baughman Company, P.A.

Re: S/D 85-29 - Final Plat of Walnut Creek 2nd Addition

April 12, 1985

Page 2

- I. The final plat tracing shall indicate a 20-foot utility easement between Lots 2 and 3, Block 6.
- J. As requested by K.G.& E., the final plat tracing shall indicate the following utility easements:
 - 1. 10-foot between Lots 9 and 10, Block 2.
 - 2. 10-foot between Lots 4 and 5, Block 5.
 - 3. 10-foot between Lots 7 and 8, Block 6.
 - 4. 10-foot between Lots 3 and 4, Block 6.
 - 5. 5-foot adjacent to the north line of Lot 1, Block 6.
- K. The applicant shall submit a sanitary sewer layout to the City Engineer's office for review and approval.
- L. Closure computations shall be submitted with the final plat tracing.
- M. Recording of the plat within 30 days after approval by the Board of City Commissioners.

Enclosed with the applicant's copy of this letter is a list of the five methods which have been adopted as being acceptable for guaranteeing improvements required in the approval of plats. The certificate will be required if petitions are submitted. Forms for the bond and irrevocable Letter of Credit are available from this office.

The enclosed "marked" copy of the final plat is for your information and files.

This matter will be forwarded to the Planning Commission for its consideration on Thursday, April 18, 1985 at 1:30 p.m. If you have any questions concerning this matter, please call.

Sincerely,

BRB

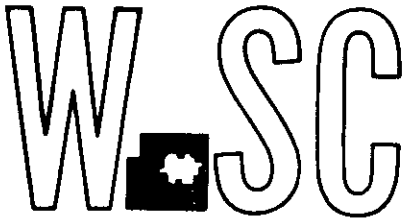
Barbara R. Bonanni
Junior Planner

BRB:mlh

Enclosure

cc: Barbed Wire Associates, c/o Len E. Marotte, 727 North Waco, Wichita,
Kansas, 67203
✓ Mike Lindebak, City Engineer

WICHITA—SEDGWICK COUNTY



METROPOLITAN AREA PLANNING
COMMISSION

CITY HALL — TENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4561

April 19, 1985

Baughman Company, P.A.
330 Laura
Wichita, KS 67211

Re: S/D 85-29 - Final Plat of Walnut Creek 2nd Addition

Gentlemen:

At the regular meeting of the Metropolitan Area Planning Commission on April 18, 1985, the above-captioned plat was considered. The action of the Planning Commission was to recommend that the plat be approved as recommended by the Subdivision Committee subject to the conditions stated in our letter of April 12, 1984.

In addition to complying with those conditions, it is necessary that you meet the following requirements before this plat can be forwarded to the Board of City Commissioners for consideration:

1. Submission of the fully completed and signed tracing of the subdivision to the Metropolitan Area Planning Department.
2. Submission of a title report by an abstract or title insurance company or an attorney's opinion that fee title is vested in the platfor.
3. Certification that all real estate taxes for 1984 (both first and second halves) and prior years have been paid.

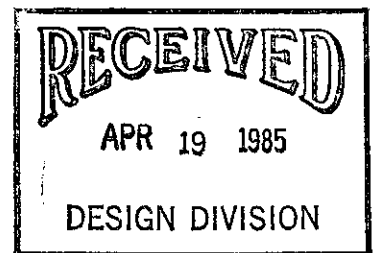
Please call if you have any questions.

Very truly yours,

Barbara R. Bonanni
Junior Planner

BRB:mlh

cc: Barbed Wire Associates, c/o Len E. Marotte, 727 North Waco,
Wichita, KS 67203
Mike Lindebak, City Engineer



C
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P
Y

THE CITY OF WICHITA

OFFICE OF MAPD/DESIGN

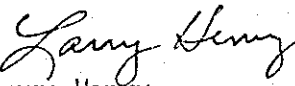
DATE July 12, 1985

TO Forrest Nagley, Senior Planner

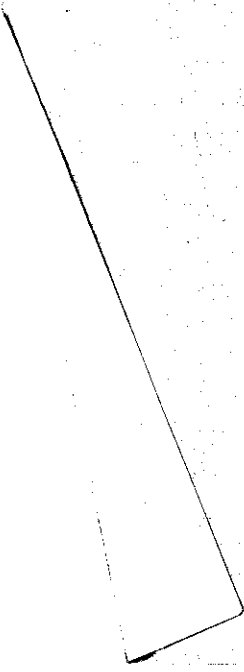
FROM Larry Henry, Program Development Engineer

SUBJECT East Hampton Addition
Walnut Creek 2nd Addition
First Mennonite Brethren Addn.
Windmere Addition

The required petitions for the above-referenced additions have been received.


Larry Henry
Program Development Engineer

LH:mgr



WILLIAM L. KORBER, L.S.
JOHN E. LUNDBLADE, L.S.
N. BRENT WOOTEN, P.E.



BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

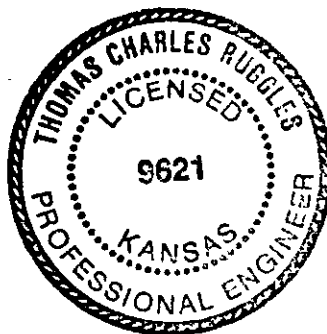
State of Kansas)
) SS
County of Sedgwick)

February 6, 1987

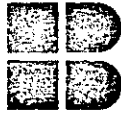
We, Baughman Company, P.A., Surveyors in aforesaid county and state do hereby certify that we did on the 3rd day of January, 1987, survey Lot 12, Block 2, Walnut Creek 2nd Addition, Sedgwick County, Kansas.

According to the FEMA Flood Control Insurance Rate Map, Community Panel Number 200328, Panel 0005 B, dated May 15, 1986, said Lot lies within a special Flood Hazard area. In accordance with FEMA Conditional Letter of Map Revision, dated October 15, 1986, said Lot has been filled to the elevations shown on the accompanying plat. No portion of said Lot is lower than Base Flood Elevation 1337.0.

Thomas C. Ruggles, P.E.
Surveyor



WILLIAM L. KORBER, L.S.
JOHN E. LUNDBLADE, L.S.
N. BRENT WOOTE, P.E.

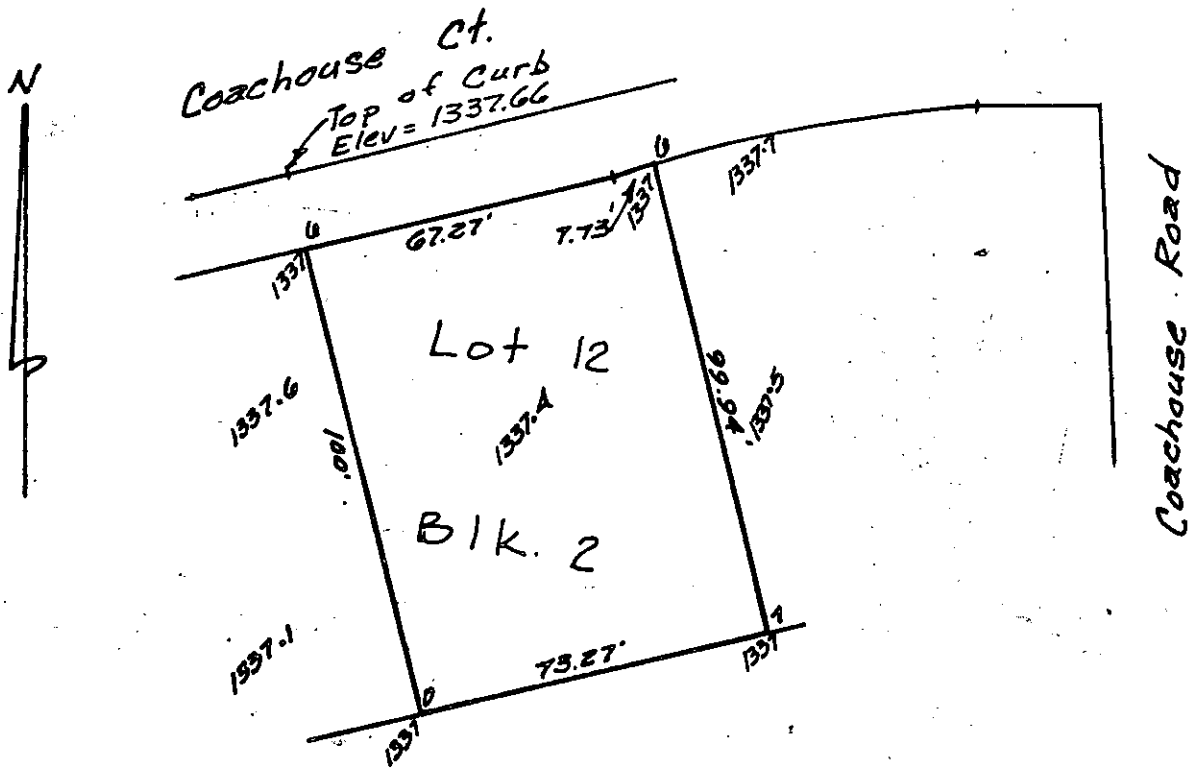


BAUGHMAN COMPANY, P.A.

SURVEYING & ENGINEERING

316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

Bench Mark: R.R. Spike in
tree stump @ S.W. Cor. Lot 5,
Block 3, Walnut Creek Addn.
Elev. 1332.75 MSL





Federal Emergency Management Agency

Washington, D.C. 20472

IN REPLY REFER TO:
IA-RA-TO (216-65B)

FEB 23 1987

Mr. Chris J. Breitenstein, P.E.
City Engineer's Office, City Hall
455 North Main Street
Wichita, Kansas 67202

RE: Letter dated February 11, 1987 regarding the Flood Insurance Rate Map for the City of Wichita, Kansas.

Dear Mr. Breitenstein;

This is in response to the above-referenced letter requesting that the Federal Emergency Management Agency (FEMA) determine whether a certain property or structure(s) is/are located within the Special Flood Hazard Area.

The enclosed memorandum "Conditions and Criteria for Issuing Letters of Map Revision (LOMRs) Involving Fill" describes in detail the FEMA policy concerning revisions to flood maps and the types of information you may be requested to submit for review.

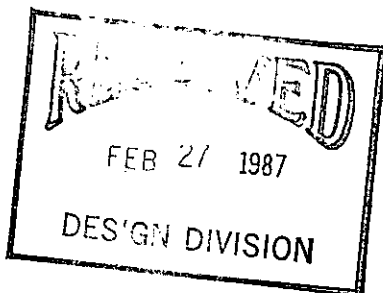
Greenhorne & O'Mara, Inc., our consulting engineers, will be contacting you to discuss the flooding conditions and the data required to complete your request. As the review progresses, you may be asked to submit additional information including, but not limited to, those data discussed in the enclosure. The enclosed "Data Request Checklist" specifies the required information you have submitted as well as the information you should submit to expedite the processing of your appeal. If necessary, Greenhorne & O'Mara, Inc., will discuss with you steps that you can take to acquire any information required for the resolution of your appeal.

Upon completion of a final review of your appeal by this office, the map will be revised by letter, if technically justified.

All technical data and questions concerning your appeal should be directed to:

Mr. Michael E. Kanowitz, P.E.
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, Maryland 20770
Phone: (301) 982-2800

If you have any questions concerning FEMA's policy or the National Flood Insurance Program in general, please call our Washington office at (202) 646-2764.



Sincerely,

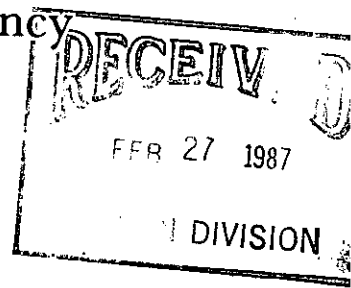
Charles A. Lindsey
Chief, Technical Operations Division
Federal Insurance Administration

Enclosures



Federal Emergency Management Agency

Washington, D.C. 20472



Case #

DATA REQUEST CHECKLIST FOR LETTER OF MAP REVISION BASED ON FILL

Requestor: Chris J. Breitenstein Date: February 23 1987

Community: Wichita, KS Property: Lot 12, Block 2, Walnut Creek
2nd Addition

The information checked below in Column 1 is required to process your request for a Letter of Map Revision. Information checked in Column 2 has been received and should not be resubmitted unless specifically requested.

(1) REQ'D DATA	(2) REC'D DATA	
		1. A copy of the recorded Deed giving the legal description of your property, bearing the seal of the County Clerk for Recorder of Deeds, and indicating the official recordation data (deed book volume and page number).
	X	2. A copy of the recorded plat map showing the location of your property, bearing the seal of the County Clerk or Recorder of Deeds, and indicating the official recordation data (plat book volume and page number).
X		3. Street address(es) of the property. (If proposed structure(s), submit street address once structure is built along with a copy of the Conditional Letter of Map Revision.)
		4. Tax assessor's or other suitable maps showing the surveyed location of the property (only in cases where a recorded plat is not available).
	X	5. If your request is for more than one lot or structure, then a photographic or original copy of an official, currently effective Federal Emergency Management Agency Map (Flood Insurance Rate Map or Flood Hazard Boundary Map) showing the accurately plotted legal metes and bounds of the property and certified by a professional engineer or licensed land surveyor. Property should be plotted as outlined in the enclosed memorandum "Conditions and Criteria for Issuing Letters of Map Revision (LOMRs) Involving Fill" Section 1-2, Item h.
	X	6. Certified planimetric information indicating the location of structures on the property.

(1) REQ'D DATA	(2) REC'D DATA
----------------------	----------------------

	X
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7. Certification by a registered professional engineer or licensed land surveyor stating:

- a. The elevation of the lowest finished grade immediately adjacent to the structure (include datum).
- b. The elevation of the lowest floor (including basement and/or attached garage) (include datum). In cases of no basement, it should be so stated.

X	
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8. Certification of the dates of placement of fill to raise the property/structures above the base flood elevation.

9. If your request is for more than one lot or structure, then the following items are required:

- a. Standard Proctor Test results showing that the fill has been compacted to 95 percent of the maximum obtainable density (this requirement applies to fill pads prepared for residential or commercial structure foundations and not to fill placed for other uses);
- b. Information showing that fill slopes for granular materials are not steeper than one vertical on one-and-one-half horizontal (steeper slopes must be justified);
- c. Information showing that adequate protection is provided for fill slopes exposed to flood waters (slopes exposed to flows with velocities of up to 5 feet per second (fps) during the 100-year flood must, at a minimum, be protected by a cover of grass, vines, weeds, or similar vegetation; slopes exposed to flows with velocities greater than 5 fps during the 100-year flood must, at a minimum, be protected by stone or rock riprap); and
- d. Information showing that the fill has not been placed within a regulatory floodway.

The information described in 9a through 9d must be certified by the community NFIP permit official, a registered professional engineer, or an accredited soils engineer.

10. Hydraulic calculations for _____

X	
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11. The signed and dated "Request for Letter of Map Revision" form (enclosed).

February 17, 1987

Mr. Charles A. Lindsey, Chief
Technical Operations Division
Federal Insurance Administration
Federal Emergency Management Agency
Washington, D.C. 20472

Subject: IA-RA-TO (218-65)

Dear Mr. Lindsey:

Please consider this request for a Letter of Map Revision for all lots and blocks in Walnut Creek 2nd Addition.

I am enclosing a copy of the "as built" Elevation Certification by Baughman Company, P.A., and a copy of the Conditional Letter of Map Revision.

Please note that Lot 8, Block 6, and Lot 1, Block 5, Walnut Creek 2nd Addition have previously received LOMP and a LOMR has been requested for Lot 12, Block 2, Walnut Creek 2nd Addition.

We would appreciate your prompt consideration of this request.

Yours truly,



Chris J. Breitenstein, P.E.
Civil Engineer III

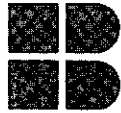
CJB:gr
Enclosures

cc: Albert Schultz, FEMA, Region VII
Tom Ruggles, Baughman Company
Chris Cherches, City Manager

WILLIAM L. KORBER, L.S.

JOHN E. LUNDBLADE, L.S.

N. BRENT WOOTEN, P.E.



BAUGHMAN COMPANY, P.A.

SURVEYING & ENGINEERING

316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

February 13, 1987

Chris J. Breitenstein, P.E.
City Engineer's Office
455 North Main
Wichita, KS 67202

Re: Letter of Map Revision
Walnut Creek 2nd Addition

Dear Chris,

Attached is a certificate of our survey verifying the placement of fill on all the remaining lots. Please submit the certificate and the accompanying survey drawing with a request for a Letter of Map Revision for all lots not covered by previous letters.

Also, in reference to the letter from FEMA on Lot 1, Block 5, the exception of a portion of the lot is puzzling. According to the Base Flood Elevations indicated on our grading plan, all of Lot 1 is above those elevations. A copy of our letter to FEMA requesting a review is attached.

Sincerely,

Thomas C. Ruggles, P.E.

TCR/ksb

WILLIAM L. KORBER, L.S.

JOHN E. LUNDBLADE, L.S.

N. BRENT WOOTEN, P.E.



BBAUGHMAN COMPANY, P.A.

SURVEYING & ENGINEERING

316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

February 13, 1987

Charles A. Lindsey, Chief
Technical Operations Division
Federal Insurance Administration
Federal Emergency Management Agency
Washington, D.C. 20472

Re: IA-RA-TO (218-65)

Dear Mr. Lindsey,

Our office has received a copy of your letter to the City of Wichita, Kansas, dated January 19, 1987, regarding a Letter of Map Revision for Lot 1, Block 5, Walnut Creek 2nd Addition, Wichita, Kansas. The letter states that portions of Lot 1 are within the SFHA, Zone 4.

The plan submitted by this office for the Conditional LOMR, dated June 1986, indicates approximate Base Flood Elevations at intervals across the subdivision, interpolated from the FIRM. All elevations on Lot 1, Block 5, per our survey of December 5, 1986, are above these interpolated elevations. Please review this drawing and advise us whether the lot is actually above the Base Flood Elevation, or the interpolated elevations from the FIRM are incorrect. If the elevations do not agree with your interpretation of the FIRM, please indicate on the enclosed print.

A request for a Letter of Map Revision for the remainder of Walnut Creek 2nd Addition is being submitted to you this date through the City Engineer's Office. If you have any questions, please write or call me.

Sincerely,

Thomas C. Ruggles, P.E.

cc: Chris Breitenstein
Real Vest, Inc.

TCR/ksb



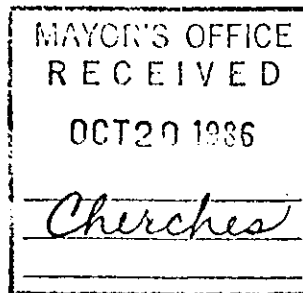
Federal Emergency Management Agency

Washington, D.C. 20472

OCT 15 1986

IN REPLY REFER TO:
IA-RA-TO (218-65):

The Honorable Tony Casado
Mayor, City of Wichita
City Hall
455 North Main
Wichita, Kansas 67202



Dear Mayor Casado:

This is in response to a request dated June 17, 1986, from Mr. Larry E. Bottenberg, that the Federal Emergency Management Agency (FEMA) determine whether Lots 1-9, Block 1; Lots 1-13, Block 2; Lots 1-8, Block 3; Lots 1-4, Block 4; Lots 1-6, Block 5; and Lots 1-8, Block 6, Walnut Creek 2nd Addition, City of Wichita, Sedgwick County, Kansas, as recorded in M-2 7-28, Office of the Register of Deeds, Sedgwick County, Kansas, are located within the Special Flood Hazard Area (SFHA).

On September 11, 1986, we received all technical data necessary to process the request. We have reviewed the Flood Insurance Rate Map with respect to these data, and have determined that Lots 1 and 9, Block 1, and Lots 1-3, Block 6; are not within the SFHA, Zone A4, as shown on Map Number 200328, Panel 0005B, dated May 15, 1986, but are located in Zone B where flood insurance is available at low cost.

We have also determined that portions of the above-mentioned Lots 2-8, Block 1; Lots 1-13, Block 2; Lots 1-8, Block 3; Lots 1-4, Block 4; Lots 1-6, Block 5; and Lots 4-8, Block 6, are located within a SFHA, Zone A4, and would be inundated by a flood having a one-percent chance of occurrence each year. A final determination as to whether the proposed structures on these lots would be located within the SFHA cannot be made at this time. However, a final determination will be made upon receiving certified "as-built" information showing the location of the structures and the elevations of both the lowest finished grade adjacent to each structure and the lowest floor, including basement, of each structure. Along with this information, a copy of this letter must be included.

Based on the data supplied by Mr. Bottenberg, the structures as proposed on Lots 2-8, Block 1; Lots 1-13, Block 2; Lots 1-8, Block 3; Lots 1-4, Block 4; Lots 1-5, Block 5; and Lots 4-8, Block 6, would not be located within the SFHA if they are constructed as proposed on "Grading Plan for Conditional Letter of Map Revision, Walnut Creek 2nd Addition, Wichita, Kansas," prepared by Baughman Company, P.A. The final determination will be based on these data unless future additional flood data become available indicating otherwise. However, no new information is anticipated to be generated in the near future for the City of Wichita, Kansas.

Based on the data supplied by Mr. Bottenberg, the structures, as proposed on Lot 6, Block 5, would be located within the SFHA if built as proposed; therefore, flood insurance would be required for these structures. While the proposed structure information indicates that the lowest finished floor and the lowest finished grade adjacent to the proposed structures would be above the elevation of FEMA's estimate of the base flood, the structure is proposed for construction in the regulatory floodway of Cowskin Creek. Under the minimum criteria established by FEMA for floodplain management regulations, fill may not be used as a means of elevating land areas of structures above the Base Flood Elevation (BFE) in a regulatory floodway if the fill would result in any increase in the BFEs.

After reviewing the Flood Boundary and Floodway Map for the City of Wichita, Kansas, we have also determined that a portion of Lots 4 and 5, Block 1, and Lot 6, Block 5, lie within the regulatory floodway for Cowskin Creek. Under the minimum criteria established by FEMA for floodplain management regulations, fill may not be used as a means of elevating land areas or structures above the BFE in a regulatory floodway if the fill would result in any increase in the BFEs.

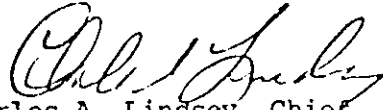
Under Part 60.3(d)(3) of the National Flood Insurance Program (NFIP) Regulations, no encroachments, including fill, new construction, and substantial improvements, may take place within a regulatory floodway that would result in any increase in flood levels. Any revision of the BFEs and/or floodway must be requested by the elected officials of the community. Revised floodway configurations will be reviewed and approved by the FEMA Region VII Office. The community should contact the FEMA Region VII Office, the Chief, Natural and Technological Hazards Division, Old Federal Office Building, Room 300, 911 Walnut Street, Kansas City, Missouri 64106, at (816) 374-2161, for the specific information required for the review.

Portions of this letter address lots that are within a SFHA and, therefore, it does not relieve Federal agencies of the need to comply with Executive Order 11988 on Floodplain Management, for these particular lots, in carrying out their responsibilities for providing federally undertaken, financed, or assisted construction and improvements, or in their regulating or licensing activities.

This response to your request is based on minimum floodplain management criteria established under the NFIP. Your community is responsible for approving all proposed floodplain developments, including this request, and for assuring that necessary permits required by Federal or State law have been received. State and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If the State of Kansas or the City of Wichita has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP requirements.

If you have any questions or if we can be of further assistance, please contact the Office of Risk Assessment, Federal Insurance Administration, at (202) 646-2764.

Sincerely,



Charles A. Lindsey, Chief
Technical Operations Division
Federal Insurance Administration

cc: Mr. Larry E. Bottenberg

State Coordinator



Federal Emergency Management Agency

DEC 9 1986

Washington, D.C. 20472

IN REPLY REFER TO:
IA-RA-TO (216-65B)

Mr. Chris J. Breitenstein
City Hall, Seventh Floor
455 North Main Street
Wichita, Kansas 67202

RE: Letter of November 24, 1986 regarding the Flood Insurance Rate
Map for the City of Wichita, Kansas

Dear Mr. Breitenstein:

This is in response to the above-referenced letter requesting that the Federal Emergency Management Agency (FEMA) determine whether a certain property or structure(s) is/are located within the Special Flood Hazard Area.

The enclosed memorandum "Conditions and Criteria for Issuing Letters of Map Revision (LOMRs) Involving Fill" describes in detail the FEMA policy concerning revisions to flood maps and the types of information you may be requested to submit for review.

Greenhorne & O'Mara, Inc., our consulting engineers, will be contacting you to discuss the flooding conditions and the data required to complete your request. As the review progresses, you may be asked to submit additional information including, but not limited to, those data discussed in the enclosure. The enclosed "Data Request Checklist" specifies the required information you have submitted as well as the information you should submit to expedite the processing of your appeal. If necessary, Greenhorne & O'Mara, Inc., will discuss with you steps that you can take to acquire any information required for the resolution of your appeal.

Upon completion of a final review of your appeal by this office, the map will be revised by letter, if technically justified.

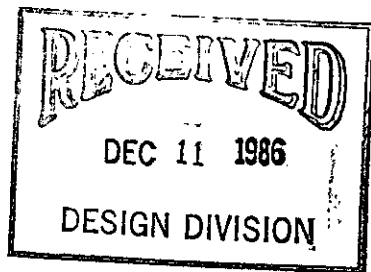
All technical data and questions concerning your appeal should be directed to:

Mr. Michael E. Kanowitz, P.E.
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, Maryland 20770
Phone: (301) 982-2800

If you have any questions concerning FEMA's policy or the National Flood Insurance Program in general, please call our Washington office at (202) 646-2764.

Sincerely,

Charles A. Lindsey
Chief, Technical Operations Division
Federal Insurance Administration



Enclosures



Federal Emergency Management Agency

Washington, D.C. 20472

Case #

DATA REQUEST CHECKLIST FOR LETTER OF MAP REVISION BASED ON FILL

Requestor: Mr. Breitenstein

Date: December 9, 1986

Community: Nichita

Property: Lot 8, Block 6, Walnut
Creek 2nd Addition

The information checked below in Column 1 is required to process your request for a Letter of Map Revision. Information checked in Column 2 has been received and should not be resubmitted unless specifically requested.

(1) REQ'D DATA	(2) REC'D DATA	
		1. A copy of the recorded Deed giving the legal description of your property, bearing the seal of the County Clerk for Recorder of Deeds, and indicating the official recordation data (deed book volume and page number).
	✓	2. A copy of the recorded plat map showing the location of your property, bearing the seal of the County Clerk or Recorder of Deeds, and indicating the official recordation data (plat book volume and page number).
		3. Street address(es) of the property. (If proposed structure(s), submit street address once structure is built along with a copy of the Conditional Letter of Map Revision.)
		4. Tax assessor's or other suitable maps showing the surveyed location of the property (only in cases where a recorded plat is not available).
	✓	5. If your request is for more than one lot or structure, then a photographic or original copy of an official, currently effective Federal Emergency Management Agency Map (Flood Insurance Rate Map or Flood Hazard Boundary Map) showing the accurately plotted legal metes and bounds of the property and certified by a professional engineer or licensed land surveyor. Property should be plotted as outlined in the enclosed memorandum "Conditions and Criteria for Issuing Letters of Map Revision (LOMRs) Involving Fill" Section 1-2, Item h.
		6. Certified planimetric information indicating the location of structures on the property.

(1) REQ'D DATA	(2) REC'D DATA	
	✓	7. Certification by a registered professional engineer or licensed land surveyor stating: <ul style="list-style-type: none"> a. The elevation of the lowest finished grade adjacent to the structure (include datum). b. The elevation of the lowest floor (including basement and/or attached garage) (include datum). In cases of no basement, it should be so stated. <i>C. lowest elevation on lot</i>
	✓	8. Certification of the dates of placement of fill to raise the property/structures above the base flood elevation.
		9. Certification of the fill as outlined in paragraph (a) (6) and paragraph (c) of Section 65.5 on pages 30313 and 30314 of the attached Federal Register dated August 25, 1986.
		10. Hydraulic calculations for _____
	✓	11. The signed and dated "Request for Letter of Map Revision" form (enclosed).
	✓	12. The signed and dated "Community Acknowledgement of Request for Letter of Map Revision" form (enclosed).
		13. A letter from the state approving your fill within the Special Flood Hazard Area.
		14. Initial fee for Conditional LOMR based on fill:* <ul style="list-style-type: none"> a. Single-lot \$125 b. Multi-lot/subdivision \$175
	✓	15. Daytime telephone number
		16. Other: _____

The information checked in Column 1 should be sent directly to Greenhorne & O'Mara, Inc., our consulting engineers, at the following address:

Mr. Michael E. Kanowitz, P.E.
 Greenhorne & O'Mara, Inc.
 9001 Edmonston Road
 Greenbelt, Maryland 20770

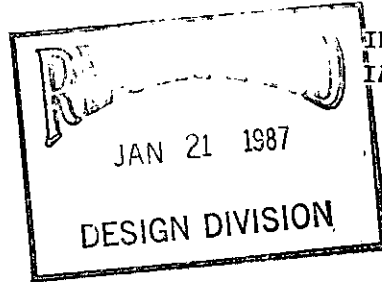


Federal Emergency Management Agency

Washington, D.C. 20472

OCT 15 1986

The Honorable Tony Casado
Mayor, City of Wichita
City Hall
455 North Main
Wichita, Kansas 67202



IN REPLY REFER TO:
IA-RA-TO (218-65):

Dear Mayor Casado:

This is in response to a request dated June 17, 1986, from Mr. Larry E. Bottenberg, that the Federal Emergency Management Agency (FEMA) determine whether Lots 1-9, Block 1; Lots 1-13, Block 2; Lots 1-8, Block 3; Lots 1-4, Block 4; Lots 1-6, Block 5; and Lots 1-8, Block 6, Walnut Creek 2nd Addition, City of Wichita, Sedgwick County, Kansas, as recorded in M-2 7-28, Office of the Register of Deeds, Sedgwick County, Kansas, are located within the Special Flood Hazard Area (SFHA).

On September 11, 1986, we received all technical data necessary to process the request. We have reviewed the Flood Insurance Rate Map with respect to these data, and have determined that Lots 1 and 9, Block 1, and Lots 1-3, Block 6; are not within the SFHA, Zone A4, as shown on Map Number 200328, Panel 0005B, dated May 15, 1986, but are located in Zone B where flood insurance is available at low cost.

We have also determined that portions of the above-mentioned Lots 2-8, Block 1; Lots 1-13, Block 2; Lots 1-8, Block 3; Lots 1-4, Block 4; Lots 1-6, Block 5; and Lots 4-8, Block 6, are located within a SFHA, Zone A4, and would be inundated by a flood having a one-percent chance of occurrence each year. A final determination as to whether the proposed structures on these lots would be located within the SFHA cannot be made at this time. However, a final determination will be made upon receiving certified "as-built" information showing the location of the structures and the elevations of both the lowest finished grade adjacent to each structure and the lowest floor, including basement, of each structure. Along with this information, a copy of this letter must be included.

Based on the data supplied by Mr. Bottenberg, the structures as proposed on Lots 2-8, Block 1; Lots 1-13, Block 2; Lots 1-8, Block 3; Lots 1-4, Block 4; Lots 1-5, Block 5; and Lots 4-8, Block 6, would not be located within the SFHA if they are constructed as proposed on "Grading Plan for Conditional Letter of Map Revision, Walnut Creek 2nd Addition, Wichita, Kansas," prepared by Baughman Company, P.A. The final determination will be based on these data unless future additional flood data become available indicating otherwise. However, no new information is anticipated to be generated in the near future for the City of Wichita, Kansas.

Based on the data supplied by Mr. Bottenberg, the structures, as proposed on Lot 6, Block 5, would be located within the SFHA if built as proposed; therefore, flood insurance would be required for these structures. While the proposed structure information indicates that the lowest finished floor and the lowest finished grade adjacent to the proposed structures would be above the elevation of FEMA's estimate of the base flood, the structure is proposed for construction in the regulatory floodway of Cowskin Creek. Under the minimum criteria established by FEMA for floodplain management regulations, fill may not be used as a means of elevating land areas of structures above the Base Flood Elevation (BFE) in a regulatory floodway if the fill would result in any increase in the BFEs.

After reviewing the Flood Boundary and Floodway Map for the City of Wichita, Kansas, we have also determined that a portion of Lots 4 and 5, Block 1, and Lot 6, Block 5, lie within the regulatory floodway for Cowskin Creek. Under the minimum criteria established by FEMA for floodplain management regulations, fill may not be used as a means of elevating land areas or structures above the BFE in a regulatory floodway if the fill would result in any increase in the BFEs.

Under Part 60.3(d)(3) of the National Flood Insurance Program (NFIP) Regulations, no encroachments, including fill, new construction, and substantial improvements, may take place within a regulatory floodway that would result in any increase in flood levels. Any revision of the BFEs and/or floodway must be requested by the elected officials of the community. Revised floodway configurations will be reviewed and approved by the FEMA Region VII Office. The community should contact the FEMA Region VII Office, the Chief, Natural and Technological Hazards Division, Old Federal Office Building, Room 300, 911 Walnut Street, Kansas City, Missouri 64106, at (816) 374-2161, for the specific information required for the review.

Portions of this letter address lots that are within a SFHA and, therefore, it does not relieve Federal agencies of the need to comply with Executive Order 11988 on Floodplain Management, for these particular lots, in carrying out their responsibilities for providing federally undertaken, financed, or assisted construction and improvements, or in their regulating or licensing activities.

This response to your request is based on minimum floodplain management criteria established under the NFIP. Your community is responsible for approving all proposed floodplain developments, including this request, and for assuring that necessary permits required by Federal or State law have been received. State and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If the State of Kansas or the City of Wichita has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP requirements.

If you have any questions or if we can be of further assistance, please contact the Office of Risk Assessment, Federal Insurance Administration, at (202) 646-2764.

Sincerely,

SIGNED

Charles A. Lindsey, Chief
Technical Operations Division
Federal Insurance Administration

cc: Mr. Larry E. Bottenberg

State Coordinator

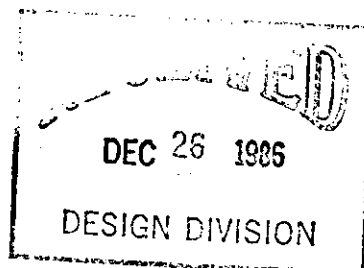


Federal Emergency Management Agency

Washington, D.C. 20472

DEC 23 1986

Mr. Michael E. Lindebak
City Engineer
City of Wichita
City Hall-Seventh Floor
455 North Main Street
Wichita, Kansas 67202



Dear Mr. Lindebak:

This is in regard to your June 17, 1986, and October 15, 1986 letters concerning technical data necessary to obtain an exception to National Flood Insurance Program regulations to allow the construction of floodproofed residential basements in special flood hazard areas, and the pertinent flood warning requirements in the Final Rule which became effective October 1, 1986. No such construction should be sanctioned by your community until the exception request has been evaluated and determination has been made.

The following information must be submitted so that your request can be evaluated:

- An accurate description, that can be related to the Flood Insurance Rate Map (FIRM) for the community, of the location of areas pertaining to the request.
- Topographic mapping of suitable scale and definition, or other elevation data, that clearly indicates the ground elevations of the potential sites for residences with floodproofed basements. These ground elevations will be compared to the base flood elevations to determine depths of flooding.
- A tabulation of floodwater velocities, both channel and overbank, for the appropriate flooding sources of the potential sites for floodproofed basements.
- Information regarding rate-of-rise and amount of advance warning time, of the potential sites for floodproofed basements.
- A detailed description of any flood warning system utilized by the community.

- ° A description of the soils in the pertinent flood areas, including the degree of permeability, shrink-swell potential, relation to the water table, and an assessment of their relationship to floodproofed basements.
- ° Any additional information that the community believes may be applicable.

This material should be sent to:

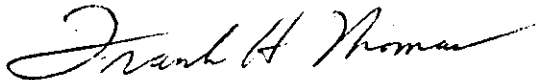
Federal Emergency Management Agency
Federal Insurance Administration
500 C Street, S.W. - Room 416
Washington, D.C. 20472
Attention: Technical Standards Division

In regard to your inquiry on flood warning systems, I have enclosed a copy of the Final Rule which includes criteria for granting exceptions for basements under the revised procedure at 44 CFR 60.6 (c)(1)(iii). For streams affected by your application you must be able to demonstrate that there is at least 12 hours of warning time. This warning time can be defined as the time between when the potential for flooding can first be identified until floodwaters would begin to come into contact with structures, or begin to limit access to those structures, whichever comes first. As an alternative, the Administrator may approve warning times as short as two hours provided that the community can demonstrate that it has a flood warning system and emergency plan in operation that is adequate to ensure safe evacuation of floodplain residents. In the situation which you describe where drainage basins are entirely within the City limits it is unlikely that there would be 2 hours of warning time. An exception that applied to these floodplains could not be approved under the new procedure.

The City of Wichita can apply for an exception under the procedure at 44 CFR 60.6(b) for these floodplains. However, under this procedure, FEMA would be required to determine that, because of extraordinary circumstances, local conditions would render the prohibition on basements the cause for severe hardship and gross inequity for that community. FEMA would also have to evaluate the impact on public safety and prepare an environmental assessment on the possible exception. Although no decision can be made on such a request without fully evaluating all the facts of your particular situation, I suspect that FEMA would not be able to justify granting such an exception due to the potential for flash flooding along these streams.

If you require additional assistance, please call Michael Robinson of my staff at (202) 646-2716.

Sincerely,

A handwritten signature in cursive script that reads "Frank H. Thomas".

Frank H. Thomas
Assistant Administrator
Office of Loss Reduction

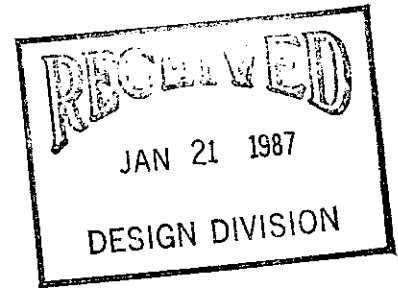


Federal Emergency Management Agency

Washington, D.C. 20472

JAN 15 1987

IN REPLY REFER TO:
IA-RA-TO (218-65):



Mr. Michael E. Lindebak, P.E.
City Engineer
City Hall, Seventh Floor
455 North Main Street
Wichita, Kansas 67202

Dear Mr. Lindebak:

This is in response to your letter dated November 4, 1986, requesting that the Federal Emergency Management Agency (FEMA) redetermine whether the proposed structure on Lot 6, Block 5, Walnut Creek 2nd Addition, City of Wichita, Sedgwick County, Kansas, as recorded in M-2 7-28, Office of the Register of Deeds, Sedgwick County, Kansas, would be located within the Special Flood Hazard Area (SFHA).

On December 16, 1986, we received new technical data necessary to process the request. We have reviewed the Flood Boundary and Floodway Map with respect to these data, and have determined that no portion of the lot is within the floodway as stated in the Conditional Letter of Map Revision (LOMR) sent to Mayor Casado on October 15, 1986 (copy enclosed).

We have also determined that portions of the lot are located within a SFHA, Zone A4, and would be inundated by a flood having a one-percent chance of occurrence each year. A final determination as to whether the proposed structure on this lot would be located within the SFHA cannot be made at this time. However, a final determination will be made upon receiving certified "as-built" information showing the location of the structure and the elevations of both the lowest finished grade adjacent to each structure and the lowest floor, including basement, of each structure.

Based on the data supplied by Mr. Larry E. Bottenberg, the structure would not be located within the SFHA if it is constructed as proposed on the "Grading Plan for Conditional Letter of Map Revision, Walnut Creek 2nd Addition, Wichita, Kansas," prepared by Baughman Company, P.A. The final determination will be based on these data unless future additional flood data become available indicating otherwise. However, no new information is anticipated to be generated in the near future for the City of Wichita, Kansas. This determination supersedes the portion of the previous Conditional LOMR dated October 15, 1986, that addresses Lot 6, Block 5 only.

It should be noted that because the date of your original request was prior to October 1, 1986, the above-mentioned lots are not subject to the new FEMA requirements for fill compaction. However, all future requests must be in accordance with current requirements as set forth in the Federal Register, Part II, Volume 51, Number 164, dated August 25, 1986, pages 30313 and 30314, paragraph 65.5 (a) (6) (copy enclosed).

This Conditional LOMR does not relieve Federal agencies of the need to comply with Executive Order 11988 on Floodplain Management in carrying out their responsibilities for providing federally undertaken, financed, or assisted construction and improvements, or in their regulating or licensing activities.

This response to your request is based on minimum floodplain management criteria established under the National Flood Insurance Program (NFIP). Your community is responsible for approving all proposed floodplain developments, including this request, and for assuring that necessary permits required by Federal or State law have been received. State and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If the State of Kansas or the City of Wichita has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP requirements.

If you have any questions or if we can be of further assistance, please contact the Office of Risk Assessment, Federal Insurance Administration, at (202) 646-2764.

Sincerely,



Charles A. Lindsey, Chief
Technical Operations Division
Federal Insurance Administration

Enclosure



Federal Emergency Management Agency

DEC 19 1986 Washington, D.C. 20472

IN REPLY REFER TO:
IA-RA-TO (216-65B)

Mr. Chris J. Breitenstein, P.E.
City Hall-Seventh Floor
455 North Main Street
Wichita, Kansas 67202

RE: Letter of December 11, 1986 regarding the Flood Insurance Rate
Map for the City of Wichita, Kansas
Dear Mr. Breitenstein:

This is in response to the above-referenced letter requesting that the Federal
Emergency Management Agency (FEMA) determine whether a certain property or
structure(s) is/are located within the Special Flood Hazard Area.

The enclosed memorandum "Conditions and Criteria for Issuing Letters of Map
Revision (LOMRs) Involving Fill" describes in detail the FEMA policy
concerning revisions to flood maps and the types of information you may be
requested to submit for review.

Greenhorne & O'Mara, Inc., our consulting engineers, will be contacting you to
discuss the flooding conditions and the data required to complete your
request. As the review progresses, you may be asked to submit additional
information including, but not limited to, those data discussed in the
enclosure. The enclosed "Data Request Checklist" specifies the required
information you have submitted as well as the information you should submit to
expedite the processing of your appeal. If necessary, Greenhorne & O'Mara,
Inc., will discuss with you steps that you can take to acquire any information
required for the resolution of your appeal.

Upon completion of a final review of your appeal by this office, the map will
be revised by letter, if technically justified.

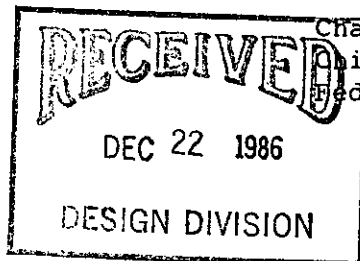
All technical data and questions concerning your appeal should be directed to:

Mr. Michael E. Kanowitz, P.E.
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, Maryland 20770
Phone: (301) 982-2800

If you have any questions concerning FEMA's policy or the National Flood
Insurance Program in general, please call our Washington office at (202) 646-
2764.

Sincerely,

Charles A. Lindsey
Chief, Technical Operations Division
Federal Insurance Administration



Enclosures



Federal Emergency Management Agency

Washington, D.C. 20472

Case #

DATA REQUEST CHECKLIST FOR LETTER OF MAP REVISION BASED ON FILL

Requestor: Mr. Breitenstein

Date: December 19, 1986

Community: Nichita, Kansas

Property: Lot 1, Block 5

The information checked below in Column 1 is required to process your request for a Letter of Map Revision. Information checked in Column 2 has been received and should not be resubmitted unless specifically requested.

(1) REQ'D DATA	(2) REC'D DATA	
		1. A copy of the recorded Deed giving the legal description of your property, bearing the seal of the County Clerk for Recorder of Deeds, and indicating the official recordation data (deed book volume and page number).
	✓	2. A copy of the recorded plat map showing the location of your property, bearing the seal of the County Clerk or Recorder of Deeds, and indicating the official recordation data (plat book volume and page number).
		3. Street address(es) of the property. (If proposed structure(s), submit street address once structure is built along with a copy of the Conditional Letter of Map Revision.)
		4. Tax assessor's or other suitable maps showing the surveyed location of the property (only in cases where a recorded plat is not available).
		5. If your request is for more than one lot or structure, then a photographic or original copy of an official, currently effective Federal Emergency Management Agency Map (Flood Insurance Rate Map or Flood Hazard Boundary Map) showing the accurately plotted legal metes and bounds of the property and certified by a professional engineer or licensed land surveyor. Property should be plotted as outlined in the enclosed memorandum "Conditions and Criteria for Issuing Letters of Map Revision (LOMRs) Involving Fill" Section 1-2, Item h.
		6. Certified planimetric information indicating the location of structures on the property.

(1) REQ'D DATA	(2) REC'D DATA	
	✓	7. Certification by a registered professional engineer or licensed land surveyor stating: <ul style="list-style-type: none"> a. The elevation of the lowest finished grade adjacent to the structure (include datum). b. The elevation of the lowest floor (including basement and/or attached garage) (include datum). In cases of no basement, it should be so stated. c. <i>Lowest elevation on lot.</i>
		8. Certification of the dates of placement of fill to raise the property/structures above the base flood elevation.
		9. Certification of the fill as outlined in paragraph (a) (6) and paragraph (c) of Section 65.5 on pages 30313 and 30314 of the attached Federal Register dated August 25, 1986.
		10. Hydraulic calculations for _____
	✓	11. The signed and dated "Request for Letter of Map Revision" form (enclosed).
		12. The signed and dated "Community Acknowledgement of Request for Letter of Map Revision" form (enclosed).
		13. A letter from the state approving your fill within the Special Flood Hazard Area.
		14. Initial fee for Conditional LOMR based on fill:* <ul style="list-style-type: none"> a. Single-lot \$125 b. Multi-lot/subdivision \$175
	✓	15. Daytime telephone number
		16. Other: _____

The information checked in Column 1 should be sent directly to Greenhorne & O'Mara, Inc., our consulting engineers, at the following address:

Mr. Michael E. Kanowitz, P.E.
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, Maryland 20770

WILLIAM L. KORBER, L.S.

JOHN E. LUNDBLADE, L.S.

N. BRENT WOOTE, P.E.



BAUGHMAN COMPANY, P.A.

SURVEYING & ENGINEERING

316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

State of Kansas)

) SS

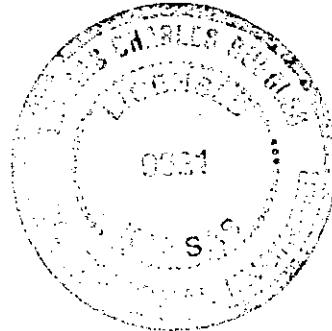
December 5, 1986

County of Sedgwick)

We, Baughman Company, P.A., Surveyors in aforesaid county and state do hereby certify that we did on this 5th day of December, 1986, survey Lot 1, Block 5, Walnut Creek 2nd Addition, Sedgwick County, Kansas.

According to the FEMA Flood Control Insurance Rate Map, Community Panel Number 200328, Panel 0005 B, dated May 15, 1986, said Lot lies within a special Flood Hazard area. In accordance with FEMA Conditional Letter of Map Revision, dated October 15, 1986, said Lot has been filled to the elevations shown on the accompanying plat. No portion of said Lot is lower than Base Flood Elevation 1335.3.

Thomas C. Ruggla, P.E.
Surveyor



WILLIAM L. KORBER, L.S.
JOHN E. LUNDBLADE, L.S.
N. BRENT WOOTE, P.E.

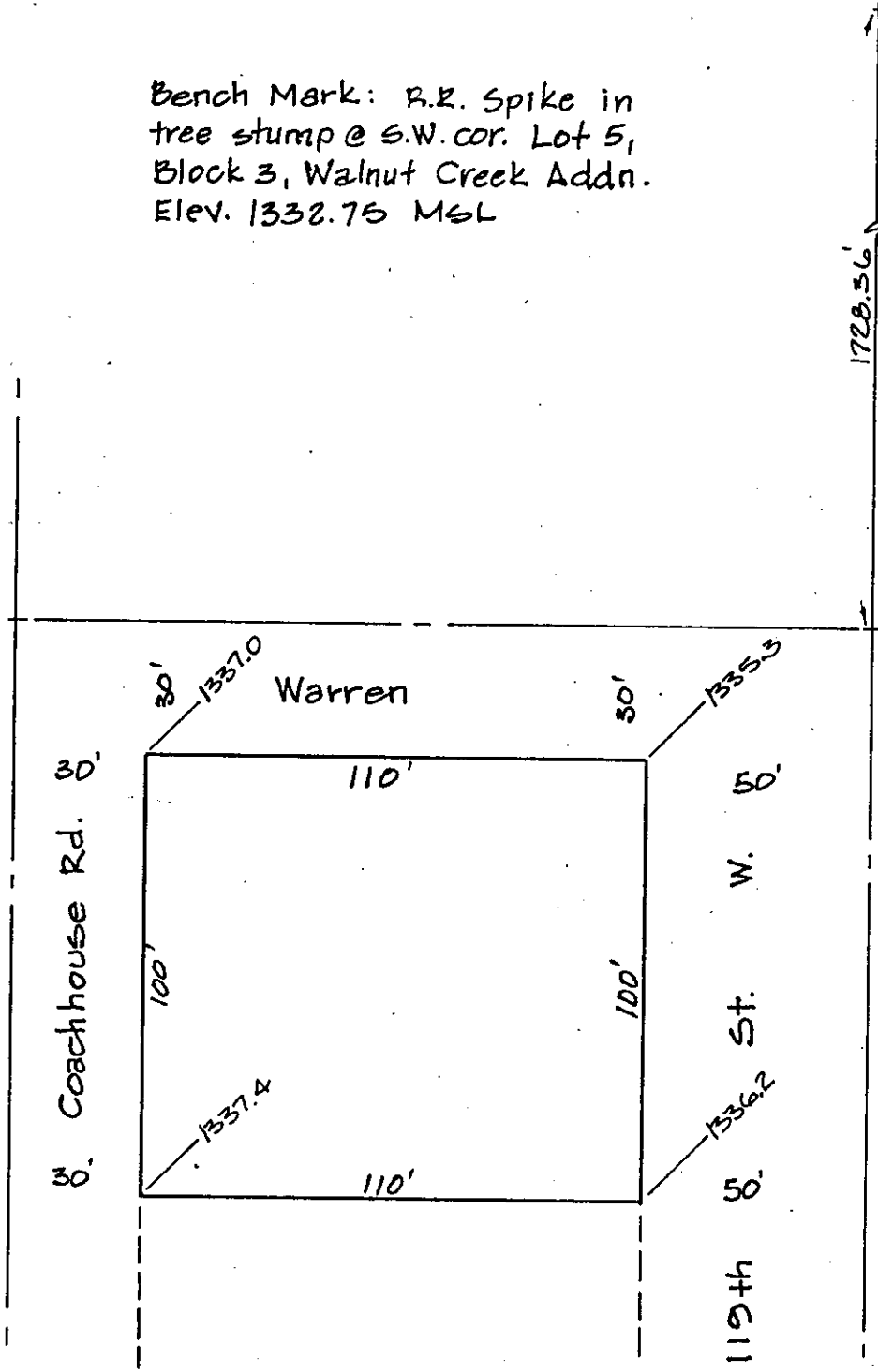


BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

N.E. Cor. N.E. 1/4 Sec. 13,
T27S, R1W of 6th P.M.



Bench Mark: R.R. Spike in
tree stump @ S.W. cor. Lot 5,
Block 3, Walnut Creek Addn.
Elev. 1332.75 M&L





Federal Emergency Management Agency

Washington, D.C. 20472

Case #

DATA REQUEST CHECKLIST FOR LETTER OF MAP REVISION BASED ON FILL

Requestor: Larry E. Bottenberg

Date: July 29, 1986

The information checked below in Column 1 is required to process your request for a Letter of Map Amendment. Information checked in Column 2 has been received and should not be resubmitted unless specifically requested.

Community: Wichita, Kansas

Property: Walnut Creek 2nd Addition

(1) REQ'D DATA	(2) REC'D DATA	
✓		1. A copy of the recorded Deed giving the legal description of your property, bearing the seal of the County Clerk or Recorder of Deeds, and indicating the official recordation data (deed book volume and page number).
	✓	2. A copy of the recorded plat map showing the location of your property, bearing the seal of the County Clerk or Recorder of Deeds, and indicating the official recordation data (plat book volume and page number).
		3. Street address(es) of the property. (If proposed structure(s), submit street address once structure is built along with a copy of the Conditional Letter of Map Revision).
		4. Tax assessor's or other suitable maps showing the surveyed location of the property (only in cases where a recorded plat is not available).
✓		5. If your request is for more than one lot or structure, then a photographic or original copy of an official, currently effective Federal Emergency Management Agency Map (Flood Insurance Rate Map or Flood Hazard Boundary Map) showing the accurately plotted legal metes and bounds of the property and certified by a professional engineer or licensed land surveyor. Property should be plotted as outlined in the enclosed memorandum "Conditions and Criteria for Letters of Map Amendment (LOMAs)" Section 1-2, Item 6.
		6. Certified planimetric information indicating the location of structures on the property.

(1) REQ'D DATA	(2) REC'D DATA	
✓a	✓b	7. Certification by a registered professional engineer or licensed land surveyor stating: <ul style="list-style-type: none"> a. The elevation of the lowest finished grade adjacent to the structure (include datum). b. The elevation of the lowest floor (including basement and/or attached garage) (include datum). In cases of no basement, it should be so stated.
	✓	8. Certification of the dates and extent of fill placement.
		9. Hydraulic calculations for _____
	✓	10. The signed and dated "Request for Letter of Map Revision" form (attached).
		11. The signed and dated "Community Endorsement for Letter of Map Revision" form (Attached).
✓b		12. Initial fee for Conditional LOMR based on fill: <ul style="list-style-type: none"> a. Single-lot \$125 b. Multi-lot/subdivision \$175
	✓	13. Daytime telephone number.
		14. Other: _____

The information checked in Column 1 should be sent directly to Greenhorne & O'Mara, Inc., our consulting engineers, at the following address:

Mr. Michael E. Kanowitz, P.E.
 Greenhorne & O'Mara, Inc.
 9001 Edmonston Road
 Greenbelt, Maryland 20770

The initial fee for a conditional request should be sent by Registered Mail, Return Receipt Requested, directly to the Federal Emergency Management Agency at the following address:

Federal Emergency Management Agency
 Federal Insurance Administration
 Office of Risk Assessment
 Technical Operations Division
 500 C Street, SW., Room 422
 Washington, DC 20472

ATTENTION MR. CHARLES A. LINDSEY

The case number referenced above should be included on your check or money order for identification purposes.



JUL 29 1986

Federal Emergency Management Agency

Washington, D.C. 20472

IN REPLY REFER TO:
IA-RA-TO (216A-65) (1A)
Case # 86-07-03F

Mr. Larry E. Bottenberg
Barbed Wire Associates
727 North Waco, #260
Wichita, Kansas 67203

Re: Request of June 17, 1986 regarding the Flood Insurance Rate Map for
Wichita, Kansas.

Dear Mr. Bottenberg:

This is in response to the above-mentioned letter requesting that the Federal Emergency Management Agency (FEMA) determine whether certain proposed structure(s) will be located within the Special Flood Hazard Area and issue a Conditional Letter of Map Revision (LOMR).

The enclosed document, Conditions and Criteria for Issuing Letters of Map Revisions (LOMRs) Involving Fill, describes in detail the FEMA policy concerning revisions to flood maps and the types of information you may be requested to submit for review. A "Request for Letter of Map Revision (218-65)" form is also attached and should be completed, signed, and returned as early as possible, if you have not already done so.

FEMA has initiated a reimbursement procedure to allow for the recovery of costs associated with the review of Conditional LOMRs, thereby reducing the expenses to the general taxpayer. The initial fee for this type of request is \$175.00. Please provide this fee, which must be received by FEMA prior to commencement of our review. Payment should be in the form of a check or money order made payable to the United States Treasury and should be submitted by Registered Mail, Return Receipt Requested, at the following address:

Federal Emergency Management Agency
Federal Insurance Administration
Office of Risk Assessment
Technical Operations Division
500 C Street, SW., Room 422
Washington, D.C. 20472

ATTENTION MR. CHARLES A. LINDSEY

The case number referenced above should be included on your check or money order for identification purposes.

Please note that the initial fee is the minimum charge for a review of this type; additional costs could be required upon completion of our review and prior to issuance of a Conditional LOMR depending on the complexity of the review required. You will be notified of the estimated total processing cost if it is anticipated that, due to the extent of the review required, the total cost will exceed \$500. In that situation, our review would be suspended pending written authorization from you to proceed.

Upon our receipt of this fee, Greenhorne & O'Mara, Inc., our consulting engineers, will be contacting you to discuss the flooding conditions and the information that you have submitted. Their initial review of your request indicates that additional information will be necessary to resolve your request. The attached "Data Request Checklist" specifies what information you should submit at this time to expedite the processing of your request. (Additional information may be requested at a later date). If these data are not available to you, our consulting engineers will discuss with you steps that you can take to acquire any information required.

Also, it is FEMA policy that requests for determinations in areas that will be filled must be reviewed and acknowledged by the appropriate community. Thus, the attached "Community Acknowledgement of Request for Letter of Map Revision" form must be completed by the community official responsible for flood plain management and returned to FEMA. This is not necessary if we have already received a letter from community officials stating their acknowledgement of the project. Because the community has final responsibility for flood plain management, the final determination will be addressed to the community. You will be provided with copies of this correspondence.

Please submit all information within 30 days of the date of this letter; no further action can be taken on your request until community endorsement is received, along with the information listed on the enclosed checklist. Upon completion of our review, the map will be revised by letter, if technically justified.

All technical data and questions concerning your request should be directed to:

Mr. Michael E. Kanowitz, P.E.
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, Maryland 20770

If you have any questions concerning FEMA policy, or the National Flood Insurance Program in general, please call the Chief, Natural and Technological Hazards Division of the Federal Emergency Management Agency in Kansas City, Missouri, at (816) 374-2161, or members of our Headquarters staff in Washington, D.C., at (202) 646-2764.

Sincerely,



Charles A. Lindsey, Chief
Technical Operations Division
Federal Insurance Administration

Enclosures



Federal Emergency Management Agency

Washington, D.C. 20472

July, 1986

CONDITIONS AND CRITERIA FOR ISSUING LETTERS OF MAP REVISION (LOMRs) INVOLVING FILL

This sets forth the policy of the Federal Emergency Management Agency (FEMA) concerning requests for a determination as to whether a parcel of land, which can include multiple lots or subdivisions, which has been completely elevated by fill, or whether structures, which have been elevated by fill, are located in a Special Flood Hazard Area (SFHA) as shown on a Flood Insurance Rate Map (FIRM) or a Flood Hazard Boundary Map (FHBM). This does not address requests involving fill placed prior to the effective date of the first National Flood Insurance Program (NFIP) map designating the SFHA. In order for FEMA to issue a LOMR of this type under Part 65 of the NFIP regulations, a property owner should submit documentation, through the community, to satisfy the criteria listed below. Compliance with these criteria will result in the issuance of a LOMR (218-65), which will remove the parcel of land or structures from the SFHA. (LOMRs discussed in this document do not effect changes in base flood elevations (BFEs), floodway designations, coastal high hazard designations (V zones) and/or shallow flooding on alluvial fans.)

1-1 Definitions:

The terms used in this manual have the same meaning as those defined in Part 59.1 of the NFIP regulations at 44 CFR 59 et seq. SFHAs comprise all lands subject to inundation by a flood having a one-percent chance of being equaled or exceeded each year--hereafter called the base flood. This flood's elevation is called the BFE and is measured in feet above a given datum--e.g., the National Geodetic Vertical Datum (NGVD).

1-2 Technical Data Required:

All requests for a LOMR (218-65) must be supported by sufficient technical data to demonstrate that the entire land area within the legal bounds of a parcel of land or the structures have been elevated by fill and are not subject to inundation by the base flood. For a parcel of land, this consists of demonstrating that the entire parcel has been elevated by fill to or above the BFE. For structures, it must be demonstrated that both the lowest floor (including basement) and the lowest finished grade adjacent to the structure have been elevated by fill to or above the BFE. Requests for LOMRs (218-65) must be submitted through the community to ensure community acknowledgement and review of the request. The following documentation should be submitted to aid FEMA in processing each LOMR (218-65) request:

- a. A copy of the recorded deed indicating the legal description of the lot and the official recordation information (deed book volume and page number) and bearing the seal of the Recorder of Deeds.

- b. If the parcel of land is recorded on a plat map, a copy of the recorded plat indicating both the location of the parcel of land and the official recordation information (plat book volume and page number) and bearing the seal of the Recorder. If the parcel of land is not recorded on a plat map, copies of the tax map or other suitable maps are required to aid FEMA in accurately locating the property.
- c. For a parcel of land filled in its entirety, a topographic map indicating ground elevations and date of fill, certified by a registered professional engineer or licensed land surveyor.
- d. For structures, a topographic map indicating location, ground elevations, and the elevations of the lowest floor (including basement) and the lowest grade adjacent to the structures and date of fill, certified by a registered professional engineer or licensed land surveyor.

In cases of new construction, a clear distinction must be made between existing and proposed elevations; after completion, all finished grades and elevations must be certified as-built.

- e. Data to substantiate the BFE (100-year elevation); i.e., if the BFE has not been established by FEMA and shown on the FIRM, flood elevation data may be obtained from an authoritative source such as the U.S. Army Corps of Engineers, U.S. Geological Survey, U.S. Soil Conservation Service and other Federal agencies, state and local water resource departments, or a registered professional engineer.
 - f. A signed copy of the statement asserting the accuracy of the information submitted (form entitled "Request for Letter of Map Revision").
 - g. A signed copy of the statement by the community asserting that they have acknowledged and reviewed the revision request (form entitled "Community Acknowledgement of Request for Letter of Map Revision").
 - h. If your request is for more than one lot or structure, then an official currently effective FEMA map (FIRM or FHBM), or photographic copy on which the legal metes and bounds of the property, including each lot within a subdivision, have been drawn as accurately as possible is required. The map submitted must bear the seal of a licensed land surveyor or registered professional engineer to certify that the property is correctly located on the FEMA map based on the legal description of the property. Any lot or tract of property that has a flood boundary running through the bounds of that lot should also have an accurately drawn location of the structure(s) shown on the lot. A reproduction made from a photocopy of the FEMA map is unacceptable since the size of the map may be distorted.
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1. In certain instances, additional data may be required for FEMA to make a determination. These data may consist of, but are not limited to, certifications by registered engineers or land surveyors as to the type of structure and whether it is elevated on posts, piers, pilings, or barrier sand dunes; hydraulic calculations on the flooding condition; development plans indicating dates and extent of fill placement; and an ordinance for structural improvements which specifies maintenance responsibilities and activities.

1-3 Conditional LOMRs

Conditional LOMRs may be issued for proposed structures on land which has been or will be elevated above the base flood elevation by fill. To qualify for a conditional LOMR, the proposed structures must meet the same criteria as existing structures constructed on land elevated by fill. After construction is completed, certified as-built information must be submitted to FEMA for a final determination.

FEMA has initiated a reimbursement procedure to allow for the recovery of costs associated with the review of requests for Conditional LOMRs, thereby reducing the expense to the general taxpayer. Further information regarding this procedure is located in the final rule, published at 44 CFR Part 72.

Property owners and developers should note that a Conditional LOMR merely provides comment on the proposed plan and does not amend the map. It also does not relieve Federal agencies of the need to comply with Executive Order 11988 on Floodplain Management in carrying out their responsibilities for providing federally undertaken, financed, or assisted construction and improvements or in their regulating and licensing activities.

1-4 Criteria for Removing Floodplain Designation

As previously stated, individuals furnishing technical data, through the community, which indicates that the entire parcel or that the elevations of the lowest floor, including basement, and the lowest adjacent grade of a structure have been elevated by fill to or above the BFE, can normally have the parcel or structure removed from the floodplain on the map.

In areas of sheet flow flooding (AO zones), with the exception of those located on alluvial fans, technical data must be submitted to indicate that the structure and adjacent grade have been elevated above the depth of shallow flooding, thereby creating an "island" within the shallow flooding zone. Adequate drainage paths around structures slopes are required to guide floodwaters around and away from structures.

There are, however, several special considerations which provide exceptions to this rule.

Special Considerations:

(1) Floodways

LOMRs (218-65) will not be issued under these procedures of the NFIP regulations for property located in a designated or anticipated regulatory floodway. The floodway is the channel of a river or other watercourse that must be reserved to efficiently carry the floodwaters. Appeals of floodway designations should be directed to community officials because the floodway is designated and adopted by the community.

(2) Elevated Structures

Buildings that have the lowest floor elevated on posts, piers, or pilings above the BFE in the SFHA will not be removed from the SFHA if any portion of the structure (i.e., posts or piers) is still in the SFHA.

(3) Coastal High Hazard Areas

LOMRs (218-65) will not be issued under these procedures of the NFIP regulations for property located in a designated or anticipated coastal high hazard area subject to wave action (V zone).

Individuals who believe that their property has been incorrectly designated in a coastal high hazard area (which would also include any property that was elevated by the placement of compacted fill before the effective date of the current FHBM or FIRM), and is not subject to wave effects, can request a zone change under the Part 65 procedures of the NFIP regulations. Technical data supporting their contentions should be submitted through the community for consideration by FEMA. Once the zone has been changed, a LOMR (218-65) request will be considered.

(4) Alluvial Fan Areas

LOMRs (218-65) will not be issued under these procedures of the NFIP regulations for property located in areas of alluvial fan flooding. Community officials can request a zone change for property included in an alluvial fan area under Part 65 procedures of the NFIP.

(5) Levees

LOMRs (218-65) will not be issued under these procedures of the NFIP regulations for property protected by a levee, except when the property is being elevated above local drainage flooding designated on a FEMA map within the protected area.

1-5 FEMA Evaluation and Response:

Upon receipt and evaluation of the required data by FEMA, the community will be notified of the findings. Should a review of the evidence indicate that a change in FEMA maps is needed, a LOMR (218-65) will be issued with copies transmitted to the state coordinating agency and the owner of the property, if applicable. The time required for FEMA to review requests of this nature will generally depend on the quality and completeness of the data submitted. Requests are usually evaluated within four (4) to eight (8) weeks of the receipt of all technical data required to review the case.

1-6 Insurance Purchase Requirement After Issuance of LOMRs:

Property owners are required to purchase flood insurance as a condition of direct Federal or federally related financial assistance on a structure located in a designated SFHA on a FHBM or FIRM. Persons seeking a LOMR should check with the lending institution that imposed the flood insurance requirement originally to ensure that if they are granted the LOMR from FEMA, the lending institution will honor it. Although FEMA may issue a LOMR removing a structure or structures from the SFHA, it is the lending institution's prerogative to require flood insurance if it deems such action appropriate. If, however, the lending institution accepts a LOMR and agrees to waive the flood insurance purchase requirement, the property owner is eligible for a full refund of the premium paid, less the expense constant, for the current policy year, provided that no claim is pending or has been paid on the policy in question during the same policy year. For processing of the refund, the property owner need only provide the LOMR and evidence of the waiver of the flood insurance requirement from the lending institution to the agency or broker who sold the policy.

1-7 Appropriate Address:

Requests for LOMRs (218-65) should be submitted through the community to the appropriate FEMA Regional office. If the request is for a determination involving a single lot or a single structure, the Regional office will make the determination.

All other requests (i.e. parcel of land, which includes multiple lots, subdivisions, or multiple structures) will be reviewed by the Regional office and forwarded to the FEMA Headquarters office in Washington, D.C. for disposition.

More specific information relating to LOMRs may be obtained by telephoning FEMA's Washington Office at (202) 646-2764.

Attachments
July 1986



Federal Emergency Management Agency

Washington, D.C. 20472

COMMUNITY ACKNOWLEDGEMENT OF REQUEST FOR LETTER OF MAP REVISION

Community Name

Property

We hereby acknowledge receipt and review of this Letter of Map Revision request and have found that the project meets all of our community's applicable floodplain management regulations. We understand that this request is being forwarded to FEMA for a possible map revision.

Community Official's Signature

Date

Community Official's Title



Federal Emergency Management Agency

Washington, D.C. 20472

REQUEST FOR LETTER OF MAP REVISION (218-65)

This is to request that a determination be made as to whether or not a certain land area or structure is within a Special Flood Hazard Area.

All documents submitted in support of this appeal are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Date

Signature of Applicant

WILLIAM L. KORBER, L.S.

JOHN E. LUNOBLADE, L.S.

N. BRENT WOOTEN, P.E.



BAUGHMAN COMPANY, P.A.

SURVEYING & ENGINEERING

316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

State of Kansas)

) SS

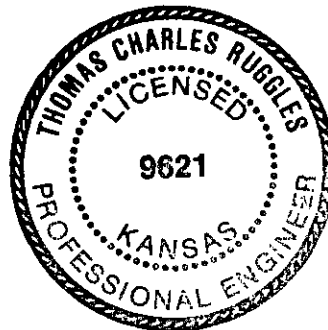
February 13, 1987

County of Sedgwick)

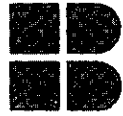
We, Baughman Company, P.A., Surveyors in aforesaid county and state do hereby certify that we did on this 13th day of February, 1987, survey Walnut Creek 2nd Addition, Sedgwick County, Kansas.

According to the FEMA Flood Control Insurance Rate Map, Community Panel Number 200328, Panel 0005 B, dated May 15, 1986, all Lots lie within a special Flood Hazard area. In accordance with FEMA Conditional Letter of Map Revision, dated October 15, 1986, said Lots have been filled to the elevations shown on the accompanying plat. No portion of any said Lot is lower than Base Flood Elevations indicated.

Thomas C. Ruggles, P.E.
Surveyor



WILLIAM L. KORBER, L.S.
JOHN E. LUNDBLADE, L.S.
N. BRENT WOOTE, P.E.



BAUGHMAN COMPANY, P.A.

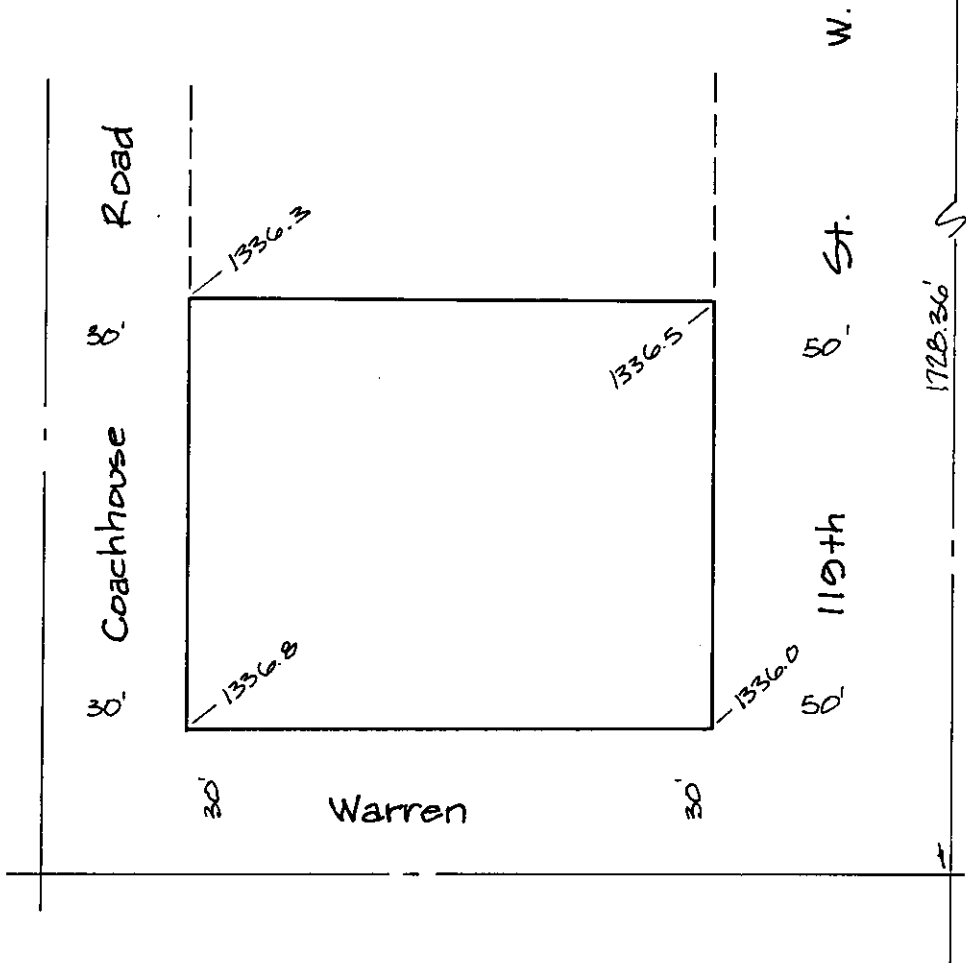
SURVEYING & ENGINEERING

316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211



N.E. Cor. N.E. Cor.
Sec. 13, T27S, R1W

Bench Mark: E. rim inlet manhole
in S. Coachhouse Court cul-de-sac,
Elev. 1338.42 MGL.



**FEDERAL EMERGENCY
MANAGEMENT AGENCY**
**44 CFR Parts 59, 60, 61, 65, 70, 73, and
76**
National Flood Insurance Program
AGENCY: Federal Emergency
Management Agency.

ACTION: Final rule.

SUMMARY: This final rule revises the National Flood Insurance Program regulations dealing with flood plain management standards, criteria for recognizing levees as providing protection from 100-year floods, and procedures for revising or amending maps (including the types of supporting data needed when map changes are requested). It also covers the Standard Flood Insurance Policy (SFIP) terms and provisions, criteria for the denial of the sale of insurance, the announcement of the termination of the State Assistance Program (SAP), and new criteria for the State Coordinating Agencies.

EFFECTIVE DATES: October 1, 1986, except for certain revisions to the Standard Flood Insurance Policy in Part 61 that are effective January 1, 1987, as listed and explained in the Supplementary Information under the heading, "Standard Flood Insurance Policy."

FOR FURTHER INFORMATION CONTACT: Charles M. Plaxico, Federal Emergency Management Agency, Federal Insurance Administration, 500 C Street, SW., Washington, DC 20472; telephone number (202) 646-3422.

SUPPLEMENTARY INFORMATION: On March 28, 1986, FEMA published for comment in the Federal Register (Vol. 51, Page 10742) a proposed rule containing revisions to the National Flood Insurance Program (NFIP) which were the result of a continuing reappraisal of the NFIP to achieve greater administrative and fiscal effectiveness in the operation of the NFIP and to encourage sound flood plain management so that reductions in loss to life and property and in disaster expenditures can be realized. This reappraisal included the claims, coverage, rating, and sale of insurance component, the loss reduction (i.e. flood plain management) component and the risk assessment (i.e. mapping of flood hazard areas) component of the NFIP.

In the process of developing this final rule, 61 comments were received, logged and analyzed based on the 13 subject areas discussed in the proposed rule supplementary information. The tally of comments included 2 individuals, 11

associations (including 1 specialized journal), 2 Federal agencies, 20 State governments and 26 local governments. Many of the comments generally concurred with the proposed rule although some of them commented specifically on one or more of its provisions. The comment contents ranged from a simple acknowledgment of receipt of the proposed rule to strong support for or strong opposition to one or more of the proposed changes.

The analysis of the comments resulted in language clarifications, minor changes to some provisions, the identification of some overlooked typographical errors and the insertion of one or two phrases inadvertently omitted. However, no major substantive changes were made to the language in the proposed rule.

Although the comments focused primarily on the 13 topics, 12 respondents made generalized comments about the proposed rule or the supplementary information topic headings. A number of these comments supported the rule and definitional changes while others expressed concern over perceived economic impacts. In addition, several commentators made statements about specific topics and problems, not covered in the proposed rule, to which FEMA shall respond under the heading of "Miscellaneous Subjects."

Miscellaneous Subjects

Several State comments expressed concern over the length and frequency of changes to NFIP criteria. In part, this concern reflects the fact that major changes have been made in this final rule and the September 4, 1985, final rule (which became effective on January 1, 1986). FEMA recognizes that, although many of the revisions are procedural and require no action by NFIP communities, some revisions will require those communities to amend their flood plain management regulations to remain in compliance. FEMA has tried to minimize those revisions that require ordinance changes at the local level in order to avoid imposing unnecessary burdens on communities. However, it was recognized when NFIP criteria were first developed that there would need to be revisions as experience was acquired under the program and as new information on flood loss reduction techniques became available. Between 1976 and 1985 no significant changes were made to NFIP criteria. The September 4, 1985, final rule and this final rule reflect a 2-year effort to incorporate 10 years of knowledge and experience gained in implementing the

program. Now that this effort is essentially completed, FEMA anticipates making no additional substantive changes to criteria at § 60.3 until several years of additional experience have been gained. Overall, FEMA believes that these two final rules have clarified and simplified NFIP flood plain management requirements and that this should improve the effectiveness of implementation at the local level.

One local government recommended for flash flood areas that the NFIP not provide coverage for new construction, reconstruction of demolished structures, or additions to existing structures located within the 100-year floodway of streams known to be flood-prone, if said construction will increase existing 100-year water surface elevations by more than 0.1 feet. NFIP criteria at § 60.3(d)(3) already prohibit encroachments in designated floodways that would result in any increase in flood levels during the occurrence of the base flood discharge. If this community wishes FEMA to deny flood insurance coverage for such structures, it can declare them to be in violation of its local ordinance as provided for in Section 1316 of the National Flood Insurance Act of 1968. Procedures for implementing Section 1316 are contained in Part 73 of this final rule. FEMA has no plans to seek additional authorities to deny flood insurance coverage.

Another specific comment on a topic not covered in the proposed rule came from a Federal agency. It suggested that FEMA engage in flood studies to determine impacts downstream and damages which would result from increased flooding due to destruction of wetlands. FEMA recognizes the importance of the preservation of wetlands in providing flood protection and will continue to work with this Federal agency to address mutual concerns. However, this topic was not an issue in the proposed rule.

**Adoption of the Final Rule by
Communities**

Several communities requested information on the requirements and procedure for adoption of the final rule revisions. Much of the final rule is procedural or pertains to risk identification which does not have to be incorporated in local flood plain management regulations. This was also true for the September 4, 1985, final rule. A community can choose to adopt or have in force regulations that are more restrictive than NFIP criteria. Therefore, some communities may wish to retain requirements such as the prohibition on

the placement of manufactured homes in V-zones or floodways. In addition, there may be some communities that have adopted more restrictive ordinances that already meet or exceed provisions in the final rule. For instance, some communities may already require the elevation of replacement manufactured homes in existing "mobile home parks" (sic) and subdivisions. These communities may already comply with the final rule. However, FEMA believes that most NFIP communities will have to amend one or more of their flood plain management ordinance provisions to remain in compliance.

Copies of this final rule will be mailed to all participating NFIP communities prior to the October 1, 1986, effective date. This mailing will include instructions on which changes are required and on how these changes are to be made. NFIP criteria at § 60.7 require that communities revise their flood plain management regulations to comply with any revised regulations within six months of the effective date of that revised regulation. Therefore, communities will have to amend their regulations no later than April 1, 1987. FEMA regional office staff will be available to provide advice and assistance. After adoption communities should submit copies of their amended regulations to the appropriate regional office.

If, subsequent to the conclusion of this six-month adoption period on April 1, 1987, FEMA determines that a particular community has not amended its regulations so that they comply with this final rule, the community will be subject to suspension. However, prior to suspending the community, the Federal Insurance Administrator will follow the procedure at § 59.24(a). The Administrator will provide written notice to the community, at least 90 days prior to the proposed suspension date, indicating that the community's flood plain management measures are deficient and must be amended to comply with the final rule. If compliant regulations are not submitted at least 30 days prior to the suspension date, the Administrator will provide written notice to the community of its loss of eligibility for the sale of flood insurance and will publish notice in the Federal Register under Part 64 of Subchapter B. The suspension will go into effect if compliant regulations are not adopted and submitted prior to the suspension date.

Manufactured Homes

In the proposed rule supplementary information, FEMA outlined its intention to revise NFIP criteria to incorporate the

terms "manufactured home" and "manufactured home park or subdivision" and to apply the same standards to "manufactured homes" as are applied to conventional structures. The definition of "manufactured home" that was proposed, included for flood plain management purposes, those park and travel trailers and similar vehicles that are placed on a site for a period of greater than 180 days.

The changes to the current regulations that would eliminate most of the distinctions between "mobile homes" and conventional homes fell into three categories: Deleting the prohibition on the placement of "mobile homes" in V-zones (coastal high hazard areas) except in existing "mobile home parks" and subdivisions; eliminating the current prohibition on placement of "mobile homes" in floodways except in existing "mobile home parks" and subdivisions [per § 60.3(d)(4)]; and finally, eliminating the current provisions which allow the replacement, new placement or substantial improvement of "mobile homes" in existing "mobile home parks" and subdivisions without elevation. The latter provision is commonly referred to as the "grandfathering" of existing "mobile home parks" and subdivisions.

The manufactured home provision in the proposed rule generated the largest number of comments from all categories of respondents. Ten States commented on various aspects of the proposed regulation as did 3 associations, 10 local governments and 1 Federal agency.

The change in terminology to "manufactured home" resulted from a decision by FEMA to make the NFIP terminology consistent with terminology used by the U.S. Department of Housing and Urban Development (HUD) in "Manufactured Home Safety and Construction Standards" (24 CFR 3280.2) and by other Federal agencies and the industry. However, the NFIP definition will be more inclusive because the HUD definition includes only "manufactured homes" used as dwelling units which have a specified minimum square footage and meet other requirements. NFIP criteria must also regulate "manufactured homes" used for other purposes; "mobile homes," built prior to the June 15, 1976, effective date of the HUD standards, which are moved to flood plain locations; and those park trailers, travel trailers, and similar vehicles which are permanently placed on a flood plain site. The discussion by respondents about the terminology change from "mobile home" to "manufactured home" focused on the inclusion of certain park and travel trailers in the definition. No comment

argued that FEMA should continue to use the term "mobile home".

Eight respondents commented on the overall definitional change concerning "manufactured homes." One State strongly supported the inclusion of certain park trailers, travel trailers and other similar vehicles in the definition of "manufactured home." Two associations disagreed with their inclusion in the definition. One of those associations pointed out that FEMA implies in the proposed rule that "manufactured homes" are vehicles and that the usage and risk are the same as other vehicles and that this is not true even if those other vehicles occupy a site for more than 180 days. This association further stated that park and travel trailers are not constructed in accordance with either a Federal or nationally recognized code and are not designed for use as permanent residences. This group recommended that FEMA further amend its regulation to change "manufactured home park" to "manufactured home rental community" to conform with industry use. FEMA researched this issue and determined that the term "manufactured home rental community" was not commonly used by either other Federal agencies or local governments. Consequently, FEMA will continue to use "manufactured home park." If, at some later date, the term "manufactured home rental community" becomes the standard, FEMA will consider amending its regulations at that time.

A second association also disagreed with the proposed inclusion of travel trailers in the definition because it claims that they are not built to (manufactured home) industry standards for permanent residences. A State office disagreed with the inclusion of trailers of any kind in the definition because it contended that trailers can be moved on short notice. Finally, an association also recommended that travel trailer parks be required to install warning systems. FEMA encourages this practice but regards it as an optional safety measure to be taken by park operators or required by State regulation or local ordinance.

As indicated in the supplementary information to the proposed rule, the intent of this provision in the definition is to include these vehicles when they are permanently left on a site and their usage is the same as a "manufactured home" but not include them when they are placed on sites only seasonally or used for camping or other short-term occupancies. Although park and travel trailers were not constructed or intended to be permanently placed on sites and/or permanent foundations or

the fact that riverine floods greater than the 100-year flood generally would result in higher damages to a "manufactured home" than to a comparable conventional house.

The third proposed change, which would treat "manufactured homes" the same as conventional housing, provides for the elimination of provisions which allow the replacement, new placement or substantial improvement of "mobile homes" in "existing mobile home parks and mobile home subdivisions" without elevation. All replacement, newly placed or substantially improved manufactured homes would have to be elevated to or above the base flood elevation regardless of the age or status of the manufactured home park or subdivision. Six respondents supported the proposed rule, seven respondents opposed the change and one respondent made a related comment. In the final rule this provision will appear unchanged except for the correction of several typographical errors and the insertion of an inadvertently omitted phrase.

Although this change was intended to apply NFIP flood plain management criteria uniformly to "mobile homes" and conventional homes, FEMA had additional reasons for this proposed change in the regulations. One anticipated result will be reduced flood losses to owners of "manufactured homes." This is particularly important since many owners and renters of "manufactured homes" have low or moderate incomes and would be least able to recover from a flood which destroyed their manufactured home and personal possessions. In addition there will be savings to the Federal government due to reduced flood insurance claims payments and other disaster assistance, such as the provision of temporary housing to the victims of floods. In the latter cases, post disaster Interagency Hazard Mitigation Teams, chaired by FEMA, have identified a number of instances where large numbers of "mobile homes" in "mobile home" parks were destroyed by floods, replaced by new non-elevated "mobile homes" which in turn were destroyed and subsequently replaced by similar structures. The new regulation intends to break that cycle of damage and loss.

Two States concurred with the proposal to remove the "grandfathering" provision. They were joined in this support by two local governments, one association and one Federal agency. Two associations, five local governments and one State opposed the elimination of the "grandfathering"

provision because they believed that it may create economic hardships for park owners and future renters. The State felt that past discrimination against "mobile home parks" had forced the owners to locate them in unsuitable areas such as flood plains. In the supplementary information section of the proposed rule, FEMA pointed out that the rationale for the "grandfather" provision was to allow "mobile home park" operators to amortize their investments in park infrastructures. FEMA believes that these "mobile home park" operators have had sufficient time to amortize their costs. In addition, FEMA believes that the costs following flooding of these "mobile parks" are such that continuation of the "grandfather provision" is contrary to the interests of the individual owners and renters of "manufactured homes," the community, and the Federal government.

Any cost of these parks should be no more significant than the cost of developing any property in a flood plain. FEMA recognizes the possibility that some park owners might have to eliminate some sites and would incur additional costs in order to comply with the elevation requirements. However, these costs are not unlike those associated with the construction of conventional housing. In addition, there are elevation techniques available which require no more area than an at-grade installation and which are economical.

The manual, "Manufactured Home Installation in Flood Hazard Areas," published by FEMA in September 1985, provides information on appropriate techniques for different flood areas.

Two associations objected to the elimination of the "grandfathering" provision on the grounds of aesthetic appearances. They both urged a phasing sequence for this regulation and the use of the variance procedure as a flexible alternative. FEMA believes that the potential damages, from the flooding of a non-elevated manufactured home, and the consequences in terms of losses to the manufactured home owner or renter as well as to the Federal government through flood insurance claims payments and disaster assistance, are such that use of a phasing sequence or a variance procedure based solely on aesthetic grounds could not be justified.

Two of the States which supported the proposed rule made recommendations for placing additional restrictions on "manufactured homes." The first State recommended that a freeboard factor be included in addition to requiring the elevation of the lowest floor to the base flood elevation. The second State

recommended that "manufactured homes" be spaced at least 20 feet apart to prevent a manufactured home, that is dislodged from its foundation by floodwaters, from damaging adjacent manufactured homes. These issues were not addressed in the proposed rule and, as a result, it would be inappropriate for them to be considered for this final rule. FEMA notes that the latter problem should not occur if the "manufactured home" were properly anchored to its foundation system in accordance with § 60.3(b)(8).

One State recommended retention of the provision at § 60.3(b)(9) requiring evacuation plans for "mobile homes" in "mobile home parks and subdivisions" which was to be deleted. FEMA decided to delete this requirement for a number of reasons. First, the final rule requires that all newly placed, and replacement "manufactured homes" be elevated regardless of the age or status of the "manufactured home parks or subdivisions." This should, over time, reduce the need for evacuation plans. Furthermore, it is difficult to evacuate "manufactured home parks and subdivisions" given the permanent nature of many installations, the general lack of sufficient haulers, and competing demands on local officials and road systems. Such an action would only be advisable where extended flood warning times are available. Although FEMA would encourage such plans where practicable, a general requirement for evacuation plans is not warranted.

Mechanical and Utility Equipment

The proposed rule provision covering this topic clarified the current requirement in § 60.3(a)(3)(iii) by the addition of a new provision at (iv) which specifically requires that mechanical and utility equipment be designed and/or elevated to prevent water from entering or accumulating in its components. Of the eight responses to this topic, three State offices and one local government supported the proposed rule provision while three local governments and one State agency disagreed. Three of these respondents also made recommendations.

Two of the supporting State offices simply stated their support without detail while the third one encouraged FEMA to incorporate the use of freeboard to offset debris blockage and other factors not usually addressed in flood studies. Since NFIP criteria contain no freeboard requirements for the lowest floors of structures, there would be no reason to include such a requirement for mechanical and utility

equipment. However, State or local governments can adopt such requirements if they wish to do so. The local government indicated that the proposed rule would facilitate the implementation of the existing program.

The State office which disagreed with the proposed requirement did so on the grounds that base flood elevations (BFE) have not been provided to many NFIP communities. It feared that the proposed rule would create additional confusion for permit officials in the large number of communities which have Flood Hazard Boundary Maps (FHBM) or Flood Insurance Rate Maps (FIRM) with approximate A zones. FEMA's response to this State is that this requirement has always been at § 60.3(a)(iii) but it was not as clearly stated as in the proposed rule. The requirement has been that structures have utility equipment resistant to flood damage. If a BFE were available, it would be used as a basis to determine the amount of protection needed. If FEMA has not provided the community with BFE's and no other flood data are available, local officials must use their best judgement to determine to what degree of protection the permit applicant must provide.

One of the local governments that opposed this provision felt that enforcement of the proposed rule would be difficult and require additional time and cost. It cited the example of the addition of an outside air-conditioner unit to an older home and surmised that, according to the proposed rule, this air-conditioner would require the construction of a pedestal and submission of a certificate of elevation. This commentator also noted that permits are not required in all instances at present for the installation of an air-conditioner unit. It again should be noted that this is a clarification of a current requirement and not a new requirement. In addition the requirement would apply only to new construction and substantial improvements to existing construction. It would not apply to any alterations to existing structures which were not substantial improvements. For alterations to new construction, permits should already be required. Since an elevation certificate already has been prepared for the structure and should be on file, it should be relatively easy for community officials to verify that newly installed mechanical and utility equipment is compliant.

Another local government which opposed this provision also argued that it would be difficult to implement. It also recommended that the problem of damage to mechanical and utility

equipment should be addressed through the insurance rate mechanism and not through the flood plain management requirements. FEMA does provide some coverage at additional cost for specified mechanical and utility equipment placed in enclosures or basements and it would be possible to individually rate structures which did not have their mechanical and utility equipment properly protected. However, FEMA does not believe that insurance rates alone would be effective in ensuring that mechanical and utility equipment is elevated or properly protected from flood damage. As FEMA indicated in the supplementary information in the proposed rule, much of this equipment is critical to the continued habitability of the structure after a flood. Even though the residence itself would not be damaged, it would not be habitable until the equipment was repaired or replaced. This would create hardships on the inhabitants of the structure and could increase Federal disaster assistance expenditures for temporary housing.

This same local government and another local government raised issues regarding specialized mechanical and utility equipment such as water pumps in pump houses and certain heat pumps used in a passive solar house. The requirement is that the equipment be designed and/or located so as to prevent water from entering or accumulating with the components. Generally, the preferred means of meeting these performance standards is elevation to or above the base flood elevation. However, there are other alternatives. For instance, many water pumps are submersible and only the switch and junction box servicing the pumps would have to be elevated. FEMA believes that the problems cited by these communities are design problems that can be overcome.

The second local government also stated that utility companies are opposed to placing electric meters above eye level and that current placement of the meters provides ample protection. FEMA has been informed that, if an electric meter were to be inundated by floodwaters, electrical service generally could not be provided to the house unless the meter were replaced. If a number of electric meters were damaged, large numbers of homes in a community could be without power for extended periods of time. FEMA's objective is that residences become habitable as soon as possible after a flood. This minimizes the adverse impact on families as well as demands for temporary housing provided by FEMA's disaster assistance programs.

FEMA believes that, under most flood conditions, electric meters can be placed at eye level and still be above the base flood elevation. In some instances an access platform may have to be built or, if the local utility does not permit such platforms, the meter may have to be placed at the top of the stairs to the front or rear entrance to the house. Although this may cause some inconvenience to the readers of the meters, FEMA believes that this inconvenience should be limited as compared to the likelihood that the house could be without power for extended periods of time after a flood and not be habitable.

Finally, this same community argued that it would cost as much to elevate air-conditioner condensers and other equipment on platforms as the equipment is worth. FEMA has reviewed this issue and disagrees with the community's estimate of the cost of such platforms. These platforms are commonly used to elevate mechanical and utility equipment above floodwaters. For new construction, in particular, the platforms can be readily incorporated into the overall design of the structure. Furthermore, FEMA regards the major issue as the continued habitability of the structure after a flood and a rapid return to normalcy. This alone would justify costs required to meet the provision.

Start of Construction

The proposed rule modified the definition of start of construction so that structures built on piles or columns were treated the same as other types of structures and to be consistent with changes to the manufactured home provisions in NFIP criteria. Under the old definition, the actual start of construction for a pile or column structure occurred when the first permanent framing took place. For other structures, actual start occurred when the first placement of permanent construction took place on a site, such as the pouring of slabs or footings. FEMA does not believe that there is any rationale for distinguishing among those construction methods and therefore proposed changing the definition for the start of construction to read that "actual start" occurs when piles are installed or columns are constructed. For a "manufactured home," "actual start" will occur when it is placed on a site or foundation.

Three State offices and one local government commented on this proposed change. Two State offices agreed with the change because, according to one, it is "clearer and

easier for a community to regulate." The local government respondent thought that the proposed definition would permit piles to be installed on a site up to 180 days prior to issuance of building permits which, in its jurisdiction, violates the building code. This local official also surmised that this might be true nationwide. FEMA believes that this local government has misinterpreted the phrase "within 180 days of permit date." In fact, this phrase also appears in the current definition.

The definition requires that actual start of construction must begin within the 180-day period following the issuance of the building permit. Building permits are required for all development including the installation of piles or the construction of columns.

One State commented that there was no need for a special provision in the start of construction definition regarding "manufactured homes." FEMA believes that this is one instance where continuing to distinguish between "manufactured homes" and conventional housing is useful for the sake of clarity. If this provision were not included in this definition, "actual start" would occur when a "manufactured home" pad was poured. Each new placement of a "manufactured home" on this pad would then become a substantial improvement. In either case the "manufactured home" would have to be elevated to or above the base flood elevation. However, FEMA believes that the requirement would be more clearly understood if the definition specifically addressed the placement of a "manufactured home."

Functionally Dependent Uses

The proposed rule added a definition of "functionally dependent use" at § 59.1 and a special provision in NFIP variance criteria at § 60.6(a)(7) that provided for the issuance of variances by communities to accommodate the needs of functionally dependent uses if specified conditions are met. The intent of these changes is to clearly indicate to communities that there are instances in which variances for functionally dependent uses may be appropriate and to provide guidance on how FEMA will evaluate such variances when monitoring a community's flood plain management program.

Of the 11 specific responses received concerning this category, 7 of the 11 agreed with and supported the proposed revision. Of these respondents, three were State agencies, one was a specialized journal, one a Federal agency, one a local government and one a specialized local government entity—a port director. One of the supporting

comments suggested that in the case of functionally dependent uses, wet-floodproofing be encouraged by giving a premium rate credit. It will take further study to determine the feasibility of such a procedure, particularly in light of FEMA's on-going effort to simplify the rating system.

Four of the respondents supported having special provisions in NFIP criteria for functionally dependent uses, but disagreed with FEMA's decision to use the variance procedure at § 60.6(a) to meet their needs. Instead, these comments generally recommended use of a conditional or special use procedure which still provided for a case-by-case review of each proposal. One local government called the variance process "inadequate" because of cost and time delays at the local level. An association disagreeing with the approach in the proposed rule stated that it had "hoped for specific revisions, not relief through the variance process because of the burden it places on local officials." This group felt that there were insufficient guidelines available for a process which could have notable impacts.

As indicated in the proposed rule supplementary information, FEMA decided against revising each individual provision in § 60.3 that could impact on functionally dependent uses because it believes that most functionally dependent uses should be able to fully comply with NFIP criteria (e.g. § 60.3). The inability to comply with one or more of these standards should be limited to a relatively small number of instances. For these reasons, it was decided that the variance procedure at § 60.6(a) was the appropriate mechanism for addressing the needs of individual functionally dependent uses. If FEMA chose to use the conditional or special use procedure as suggested in these comments, a detailed set of criteria would have to be developed and included in NFIP criteria. Furthermore, while nearly all NFIP communities have established variance boards, many do not use the conditional or special use procedures recommended by these comments. FEMA agrees that use of the variance procedure will result in some costs to communities and possibly some delay in the approval of development proposals. However, the case-by-case review required to properly implement a conditional or special use procedure would require similar costs and review time.

A State office objected to use of the variance process because it could directly conflict with existing case law which in its State expressly prohibits the granting of use variances. This comment also recommended the

practice of conditional use permits instead. FEMA does not believe that variances to any of the NFIP criteria would constitute a use variance. NFIP criteria are performance standards and do not directly regulate the uses to which a property can be put. It is these performance standards which would be varied. The provisions in current NFIP criteria regulating use are § 60.3 (d)(4) and (e)(7), which prohibit the placement of manufactured homes in floodways and coastal high hazard areas (V-zones). This final rule deletes these provisions. FEMA will make no changes to this new provision in the final rule but will continue to monitor implementation of use of the variance procedure to address the needs of functionally dependent uses. If FEMA determines that this procedure does not work effectively, further changes will be considered.

A number of comments addressed the definition of functionally dependent use proposed by FEMA. The specialized journal, although supporting the proposed definition of functionally dependent uses because of its clarity regarding ports, cited its concern about seeming restrictions on storage and manufacturing facilities. They noted distance as a cost factor in the placement of these facilities. One local government asked if chemical/petroleum product-oriented industrial facilities were banned because they were not specifically mentioned. FEMA wishes to emphasize that the placement of storage and manufacturing facilities in flood plains is not prohibited by NFIP criteria provided that they meet the performance standards in § 60.3. The fact that these uses are excluded from the definition merely excludes them from the special variance provision at § 60.6(a)(7). These facilities generally involve high value mechanical equipment and contents. In addition the closing down of such facilities to repair flood damages can cause severe adverse economic impacts on the community. FEMA believes that these facilities can and should fully comply with NFIP criteria and that this usually can be achieved with minimal impacts on the conduct of such uses. For chemical/petroleum-related industries, FEMA believes that it is particularly important that these uses fully comply. Not only do these processes require high value mechanical and other equipment, they also pose potential threats to public safety if hazardous chemicals are released into floodwaters.

One comment from an association asked whether seafood processing facilities were included as docking facilities and if they would be a

functionally dependent use. FEMA regards facilities for the unloading and handling of fresh seafood for transshipment as port facilities necessary for the unloading of cargo. Such facilities would be included in the definition of functionally dependent use. However, any seafood processing beyond the amount necessary to transship fresh seafood after it is unloaded or which requires the use of expensive equipment would be considered related manufacturing and would not be included in the definition. These processing facilities should be able to perform their intended use while still meeting all NFIP criteria.

One comment cited the arbitrary limits imposed in many places on the amount of additional rise in flood levels that can be caused by structures. FEMA believes this comment refers to NFIP floodway requirements at § 60.3(d) (2) and (3). These provisions require communities to designate a floodway that causes no more than a one foot increase in upstream water surface elevations. Within this floodway, no development can be permitted which causes any increase in flood levels. As indicated in the supplementary information in the proposed rule, these requirements were intentionally excluded from the new variance procedures regarding functionally dependent uses due to the increase in flood damages to upstream property owners that could result from the increased flood stages. If a functionally dependent use has no option but to locate in a floodway, the applicant must either demonstrate that no increase in flood stages will result or must provide additional carrying capacity such as through channel improvements to ensure that no increase in flood stages will result. Communities should contact FEMA regional offices for technical assistance if they encounter situations where functionally dependent uses must locate in a floodway, but cannot meet the no-increase-in-flood-stage requirement.

Finally, a Federal agency encouraged FEMA to stipulate that inadequate floodproofing of "functionally dependent" short-term storage of possible water contaminants (noxious chemicals, oil, etc.) could constitute a threat to public safety if such contaminants were released in a flood. FEMA agrees that this could constitute a threat to public safety and advises communities that short-term storage of these contaminants without adequate safeguards would be inconsistent with the requirements at § 60.3(a)(7).

Probation and Suspension

This topic in the proposed rule covered the addition of three definitions to § 59.1 which further defined terms used in changes to §§ 59.24 (b) and (c) which became effective became on January 1, 1986. Definitions were included for "program deficiency," "violation" and "remedy a violation." Five comments were received on this subject. Two State agencies agreed with the proposed changes as did two associations. One of the associations also supported FEMA's acknowledgement that there should be a broad range of actions available to a community when violations are addressed.

FEMA alerts the public to the fact that it altered the definition of violation in this final rule based on internal review after the proposed rule was published. The definition of violation in the final rule will be amended to read ". . . without the elevation certificate, other certifications, or other evidence of compliance . . ." The phrase "other evidence of compliance" was added because of references in the definition to requirements at §§ 60.3 (c)(10) and (d)(3). These provisions do not specifically require certifications but do require that the applicant can demonstrate compliance with certain performance standards. Generally, this will require submission of an analysis by a qualified engineer.

Use of Openings in Enclosures Below a Structure's Lowest Floor

In the proposed rule, FEMA intended to eliminate any confusion on the part of communities regarding the application of the requirement at § 60.3(a)(i) that structures be designed and adequately anchored to prevent flotation, collapse or lateral movement. This provision would be clarified to specify that the structure must be protected from hydrostatic and hydrodynamic loads, including the effects of buoyancy. Furthermore, at § 60.3(c)(5), a provision would be added which required the use of a specified set of openings in the walls of enclosures below the lowest floor of an elevated structure. These openings are intended to provide for the ingress and egress of floodwaters to automatically equalize hydrostatic flood forces on exterior walls. As an alternative the permit applicant could submit a design certified by a registered engineer or architect. The final rule makes no change in these provisions.

Three State offices agreed with the proposed changes and a fourth made editorial suggestions regarding typographical errors, which have been

corrected in the final rule. One of the agreeing States further commented that it thought that local officials will have difficulty with the technical aspects of the techniques available to facilitate these openings and suggested the issuance of a technical bulletin by FEMA. FEMA is preparing a bulletin on the use of these openings and will make it available to communities and individuals.

Another agreeing State office commented that it believed that the openings below a structure's lowest floor should be limited to existing buildings and not permitted for new construction. FEMA does not encourage the enclosure of areas below the lowest floor of an elevated structure. However, it recognizes that these enclosures are a common practice in areas which experience deep flooding. Provided that these enclosures are used only for parking, access, or limited storage, and they are properly constructed, FEMA believes that there is no reason to prohibit their construction. Since more restrictive State requirements would take precedence over NFIP criteria, this State could choose to place additional limitations on such enclosures.

An individual expressed great concern about the possibility of these enclosures being used for habitation. This respondent not only saw the potential for such occurrences continuing, but believes that the proposed rule may encourage them. This person then recommended that FEMA increase the required total area of the openings, increase the number of required openings from two to four, and impose a height limitation of five or six feet on any enclosure. As indicated in its response to the previous comment, FEMA does not believe there are sufficient reasons to prohibit construction of such enclosures. FEMA believes that its calculations of the areas of openings required are sufficient and that additional area or number of openings are not necessary.

Section 1316 Denial of Flood Insurance

The proposed rule included a new Part 73 which formalized procedures for implementing section 1316 of the National Flood Insurance Act of 1968. One of the provisions in that part provided that the State or community shall determine whether or not to declare a structure to be in violation and to submit that declaration to FEMA for the purpose of denial of insurance under Section 1316. Of the nine respondents who commented on this proposal, five State offices and two local governments supported the proposed rule.

Two of the States including one which supported the proposed rule recommended that the State Coordinating Agency in each State be given the authority to declare a property to be in violation of NFIP criteria or of local ordinances for the purpose of denial of flood insurance coverage under section 1316. Section 1316 specifically states that the property must be declared by a duly constituted State or local zoning authority, or other authorized public body, to be in violation of State, or local flood plain management laws, regulations, or ordinances. In most instances this property will also be built inconsistent with NFIP criteria. However, this is not always the case since the property could be in violation of a State or local requirement that is more restrictive. Section 1316 is clearly tied to the State or local law, regulation or ordinance, and not to NFIP criteria. A State agency may declare a property to be in violation of a State law, regulation, or ordinance, if it is authorized to do so. A State agency may not declare a property to be in violation of a local ordinance unless that agency is authorized to take such action by a State law or regulation.

A local government official queried the cost effectiveness of local enforcement of denials of insurance. FEMA responds that the National Flood Insurance Act of 1968 requires participating communities to adopt and enforce flood plain management regulations and, as a result, there is a concomitant cost of participating in the National Flood Insurance Program. These costs should be no greater than the costs associated with enforcing any local ordinance or code. Section 1316 is a tool to assist local government in this effort. Communities may choose not to utilize section 1316 denial of insurance, but must take other actions to remedy any violations to the maximum extent possible.

A Federal agency thought that it would be more appropriate for FEMA to promote section 1316 as a deterrent factor in the hopes of reducing the number of properties which are in violation of the regulations. This agency further recommended that FEMA stipulate that any failure on the part of a local government to use section 1316 under appropriate conditions would constitute a program deficiency for the community. As indicated in the supplementary information to the proposed rule, the community has the responsibility of ensuring that its flood plain management measures are enforced and that any violations are remedied to the maximum extent

possible. FEMA believes that the preferred remedy for a violation is to modify the structure so that it is made compliant and can continue to be insured at affordable rates. Only when this cannot be done would application of section 1316 to the structure be the most effective remedial measure available. FEMA wishes to provide communities with the flexibility to take actions that they feel are most effective in ensuring that violations are remedied and do not re-occur. When FEMA evaluates a community's enforcement of its flood plain management measures, a community that chooses not to use section 1316 will have the opportunity to demonstrate that alternative remedial measures have been taken and that these measures remedy the violation to the maximum extent possible.

Use of Available Base Flood Data

The proposed rule clarified the existing requirement that communities obtain, review, and reasonably utilize base flood elevation data from Federal, State and other sources. It also specifically required the reasonable use of floodway data in addition to base flood elevation data as well as data from preliminary, draft, and final Flood Insurance Studies (FIS).

FEMA received eight responses which specifically commented on this topic. Four State offices agreed with the proposed rule. One State noted that the clarification language encouraged the use of available base flood data but pointed out that many local governments often do not know about or have access to data generated by State and Federal agencies. This same State office suggested a greater interagency effort to provide information for local officials that participate in the program. FEMA notes that it already participates in Federal level interagency efforts and encourages and supports efforts by other Federal agencies as well as States to provide technical assistance to NFIP communities.

Another responding State office indicated that the proposed changes should preclude "11th hour" permits from being issued by communities to escape having to enforce flood plain management requirements. This comment references the use of these data prior to the adoption of a Flood Insurance Rate Map (FIRM) by a community participating in the program.

A third State recommended the addition of a provision which would permit insurance agents and lenders to use preliminary Flood Insurance Rate Maps (FIRM) and flood profiles if that information is not outdated and if it is based on improved technical

information. This same State also suggested allowing the use by insurance agents and lenders of flood data developed by communities for insurance purposes. The office cited instances where local agencies had better data than that which was available for the preparation of the FIRM. Lenders and agents are required to use the current effective Flood Hazard Boundary Map (FHBM) or FIRM when determining whether a property is in the special flood hazard area and for determining the applicable rates for flood insurance for a structure. The insurance aspects of the NFIP could not be properly administered if each agent or lender were permitted to use other data. However, FEMA does recognize that a preliminary, draft or final Flood Insurance Study (FIS) often will utilize more detailed information than the current effective flood map for a community. FEMA also recognizes that communities and individuals may have access to more detailed topographic and other data than were used in developing the communities' current FHBM or FIRM. In these situations an individual or community can obtain a map revision as provided for in Part 65 of NFIP criteria or a Letter of Map Amendment as provided for in Part 70.

One State agency commented that the requirement to use available base flood data did not provide for comparison of FEMA maps with the Sea, Land, Overland Storm and Hurricane (SLOSH) models developed by the National Oceanic and Atmospheric Administration (NOAA). Data generated by SLOSH models would constitute available data and should be used by communities where FEMA has not provided the community with base flood elevations. FEMA also recognizes that SLOSH models provide valuable information for community emergency management planning and encourages its use for these purposes.

One local government stated its agreement with the part of the proposed rule which stated the use of available flood elevation and floodway data but it considered it unfair to require a community to use these types of data from preliminary and draft Flood Insurance Studies (FIS) prior to the community's acceptance of the data. The purpose of specifically including use of data from preliminary draft, and final Flood Insurance Studies (FIS) was to clarify an already existing requirement. Subsequent to the publication of the proposed rule, FEMA determined that it was not necessary to single out this type of data for the purpose of the provision at § 60.3(b)(4). However, data from

preliminary, draft, and final Flood Insurance Studies will continue to constitute base flood data available from a Federal, State, or other source. Those data are to be used under § 60.3(b)(4) until such time as the community's Flood Insurance Rate Map (FIRM) becomes effective or the community adopts flood plain management measures compliant with § 60.3(c)(d), or (e) whichever comes first. In response to this community's comments, the requirement is that the community obtain, review and reasonably utilize this data. If the base flood elevations were currently being appealed on technical or scientific grounds by the community, the community would not be required to utilize the data provided that other measures were taken to minimize the structure's exposure to flood damages. FEMA notes that significantly lower flood insurance rates are available in those instances in which a structure has been elevated using available base flood data.

One of the responding States noted that inclusion of available floodway data was important but thought that its availability was limited. This State also questioned the use of floodway data in communities which only have A-zones within their boundaries. Linking this with another State comment which thought it unnecessary to mandate the use of available floodway data, FEMA believes that the preservation of the carrying capacity of floodways is critical to achieving program objectives of reducing the Nation's overall flood damages since obstruction of floodways can significantly increase potential flooding upstream. Although FEMA recognizes that floodway data will only occasionally be available from sources other than preliminary and draft Flood Insurance Studies, it is important that communities reasonably utilize this data.

One State also recommended that communities not be required to use floodway data which do not meet more restrictive State standards. FEMA notes that more restrictive State and local regulations would take precedence over NFIP criteria. If floodway data were available that met more restrictive State standards, that data would be utilized under § 60.3(b)(4). However, if no floodway data are available that meet State standards, the community would have to obtain, review, and reasonably utilize any other floodway data that are available.

Exceptions for Floodproofed Residential Basements

The proposed rule at § 60.3(c) provided for a new and separate category of exception for communities that wished to permit construction of residences with floodproofed basements. Based on a review of past exception requests, the current procedure and a special study that was conducted, FEMA determined that exceptions to allow construction of residential floodproofed basements will continue to be granted, but FEMA will use the new simplified procedure to do so. This procedure, designed solely for exceptions for floodproofed basements, would involve a technical review by FEMA to determine if flooding characteristics in the community met specified criteria and would no longer require a determination that there would be severe hardship or gross inequity for the community if the exception were not granted. The procedure would also not require preparation of an environmental assessment.

Eight respondents commented on this topic. One State office and one local government agreed in full with the proposed rule. The State office viewed the effect of the criteria at § 60.6(c)(1) as continuing to limit the number of exceptions that were granted. The local government commented that in many flood plain areas conditions discourage construction of basements but, that where feasible, their construction should be permitted.

One State office which adversely commented on the proposed rule felt that the new subpart (c) at § 60.6 represented a complex set of standards which communities would find difficult to implement. However, the purpose of § 60.6(c)(1) is to set criteria for FEMA to determine if a particular community has flooding characteristics that pose no special problems for floodproofed basements. Only § 60.6(c)(2) would have to be incorporated into local ordinances. If a community felt that it did not have the technical expertise to enforce these provisions, it should not apply for an exception.

Another State office opposed the granting of exceptions for floodproofed basements on the grounds that it felt that it had been documented that residential structures with basements suffer greater damages than residences without basements. This is no doubt true for basements that are not adequately floodproofed or where no additional freeboard has been provided to compensate for the catastrophic nature of the losses that would occur if the floodproofing measures were

overtopped by floodwaters. However, FEMA believes that a residence with a floodproofed basement which meets the requirements at § 60.6(c) should be no more subject to flood damages than a residence built on a slab with its lowest floor at the base flood elevation. This is due both to the review criteria at § 60.6(c)(1) and the freeboard and other construction requirements at § 60.6(c)(2). Since publication of the proposed rule, FEMA has had the opportunity to evaluate the performance of floodproofed basements in a flood approximating a base flood in a community that had been previously granted an exception. These floodproofed basements sustained no damage.

One State commented that it did not believe that exceptions to allow construction of floodproofed basements should be granted to communities. Their concerns related to their feeling that most communities lack the technical expertise and resources necessary for inspections and for the enforcement of floodproofing requirements. FEMA agrees that adequately enforcing a local ordinance that allows for construction of floodproofed basements will require more technical expertise and resources at the local level than an ordinance which requires that residential structures have their lowest floor elevated above the base flood elevation. However, communities are responsible for adequately enforcing their ordinances. As indicated previously, if a community feels that it does not have the expertise or resources to ensure that basements are properly floodproofed, it should not apply for an exception. FEMA believes that by limiting exceptions to communities which meet the criteria at § 60.6(c)(1) the need for specialized expertise will be minimized since information provided in the FEMA publication, "Manual for the Construction of Residential Basements in Non-Coastal Flood Environs," can be directly applied in such situations.

A Federal agency questioned a statement by FEMA in the supplementary information in the proposed rule which appeared to indicate that floodproofed basements in areas subject to flash flooding or deep flooding were more likely to fail or to be overtopped by floods larger than the base flood. FEMA agrees that this statement was improperly phrased. This statement was intended to indicate that basements exposed to such conditions would be more likely to fail and that the consequences of these basements being overtopped in floods larger than the base flood would be greater. This is

because, if property owners could not be warned of impending floods, they may not be able to evacuate the basement or remove irreplaceable contents. Both of these factors would increase the risk.

FEMA also received a comment from a Federal agency which recommended retention of the requirement for an environmental assessment prior to granting basement exceptions to assess the impacts of such exceptions on the natural environment. FEMA's experience, in preparing 46 environmental assessments on exceptions granted to communities with similar flooding characteristics to those in the criteria at § 60.6(c)(1) of the final rule, indicates that most building sites would eventually be developed regardless of whether basement exceptions are granted. As a result there would be few if any differences in the impacts on the natural environment. The development in communities which have been granted exceptions has generally occurred in established town sites where the natural environment has already been disturbed. As a result FEMA believes that the continued preparation of the assessments would serve little purpose.

The final comment on this topic came from a local government that was concerned that the continuation of these exceptions would encourage marginal flood plain development and also that the reference to the 500-year flood in § 60.6(c)(1) meant that FEMA would eventually adopt that standard for all development. The 500-year flood elevation is to be used only to determine the amount of freeboard that would be required for a basement in a particular community. FEMA will continue to use the 100-year or base flood elevation as a basis for delineating flood plains and as the elevation to which other structures must be elevated or floodproofed.

State Coordination

The proposed rule revises § 60.25 to enable States to more effectively respond to the needs of their NFIP communities and to enhance and clarify the role of the coordinating agency of the NFIP within each State. FEMA received several comments relative to § 60.25. One commentator supported the revisions to § 60.25 in its entirety. Two commentators supported the revisions to § 60.25 (a) and (b) as appropriate activities for the State Coordinating Agencies to conduct.

Concerning § 60.25(c), five commentators questioned the necessity of requiring States to request the Administrator's approval prior to carrying out activities in the capacity of the State Coordinating Agency other

than those referred to under § 60.25(b)(1) through (12). One commentator specifically expressed concern that the proposed rule could have the effect of eliminating or significantly reducing the kind of timely and appropriate responses needed for the diverse circumstances encountered in the implementation of the NFIP. Finally, two commentators asserted that the proposed language was inappropriate because FEMA cannot dictate what activities a State agency will carry out. FEMA, after considering these comments and concerns, has revised § 60.25(c) in the final rule. It is not FEMA's intention to limit those activities State agencies perform to fulfill needs they perceive regarding implementation of the NFIP in their State. However, because there are diverse NFIP issues and activities with which States might not be familiar and, in order to ensure that misinformation is not inadvertently provided to NFIP constituencies, FEMA asks in the final rule that, when acting in its capacity as State Coordinating Agency, a State notify FEMA prior to its undertaking such activities. The revision is also intended to avoid duplication of assistance to NFIP communities in order to ensure that resources are being utilized effectively.

After discovering a typographical error, FEMA revised § 60.25(d)(2) for the final rule by deleting the word "on" and replacing it with the word "or" under this subsection.

State Assistance Program Termination

Four commentators expressed concern over the removal of Part 76. Specifically, two commentators expressed concern that if the Community Assistance Program—State Support Services Element (CAP-SSSE) is not incorporated into Part 76, funding could be arbitrarily cut for the program. Also, specific concern was expressed over the formal termination of the State Assistance Program (SAP) and the failure to subsequently incorporate the CAP-SSSE into the regulations. It was asserted that this action indicates that FEMA is no longer concerned about the States' participation in NFIP coordination and that the action "would raise a veil of discretion and uncertainty" for future support and stability in the area of flood hazard reduction activities. One commentator suggested that Part 76 be retained for the purpose of developing new capabilities commensurate with the responsibilities outlined under the proposed rules changes for § 60.25.

FEMA responds by noting that the SAP was never designed to be an

indefinite program, but to provide States the opportunity and financial support to strengthen their role in NFIP flood hazard mitigation activities and to develop and enhance their individual capabilities in order to eventually provide technical assistance services to communities. FEMA determined that the intent and objectives of this program had been met and that those implementing regulations were no longer applicable or necessary. Therefore, removal of Part 76 and its subsequent reservation is strictly a procedural action to reflect the SAP's termination on October 1, 1985.

FEMA developed a comprehensive Community Assistance Program to enable it to enter into specific agreements with other Federal agencies, States and the private sector to provide services to meet the identified technical assistance needs of the participating NFIP communities. The State Support Services Element of the CAP utilizes the existing capabilities of the States to provide needed technical assistance services to NFIP communities.

The SSSE funding is covered in FEMA's budget under an ongoing line item for Flood Hazard Reduction. The Flood Hazard Reduction line item provides a logical means of matching the assistance needs of NFIP communities with the appropriate resources available. This line item includes funding for all the Community Assistance Program Delivery Systems designed to provide needed services to NFIP communities as well as funding for specific flood loss reduction projects such as the development of technical guidance materials and providing technical assistance to States and local governments on flood loss reduction standards and techniques.

The formal termination of the State Assistance Program and subsequent rescission of its regulations does not indicate FEMA's lack of interest in the States' role in the NFIP's flood loss reduction efforts. To the contrary, FEMA recognizes that State involvement is most necessary to help ensure the proper implementation and administration of NFIP flood plain management standards at the local level. Thus, the State Support Services Element becomes the cornerstone in a successful Community Assistance Program.

Standard Flood Insurance Policy

Comments on the changes in the Standard Flood Insurance Policy (SFIP) focused on four areas.

One of the areas receiving comments was the proposal to pay policy building

limits, where an insured building is flooded continuously for 90 days and it appears that flood damage will eventually reach those limits, without waiting for further damage to occur. One commentator supported the proposal without suggesting any change. A second commentator supported the proposal but suggested reducing the 90 days to 30 days or even applying this procedure to properties in imminent danger of being continuously flooded. FEMA continues to believe that the 90-day period is appropriate so no change has been made in this regard in the final rule. A third commentator understood this proposal to be intended to deal with repetitive flooding and suggested that flood plain management measures could help reduce flood damage. The situations FEMA has encountered that gave rise to this proposal did not involve repetitive flooding, and this is not what the proposal is intended to address. However, FEMA's Community Assistance Program is certainly available to assist communities with special flood plain management measures if needed. This commentator also questioned what would happen if the insured refused to sign the release provided for in the proposal. In that case, the procedure would not be available to that insured, and multiple claim payments would be made as new damage occurred (as is the case currently). This commentator also felt that the phrase "before the end of the policy term" in the last sentence needed to be clarified. FEMA believes that both references to the policy term in the last sentence of this provision clearly are to the policy term during which the continuous flooding began so that this clarification is not needed. The first sentence of the provision has been revised for clarity, including clarifying that it does not apply to erosion coverage, and has also been revised to take into account the possibility of an over-insured building.

A second area receiving a comment was the proposed addition of a definition of "base flood" to the SFIP. The commentator wrote, ". . . [this] definition of 'base flood' is misleading in that the freeboard requirement and, therefore, the base flood elevations used in § 65.10 'Mapping', is actually the computed base flood elevation with the expected probability adjustment." The definition of "base flood" in the proposed rule is the same as that given by § 59.1 of the existing regulations. The proposed rule was not redefining this definition but was merely adding the definition to the Standard Flood Insurance Policy. It is evident from the

commentator's citation that the commentator had confused the definition of "base flood" with the procedure that is to be followed to account for hydrologic uncertainties when an exception is being sought to the freeboard requirements for levees to be recognized as providing protection from the base flood. Since these procedures have no bearing on the definition of "base flood," no changes have been made to this definition in the final rule.

A third area was the proposed deletion of coverage for the expenses incurred in the removal of an insured mobile (manufactured) home away from the peril of flood. Three commentators recommended continuing to provide this coverage, with two of them stating that removing a mobile home is a safer and less expensive method of preventing flood damage than sandbagging. FEMA has reconsidered and has decided not to delete removal expense coverage for mobile homes. While removal expense coverage will apply to all insured property removed because of the imminent danger of flooding, a limit will be imposed on the amount of removal expense that is reimbursable. However, no deductible will be applied to this reimbursement. Reasonable expenses incurred by the insured in the temporary removal and storage of insured property will be reimbursable for buildings up to the amount of the minimum building deductible (currently \$500) and for contents up to the amount of the minimum contents deductible (also currently \$500). This change will have a delayed effective date as explained below.

A fourth area receiving a comment was the need for printing new policy forms to reflect the changes being made to the SFIP. A private insurance company participating in the Write-Your-Own Program of the NFIP suggested handling these changes to the SFIP in a way that avoids the need for printing new policy forms. While FEMA understands the complications and expenses involved in printing new policy forms, it believes that this is, nonetheless, the best way to proceed to assure that policyholders receive notice of the changes to their flood insurance coverage. However, to allow more time for new policy forms to be printed, the effective date of the SFIP changes in this rule that restrict coverage has been delayed until January 1, 1987. The other SFIP changes in this rule—those that are liberalizations of coverage or are clarifications of coverage or are of an editorial nature—will be effective October 1, 1986. Under the Liberalization Clause of the SFIP

(Article IX of the Dwelling Form and paragraph I of the GENERAL CONDITIONS AND PROVISIONS section of the General Property Form), these liberalizations of coverage will apply to all claims arising on and after October 1, 1986, regardless of the date of issue of the policy involved.

The following SFIP changes (and one related change to § 61.5) in Part 61 will be effective January 1, 1987 (corresponding changes to the Dwelling Form, the General Property Form, and § 61.5 are listed together):

1. The change to the definition of "Direct Physical Loss by or from Flood" in Article II—Definitions of Appendix A(1) (item 12.c of this rule) and to the DEFINITIONS section of Appendix A(2) (item 13.e of this rule).
2. The change to paragraph C of Article V—Property Not Covered of Appendix A(1) (item 12.k of this rule).
3. The change to paragraph D of Article V—Property Not Covered of Appendix A(1) (item 12.1 of this rule) and the change to paragraph D of the PROPERTY NOT COVERED section of Appendix A(2) (item 13.1 of this rule).
4. The removal of paragraph D of Article VI—Deductibles of Appendix A(1) (item 12.q of this rule); the removal of paragraph D of the DEDUCTIBLES section of Appendix A(2) (item 13.q of this rule); and the change to § 61.5(d) (item 9.a of this rule). These changes relate to the changes in 1 above.
5. The change to paragraph H of Article VIII—General Conditions and Provisions of Appendix A(1) (item 12.v of this rule) and the change to paragraph G of the GENERAL CONDITIONS AND PROVISIONS section of Appendix A(2) (item 13.r of this rule).

Mapping Changes in the Proposed Rule

Section 61.12 contains procedures for applying section 1307(e) (commonly referred to as the "Brooks Amendment") of the National Flood Insurance Act of 1968, as amended, which grants communities relief from insurance premiums based on adequate progress towards completion of federally funded flood protection systems. Adequate progress is defined in terms of project cost as 100 percent authorized, 60 percent appropriated, 50 percent expended, and 50 percent of physical feature construction completed. A complicating factor of § 61.12 is that it does not address the applicability of the flood plain management provisions of § 60.3. FIA has established the procedure of designating areas affected by § 61.12 determinations as Zone A99, which in effect reduces insurance premiums and relaxes flood plain

management criteria in recognition of the protection to be provided by the flood protection system under construction.

To support both the provisions of section 1307(e) of the Act and the provisions of the Act relating to actuarial soundness and effective flood loss reduction, determinations under § 61.12 should include a review of the construction status of all critical physical features within the flood protection system under consideration. Consideration of each critical physical feature will assure that unreasonable § 61.12 applications are not made for structures that will not provide flood protection for extended periods of time. To promote a reasonable and objective means of making decisions relating to § 61.12, FIA must further clarify the original requirement that a flood protection system's physical features be under construction and be 50 percent completed to mean that *all* of the critical features (i.e., physical features) comprising a flood protection system must be under construction and 50 percent completed. A critical feature was defined in the proposed rule as an integral and readily identifiable part of the flood protection system without which the flood protection provided by the entire system would be compromised.

For example, a large project such as a hurricane flood protection project often consists of many different features such as levee sections, flood walls, and flood gates. For such a system to be considered under the provisions of § 61.12, the proposed rule required that each of these critical features must be under construction and 50 percent complete. The approach of reviewing the completion status of each critical feature, instead of only assessing the entire flood protection system's construction completion level as a unit, will allow more structured decision making in § 61.12 applications; will assure that adequate progress is being made toward an effective flood protection system and will assure that the design level of protection will be achieved within a reasonable period of time after insurance rates are reduced and nonstructural flood plain management requirements are relaxed. This was the intention of section 1307(e) of the National Flood Insurance Act of 1968, as amended.

The flood risk data published in NFIP maps and Flood Insurance Study (FIS) reports form the technical basis for the administration of the NFIP in each flood-prone community in the nation. These data provide the basis for flood plain

management measures required of each community participating in the NFIP, as well as the basis for actuarial flood insurance premiums. Although the preparation of NFIP maps and FIS reports is subject to rigorous technical standards, it is recognized that improvements in techniques used to estimate flood risks, changes in physical conditions in flood plains or watersheds, and availability of new technical data may necessitate revisions of the maps and studies.

In making such revisions, there must be adherence to the same engineering standards applied in the preparation of the original map and FIS report. When requesting changes to NFIP maps and FIS reports, adequate supporting data must be submitted. These data allow FEMA to review and evaluate the requests and to carry out its responsibility to ensure that the information to be presented is scientifically and technically correct.

A great deal of time and effort is expended by individuals, communities, and FEMA in obtaining the technical information needed to evaluate requests for changes to the NFIP maps. The proposed rule provided more detailed information on the types of supporting data that FEMA needs to review and evaluate requested map changes.

The granting of revisions to NFIP maps without specifications for the placement of fill has been a concern in the past. The basis of this concern is threefold. First, improperly protected fill can be subject to scour and erosion which can result in the exposure of the structure to damages due to undermining. Second, improperly compacted fill can settle. In extreme cases this could result in the fill surface subsiding below the base flood elevation (BFE) or in major structural damage to the building if differential settling occurs. Third, the removal of property from the flood plain permits the construction of homes with non-floodproofed basements. These basements can suffer significant damages due to hydrostatic pressure if the fill that is used is highly permeable or improperly compacted.

By establishing criteria requiring that fill be engineered to ensure its permanency, adverse impacts such as those mentioned will be minimized as a condition of granting a map revision. The proposed rule had requirements for compaction and density of fill layers, elevation of fill, and adequate protection of fill slopes. A certification from a community's NFIP permit official, a registered professional engineer, or an accredited soils scientist that these

requirements have been met was required by the proposed rule.

The degree of protection afforded by a levee system is never known precisely because of the uncertainties involved in establishing the base flood elevations and the structural stability of the levee itself. Therefore, levee systems must meet certain requirements to be recognized by the NFIP as providing protection from the base flood. In this regard, the proposed rule provided requirements for the treatment of earthen riverine and coastal levees involving: (1) Design, including freeboard requirements, closures, embankment protection, stability, settlement, and interior drainage; (2) operation, including closures and interior drainage; and (3) maintenance.

Freeboard is required to offset the hazards that might arise from underestimation of the base flood elevations as a result of uncertainties in the hydraulic and hydrologic analyses. The freeboard must be sufficient to protect against overtopping and to ensure the structural stability of the levee system under the loading conditions expected to occur during the base flood.

Under the proposed rule, a levee system that involves closure devices would only be recognized if these devices are appropriately designed and are structurally a part of the levee system. Sandbags would not be recognized for this purpose. The design and operation of these devices must ensure the structural stability of the levee system.

The proposed rule also prescribed requirements for analyses which demonstrate that appreciable erosion of the levee embankment will not occur during the base flood; that seepage during loading conditions associated with the base flood will not jeopardize embankment or foundation stability; that the potential and magnitude of freeboard loss resulting from levee settlement is not critical; that facilities to eliminate flooding due to interior drainage are adequate; and that operation and maintenance requirements are sufficient to ensure continuation of the protection afforded by the levee as designed and constructed. Under the proposed rule, FEMA could require that other factors, in addition to those listed in the proposed rule, be considered in certain situations.

The accuracy of the flood plain boundaries shown on NFIP maps is limited by the scales at which maps are prepared and by the topographic data available to prepare them. These

limitations may result in structures or parcels of land being incorrectly included in an area of special flood hazard. When alteration of topography (i.e., earth fill) has not occurred since the effective date of the first NFIP map and it is demonstrated that the property has been inadvertently included in an area of special flood hazard, a Letter of Map Amendment may be granted removing the property from the area of special flood hazard.

The proposed rule clarified Part 70 by eliminating its application in situations where there has been alteration of topography since the effective date of the first NFIP map showing the property within the area of special flood hazard. Also, a statement was inserted referencing Part 65 if alteration of topography has occurred.

To further clarify the regulations, the definitions of "critical feature", "levee", and "levee system" were added. The definitions of "mean sea level" and "water surface elevation" were revised to include reference to the NGVD of 1929.

Comments on Mapping Changes

Of the 61 sets of comments received, 27 commentators addressed the proposed mapping changes in about 33 different areas. Comments received on the proposed mapping changes have been consolidated and are discussed below.

Comments on § 61.12

One commentator agreed with the proposed clarifications to § 61.12 and especially with the clarification provided on "critical features."

One commentator suggested that § 61.12 should also make allowance for relief from insurance premiums based on adequate progress toward completion of locally funded flood protection systems. Section 61.12 is based on Section 1307(e) of the National Flood Insurance Act of 1968, as amended. Public Law 93-383, which added paragraph (e) to section 1307, is more commonly known as the "Brooks Amendment." The Brooks Amendment requires the Federal Insurance Administrator to make allowances for relief from insurance premiums based on adequate progress toward completion of flood protection systems. The proposed rule did not add the limitation that considerations of adequate progress only be applied to federally funded flood protection systems. This requirement was specified by the regulations that existed prior to the proposed rulemaking and is consistent with the intent of Congress when it enacted the Brooks Amendment.

As can be seen from a quote from the *Congressional Record* in a subsequent paragraph of this discussion, the Brooks Amendment was enacted to provide relief to a small district in Texas where a flood control project had been substantially completed at the time of the enactment of the Brooks Amendment. The flood control project alluded to in this quotation was federally-funded and the language of the amendment clearly applies to the Federal process of authorization and appropriation. To act as suggested by the commentator is not authorized by this statute.

Two commentators objected to the definition of adequate progress and saw no reason for granting any relief from insurance rates until the total project is 100% complete and certified as adequate by a registered professional engineer. The proposed rule did not add a definition of "adequate progress" as it had been previously defined by existing regulation. In addition, the Brooks Amendment provides the specific definitions the Federal Insurance Administrator shall use in making "adequate progress" determinations. To act differently, as was suggested, is not authorized by the Brooks Amendment.

One commentator took exception to the clarification proposed in § 61.12(b)(4) stating that the inclusion of the requirement for all critical features to meet the "adequate progress" definitions of the Brooks Amendment would violate its mandate and spirit. The mandate and spirit of the Brooks Amendment can be gleaned from the following quote from the *Congressional Record* (House, June 20, 1974, page 20309) that was made by the sponsor of the Brooks Amendment prior to its enactment.

This amendment will allow an area where a flood control project is substantially completed and which has not been delayed through any fault of the local sponsors to continue to receive flood insurance coverage at the subsidized rate.

This problem arises in a unique case in my district in Texas. It is my understanding that this will not have any material effect on the proposed legislation or on the overall flood insurance program other than to prevent undue hardship to a small area of Texas.

A "critical feature" means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised. To permit the definition of "adequate progress" to be applied to a flood protection system without first determining that all critical features are substantially completed, as has been suggested by the commentator, would

not be in keeping with the spirit and the letter of the Brooks Amendment in that such action would have a material effect on the flood insurance program. If the commentator's suggestion were implemented, the Federal Insurance Administrator would no longer have assurances that adequate progress is being made toward an effective flood protection system and that the design level of protection would be achieved within a reasonable period of time after insurance rates are reduced and nonstructural floodplain management requirements are eliminated. This is true because if the system were viewed only in the context of percentage completion without reference to critical components then credit could be given to such a system even though no progress was being made on critical components necessary to provide flood protection.

General Comments on Part 65

Two comments were received strongly supporting the requirements of the proposed rule for certification of fill and the inclusion of the requirements for revision of special flood hazard areas, base flood elevations, floodways, and the mapping of areas protected by levees. The commentators noted that the requirements of proposed rule are currently covered by operating procedures within the Agency.

Comments on Data Submissions

Two commentators expressed an opinion that communities should be responsible for notifying FEMA of any changes that affect flooding conditions regardless of when the information became available. The Agency shares the opinion that data should be submitted as early as possible but retained the phrase "within six months of the date that such information becomes available . . ." in the proposed rulemaking to establish a suspense date for receipt of this information to insure administrative efficiency. However, to clarify the intent of this regulation, the final rule will be changed to read:

As soon as practicable, but not later than six months after the date that such information becomes available, a community shall notify . . .

Two commentators noted that § 65.4 provides communities with the right to request changes to an effective map because of changes in a community's corporate boundaries. These commentators expressed an opinion that the Agency should require communities to notify FEMA of any and all changes in their corporate boundaries. A mandatory reporting requirement on corporate boundary changes already

exists under § 60.2(f) and § 64.4(b) in the current regulations. Since this provision exists, there is no need to modify the language of § 65.4 to incorporate it.

Two commentators expressed the opinion, "where states have jurisdiction over the adoption and amendment of floodplain ordinances, including maps, state concurrence on these changes should be required as a condition of submittal." The Agency recognizes that where states or local communities have adopted floodplain management regulations that are more comprehensive than the minimum Federal criteria specified by Part 60, that these criteria take precedence. However, the delineation of areas of special flood hazard and the establishment of base flood elevations remain a FEMA responsibility and are based on the physical conditions existing at the time the map is created or revised. Since it is the responsibility of FEMA to assure that flood mapping accurately represents current risks, revisions to areas of special flood hazard or base flood elevations based on existing conditions cannot be held in abeyance pending reviews by other levels of government. Section 65.7(b)(3) does require state approval prior to floodway revisions where state jurisdiction is involved.

Comments on Revising Maps Without BFE Changes

Two commentators opined that § 65.5 should be expanded to allow communities to request map revisions based on topographic data where no physical changes have occurred in the floodplain. It was the Agency's intent to also permit this action when no fill has been placed and the natural grade is above the base flood elevation (BFE). The final rule incorporates this clarification.

One commentator asked for a clarification of the procedures FEMA follows in determining whether a parcel of land or a structure shall be excluded from the special flood hazard area (SFHA). The phrase, "special flood hazard area" means the same as "area of special flood hazard" which is defined at § 59.1. If a legally defined parcel of land is to be excluded from the SFHA, then the entire parcel of land must be at or above the BFE. If a structure is to be excluded from the SFHA, then the entire structure, including the basement, if any, must be at or above the base flood elevation. A determination of exclusion for a structure is made by comparing the elevation of the first floor and lowest adjacent grade to the structure with the elevation of the base flood. This

clarification has been added to the final rule at §§ 65.5(a)(3), 65.5(a)(4), and 70.4.

Two commentators suggested that FEMA may wish to consider that changes to maps only be made where the physical changes resulting from a fill in the floodplain are contiguous to lands outside the floodplain. The Agency recognizes the concern for evacuation routes during periods of flooding implicit in the suggestion, but has no technical basis for distinguishing a difference in floodplain status between properties under these conditions.

One commentator recommended that the proposed rule include, in the placement of fill provision (§ 65.5(a)) that contact is made with the U.S. Army Corps of Engineers when discharges or dredged or fill material into regulated waters may be involved. The existing regulations, § 60.3(a)(2) already require the contact suggested by the commentator by requiring that the Chief Executive Officer of the community review all proposed developments to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or state law. Specific mention is made here of Section 404 of the Federal Water Pollution Control Act Amendments of 1972.

One commentator voiced agreement with the changes suggested by the proposed rule, specifically "... the strengthening of the policy on the use of fill."

One commentator noted that the requirement to certify the compaction of fill would make monitoring and enforcement unnecessarily difficult and imposes undue hardship on residents. The commentator remarked that it would mean extra cost to obtain a certified test and that there were many areas where this type of test cannot be locally obtained. The Agency recognizes that this is a valid concern and there may be instances where the certification of the compaction of fill may be expensive and difficult for an individual homeowner to obtain.

The requirements of § 65.5(a)(6) have been rewritten to provide an exemption to individual home or property owners who submit a request to gain exclusion from an area of special flood hazard for a single structure or a single lot that has been elevated by the placement of fill. These persons are encouraged to take note of the provisions of this section and are urged to reduce their vulnerability and exposure to flooding by voluntarily complying with the design standards specified therein to the extent possible.

Comments on Certification Requirements

Two commentators submitted several comments on the certification requirements of § 65.5(b), 65.6(f), 65.7(d), and 65.10(e) noting, among other things, that in some instances the certifications sought were "performance guarantees" and that the certifications should be limited to only the accuracy of the information provided.

In general, §§ 65.5(b), 65.6(f), 65.7(d), and 65.10(e) of the proposed rule state that the technical information submitted in support of a request for a revision to an effective FEMA map must be certified by a registered professional engineer or licensed land surveyor. This information, which usually consists of topographic maps, survey data, as-built plans, and engineering analyses, is usually submitted, not by disinterested parties, but rather by those who stand to gain in some way from the requested revisions. Given that FEMA is responsible for the information presented on its maps, and because this information is used for insurance purposes and for floodplain management decisions, FEMA must be assured that the information used to revise flood insurance maps is as accurate as possible. The required certification provides this assurance. It would be irresponsible of FEMA to proceed with map revisions in the absence of such certifications. Also, the lack of certifications could lead to extensive requests for corroborating information, therefore causing unnecessary delays and expenses in maintaining FEMA maps as accurate sources of flood risk information. Thus, the requirement for certification of the information submitted to support requests for map revisions is necessary, and should be included in the rule.

The intent of the requirement is not to extract from the person or agency providing the information a guarantee that flood protection structures will function as intended or that specific areas will not be subject to flooding. The intent, rather, is for FEMA to be assured that the person or agency provides data, analyses or other information in accordance with sound practices established by the engineering profession.

Section 62.2 has been amended to include a definition of certification for the intent and purposes Part 65. This definition is cross-referenced under §§ 65.5(c), 65.6(f), 65.7(d) and 65.10(e).

Revision of BFEs

Three commentators noted that the wording of § 65.6(a)(2) was difficult to understand regarding the tie-in to areas not affected by the revision. The Agency has rephrased § 65.6(a)(2) in the final rule to improve its readability.

One commentator concerned with the requirement that revision requests must demonstrate that topographic changes do not encroach in the floodway, asked about raising existing levees within the floodway. Before a community could encroach upon its floodway by adding fill materials to the existing levee, the community would first have to request a revision to its regulatory floodway and demonstrate that the loss of conveyance created by the additional fill materials is offset by other actions the community proposed to take to restore the lost conveyance.

One commentator expressed opposition to using "confidence limit" criteria just for discharges and stated that this should apply to the three foot levee freeboard requirement as well. The "confidence limit" approach is one measure of uncertainty. The proposed rule does not preclude a person seeking an exception from the three foot levee freeboard requirement from using this technique or any other valid measure to establish the level of uncertainty in the water surface elevation profile of the base flood.

Two commentators expressed a desire for the establishment of generalized criteria under which flood levels could be increased by more than the amount specified under the Agency's floodway regulations provided the rights of property owners affected by the increase are protected. This topic was not within the scope of the proposed rulemaking. The Agency has taken this matter under advisement and is formulating a position which could be the subject of future rulemaking during FY 1988.

Comments on Use of Original Computer Model

Sections 65.6(a)(8) and 65.7(c)(2)(i) of the proposed rule required the use of the same hydraulic computer model used in preparing the effective Flood Insurance Rate Map and Flood Boundary Floodway Map when revisions to these maps are proposed. More comments were received on this requirement than on any other portion of the proposed rulemaking on mapping changes. Commentators noted that the original model and data are sometimes not available or outmoded because of natural and man-made changes in the floodplain as well as because of

improvements made in computational methodologies. These commentators were also concerned because the wording of the proposed rule also implied that the exact same computer model, not the same hydraulic model, must be used in preparing the revisions. The Agency recognizes these concerns. FEMA's intention in requiring the use of the original hydraulic computer model is to ensure consistency and to prevent the introduction of discrepancies that may be attributable to model differences. The final rule clarifies the Agency's intent with regard to the use of the original model and provides an alternative when it is no longer available.

Comments on Floodway Revisions

One commentator suggested that § 65.7(c)(2)(iii) of the proposed rule read as follows. "The floodway limits must be set so that the combined effects of past and proposed encroachments and the new floodway limits do not increase the effective base flood elevations by more than the amount specified in . . ." Once a new floodway is established any proposed encroachments must not result in any increase in flood levels or the entire purpose of a floodway would be defeated. No change has been made in the rule since such a change would circumvent the purpose of establishing floodways.

One commentator noted that the proposed rule at § 65.6(a)(3) stipulates that revisions of Base Flood Elevations (BFEs) cannot be made based on the effects of proposed projects or future conditions. This commentator apparently interpreted this language to preclude any highway activity that would result in a change in BFEs. The commentator misinterpreted these provisions. Section 65.6(a)(3) simply states that only those projects that are in place and effectively functioning can be used as the basis for a map revision. Proposed projects will only result in a map revision when they have achieved "as-built" status.

One commentator stated that § 65.7(c)(2)(iii) implies no increase to effective BFEs more than the limits stated and suggested that this section be crossed referenced to § 65.7(b) since the effective elevations could be in error. Since § 65.7(c) addresses only those changes not affecting base flood determinations, the Agency believes this to be an unnecessary cross reference.

Comments on Review and Response by the Administrator

One commentator suggested that the response time of the Administrator be limited to 30 days instead of the 90 days shown under § 65.9. All requests for

revisions are processed by the Agency as expeditiously as possible. Many are granted within the 30 day period suggested by the commentator, but because of the complexity of the technical evaluation and the cartographic effort that must be expended in responding to these requests it is virtually impossible to process all of them within the suggested timeframe. No change has been made to the provisions of § 65.9 by the final rule.

Comments on Mapping of Areas Protected by Levees

Five commentators expressed objections to the criteria of § 65.10 noting in their opinion, that levees providing protection, albeit less than 100-year protection, mitigate flood losses and thought that these levees should be credited for insurance rating purposes. These comments are beyond the scope of the proposed rulemaking. The proposed rulemaking was limited to the specification of criteria for the recognition of levees that provide protection against the 100-year, or base flood for the purpose of identifying areas of special flood hazard. The proposed rulemaking does not address criteria or the establishment of actuarial rates for levees providing lesser degrees of protection. However, the Agency has taken this matter under advisement. It is in the process of considering individual community rating criteria that may incorporate consideration of levees that provide less than 100-year protection. Such criteria would be the subject of future rulemaking.

Four commentators opposed the three foot freeboard requirement for levees and stated that the proposed rule needs to be more flexible in addressing area-specific circumstances associated with an individual river system. Only a small percentage of all earthen levees built with crown elevations at the computed 100-year, or base flood, elevation can be expected to provide protection to the event that has a true one percent annual exceedance probability because of the uncertainty involved in establishing flood elevations, changing hydrologic and hydraulic conditions, and the possibility the levee will fail structurally before it is overtopped. The freeboard requirement is intended to compensate for these uncertainties. Recognizing a levee system as providing 100-year protection on an NFIP map has the net effect of removing all floodplain management requirements, lender notification requirements, and insurance purchase requirements within the area protected by the levee. It is because of these far-reaching impacts that the

Agency has established procedures to recognize only levees that are properly engineered, structurally sound, and have a reasonable expectation of providing the design level of 100-year protection. FEMA first promulgated the levee freeboard requirements in an interim levee policy dated February 10, 1981 and has been operating under that policy since that time. The requirement for a three foot freeboard is consistent with that specified by the Corps of Engineers in Engineering Manuals 1110-2-1913 and 1110-2-1601, Design and Construction of Levees and Hydraulic Design of Flood Control Structures, respectively. It is also consistent with the findings of the National Academy of Science report entitled, "A Levee Policy for the National Flood Insurance Program," wherein it was recommended that new levees should be recognized for the purpose of reducing insurance rates where they provide protection against 100-year or larger floods and where they meet specified structural design criteria including freeboard.

The rulemaking is flexible in addressing area-specific circumstances. These regulations specify an exception process whereby the freeboard requirements would be relaxed if the community or levee owner can demonstrate that protection from the 1 percent chance flood can be reasonably assured with a lesser freeboard. To do so, the party seeking the exception must demonstrate that the uncertainties in the base flood elevations and their impact on the structural stability of the levee itself are relatively small.

Also, the minimum freeboard requirements can be waived if a Federal agency with responsibility for levee design certifies that the levee has been adequately designed, constructed and maintained to provide protection against the base flood.

One commentator noted that the freeboard requirement for coastal levees would be difficult to establish and suggested the proposed rule be modified by either omitting the parenthetical phrase "whichever is higher" or by specifying an acceptable methodology for determining wave periods. The commentator then continued with a discussion of the relative merits of different methodologies. It is evident from the commentator's suggestion that the commentator does not have a problem with the criteria provided an acceptable methodology is used in establishing its parameters. The debate of alternative methodologies is beyond the scope of this rulemaking and the intent of the provision at § 65.10(b)(1)(iii). The Agency will

establish or refine acceptable methodologies as it has in the past for other study aspects through coordination and consultation with entities having the cognizant expertise, or with the scientific and professional community.

One commentator suggested a revision to § 65.10(b)(6) to "include high ground water behind the levee system which results from prolonged flooding on the river side of the levee system, especially if damage from such high ground water is not eligible for flood insurance coverage." The Agency was unable to interpret this suggestion or to put it into context so that it could be evaluated for possible inclusion into the rulemaking.

One commentator thought it was inappropriate for FEMA to recognize a large structural project as providing protection from the base flood on NFIP maps and then to reduce insurance rates and eliminate floodplain management requirements in the protected area. The commentator based his supposition on the fact that hurricane flood protection projects are susceptible to damage and failure by coastal storms and erosion and that susceptibility to failure may be compounded by the long term maintenance needs of these projects which may be beyond the financial capabilities of most local governments. The Agency recognizes that such systems are susceptible to damage from coastal storms and the effects of wind, wave and water action and has included provisions in the design criteria to require that the system provides adequate protection. Included in these criteria are requirements for analyses that demonstrate that no appreciable erosion of the levee embankment can be expected during the base flood, as a result of either water currents or waves, and that the anticipated erosion will not result in the failure of the levee embankment or foundation. The rule also requires an officially adopted maintenance plan before a levee will be recognized as providing protection from the base flood. The maintenance activities to be performed must be under the jurisdiction of a Federal or state agency, an agency created by Federal or state laws, or an agency of a community participating in the NFIP.

The same commentator cited recent studies that predict sea level rises in the range of 3 to 6 feet over the next 100 years and expressed the concern that proposed rule appeared to be treating coastal levees as if sea level rise is not occurring. The Agency recognizes that most authorities agree that the sea level will rise during the next century, but

also recognizes that there is much disagreement when it comes to quantifying the expected rise. The values cited by the commentator are the greatest expected. The Agency is limited to mapping conditions as they exist at the time of the study because the studies are used to establish actuarial insurance rates that must reflect the existing risk for the area in question. The Agency has a maintenance program of keeping flood risk data current and accurate through map revisions and restudies. Even if restudies were conducted for an area once every 20 years, the restudy process will be sufficient to keep flood hazard identifications current with the slowly changing risk induced by sea level rise.

Comments on Mapping Definitions

One commentator suggested that the term "accepted engineering standards" to be found in § 59.1 under the proposed definitions for "Levee" and "Levee System" needs to be clarified, referenced and better specified—especially regarding the freeboard issue. Clarification regarding the freeboard requirements have been provided elsewhere in the section addressing comments received on the proposed rule. The terms "accepted engineering standards" and "sound engineering practices" appear in the literature with the latter being cited more frequently when the intent is to convey that the actions of a registered professional engineer would pass the scrutiny of, or meet with, the approval of a peer board of review. Since the latter is slightly more favored by the literature, the definitions of "Levee" and "Levee System" will be revised by the final rule to incorporate the phrase "sound engineering practices."

One commentator voiced the concern that the revised definition of "mean sea level" to be the National Geodetic Vertical Datum of 1929 (NGVD) or other datum could possibly lead to confusion if the "other datum" is not specified on the Flood Insurance Rate Map (FIRM). The FIRM always specifies the datum to which the Base Flood Elevations (BFEs) are referenced. In the vast majority of instances, the FIRM is referenced to NGVD. In those rare instances when a FIRM is referenced to another datum, particular care is taken to ensure that the FIRM bears a reference to the datum used in a prominent and conspicuous place.

Changes in the Final Rule From the Proposed Rule for Mapping

The final rule contains the following changes in regard to the mapping changes described in §§ 59.1 and 61.12

and Parts 65 and 70 of the proposed rule published on March 28, 1986:

1. The definitions of "Levee" and "Levee System" of § 59.1 have been refined by replacing the phrase "accepted engineering standards" with "sound engineering practices" which is more commonly used in the literature.

2. The requirement to submit new technical data under § 65.3 was changed to read "As soon as practicable, but in no event later than six months after the date that information becomes available . . ." This change was made to place emphasis on the administrative need for the timely submission of data.

3. A new paragraph (b) was added to § 65.5 and the paragraph (b) of the proposed rule was redesignated (c). This addition was made to provide communities with an opportunity to request map revisions that are solely based on new or improved topographical maps.

4. Sentences have been added to §§ 65.5(a)(3), 65.5(a)(4), and 70.4 to describe how determinations will be made as to whether entire parcels of land or structures should be excluded from the area of special flood hazard (100-year floodplain).

5. A definition of "certification" by a registered professional engineer or other party has been added to § 65.2 and is incorporated by reference in §§ 65.5(c), 65.6(f), 65.7(d), and 65.10(e).

6. The Agency has added language to the rule at § 65.5(a)(6) to alleviate the economic burden individual home and property owners would have otherwise incurred in complying with the design criteria for the placement of fill.

7. The Agency has added a new paragraph (7) to § 65.5(a). This change was necessary to be consistent with § 65.6(a)(10) which denies map revision requests when it is demonstrated that topographic changes in the floodplain have caused an encroachment of the floodway.

8. Section 65.6(a)(8) has been revised to provide the map revision requestor with an alternative to using the original hydraulic computer model which may no longer be available.

9. Section 65.7(c)(2)(ii) has been revised to provide the map revision requestor with an alternative to using the original hydraulic computer model which may no longer be available or is inappropriate to use.

10. The Agency has revised § 65.10(b) to clarify its intent in specifying design criteria.

In addition to the changes described above the final rule also made a few minor editorial or typographical corrections to the proposed rule.

Three commentators took exception to FEMA's finding that the establishment of levee design criteria by the proposed rule would not have a significant economic impact. Two of these three commentators also took exception with the finding that the rule does not have significant environmental impact and requested that an environmental impact statement be prepared and circulated for public comment. The basic reason cited for taking exception to FEMA's findings would be the costs these three communities might incur in implementing the levee design criteria to have a levee recognized as providing 100-year flood protection.

The rule does not advocate or encourage levee construction. Nor does it set any mandatory requirements for levee construction. It provides criteria for evaluating when existing or new levees should be recognized as providing protection from the 100-year flood for purposes of identifying areas of special flood hazard on NFIP maps.

FEMA recently completed a levee inventory of about 12,200 communities. These were all the communities that had an effective FIRM. About 6.7% of these communities, or 816, had levee systems providing 100-year or greater flood protection. This percentage would support FEMA's finding that, even though the rule does not advocate construction of flood protection systems and compliance with the criteria is voluntary, the rule does not have a significant economic impact on a substantial number of entities and, therefore, a regulatory flexibility analysis is not required.

In addition to the changes discussed above that this final rule made to the proposed rule, some changes of an editorial nature were also made.

FEMA has determined, based upon an Environmental Assessment, that this rule does not have significant impact upon the quality of the human environment. As a result, an Environment Impact Statement will not be prepared. A finding of no significant impact is included in the formal docket file and is available for public inspection and copying at the Rules Docket Clerk, Office of General Counsel, Federal Emergency Management Agency, 500 C Street, SW., Washington, DC 20472.

This rule does not have a significant economic impact on a substantial number of small entities and has not undergone regulatory flexibility analysis.

This rule is not a "major rule" as defined in Executive Order 12291, dated February 27, 1981, and, hence, no regulatory analysis has been prepared.

FEMA has determined that this rule does not contain a collection of information requirement as described in section 3504(h) of the Paperwork Reduction Act.

List of Subjects in 44 CFR Parts 59, 60, 61, 65, 70, 73, and 76

Flood insurance, Flood plains, Grant programs, National resources, Intergovernmental relations.

Accordingly, 44 CFR Chapter 1, Subchapter B is amended as follows:

PART 59—GENERAL PROVISIONS

1. The authority citation for Part 59 continues to read as follows and all authority citations to individual sections are removed:

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 59.1 [Amended]

2. Section 59.1 is amended as follows:

a. By adding, alphabetically, a definition of "Critical feature" to read as follows:

• • • • •
 "Critical feature" means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.
 • • • • •

b. By removing the definition of "Existing mobile home park or mobile home subdivision."

c. By removing the definition of "Expansion to an existing mobile home park or mobile home subdivision."

d. By adding, alphabetically, a definition of "Functionally dependent use" to read as follows:

• • • • •
 "Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.
 • • • • •

e. By adding, alphabetically, a definition of "Levee" to read as follows:

• • • • •
 "Levee" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of

water so as to provide protection from temporary flooding.

f. By adding, alphabetically, a definition of "Levee system" to read as follows:

"Levee System" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

g. By adding, alphabetically, a definition of "Manufactured home" to read as follows:

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

h. By adding, alphabetically, a definition of "Manufactured home park or subdivision" to read as follows:

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

i. By revising the definition of "Mean sea level" to read as follows:

"Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

j. By removing the definition of "Mobile home."

k. By removing the definition of "Mobile home park or mobile home subdivision."

l. By removing the definition of "New mobile home park or mobile home subdivision."

m. By adding, alphabetically, a definition of "Program deficiency" to read as follows:

"Program deficiency" means a defect in a community's flood plain management regulations or administrative procedures that impairs effective implementation of those flood plain management regulations or of the standards in §§ 60.3, 60.4, 60.5, or 60.6.

n. By adding, alphabetically, a definition of "Remedy a violation" to read as follows:

"Remedy a violation" means to bring the structure or other development into compliance with State or local flood plain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

o. By revising the definition of "Start of construction" to read as follows:

"Start of Construction" (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

p. By removing in the definition of "Structure" the phrase "mobile home" both times it appears and adding in its

place both times the phrase "manufactured home" and by adding before the word "foundation" the words "a permanent".

q. By adding, alphabetically, a definition of "Violation" to read as follows:

"Violation" means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in § 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

r. By adding, alphabetically, a cross reference from "V zone" to "Coastal high hazard area" to read as follows:

"V Zone"—see "coastal high hazard area."

s. By revising the definition of "Water surface elevation" to read as follows:

"Water surface elevation" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

PART 60—CRITERIA FOR LAND MANAGEMENT AND USE

3. The authority citation for Part 60 continues to read as follows:

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 60.3 [Amended]

4. Section 60.3 is amended in the following particulars:

a. By removing in paragraph (a)(1) the phrase "mobile homes" and adding in its place the phrase "manufactured homes".

b. By revising paragraph (a)(3) to read as follows:

(a) * * *

(3) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall (i) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads,

including the effects of buoyancy, (ii) be constructed with materials resistant to flood damage, (iii) be constructed by methods and practices that minimize flood damages, and (iv) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

c. By adding in the first sentence of paragraph (a)(4) between the words "development" and "to" the phrase "including manufactured home parks or subdivisions,".

d. By removing in paragraphs (b)(1) and (b)(8) (twice) the phrase "mobile homes" and adding in its place the phrase "manufactured homes".

e. By revising paragraphs (b)(3) through (b)(5) to read as follows:

(b) * * *

(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;

(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHB or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (d)(2) and (d)(3) of this section;

(5) Where base flood elevation data are utilized, within Zone A on the community's FHB or FIRM:

(i) Obtain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures, and

(ii) Obtain, if the structure has been floodproofed in accordance with paragraph (c)(3)(ii), the elevation (in relation to mean sea level) to which the structure was floodproofed, and

(iii) Maintain a record of all such information with the official designated by the community under § 59.22 (a)(9)(iii);

f. By removing paragraph (b)(9).

g. In paragraph (c)(2), by removing the phrase "and/or storm cellars" and also by removing the phrase "§ 60.6(b)(3) and

(b)(4)" and adding in its place the phrase "§ 60.6 (b) or (c)".

h. By revising paragraphs (c)(5) and (c)(6) to read as follows:

(c) * * *

(5) Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(6) Require that all manufactured homes to be placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation; and be securely anchored to an adequately anchored foundation system in accordance with the provisions of paragraph (b)(8) of this section.

i. By removing paragraph (d)(4).

j. By removing paragraph (e)(7) and redesignating paragraph (e)(8) as (e)(7).

§ 60.6 [Amended]

5. Section 60.6 is amended in the following particulars:

a. By adding paragraph (a)(7) to read as follows:

(a) * * *

(7) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria of (a)(1) through (a)(4) of this section are met; and (ii) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

b. By removing paragraphs (b)(3) and (b)(4).

c. By adding paragraph (c) to read as follows:

(c) A community may propose flood plain management measures which adopt standards for floodproofed residential basements below the base flood level in zones A1-30, AH, AO, and AE which are not subject to tidal flooding. Notwithstanding the requirements of paragraph (b) of this section the Administrator may approve the proposal provided that:

(1) The community has demonstrated that areas of special flood hazard in which basements will be permitted are subject to shallow and low velocity flooding and that there is adequate flood warning time to ensure that all residents are notified of impending floods. For the purposes of this paragraph flood characteristics must include:

(i) Flood depths that are five feet or less for developable lots that are contiguous to land above the base flood level and three feet or less for other lots;

(ii) Flood velocities that are five feet per second or less; and

(iii) Flood warning times that are 12 hours or greater. Flood warning times of two hours or greater may be approved if the community demonstrates that it has a flood warning system and emergency plan in operation that is adequate to ensure safe evacuation of flood plain residents.

(2) The community has adopted flood plain management measures that require that new construction and substantial improvements of residential structures with basements in zones A1-30, AH, AO, and AE shall:

(i) Be designed and built so that any basement area, together with attendant utilities and sanitary facilities below the floodproofed design level, is watertight with walls that are impermeable to the passage of water without human intervention. Basement walls shall be built with the capacity to resist hydrostatic and hydrodynamic loads and the effects of buoyancy resulting from flooding to the floodproofed design level, and shall be designed so that minimal damage will occur from floods that exceed that level. The floodproofed design level shall be an elevation one foot above the level of the base flood where the difference between the base flood and the 500-year flood is three feet or less and two feet above the level of the base flood where the difference is greater than three feet.

(ii) Have the top of the floor of any basement area no lower than five feet below the elevation of the base flood;

(iii) Have the area surrounding the structure on all sides filled to or above

the elevation of the base flood. Fill must be compacted with slopes protected by vegetative cover;

(iv) Have a registered professional engineer or architect develop or review the building's structural design, specifications, and plans, including consideration of the depth, velocity, and duration of flooding and type and permeability of soils at the building site, and certify that the basement design and methods of construction proposed are in accordance with accepted standards of practice for meeting the provisions of this paragraph;

(v) Be inspected by the building inspector or other authorized representative of the community to verify that the structure is built according to its design and those provisions of this section which are verifiable.

6. Section 60.25 is revised to read as follows:

§ 60.25 Designation, duties, and responsibilities of State Coordinating Agencies.

(a) States are encouraged to demonstrate a commitment to the minimum flood plain management criteria set forth in §§ 60.3, 60.4, and 60.5 as evidenced by the designation of an agency of State government to be responsible for coordinating the Program aspects of flood plain management in the State.

(b) State participation in furthering the objectives of this part shall include maintaining capability to perform the appropriate duties and responsibilities as follows:

(1) Enact, whenever necessary, legislation enabling counties and municipalities to regulate development within flood-prone areas;

(2) Encourage and assist communities in qualifying for participation in the Program;

(3) Guide and assist county and municipal public bodies and agencies in developing, implementing, and maintaining local flood plain management regulations;

(4) Provide local governments and the general public with Program information on the coordination of local activities with Federal and State requirements for managing flood-prone areas;

(5) Assist communities in disseminating information on minimum elevation requirements for development within flood-prone areas;

(6) Assist in the delineation of riverine and coastal flood-prone areas, whenever possible, and provide all relevant technical information to the Administrator;

(7) Recommend priorities for Federal flood plain management activities in relation to the needs of county and municipal localities within the State;

(8) Provide notification to the Administrator in the event of apparent irreconcilable differences between a community's local flood plain management program and the minimum requirements of the Program;

(9) Establish minimum State flood plain management regulatory standards consistent with those established in this part and in conformance with other Federal and State environmental and water pollution standards for the prevention of pollution during periods of flooding;

(10) Assure coordination and consistency of flood plain management activities with other State, areawide, and local planning and enforcement agencies;

(11) Assist in the identification and implementation of flood hazard mitigation recommendations which are consistent with the minimum flood plain management criteria for the Program;

(12) Participate in flood plain management training opportunities and other flood hazard preparedness programs whenever practicable.

(c) Other duties and responsibilities, which may be deemed appropriate by the State and which are to be officially designated as being conducted in the capacity of the State Coordinating Agency for the Program, may be carried out with prior notification of the Administrator.

(d) For States which have demonstrated a commitment to and experience in application of the minimum flood plain management criteria set forth in §§ 60.3, 60.4, and 60.5 as evidenced by the establishment and implementation of programs which substantially encompass the activities described in paragraphs (a), (b), and (c) of this section, the Administrator shall take the foregoing into account when:

(1) Considering State recommendations prior to implementing Program activities affecting State communities;

(2) Considering State approval or certifications of local flood plain management regulations as meeting the requirements of this part.

PART 61—INSURANCE COVERAGE AND RATES

7. The authority citation for Part 61 continues to read as follows and all authority citations to individual sections are removed:

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 61.3 (Amended)

8. Section 61.3 is amended by removing the last sentence.

§ 61.5 (Amended)

9. Section 61.5 is amended as follows:

a. In paragraph (d), by removing in the second sentence the semicolon after "\$500.00" the second time that amount appears and adding in its place a period, and by removing the remainder of that sentence.

b. By revising paragraph (f)(2) to read as follows:

(f) * * *

(2) A building, and its contents, located entirely in, on, or over water or seaward of mean high tide, if the building was newly constructed or substantially improved on or after October 1, 1982.

c. By removing in paragraph (f)(4) the words "paved or poured".

d. In paragraph (f)(8), by removing the word "mobile" both times it appears and adding in its place both times the phrase "manufactured (i.e., mobile)" and by removing the words "and affixed to a permanent site" and adding in their place the words "to a permanent foundation" and by adding before the words "foundation continuously" the word "permanent".

e. By removing paragraph (f)(9) and redesignating paragraphs (f)(10) and (f)(11) as (f)(9) and (f)(10) respectively.

f. In newly designated paragraph (f)(9), by removing the word "mobile" and adding in its place the word "manufactured"; by adding after the words "on all sides" the phrase "(except for drywalls and sheetrock walls and ceilings, whether finished or unfinished, all only to the extent of replacing them with unfinished (i.e., nailed to framing but not taped or otherwise finished with paint or other covering) drywall or sheetrock ceilings or walls, and except for fiberglass insulation)"; by adding after the words "gas tanks" the words "and the gas in them"; by adding after the word "freezers" the words "and the food in them"; and by adding to the end of the paragraph, before the period, the words "and for elevators and relevant equipment, except for such relevant equipment located below the base flood elevation if such relevant equipment was installed on or after October 1, 1987".

§ 61.11 (Amended)

10. Paragraph (e) of § 61.11 is amended by removing in both the third and fourth sentences the words "at the NFIP" and by removing in the fifth

sentence the words "by the NFIP" and adding in their place each of the three times the words "at the office of the NFIP".

§ 61.12 (Amended)

11. Section 61.12 is amended by revising paragraph (b)(4) to read as follows:

(b) * * *

(4) All critical features of the flood protection system, as identified by the Administrator, are under construction, and each critical feature is 50 percent completed as measured by the actual expenditure of the estimated construction budget funds; and

Appendix A(1) of Part 61—(Amended)

12. Appendix A(1) of Part 61, Standard Flood Insurance Policy, is amended as follows:

a. Article II—Definitions is amended by adding, alphabetically, a definition of "Base flood" to read as follows:

"Base flood" means the flood having a one percent chance of being equalled or exceeded in any given year.

b. In Article II—Definitions, the definition of "Building" is amended by adding a comma after the word "tank" and by removing the words "mobile home on" and adding in their place the words "manufactured (i.e., mobile) home on a permanent".

c. In Article II—Definitions, the definition of "Direct Physical Loss by or from Flood" is amended by removing the phrase "(building or personal property contents)" and adding in its place the phrase "(building or contents (personal property))"; by removing the phrase "the property shall necessarily be removed" and adding in its place the phrase "the insured property shall necessarily be removed"; and by removing the phrase "your insured property away from the peril of flood and storing your property at the temporary location shall be reimbursed to you." and adding in its place the phrase "any of your insured property temporarily away from the peril of flood and storing this property at the temporary location (not exceeding 45 days) shall be reimbursed to you for buildings in an amount up to the amount of the minimum building deductible and for contents in an amount up to the amount of the minimum contents deductible. This policy's deductible amounts, as provided for at Article VI, shall not be applied to this reimbursement, but shall be applied to

any other benefits under this policy's coverage."

d. Article II—Definitions is amended by removing the definition of "Doublewide Mobile Home".

e. Article II—Definitions is amended by adding, alphabetically, a definition of "Manufactured home" to read as follows:

"Manufactured home" means a building transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles. To be eligible for coverage under this policy, a manufactured home must be on a permanent foundation and if located in a FEMA designated Special Flood Hazard Area, must meet the requirements of paragraph H of Article V.

f. Article II—Definitions is amended by adding, alphabetically, a definition of "Mobile home" to read as follows:

"Mobile home" means a manufactured home.

g. In Article III—Losses Not Covered, paragraph B is amended by removing paragraph 1 and redesignating paragraphs 2 through 7 as 1 through 6 respectively and by removing the word "internationally" and adding in its place the word "intentionally" in newly designated paragraph B.4.

h. In Article IV—Property Covered, paragraph A is amended by removing in paragraph 1 the words "or, as described in the Application as a residence designed for principal use as a dwelling place for no more than one family, we cover your dwelling unit in a condominium building, along with your insurable tenant in common interest in the building's common elements" and adding in its place the words "or we cover your dwelling unit in a condominium building, along with your insurable tenant in common interest in that building's common elements, if your dwelling unit is a residence designed for principal use as a dwelling place for no more than one family and if it is so described in the Application" and by adding paragraphs 6 and 7 to read as follows:

6. A building in the course of construction before it is walled and roofed subject to the following conditions: (i) The amount of the deductible for each loss occurrence before the building is walled and roofed is two times the deductible which is selected to apply after the building is walled and roofed; (ii) coverage is provided before the building is walled and roofed only while construction is

in progress, or if construction is halted, only for a period of up to 90 continuous days thereafter, until construction is resumed; and (iii) there is no coverage before the building is walled and roofed where the lowest floor, including basement floor, of a non-elevated building or the lowest elevated floor of an elevated building is below the base flood elevation in Zones AH, AE or A1-30 or is below the base flood elevation adjusted to include the effect of wave action in Zones VE or VI-30. The lowest floor levels are based on the bottom of the lowest horizontal structural member of the floor in Zones VE or VI-30 and the top of the floor in Zones AH, AE or A1-30.

7. When the insurance under this policy covers a building, the reasonable expenses incurred by you for the purchase of (i) sandbags, including sand to fill them and plastic sheeting and lumber used in connection with them, (ii) fill for temporary levees, (iii) pumps, and (iv) wood, all for the purpose of saving the building due to the imminent danger of a flood loss, including the value of your own labor at prevailing Federal minimum wage rates, are a covered loss in an aggregate amount up to the amount of the minimum building deductible. The policy's building deductible amount, as provided for at Article VI, shall not be applied to this reimbursement, but shall be applied to any other benefits under the policy's building coverage. For reimbursement under this paragraph 7 to apply, the following conditions must be met:

(i) The insured property must be in imminent danger of sustaining flood damage; and

(ii) The threat of flood damage must be of such imminence as to lead a person of common prudence to apprehend flood damage; and

(iii) A general and temporary condition of flooding in the area must occur, even if the flooding does not reach the insured property, or a legally authorized official must issue an evacuation order or other civil order for the community in which the insured property is located calling for measures to preserve life and property from the peril of flood.

i. In Article IV—Property Covered, paragraph C is amended by removing the heading "Limitation" and adding in its place the heading "Limitations".

j. In Article V—Property Not Covered, paragraph B is revised to read as follows:

B. A building, and its contents, located entirely in, on, or over water or seaward of mean high tide, if the building was newly constructed or substantially improved on or after October 1, 1982.

k. In Article V—Property Not Covered, paragraph C is amended by removing the word "outdoor".

l. In Article V—Property Not Covered, paragraph D is amended by removing the words "paved or poured".

m. In Article V—Property Not Covered, paragraph F is amended by removing the word "mobile" and adding in its place the words "manufactured (i.e., mobile)"; by adding after the words "on all sides" the phrase "(except for drywalls and sheetrock walls and ceilings, whether finished or unfinished, all only to the extent of replacing them with unfinished (i.e., nailed to framing but not taped or otherwise finished with paint or other covering) drywall or sheetrock ceilings or walls, and except for fiberglass insulation)"; by adding after the words "gas tanks" the words "and the gas in them"; and by adding after the word "freezers" the words "and the food in them"; and by adding to the end of the paragraph, before the period, the words "and for elevators and relevant equipment, except for such relevant equipment located below the base flood elevation if such relevant equipment was installed on or after October 1, 1987".

n. In Article V—Property Not Covered, paragraph H is amended by removing the word "mobile" both times it appears and adding in its place both times the words "manufactured (i.e., mobile)" and by removing the words "and affixed to a permanent site" and adding in their place the words "to a permanent foundation" and by adding before the words "foundation continuously" the word "permanent".

o. Article V—Property Not Covered is amended by removing paragraph J and redesignating paragraph K as J.

p. In Article VI—Deductibles, paragraph B is revised to read as follows:

* * * * *

B. The loss deductible shall apply separately to each building loss and contents (personal property) loss including, as to each, any appurtenant structure loss and debris removal expense.

* * * * *

q. Article VI—Deductibles, is amended by removing paragraph D.

r. In Article VII—Replacement Cost Provisions, paragraph G is amended by removing the words "mobile home" and adding in their place the words "manufactured (i.e., mobile) home which when assembled is not at least 16 feet wide or does not have an area within its perimeter walls of at least 600 square feet".

s. In Article VIII—General Conditions and Provisions, paragraph D is amended by removing in the last sentence the words "without the consent of the Administrator".

t. In Article VIII—General Conditions and Provisions, paragraph F is amended in the last sentence of paragraph 1.d thereof by removing the comma after the

word "year" and adding in its place a closing parenthesis and by removing the closing parenthesis before the semicolon.

u. In Article VIII—General Conditions and Provisions, paragraph G is amended by removing in the sixth sentence the words "received by the NFIP prior" and adding in their place the words "received at the office of the NFIP prior" and by removing in the seventh sentence both times they appear the words "by the NFIP" and adding in their place both times the words "at the office of the NFIP".

v. In Article VIII—General Conditions and Provisions, paragraph H is amended by adding in the first sentence after the word "time" and before the following comma the words "and at your own expense" and by removing the remainder of paragraph H after the first sentence.

w. In Article VIII—General Conditions and Provisions, paragraph I is amended by removing paragraph 2 and redesignating paragraphs 3 through 7 as 2 through 6 respectively.

x. In Article VIII—General Conditions and Provisions, paragraph O is amended by removing the word "items" in the first paragraph and adding in its place the word "coverage".

y. Article VIII—General Conditions and Provisions is amended by adding paragraph S to read as follows:

* * * * *

S. *Continuous Lake Flooding*: Where the insured building has been inundated by rising lake waters continuously for 90 days or more and it appears reasonably certain that a continuation of this flooding will result in damage, reimbursable under this policy, to the insured building equal to or greater than the building policy limits plus the deductible or the maximum payable under the policy for any one building loss, we will pay you the lesser of these two amounts without waiting for the further damage to occur if you sign a release agreeing (i) to make no further claim under this policy, (ii) not to seek renewal of this policy, and (iii) not to apply for any flood insurance under the National Flood Insurance Act of 1968, as amended, for property at the property location of the insured building. If the policy term ends before the insured building has been flooded continuously for 90 days, the provisions of this paragraph S still apply so long as the first building damage reimbursable under this policy from the continuous flooding occurred before the end of the policy term.

Appendix A(2) of Part 61—[Amended]

13. Appendix A(2) of Part 61, Standard Flood Insurance Policy, is amended as follows:

a. The first paragraph following the heading "GENERAL PROPERTY FORM" in Appendix A(2) is amended by removing the misspelled word

"reasonable" and adding in its place the word "reasonable"; by removing the phrase "loss. Without" and adding in its place the phrase "loss, without"; by removing the word "only" and adding in its place the word "any"; and by removing the phrase "direct loss by or from flood" and by adding in its place the phrase "direct loss by or from flood".

b. The first sentence of the second paragraph following the heading "GENERAL PROPERTY FORM" in Appendix A(2) is amended by adding after the word "policy" the phrase ", in writing," and by adding after the word "allowed" the phrase "upon transfer of title except for (i) a contents only policy and (ii) a policy issued to cover a building in the course of construction."

c. The DEFINITIONS section is amended by adding, alphabetically, a definition of "Base flood" to read as follows:

* * * * *

"Base flood" means the flood having a one percent chance of being equalled or exceeded in any given year.

* * * * *

d. In the DEFINITIONS section, the definition of "Building" is amended by adding a comma after the word "tank" and by removing the words "mobile home on" and adding in their place the words "manufactured (i.e., mobile) home on a permanent".

e. In the DEFINITIONS section, the definition of "Direct physical loss by or from flood" is amended by removing the phrase "(building or personal property contents)" and adding in its place the phrase "(building or contents (personal property))"; by removing the phrase "the property shall necessarily be removed" and adding in its place the phrase "the insured property shall necessarily be removed"; by adding after the phrase "against loss)" and before the period the words "in which case the reasonable expenses incurred by the Insured in moving any of the insured property temporarily away from the peril of flood and storing this property at the temporary location (not exceeding 45 days) shall be reimbursed to the Insured for buildings in an amount up to the amount of the minimum building deductible and for contents in an amount up to the amount of the minimum contents deductible. This policy's deductible amounts, as provided for herein under "DEDUCTIBLES", shall not be applied to this reimbursement, but shall be applied to any other benefits under this policy's coverage."; and by removing after the word "ordinance" and before

the word "regulating" the words "or repair".

f. The DEFINITIONS section is amended by removing the definition of "Double-wide mobile home".

g. The DEFINITIONS section is amended by adding, alphabetically, a definition of "Manufactured home" to read as follows:

"Manufactured home" means a building, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles. To be eligible for coverage under this policy, a manufactured home must be on a permanent foundation and if located in a FEMA designated Special Flood Hazard Area, must meet the requirements of paragraph H of PROPERTY NOT COVERED.

h. The DEFINITIONS section is amended by adding, alphabetically, a definition of "Mobile home" to read as follows:

"Mobile home" means a manufactured home.

i. The PERILS EXCLUDED section is amended by removing paragraph F and redesignating paragraphs G through K as F through J respectively.

j. In the PROPERTY COVERED section, paragraph A is amended by adding after the phrase "A. Building," the number "1." and by adding paragraphs 2 and 3 to read as follows:

2. When the insurance under this policy covers a building in the course of construction, such insurance shall apply before the building is walled and roofed subject to the following conditions: (i) The amount of the deductible for each loss occurrence before the building is walled and roofed is two times the deductible which is selected to apply after the building is walled and roofed; (ii) coverage is provided before the building is walled and roofed only while construction is in progress, or if construction is halted, only for a period of up to 90 continuous days thereafter, until construction is resumed; and (iii) there is no coverage before the building is walled and roofed where the lowest floor, including basement floor, of a non-elevated building or the lowest elevated floor of an elevated building is below the base flood elevation in Zones AH, AE or A1-30 or is below the base flood elevation adjusted to include the effect of wave action in Zones VE or VI-30. The lowest floor levels are based on the bottom of the lowest horizontal structural member of the floor in Zones VE or V1-30 and the top of the floor in Zones AH, AE or A1-30.

3. When the insurance under this policy covers a building, the reasonable expenses

incurred by the Insured for the purchase of (i) sandbags, including sand to fill them and plastic sheeting and lumber used in connection with them, (ii) fill for temporary levees, (iii) pumps, and (iv) wood, all for the purpose of saving the building due to the imminent danger of a flood loss, are a covered loss in an aggregate amount up to the amount of the minimum building deductible. The policy's building deductible amount, as provided for herein under "DEDUCTIBLES," shall not be applied to this reimbursement, but shall be applied to any other benefits under the policy's building coverage. For reimbursement under this paragraph 3 to apply, the following conditions must be met:

(i) The insured property must be in imminent danger of sustaining flood damage; and

(ii) The threat of flood damage must be of such imminence as to lead a person of common prudence to apprehend flood damage; and

(iii) A general and temporary condition of flooding in the area must occur, even if the flooding does not reach the insured property, or a legally authorized official must issue an evacuation order or other civil order for the community in which the insured property is located calling for measures to preserve life and property from the peril of flood.

k. In the PROPERTY NOT COVERED section, paragraph B is revised to read as follows:

B. A building, and its contents, located entirely in, on, or over water or seaward of mean high tide, if the building was newly constructed or substantially improved on or after October 1, 1982.

l. In the PROPERTY NOT COVERED section, paragraph D is amended by removing the words "paved or poured".

m. In the PROPERTY NOT COVERED section, paragraph F is amended by removing the word "mobile" and adding in its place the word "manufactured (i.e., mobile)"; by adding after the words "on all sides" the phrase "(except for drywalls and sheetrock walls and ceilings, whether finished or unfinished, all only to the extent of replacing them with unfinished (i.e., nailed to framing but not taped or otherwise finished with paint or other covering) drywall or sheetrock ceilings or walls, and except for fiberglass insulation)"; by adding after the words "gas tanks" the words "and the gas in them", by adding after the word "freezers" the words "and the food in them"; and by adding to the end of the paragraph, before the period, the words "and for elevators and relevant equipment, except for such relevant equipment located below the base flood elevation if such relevant equipment was installed on or after October 1, 1987".

n. In the PROPERTY NOT COVERED section, paragraph H is amended by

removing the word "mobile" both times it appears and adding in its place both times the words "manufactured (i.e., mobile)" and by removing the words "and affixed to a permanent site" and adding in their place the words "to a permanent foundation" and by adding before the words "foundation continuously" the word "permanent".

o. The PROPERTY NOT COVERED section is amended by removing paragraph J and redesignating paragraph K as J.

p. In the DEDUCTIBLES section, paragraph B is amended by removing the phrase "; the reasonable expenses incurred by the Insured pursuant to paragraph 'F' of Perils Excluded," and by removing the word "coverage" and adding in its place the words "expenses covered".

q. The DEDUCTIBLES section is amended by removing paragraph D.

r. In the GENERAL CONDITIONS AND PROVISIONS section, paragraph G is amended in the first sentence by removing the words "Permission is granted to" and adding in their place the words "The Insured may, at the Insured's own expense," and by removing between the words "and" and "complete" the word "to" and is further amended by removing the remainder of paragraph G after the first sentence.

s. In the GENERAL CONDITIONS AND PROVISIONS section, paragraph J is amended by removing in the sixth sentence the words "received by the NFIP prior" and adding in their place the words "received at the office of the NFIP prior" and by removing in the seventh sentence both times they appear the words "by the NFIP" and adding in their place both times the words "at the office of the NFIP".

t. In the GENERAL CONDITIONS AND PROVISIONS section, paragraph M is amended by removing the word "items" in the italics heading and adding in its place the word "coverage".

u. In the GENERAL CONDITIONS AND PROVISIONS section, paragraph P is amended by removing the phrase "protect the property from further damage," in the first sentence.

v. The GENERAL CONDITIONS AND PROVISIONS section is amended by adding paragraph W just above the sentence which reads in part "IN WITNESS WHEREOF . . ." to read as follows:

W. *Continuous Lake Flooding:* Where the insured building has been inundated by rising lake waters continuously for 90 days or more and it appears reasonably certain that a continuation of this flooding will result in damage, reimbursable under this policy, to

the insured building equal to or greater than the building policy limits plus the deductible or the maximum payable under the policy for any one building loss, the Insurer will pay the Insured the lesser of these two amounts without waiting for the further damage to occur if the Insured signs a release agreeing (i) to make no further claim under this policy, (ii) not to seek renewal of this policy, and (iii) not to apply for any flood insurance under the National Flood Insurance Act of 1968, as amended, for property at the property location of the insured building. If the policy term ends before the insured building has been flooded continuously for 90 days, the provisions of this paragraph W still apply so long as the first building damage reimbursable under this policy from the continuous flooding occurred before the end of the policy term.

Appendix C of Part 61—[Removed]

14. Part 61 is amended by removing Appendix C.

PART 65—IDENTIFICATION AND MAPPING OF SPECIAL HAZARD AREAS

15. The authority citation for Part 65 is revised to read as follows:

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

16. Sections 65.2, 65.3, and 65.4 are revised to read as follows:

§ 65.2 Definitions.

(a) Except as otherwise provided in this part, the definitions set forth in Part 59 of this subchapter are applicable to this part.

(b) For the purpose of this part, a certification by a registered professional engineer or other party does not constitute a warranty or guarantee of performance, expressed or implied. Certification of data is a statement that the data is accurate to the best of the certifier's knowledge. Certification of analyses is a statement that the analyses have been performed correctly and in accordance with sound engineering practices. Certification of structural works is a statement that the works are designed in accordance with sound engineering practices to provide protection from the base flood. Certification of "as built" conditions is a statement that the structure(s) has been built according to the plans being certified, is in place, and is fully functioning.

§ 65.3 Requirement to submit new technical data.

A community's base 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 the Administrator of the changes by submitting technical or scientific data in accordance with this part. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and flood plain management requirements will be based upon current data.

§ 65.4 Right to submit new technical data.

(a) A community has a right to request changes to any of the information shown on an effective map that does not impact flood plain or floodway delineations or base flood elevations, such as community boundary changes, labeling, or planimetric details. Such a submission shall include appropriate supporting documentation in accordance with this part and may be submitted at any time.

(b) All requests for changes to effective maps, other than those initiated by FEMA, must be made in writing by the Chief Executive Officer of the community (CEO) or an official designated by the CEO. Should the CEO refuse to submit such a request on behalf of another party, FEMA will agree to review it only if written evidence is provided indicating the CEO or designee has been requested to do so.

17. Part 65 is amended by adding §§ 65.5, 65.6, 65.7, 65.8, 65.9, 65.10, and 65.11 to read as follows:

§ 65.5 Revision to special hazard area boundaries with no change to base flood elevation determinations.

(a) *Data requirements for topographic changes.* In many areas of special flood hazard (excluding V zones and floodways) it may be feasible to elevate areas with earth fill above the base flood elevation. Scientific and technical information to support a request to gain exclusion from an area of special flood hazard of a structure or parcel of land that has been elevated by the placement of fill shall include the following:

(1) A copy of the recorded deed indicating the legal description of the property and the official recordation information (deed book volume and page number) and bearing the seal of the appropriate recordation official (e.g., County Clerk or Recorder of Deeds).

(2) If the property is recorded on a plat map, a copy of the recorded plat indicating both the location of the property and the official recordation information (plat book volume and page number) and bearing the seal of the appropriate recordation official. If the property is not recorded on a plat map, copies of the tax map or other suitable

maps are required to aid FEMA in accurately locating the property.

(3) If a legally defined parcel of land is involved, a topographic map indicating present ground elevations and date of fill. FEMA's determination as to whether a legally defined parcel of land is to be excluded from the area of special flood hazard shall be based upon a comparison of the ground elevations of the parcel with the elevations of the base flood. If the ground elevations of the entire legally defined parcel of land are at or above the elevations of the base flood, the parcel may be excluded from the area of special flood hazard.

(4) If a structure is involved, a topographic map indicating structure location and ground elevations including the elevations of the lowest floor (including basement) and the lowest adjacent grade to the structure. FEMA's determination as to whether a structure is to be excluded from the area of special flood hazard shall be based upon a comparison of the elevation of the lowest floor (including basement) and the elevation of the lowest adjacent grade with the elevation of the base flood. If the entire structure and the lowest adjacent grade are at or above the elevation of the base flood, the structure may be excluded from the area of special flood hazard.

(5) Data to substantiate the base flood elevation. If FEMA has completed a Flood Insurance Study (FIS), that data will be used to substantiate the base flood. Otherwise, data provided by an authoritative source, such as the U.S. Army Corps of Engineers, U.S. Geological Survey, U.S. Soil Conservation Service, state and local water resource departments, or technical data prepared and certified by a registered professional engineer may be submitted. If base flood elevations have not previously been established, hydraulic calculations may also be requested.

(6) Where fill has been placed to raise the ground surface to or above the base flood elevation and the request to gain exclusion from an area of special flood hazard includes more than a single structure or a single lot, it must be demonstrated that fill will not settle below the elevation of the base flood, and that the fill is adequately protected from the forces of erosion, scour, or differential settlement as described below:

(i) Fill must be compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test method issued by the American Society for Testing and Materials (ASTM Standard D-698). This

requirement applies to fill pads prepared for residential or commercial structure foundations and does not apply to filled areas intended for other uses.

(ii) Fill slopes for granular materials are not steeper than one vertical on one-and-one-half horizontal unless substantiating data justifying steeper slopes is submitted.

(iii) Adequate protection is provided fill slopes exposed to flood waters with expected velocities during the occurrence of the base flood of five feet per second or less by covering them with grass, vines, weeds, or similar vegetation undergrowth.

(iv) Adequate protection is provided fill slopes exposed to flood waters with velocities during the occurrence of the base flood of greater than five feet per second by armoring them with stone or rock slope protection.

(7) A revision of flood plain delineations based on fill must demonstrate that any such fill has not resulted in a floodway encroachment.

(b) *New topographic data.* The procedures described in paragraphs (a) (1) through (5) of this section may be also followed to request a map revision when no physical changes have occurred in the area of special flood hazard, when no fill has been placed, and when the natural ground elevations, as evidenced by new topographic maps, more detailed or more accurate than those used to prepare the map to be revised, are shown to be above the elevation of the base flood.

(c) *Certification requirements.* The items required in paragraphs (a) (3) and (4) and (b) of this section shall be certified by a registered professional engineer or licensed land surveyor. Items required in paragraph (a)(6) of this section shall be certified by the community's NFIP permit official, a registered professional engineer, or an accredited soils engineer. Such certifications are subject to the provisions of § 65.2 of this subchapter.

(d) *Submission procedures.* All requests shall be submitted to the appropriate FEMA Regional Office servicing the community's geographic area.

§ 65.6 Revision of base flood elevation determinations.

(a) *General conditions and data requirements.* (1) The supporting data must include all the information FEMA needs to review and evaluate the request. This may involve the requestor's performing new hydrologic and hydraulic analysis and delineation of new flood plain boundaries and floodways, as necessary.

(2) To avoid discontinuities between the revised and unrevised flood data, the necessary hydrologic and hydraulic analyses submitted by the map revision requestor must be extensive enough to ensure that a logical transition can be shown between the revised flood elevations, flood plain boundaries, and floodways and those developed previously for areas not affected by the revision. Unless it is demonstrated that it would not be appropriate, the revised and unrevised base flood elevations must match within one-half foot where such transitions occur.

(3) Revisions cannot be made based on the effects of proposed projects or future conditions. Section 65.8 of this subchapter contains provisions for obtaining conditional approval of proposed projects that may effect map changes when they are completed.

(4) The datum and date of releveling of benchmarks, if any, to which the elevations are referenced must be indicated.

(5) Maps will not be revised when discharges change as a result of the use of an alternative methodology or data for computing flood discharges unless the change is statistically significant as measured by a confidence limits analysis of the new discharge estimates.

(6) In order for an alternative hydraulic or hydrologic methodology to be accepted, any computer program used must be accepted for general use by a governmental agency or notable scientific body, must be well documented including a user's and programmer's manual, and must be available to the general user.

(7) A revised hydrologic analysis for flooding sources with established base flood elevations must include evaluation of the same recurrence interval(s) studied in the effective FIS, such as the 10-, 50-, 100-, and 500-year flood discharges.

(8) A revised hydraulic analysis for a flooding source with established base flood elevations must include evaluation of the same recurrence interval(s) studied in the effective FIS, such as the 10-, 50-, 100-, and 500-year flood elevations, and of the floodway. Unless the basis of the request is the use of an alternative hydraulic methodology or the requestor can demonstrate that the data of the original hydraulic computer model is unavailable or its use is inappropriate, the analysis shall be made using the same hydraulic computer model used to develop the base flood elevations shown on the effective Flood Insurance Rate Map and updated to show present conditions in the flood plain. Copies of the input and output data from the original and

revised hydraulic analyses shall be submitted.

(9) A hydrologic or hydraulic analysis for a flooding source without established base flood elevations may be performed for only the 100-year flood.

(10) A revision of flood plain delineations based on topographic changes must demonstrate that any topographic changes have not resulted in a floodway encroachment.

(11) Delineations of flood plain boundaries for a flooding source with established base flood elevations must provide both the 100- and 500-year flood plain boundaries. For flooding sources without established base flood elevations, only 100-year flood plain boundaries need be submitted. These boundaries should be shown on a topographic map of suitable scale and contour interval.

(b) *Data requirements for correcting map errors.* To correct errors in the original flood analysis, technical data submissions shall include the following:

(1) Data identifying mathematical errors.

(2) Data identifying measurement errors and providing correct measurements.

(c) *Data requirements for changed physical conditions.* Revisions based on the effects of physical changes that have occurred in the flood plain shall include:

(1) *Changes affecting hydrologic conditions.* The following data must be submitted:

(i) General description of the changes (e.g., dam, diversion channel, or detention basin).

(ii) Construction plans for as-built conditions, if applicable.

(iii) New hydrologic analysis accounting for the effects of the changes.

(iv) New hydraulic analysis and profiles using the new flood discharge values resulting from the hydrologic analysis.

(v) Revised delineations of the flood plain boundaries and floodway.

(2) *Changes affecting hydraulic conditions.* The following data shall be submitted:

(i) General description of the changes (e.g., channelization or new bridge, culvert, or levee).

(ii) Construction plans for as-built conditions.

(iii) New hydraulic analysis and flood elevation profiles accounting for the effects of the changes and using the original flood discharge values upon which the original map is based.

(iv) Revised delineations of the flood plain boundaries and floodway.

(3) *Changes involving topographic conditions.* The following data shall be submitted:

(i) General description of the changes (e.g., grading or filling).

(ii) New topographic information, such as spot elevations, cross sections, grading plans, or contour maps.

(iii) Revised delineations of the flood plain boundaries and, if necessary, floodway.

(d) *Data requirements for incorporating improved data.* Requests for revisions based on the use of improved hydrologic, hydraulic, or topographic data shall include the following data:

(1) Data that are believed to be better than those used in the original analysis (such as additional years of stream gage data).

(2) Documentation of the source of the data.

(3) Explanation as to why the use of the new data will improve the results of the original analysis.

(4) Revised hydrologic analysis where hydrologic data are being incorporated.

(5) Revised hydraulic analysis and flood elevation profiles where new hydrologic or hydraulic data are being incorporated.

(6) Revised delineations of the flood plain boundaries and floodway where new hydrologic, hydraulic, or topographic data are being incorporated.

(e) *Data requirements for incorporating improved methods.* Requests for revisions based on the use of improved hydrologic or hydraulic methodology shall include the following data:

(1) New hydrologic analysis when an alternative hydrologic methodology is being proposed.

(2) New hydraulic analysis and flood elevation profiles when an alternative hydrologic or hydraulic methodology is being proposed.

(3) Explanation as to why the alternative methodologies are superior to the original methodologies.

(4) Revised delineations of the flood plain boundaries and floodway based on the new analysis(es).

(f) *Certification requirements.* All analysis and data submitted by the requester shall be certified by a registered professional engineer or licensed land surveyor, as appropriate, subject to the definition of "certification" given at § 65.2 of this subchapter.

(g) *Submission procedures.* All requests shall be submitted to the appropriate FEMA Regional Office servicing the community's geographic area.

§ 65.7 Floodway revisions.

(a) *General.* Floodway data is developed as part of FEMA Flood Insurance Studies and is utilized by communities to select and adopt floodways as part of the flood plain management program required by § 60.3 of this subchapter. When it has been determined by a community that no practicable alternatives exist to revising the boundaries of its previously adopted floodway, the procedures below shall be followed.

(b) *Data requirements when base flood elevation changes are requested.* When a floodway revision is requested in association with a change to base flood elevations, the data requirements of § 65.6 shall also be applicable. In addition, the following documentation shall be submitted:

(1) Copy of a public notice distributed by the community stating the community's intent to revise the floodway or a statement by the community that it has notified all affected property owners and affected adjacent jurisdictions.

(2) Copy of a letter notifying the appropriate State agency of the floodway revision when the State has jurisdiction over the floodway or its adoption by communities participating in the NFIP.

(3) Documentation of the approval of the revised floodway by the appropriate State agency (for communities where the State has jurisdiction over the floodway or its adoption by communities participating in the NFIP).

(4) Engineering analysis for the revised floodway, as described below:

(i) The floodway analysis must be performed using the hydraulic computer model used to determine the proposed base flood elevations.

(ii) The floodway limits must be set so that neither the effective base flood elevations nor the proposed base flood elevations if less than the effective base flood elevations, are increased by more than the amount specified under § 60.3(d)(2). Copies of the input and output data from the original and modified computer models must be submitted.

(5) Delineation of the revised floodway on the same topographic map used for the delineation of the revised flood boundaries.

(c) *Data requirements for changes not associated with base flood elevation changes.* The following data shall be submitted:

(1) Items described in paragraphs (b) (1) through (3) of this section must be submitted.

(2) Engineering analysis for the revised floodway, as described below:

(i) The original hydraulic computer model used to develop the established base flood elevations must be modified to include all encroachments that have occurred in the flood plain since the existing floodway was developed. If the original hydraulic computer model is not available, an alternate hydraulic computer model may be used provided the alternate model has been calibrated so as to reproduce the original water surface profile of the original hydraulic computer model. The alternate model must be then modified to include all encroachments that have occurred since the existing floodway was developed.

(ii) The floodway analysis must be performed with the modified computer model using the desired floodway limits.

(iii) The floodway limits must be set so that combined effects of the past encroachments and the new floodway limits do not increase the effective base flood elevations by more than the amount specified in § 60.3(d)(2). Copies of the input and output data from the original and modified computer models must be submitted.

(3) Delineation of the revised floodway on a copy of the effective NFIP map and a suitable topographic map.

(d) *Certification requirements.* All analyses submitted shall be certified by a registered professional engineer. All topographic data shall be certified by a registered professional engineer or licensed land surveyor. Certifications are subject to the definition given at § 65.2 of this subchapter.

(e) *Submission procedures.* All requests that involve changes to floodways shall be submitted to the appropriate FEMA Regional Office servicing the community's geographic area.

§ 65.8 Review of proposed projects.

A community, or individual through the community, wishing FEMA's comments on whether a proposed project, if built as proposed, would justify a map revision may request a Conditional Letter of Map Amendment or Revision in accordance with Part 72 of this subchapter. The data required to support such requests are the same as those required to support requests for revisions in accordance with §§ 65.5, 65.6, and 65.7, except as-built certification is not required.

§ 65.9 Review and response by the Administrator.

If any questions or problems arise during review, FEMA will consult the Chief Executive Officer of the community (CEO), the community official designated by the CEO, and/or

the requester for resolution. Upon receipt of a revision request, the Administrator shall mail an acknowledgment of receipt of such request to the CEO. Within 90 days of receiving the request with all necessary information, the Administrator shall notify the CEO of one or more of the following:

- (a) The effective map(s) shall not be modified;
- (b) The base flood elevations on the effective FIRM shall be modified and new base flood elevations shall be established under the provisions of Part 67 of this subchapter;
- (c) The changes requested are approved and the map(s) amended by Letter of Map Revision (LOMR);
- (d) The changes requested are approved and a revised map(s) will be printed and distributed;
- (e) The changes requested are not of such a significant nature as to warrant a reissuance or revision of the flood insurance study or maps and will be deferred until such time as a significant change occurs;
- (f) An additional 90 days is required to evaluate the scientific or technical data submitted; or
- (g) Additional data are required to support the revision request.

§65.10 Mapping of areas protected by levee systems.

(a) *General.* For purposes of the NFIP, FEMA will only recognize in its flood hazard and risk mapping effort those levee systems that meet, and continue to meet, minimum design, operation, and maintenance standards that are consistent with the level of protection sought through the comprehensive flood plain management criteria established by § 60.3 of this subchapter. Accordingly, this section describes the types of information FEMA needs to recognize, on NFIP maps, that a levee system provides protection from the base flood. This information must be supplied to FEMA by the community or other party seeking recognition of such a levee system at the time a flood risk study or restudy is conducted, when a map revision under the provisions of Part 65 of this subchapter is sought based on a levee system, and upon request by the Administrator during the review of previously recognized structures. The FEMA review will be for the sole purpose of establishing appropriate risk zone determinations for NFIP maps and shall not constitute a determination by FEMA as to how a structure or system will perform in a flood event.

(b) *Design criteria.* For levees to be recognized by FEMA, evidence that

adequate design and operation and maintenance systems are in place to provide reasonable assurance that protection from the base flood exists must be provided. The following requirements must be met:

(1) *Freeboard.* (i) Riverine levees must provide a minimum freeboard of three feet above the water-surface level of the base flood. An additional one foot above the minimum is required within 100 feet in either side of structures (such as bridges) riverward of the levee or wherever the flow is constricted. An additional one-half foot above the minimum at the upstream end of the levee, tapering to not less than the minimum at the downstream end of the levee, is also required.

(ii) Occasionally, exceptions to the minimum riverine freeboard requirement described in (b)(1)(i) above may be approved. Appropriate engineering analyses demonstrating adequate protection with a lesser freeboard must be submitted to support a request for such an exception. The material presented must evaluate the uncertainty in the estimated base flood elevation profile and include, but not necessarily be limited to an assessment of statistical confidence limits of the 100-year discharge; changes in stage-discharge relationships; and the sources, potential, and magnitude of debris, sediment, and ice accumulation. It must be also shown that the levee will remain structurally stable during the base flood when such additional loading considerations are imposed. Under no circumstances will freeboard of less than two feet be accepted.

(iii) For coastal levees, the freeboard must be established at one foot above the height of the one percent wave or the maximum wave runup (whichever is greater) associated with the 100-year stillwater surge elevation at the site.

(iv) Occasionally, exceptions to the minimum coastal levee freeboard requirement described in (b)(1)(iii) may be approved. Appropriate engineering analyses demonstrating adequate protection with a lesser freeboard must be submitted to support a request for such an exception. The material presented must evaluate the uncertainty in the estimated base flood loading conditions. Particular emphasis must be placed on the effects of wave attack and overtopping on the stability of the levee. Under no circumstances, however, will a freeboard of less than two feet above the 100-year stillwater surge elevation be accepted.

(2) *Closures.* All openings must be provided with closure devices that are structural parts of the system during

operation and design according to sound engineering practice.

(3) *Embankment protection.* Engineering analyses must be submitted that demonstrate that no appreciable erosion of the levee embankment can be expected during the base flood, as a result of either currents or waves, and that anticipated erosion will not result in failure of the levee embankment or foundation directly or indirectly through reduction of the seepage path and subsequent instability. The factors to be addressed in such analyses include, but are not limited to: Expected flow velocities (especially in constricted areas); expected wind and wave action; ice loading; impact of debris; slope protection techniques; duration of flooding at various stages and velocities; embankment and foundation materials; levee alignment, bends, and transitions; and levee side slopes.

(4) *Embankment and foundation stability.* Engineering analyses that evaluate levee embankment stability must be submitted. The analyses provided shall evaluate expected seepage during loading conditions associated with the base flood and shall demonstrate that seepage into or through the levee foundation and embankment will not jeopardize embankment or foundation stability. An alternative analysis demonstrating that the levee is designed and constructed for stability against loading conditions for Case IV as defined in the U.S. Army Corps of Engineers (COE) manual, "Design and Construction of Levees" (EM 1110-2-1913, Chapter 6, Section II), may be used. The factors that shall be addressed in the analyses include: Depth of flooding, duration of flooding, embankment geometry and length of seepage path at critical locations, embankment and foundation materials, embankment compaction, penetrations, other design factors affecting seepage (such as drainage layers), and other design factors affecting embankment and foundation stability (such as berms).

(5) *Settlement.* Engineering analyses must be submitted that assess the potential and magnitude of future losses of freeboard as a result of levee settlement and demonstrate that freeboard will be maintained within the minimum standards set forth in paragraph (b)(1) of this section. This analysis must address embankment loads, compressibility of embankment soils, compressibility of foundation soils, age of the levee system, and construction compaction methods. In addition, detailed settlement analysis using procedures such as those

described in the COE manual, "Soil Mechanics Design—Settlement Analysis" (EM 1100-2-1904) must be submitted.

(6) *Interior drainage.* An analysis must be submitted that identifies the source(s) of such flooding, the extent of the flooded area, and, if the average depth is greater than one foot, the water-surface elevation(s) of the base flood. This analysis must be based on the joint probability of interior and exterior flooding and the capacity of facilities (such as drainage lines and pumps) for evacuating interior floodwaters.

(7) *Other design criteria.* In unique situations, such as those where the levee system has relatively high vulnerability, FEMA may require that other design criteria and analyses be submitted to show that the levees provide adequate protection. In such situations, sound engineering practice will be the standard on which FEMA will base its determinations. FEMA will also provide the rationale for requiring this additional information.

(c) *Operation plans and criteria.* For a levee system to be recognized, the operational criteria must be as described below. All closure devices or mechanical systems for internal drainage, whether manual or automatic, must be operated in accordance with an officially adopted operation manual, a copy of which must be provided to FEMA by the operator when levee or drainage system recognition is being sought or when the manual for a previously recognized system is revised in any manner. All operations must be under the jurisdiction of a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP.

(1) *Closures.* Operation plans for closures must include the following:

(i) Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials, that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists for the completed operation of all closure structures, including necessary sealing, before floodwaters reach the base of the closure.

(ii) A formal plan of operation including specific actions and assignments of responsibility by individual name or title.

(iii) Provisions for periodic operation, at not less than one-year intervals, of the closure structure for testing and training purposes.

(2) *Interior drainage systems.* Interior drainage systems associated with levee systems usually include storage areas, gravity outlets, pumping stations, or a

combination thereof. These drainage systems will be recognized by FEMA on NFIP maps for flood protection purposes only if the following minimum criteria are included in the operation plan:

(i) Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials, that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists to permit activation of mechanized portions of the drainage system.

(ii) A formal plan of operation including specific actions and assignments of responsibility by individual name or title.

(iii) Provision for manual backup for the activation of automatic systems.

(iv) Provisions for periodic inspection of interior drainage systems and periodic operation of any mechanized portions for testing and training purposes. No more than one year shall elapse between either the inspections or the operations.

(3) *Other operation plans and criteria.* Other operating plans and criteria may be required by FEMA to ensure that adequate protection is provided in specific situations. In such cases, sound emergency management practice will be the standard upon which FEMA determinations will be based.

(d) *Maintenance plans and criteria.* For levee systems to be recognized as providing protection from the base flood, the maintenance criteria must be as described herein. Levee systems must be maintained in accordance with an officially adopted maintenance plan, and a copy of this plan must be provided to FEMA by the owner of the levee system when recognition is being sought or when the plan for a previously recognized system is revised in any manner. All maintenance activities must be under the jurisdiction of a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP that must assume ultimate responsibility for maintenance. This plan must document the formal procedure that ensures that the stability, height, and overall integrity of the levee and its associated structures and systems are maintained. At a minimum, maintenance plans shall specify the maintenance activities to be performed, the frequency of their performance, and the person by name or title responsible for their performance.

(e) *Certification requirements.* Data submitted to support that a given levee system complies with the structural requirements set forth in paragraphs (b)(1) through (b)(7) of this section must be certified by a registered professional engineer. Also, certified as-built plans of

the levee must be submitted. Certifications are subject to the definition given at § 65.2 of this subchapter. In lieu of these structural requirements, a Federal agency with responsibility for levee design may certify that the levee has been adequately designed and constructed to provide protection against the base flood.

§ 65.11 List of communities submitting new technical data.

This section provides a cumulative list of communities where modifications of the base flood elevation determinations have been made because of submission of new scientific or technical data. Due to the need for expediting the modifications, the revised map is already in effect and the appeal period commences on or about the effective date of the modified map. An interim rule, followed by a final rule, will list the revised map effective date, local repository and the name and address of the Chief Executive Officer of the community. The map(s) is (are) effective for both flood plain management and insurance purposes.

PART 70—PROCEDURES FOR MAP CORRECTION

18. The authority citation for Part 70 continues to read as follows:

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 70.1 (Amended)

19. Section 70.1 is amended by removing the last two sentences and by adding the following two sentences in place thereof:

* * * These procedures shall not apply when there has been any alteration of topography since the effective date of the first NFIP map (i.e., FHM or FIRM) showing the property within an area of special flood hazard. Appeals in such circumstances are subject to the provisions of Part 65 of this subchapter.

§ 70.3 (Amended)

20. Section 70.3 is amended in the following particulars:

a. In paragraph (b)(2)(i) by adding after the word "contours" and before the comma the words "in relation to the National Geodetic Vertical Datum (NVGD) of 1929".

b. By removing the last sentence of paragraph (b)(4).

§ 70.4 (Amended)

21. Section 70.4 is amended by adding after the word "that" and before the colon the words "either the ground elevations of an entire legally defined

parcel of land or the elevation of the lowest adjacent grade to a structure have been compared with the elevation of the base flood and that".

22. Part 70 is amended by adding § 70.9 to read as follows:

§ 70.9 Review of proposed projects.

An individual who is proposing to build on that portion of a property that may be inadvertently included in an area of special flood hazard may request a Conditional Letter of Map Amendment in accordance with Part 72 of this subchapter. The data required to support such requests are the same as those required to support requests for final Letters of Map Amendment in accordance with 70.3, except as-built certification is not required.

23. Part 73 is added to 44 CFR Chapter 1, Subchapter B to read as follows:

PART 73—IMPLEMENTATION OF SECTION 1316 OF THE NATIONAL FLOOD INSURANCE ACT OF 1968

Sec.

- 73.1 Purpose of part.
- 73.2 Definitions.
- 73.3 Denial of flood insurance coverage.
- 73.4 Restoration of flood insurance coverage.

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 73.1 Purpose of part.

This part implements Section 1316 of the National Flood Insurance Act of 1968.

§ 73.2 Definitions.

(a) Except as otherwise provided in this part, the definitions set forth in Part 59 of this subchapter are applicable to this part.

(b) For the purpose of this part a "duly constituted State or local zoning authority or other authorized public

body" means an official or body authorized under State or local law to declare a structure to be in violation of a law, regulation or ordinance.

(c) For the purpose of this part, "State or local laws, regulations or ordinances intended to discourage or restrict development or occupancy of flood-prone areas" are measures such as those defined as "Flood plain management regulations" in § 59.1 of this subchapter. Such measures are referred to in this part as State or local flood plain management regulations.

§ 73.3 Denial of flood insurance coverage.

(a) No new flood insurance shall be provided for any property which the Administrator finds has been declared by a duly constituted State or local zoning authority or other authorized public body, to be in violation of State or local laws, regulations or ordinances which are intended to discourage or otherwise restrict land development or occupancy in flood-prone areas.

(b) New and renewal flood insurance shall be denied to a structure upon a finding by the Administrator of a valid declaration of a violation.

(c) States and communities shall determine whether to submit a declaration to the Administrator for the denial of insurance.

(d) A valid declaration shall consist of:

(1) The name(s) of the property owner(s) and address or legal description of the property sufficient to confirm its identity and location;

(2) A clear and unequivocal declaration that the property is in violation of a cited State or local law, regulation or ordinance;

(3) A clear statement that the public body making the declaration has authority to do so and a citation to that authority;

(4) Evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and

(5) A clear statement that the declaration is being submitted pursuant to section 1316 of the National Flood Insurance Act of 1968, as amended.

§ 73.4 Restoration of flood insurance coverage.

(a) Insurance availability shall be restored to a property upon a finding by the Administrator of a valid rescission of a declaration of a violation.

(b) A valid rescission shall be submitted to the Administrator and shall consist of:

(1) The name of the property owner(s) and an address or legal description of the property sufficient to identify the property and to enable FEMA to identify the previous declaration;

(2) A clear and unequivocal statement by an authorized public body rescinding the declaration and giving the reason(s) for the rescission;

(3) A description of and supporting documentation for the measures taken in lieu of denial of insurance in order to bring the structure into compliance with the local flood plain management regulations; and

(4) A clear statement that the public body rescinding the declaration has the authority to do so and a citation to that authority.

PART 76—[REMOVED AND RESERVED]

24. By removing and reserving Part 76.

Dated: August 18, 1986.

Francis V. Reilly,

Deputy Administrator, Federal Insurance Administration.

[FR Doc. 86-18999 Filed 8-22-86; 8:45 am]

BILLING CODE 6710-05-M



Federal Emergency Management Agency

Washington, D.C. 20472

Office of the City Manager	
<input type="checkbox"/> CEC _____	<input type="checkbox"/> SH _____
<input type="checkbox"/> RGF _____	<input type="checkbox"/> JA _____
<input type="checkbox"/> RT _____	<input type="checkbox"/> _____
AUG 4 1986	
<input type="checkbox"/> Copies To _____	
<input type="checkbox"/> Send To _____	
<input type="checkbox"/> File _____	

COMMUNITY ACKNOWLEDGEMENT OF REQUEST FOR LETTER OF MAP REVISION

Wichita, Kansas
Community Name

Walnut Creek 2nd Addition
Property

We hereby acknowledge receipt and review of this Letter of Map Revision request and have found that the project meets all of our community's applicable floodplain management regulations. We understand that this request is being forwarded to FEMA for a possible map revision.


Community Official's Signature

8-15-86
Date

City Engineer - City of Wichita, Kansas
Community Official's Title





Federal Emergency Management Agency

Washington, D.C. 20472

IN REPLY REFER TO:
IA-RA-TO (216A-65) (1A)
Case # 86-07-03F

JUL 29 1986

Mr. Larry E. Bottenberg
Barbed Wire Associates
727 North Waco, #260
Wichita, Kansas 67203

Re: Request of June 17, 1986 regarding the Flood Insurance Rate Map for
Wichita, Kansas.

Dear Mr. Bottenberg:

This is in response to the above-mentioned letter requesting that the Federal Emergency Management Agency (FEMA) determine whether certain proposed structure(s) will be located within the Special Flood Hazard Area and issue a Conditional Letter of Map Revision (LOMR).

The enclosed document, Conditions and Criteria for Issuing Letters of Map Revisions (LOMRs) Involving Fill, describes in detail the FEMA policy concerning revisions to flood maps and the types of information you may be requested to submit for review. A "Request for Letter of Map Revision (218-65)" form is also attached and should be completed, signed, and returned as early as possible, if you have not already done so.

FEMA has initiated a reimbursement procedure to allow for the recovery of costs associated with the review of Conditional LOMRs, thereby reducing the expenses to the general taxpayer. The initial fee for this type of request is \$175.00. Please provide this fee, which must be received by FEMA prior to commencement of our review. Payment should be in the form of a check or money order made payable to the United States Treasury and should be submitted by Registered Mail, Return Receipt Requested, at the following address:

Federal Emergency Management Agency
Federal Insurance Administration
Office of Risk Assessment
Technical Operations Division
500 C Street, SW., Room 422
Washington, D.C. 20472

ATTENTION MR. CHARLES A. LINDSEY

The case number referenced above should be included on your check or money order for identification purposes.

Please note that the initial fee is the minimum charge for a review of this type; additional costs could be required upon completion of our review and prior to issuance of a Conditional LOMR depending on the complexity of the review required. You will be notified of the estimated total processing cost if it is anticipated that, due to the extent of the review required, the total cost will exceed \$500. In that situation, our review would be suspended pending written authorization from you to proceed.

Upon our receipt of this fee, Greenhorne & O'Mara, Inc., our consulting engineers, will be contacting you to discuss the flooding conditions and the information that you have submitted. Their initial review of your request indicates that additional information will be necessary to resolve your request. The attached "Data Request Checklist" specifies what information you should submit at this time to expedite the processing of your request. (Additional information may be requested at a later date). If these data are not available to you, our consulting engineers will discuss with you steps that you can take to acquire any information required.

Also, it is FEMA policy that requests for determinations in areas that will be filled must be reviewed and acknowledged by the appropriate community. Thus, the attached "Community Acknowledgement of Request for Letter of Map Revision" form must be completed by the community official responsible for flood plain management and returned to FEMA. This is not necessary if we have already received a letter from community officials stating their acknowledgement of the project. Because the community has final responsibility for flood plain management, the final determination will be addressed to the community. You will be provided with copies of this correspondence.

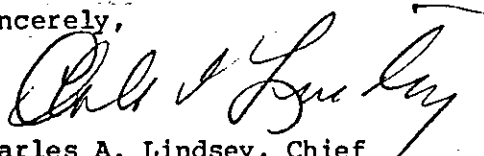
Please submit all information within 30 days of the date of this letter; no further action can be taken on your request until community endorsement is received, along with the information listed on the enclosed checklist. Upon completion of our review, the map will be revised by letter, if technically justified.

All technical data and questions concerning your request should be directed to:

Mr. Michael E. Kanowitz, P.E.
Greenhorne & O'Mara, Inc.
9001 Edmonston Road
Greenbelt, Maryland 20770

If you have any questions concerning FEMA policy, or the National Flood Insurance Program in general, please call the Chief, Natural and Technological Hazards Division of the Federal Emergency Management Agency in Kansas City, Missouri, at (816) 374-2161, or members of our Headquarters staff in Washington, D.C., at (202) 646-2764.

Sincerely,



Charles A. Lindsey, Chief
Technical Operations Division
Federal Insurance Administration

Enclosures

CONTRACT

for

ENGINEERING SERVICES

between

THE CITY OF WICHITA, KANSAS

and

BAUGHMAN COMPANY, P.A.

and

BARBED WIRE ASSOCIATES

THIS CONTRACT, made this 27th day of August, 1985, by and
between

THE CITY OF WICHITA, KANSAS

Party of the First Part, hereinafter

called

"CITY"

and

BAUGHMAN COMPANY, P.A.

called the

"CONSULTANT"

and

BARBED WIRE ASSOCIATES

Party of the Third Part, hereinafter

called the

"DEVELOPER"

WITNESSETH:

WHEREAS the DEVELOPER has filed a preliminary plat of Walnut Creek 2nd Addition with the CITY and the same has been approved; and

WHEREAS, the DEVELOPER is desirous of expediting the completion of the development of Walnut Creek 2nd Addition; and

WHEREAS, the CITY in the event the final plat of Walnut Creek 2nd Addition is approved by the governing body of the City of Wichita, Kansas, intends to construct certain improvements for Walnut Creek 2nd Addition, more fully described as follows:

Sanitary Sewer Improvements including Pump Station and Force Main, Water Mains and Street with Incidental Drainage Improvements for Walnut Creek 2nd Addition (southwest corner of 13th Street North and 119th Street West).

The total of all improvements designated above to be referred to hereinafter as the "PROJECT"; and

WHEREAS, the CONSULTANT is desirous of performing the work and furnishing the services necessary to develop the plans, specifications and estimates for the PROJECT; and

WHEREAS, the CITY is authorized by law to employ consulting engineers to assist in the preparation of plans, specifications (if required) and the estimates of the quantities of work for the PROJECT.

NOW, THEREFORE, the parties hereto do mutually agree as follows:

I. SCOPE OF SERVICES

The CONSULTANT shall furnish engineering services as required to develop the plans, supplemental specifications and estimates of the quantities of work for the PROJECT in the format and detail required by the City Engineer for the City of Wichita. Engineering Plans shall be prepared in ink on standard 23" x 36" mylar or vellum sheets.

Specific tasks to be performed by the CONSULTANT shall include the following:

A. PHASE I - PRELIMINARY PLAN DEVELOPMENT

When authorized by the CITY, proceed with development of Preliminary Plans for the PROJECT based on the preliminary design concepts approved by the CITY during the Platting Phase.

1. Field Surveys. Provide engineering and technical personnel and equipment to obtain survey data as required for engineering design for the PROJECT. Utility companies shall be requested to flag or otherwise locate their facilities within the PROJECT

limits prior to the CONSULTANT conducting the field survey for the PROJECT. Utility information shall be clearly noted and identified on the plans.

2. Review Preliminary Design Concepts. Review preliminary design concepts with the City Engineer or his designated representative prior to progressing to detail aspects of the work.
3. Soils and Foundation Investigations. The CITY'S Construction and Survey Division of the Department of Operations and Maintenance shall provide subsurface borings and soils investigations for the PROJECT. However, the CITY may authorize the CONSULTANT to direct an approved Testing Laboratory to perform subsurface borings and soils investigations for the PROJECT, which shall be reported in the format and detail required by the City Engineer for the City of Wichita. The Testing Laboratory shall be responsible for the accuracy and competence of their work. The CONSULTANT'S contract with the Testing Laboratory shall provide that the Testing Laboratory is responsible to the CITY for the accuracy and competence of their work. The cost of soils and boring investigations shall be passed directly to the City of Wichita.
4. Preliminary Sanitary Sewer Profiles. Prepare preliminary sanitary sewer grades for the PROJECT to provide basement level services where possible and submit one (1) set to the CITY. Preliminary sewer grades are to be reviewed with the CITY by the CONSULTANT for approval prior to proceeding.
5. Preliminary Street Profiles. Prepare preliminary street grades for the PROJECT to conform to drainage patterns developed during the platting phase and submit one (1) set of each to the CITY. Preliminary street grades are to be reviewed with the CITY by the CONSULTANT for approval prior to proceeding.
6. Preliminary Plans.
 - (a) Prepare preliminary plans for the sanitary sewer improvements and submit three (3) sets to the CITY for Office and/or Field Check.

(b) If required, prepare preliminary plans for the water distribution system improvements and submit the required number of copies to the CITY for Office and/or Field Check.

(c) Prepare preliminary plans for the street improvements and submit three (3) sets to the CITY for Office and/or Field Check.

B. Phase II - PLAN DEVELOPMENT

When authorized by the CITY, proceed with development of Final Plans for the PROJECT in accordance with the Preliminary Plans and/or preliminary design concepts as agreed upon at office review and/or field review.

1. Prepare final engineering plans and supplemental specifications (if required) and estimates of the quantities of work. Technical specifications shall, in general, follow the CITY's Standard Specifications supplemented as necessary to suit the PROJECT requirements (including plan profile sheets for water distribution system improvements).
2. Prepare right-of-way tract maps and descriptions as required in clearly drawn detail and with sufficient reference to certificate of title descriptions.
3. Identify all known potential utility conflicts and provide prints of plans to each utility identifying the problem locations. The CONSULTANT shall meet with utility company representatives as required to review the PROJECT design and interpret engineering drawings.
4. Submit three (3) sets of prints of the final plan for each of the improvements to the CITY for Office and/or Field Check.
5. Deliver the original tracings of the Final approved plans to the CITY for their use in printing plans for prospective bidders.

C. PHASE II - CONSTRUCTION PHASE SERVICES

1. When requested by the City, prepare a Supplemental Agreement for construction administration and/or for resident engineering services.
2. When authorized by the CITY, provide personnel and equipment to perform engineering services during construction of the PROJECT.

II. IN ADDITION, THE CONSULTANT AGREES

- A. To provide the various technical and professional services, equipment, material and transportation to perform the tasks as outlined in SCOPE OF SERVICES.
- B. To attend meetings with the CITY and other local, state and federal agencies and organizations as necessitated by the PROJECT.
- C. To make available during regular office hours at its Wichita office all calculations, sketches and drawings such as the CITY may wish to examine periodically during performance of this agreement.
- D. To notify the CITY when work on the PROJECT is completed to the point that the Office/Field Check(s) may be conducted; to furnish one or more representatives to participate in the Office/Field Check(s) of the PROJECT; to furnish the required sets of plans to the CITY for use in the plan check and upon return receipt, to expeditiously complete all changes, modifications and corrections to the plans resulting from the Office/Field Check. Plan prints marked with CITY comments are to be returned to the CITY with revised plan submittals.
- E. To deliver to the CITY the field notes, original tracings of the completed plans and other pertinent drawings and documents pertaining to the PROJECT; such field notes, tracings and other drawings and documents to become the property of the CITY.
- F. To submit to the CITY an Engineer's estimate of the quantities of work for the PROJECT incorporating all items of work included in the plans.
- G. To save and hold CITY harmless against all suits, claims, damages and losses for injuries to persons or property arising from or caused by errors, omissions or negligent acts of CONSULTANT, its agents, servants, employees, or subcontractors occurring in the performance of its services under this contract.
- H. To maintain books, documents, papers, accounting records and other evidence pertaining to costs incurred by the CONSULTANT that were relevant to method of payment, to make such material available at its office at reasonable times during the contract period, and for three (3) years from the date of final payment under the contract for inspection by the CITY or its authorized representatives.

- I. To comply with all federal, state and local laws, ordinances and regulations applicable to the work, including Title VI of the Civil Rights Act of 1964, and to comply with the CITY'S Affirmative Action Program as set forth in Exhibit "A" which is attached hereto and adopted by reference as though fully set forth herein.
- J. To accept compensation for the work herein described in such amounts and at such periods as hereinafter provided and that such compensation shall be satisfactory and sufficient payment for all work performed, equipment or materials used and services rendered in connection with such work.
- K. To submit a single and final billing to the CITY for the engineering services performed upon satisfactory completion of each phase (sanitary sewer, water main, street) of improvements required by this agreement.
- L. To complete and deliver field notes, preliminary and final plans (including tracings), specifications and estimates to the CITY within the time allotted for the PROJECT as stipulated below; EXCEPT that the CONSULTANT shall not be responsible or held liable for the time required by reviews by the approving parties or other delays occasioned by the actions or inactions of the CITY or other agencies, or for other unavoidable delays beyond the control of the CONSULTANT.
 - 1. Preliminary and Final Plan Development (Phase I and II - Article I) for the sanitary sewer improvements within 90 days after the notice to proceed.
 - 2. Preliminary and Final Plan Development (Phase I and II - Article I) for the water main improvements within 90 days after the notice to proceed.
 - 3. Preliminary and Final Plan Development (Phase I and II - Article I) for the street improvements within 120 days after the notice to proceed.
- M. 1. Covenants and represents to be responsible for the professional and technical accuracies and the coordination of all designs, drawings, specifications, plans and/or other work or material prepared and furnished by the CONSULTANT under this agreement.

2. CONSULTANT further agrees, covenants and represents, that all designs, drawings, specifications, plans, estimates and other work or material furnished by CONSULTANT, its agents, employees and subcontractors, under this agreement, including any additions, alterations or amendments thereof, shall be free from errors, omissions or negligence.

3. CONSULTANT further agrees, covenants and represents, that all specifications and bid documents prepared in accordance with the work required by this agreement shall contain a clause that provides the following:

"Notwithstanding anything to the contrary contained in these bid documents or the contract to be awarded herein, the CITY shall not be subject to arbitration and any clause relating to arbitration contained in these bid documents or in the contract to be awarded herein shall be null and void."

N. CONSULTANT shall procure and maintain such insurance as will protect the CONSULTANT from damages resulting from errors, omissions and negligent acts of the CONSULTANT, its agents, officers, employees and subcontractors in the performance of the professional services rendered under this agreement and for which he is legally liable. Such policy of insurance shall be in an amount not less than \$500,000 subject to deductible of \$10,000. In addition, a Workman's Compensation and Employer's Liability Policy shall be procured and maintained. This policy shall include an "all state" endorsement. Said insurance policy shall also cover claims for injury, disease or death of employees arising out of and in the course of their employment, which, for any reason, may not fall within the provisions of the Workman's Compensation Law. The liability limit shall not be less than:

Workman's Compensation - Statutory

Employer's Liability - \$500,000 each occurrence.

Further, a comprehensive general liability policy shall be procured and maintained by the CONSULTANT that shall be written in a comprehensive form and shall protect the CONSULTANT and the CITY against all claims arising from injuries to persons (other than CONSULTANT'S employees) or damage to property of the CITY or others arising out of any negligent act or omission of CONSULTANT, its agents, officers, employees or subcontractors in the performance of CONSULTANT services

under this agreement. The liability limit shall not be less than \$500,000 per occurrence for bodily injury, death and property damage. Satisfactory Certificates of Insurance shall be filed with the CITY prior to the time CONSULTANT starts any work under this agreement.

The CONSULTANT shall furnish the CITY copies of all insurance policies or certificates of insurance that relate to the insurance policies that must be maintained hereunder. In addition, insurance policies applicable hereto shall contain a provision that provides that the CITY shall be given thirty (30) days written notice by the insurance company before such policy is substantially changed or cancelled.

III. THE CITY AGREES:

- A. To furnish all available data and field surveys pertaining to the PROJECT now in the City Engineer's Office.
- B. To provide standards as required for the PROJECT; however, reproduction costs are the responsibility of the CONSULTANT.
- C. To provide the right of entry for CONSULTANT'S personnel in performing field surveys and inspections.
- D. To pay the CONSULTANT for his services in accordance with the requirements of this agreement.

IV. THE DEVELOPER AGREES:

- A. To provide right of entry for CONSULTANT'S personnel in performing field surveys and inspections.
- B. To pay the CONSULTANT, according to the provisions of Article V, such sums, if any, required to be paid by the DEVELOPER pursuant to said Article V for work or services performed by CONSULTANT hereunder.

V. PAYMENT PROVISIONS

- A. Payment to the CONSULTANT for the performance of his services shall be:

- 1. Made on the basis of the lump sum fee amount specified below:

Sanitary Sewer Improvements	\$ <u>11,200.00</u>
Water Main Improvements	\$ <u>5,000.00</u>
Street Improvements	\$ <u>16,300.00</u>
TOTAL	\$ <u>32,500.00</u>

- B. It shall be the obligation solely of the DEVELOPER to pay such sums as are due the CONSULTANT under Paragraph A of this Article or under Paragraph A of Article VI, and the CITY shall have no obligation to pay the CONSULTANT for work or services performed hereunder, except as provided in Paragraph C hereinbelow.
- C. In the event of the happening of all of the following:
1. Compliance by the DEVELOPER with the procedure for providing reasonable assurances as set forth in the "Development Policy for Public Improvements", AR 29, dated April 16, 1985, of the Administrative Regulations of the City of Wichita, Kansas. As provided by AR29, the DEVELOPER shall submit, on a form furnished by the CITY, an Affidavit that provides no other delinquent special assessments on other land being held or developed by the DEVELOPER; and
 2. Approval by the governing body of the City of Wichita, Kansas, of the final plat of the Walnut Creek 2nd Addition; and
 3. Adoption by the governing body of the City of Wichita, Kansas, pursuant to K.S.A. 12-6a04 (2), of a resolution authorizing the improvements within Walnut Creek 2nd Addition as set forth herein; and
 4. Completion by the CONSULTANT, in the manner set forth herein, of all the work or services to be performed by the CONSULTANT under this agreement; and
 5. Compliance by CONSULTANT with Paragraph N of Article II herein; the CITY shall be responsible for and shall pay to the CONSULTANT those sums due the CONSULTANT under Paragraph A of Article V and the responsibility of the DEVELOPER for payment of such sums shall cease; PROVIDED, HOWEVER, that if the final plat of Walnut Creek 2nd Addition, as approved by the governing body of the City of Wichita, Kansas, differs in any material and substantial way from the preliminary plat of said plat that has been submitted by the DEVELOPER, and, by virtue of such difference or differences, CONSULTANT is required to change, revise, amend or supplement the work or services performed by it hereunder, the obligation of the CITY under this paragraph to pay the CONSULTANT for work or services performed shall not include the cost associated with such changes, revisions, amendments or supplements and the obligation to pay for such costs shall be solely the obligation of the DEVELOPER.

D. In the event of a dispute between the parties as to whether any item or items of costs submitted by the CONSULTANT pursuant to Paragraph G of Article VI relates to work or services performed by the CONSULTANT pursuant to this contract and, thus, qualifies for inclusion as part of the contract price to be paid to CONSULTANT pursuant to Article V, the decision of the City Engineer of the City of Wichita shall be final and binding upon the parties. Similarly, any dispute as to whether an item or items of cost relates to work or services necessitated by a difference between the preliminary plat and the final plat of Walnut Creek 2nd Addition shall be resolved by the City Engineer of the City of Wichita and his decision shall be final and binding upon the parties.

V. THE PARTIES HERETO MUTUALLY AGREE:

- A. That the right is reserved to the CITY to terminate this agreement at any time, upon written notice, in the event the PROJECT is to be abandoned or indefinitely postponed, or because of the CONSULTANT'S inability to proceed with the work, or because the services of the CONSULTANT are unsatisfactory; or at the option of the CITY at the completion of any of the phases of the PROJECT: PROVIDED, HOWEVER, that in any case the CONSULTANT shall be paid the reasonable value of the services rendered up to the time of termination on the basis of the provisions of this agreement, with such payment to be the responsibility of the DEVELOPER and not the CITY, but in no case shall payment be more than the CONSULTANT'S actual costs plus a reasonable sum for fixed fee for profit.
- B. That the field notes, original tracings for the final Engineering Plans, and other pertinent drawings and documents pertaining to the PROJECT shall become the property of the CITY upon completion or termination of the CONSULTANT'S services in accordance with this agreement; and there shall be no restriction or limitation on their further use by the CITY.
- C. That the services to be performed by the CONSULTANT under the terms of this agreement are personal and cannot be assigned, sublet or transferred without specific consent of the CITY.
- D. In the event of unavoidable delays in the progress of the work contemplated by this agreement, reasonable extensions in the time allot-

ted for the work will be granted by the CITY, PROVIDED, HOWEVER, that the CONSULTANT shall request extensions in writing giving the reasons therefor.

- E. It is further agreed that this agreement and all contracts entered into under the provisions of this agreement shall be binding upon the parties hereto and their successors and assigns.
- F. It is specifically agreed between the parties executing this contract, that it is not intended by any of the provisions of any part of this contract to create the public or any member thereof, a fourth party beneficiary hereunder, or to authorize anyone not a party to this contract to maintain a suit for damage pursuant to the terms or provisions of this contract.
- G. That during the performance by the CONSULTANT of the work or services required under this agreement, CONSULTANT is likely to be performing work or services for the DEVELOPER in connection with the process of platting Walnut Creek 2nd Addition, which work or services for DEVELOPER are not within the scope of work set out herein. It is the intention of the parties that the CITY, upon the maturing of its obligation to pay the CONSULTANT pursuant to Paragraph C of Article V, shall pay only for the costs of work or services performed by CONSULTANT under this agreement and that those costs incurred by CONSULTANT in connection with work or services performed for the DEVELOPER in connection with the platting of Walnut Creek 2nd Addition and which are outside the scope of work set out herein shall be the sole responsibility of the DEVELOPER, and the payment therefor shall be provided for by the DEVELOPER and CONSULTANT outside this agreement.
- H. The rights and remedies of the CITY provided for under this agreement are in addition to any other rights and remedies provided by law, and the CITY'S review, approval or acceptance of, or payment for, any work or services required to be performed by the CONSULTANT under this contract shall not be construed to operate as a waiver of any right under this contract or any cause of action arising out of the performance of this agreement.
- I. Nothing contained herein shall be understood or construed to give the DEVELOPER any right, remedy or cause of action against the CITY arising out of a breach of any of the terms of this agreement by the CONSULTANT.

J. Any written notice required to be given under the terms of this agreement shall be deemed sufficient if mailed, postage prepaid and certified to the party entitled to receive such notice and addressed as follows:

CITY: City of Wichita
City Engineer
City Hall - Seventh Floor
455 North Main
Wichita, Kansas 67202

CONSULTANT Baughman Company, P.A.
330 Laura
Wichita, Kansas 67211

DEVELOPER: Barbed Wire Associates
727 North Waco
Wichita, Kansas 67203

IN WITNESS WHEREOF, the CITY and the CONSULTANT have executed this agreement as of the date first written above.

CITY OF WICHITA

By: _____

ATTEST:

Donald C. Gisick, City Clerk

Approved as to Form:

John Dekker, Director of Law

BAUGHMAN COMPANY, P.A.

BY: _____

ATTEST:

BARBED WIRE ASSOCIATES

BY _____

ATTEST:

EXHIBIT A

NOTICE . . . NOTICE . . . NOTICE
NON-DISCRIMINATION--EQUAL EMPLOYMENT OPPORTUNITY/
AFFIRMATIVE ACTION PROGRAM REQUIREMENTS

1. It is the policy of the City of Wichita to require that all contracts of the City and its agencies include provisions to ensure that applicants for employment with its contractors, sub-contractors, vendors and suppliers are selected and employees are treated during employment without regard to race, color, sex, religion, national origin, ancestry, physical handicap, marital status or age except where age is a bona fide occupational qualification.

2. Section 2.12.900, et. seq., of the Code of the City of Wichita, Kansas, and the Kansas Act Against Discrimination (Kansas Statutes Annotated 44-1001 et. seq., as amended) require every person who enters into a contract with the City of Wichita for construction, alteration or repair of any public building or public work or for the acquisition of materials, equipment, supplies or services to:

- a. Observe the provisions of Section 2.12.900, et. seq., of the Code of the City of Wichita, Kansas, and the Kansas Act Against Discrimination and shall not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, marital status, physical handicap unrelated to such person's ability to engage in the particular work.
- b. In all solicitations or advertisements for employees, the contractor shall include the phrase "Equal Opportunity Employer" or a similar phrase to be approved by the Kansas Commission on Civil Rights.
- c. Upon request of the Commission to inform the Kansas Commission on Civil Rights and/or the Civil Rights/Equal Employment Opportunity Commission (CREEOC) in writing the manner in which such person will recruit and screen personnel to be used in performing the contract.
- d. Contractor shall include the provisions of paragraphs (a), (b), (c) and (d) inclusively of this paragraph 2 in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor.
- e. Exempted from these requirements are:
 - (1) Any contractor who has already complied with the provisions set forth in these Sections by reason of holding a contract with the Federal Government or a contract involving Federal funds.
 - (2) Contracts entered into by a contractor who employs fewer than four (4) employees during the term of such contract.
 - (3) Contracts with the City of Wichita with a cumulative total of five thousand dollars (\$5,000.00) or less during the City fiscal year.
- f. Reports requested by the Kansas Commission on Civil Rights shall be made on forms prepared by the Kansas Commission on Civil Rights, copies of which are available from the Commission on Civil Rights, Contract Compliance Representative, 535 Kansas Avenue, Fifth Floor, Topeka, Kansas 66603.
- g. Reports requested by the Civil Rights/Equal Employment Opportunity Commission of the City of Wichita shall be made on forms prepared by the Commission, copies of which are available from CREEOC, City Hall, 455 North Main, 10th Floor, Wichita, Kansas 67202.

3. During the performance of any City contract or agreement, the contractor, subcontractor, vendor or supplier of the City shall comply with all the provision of the Civil Rights Act of 1964, as amended; the Equal Employment Opportunity Act of 1972, Executive Orders 11246, 11375, 11141, Part 60 of Title 41 of the Code of Federal Regulations; the Age Discrimination in Employment Act of 1967, and/or any laws, regulations or amendments as may be promulgated thereunder.

4. Failure of any contractor, subcontractor, vendor or supplier to report to the Kansas Civil Rights Commission as required by K.S.A. 1976 Supp. 44-1031, as amended; or the Civil Rights/Equal Employment Opportunity Commission of the City of Wichita as required by Section 2.12.900, et. seq., of the Code of the City of Wichita, Kansas; or been found guilty of a violation of the City's Ordinances, State statutes or Federal statutes or regulations pertaining to unlawful discrimination, which finding or decision or order has become final, shall be deemed a breach of contract and any such contract may be cancelled, terminated or suspended in whole or in part by the City or its contracting agency.

5. Compliance with the Equal Employment Opportunity requirements of the City of Wichita does not relieve the contractor, subcontractor, vendor or supplier of the necessity of also complying with the Kansas Act Against Discrimination.

EXEMPTIONS CLAIMED:

_____ # of Employees
_____ Federal Contract

Company Name

Company Address & Telephone

NON-DISCRIMINATION--EQUAL EMPLOYMENT OPPORTUNITY/
AFFIRMATIVE ACTION PROGRAM REQUIREMENTS

During the term of this contract, the contractor or subcontractor, vendor or supplier of the City, by whatever term identified herein, shall comply with the following Non-Discrimination--Equal Employment Opportunity/Affirmative Action Program Requirements:

A. During the performance of this contract, the contractor, subcontractor, vendor or supplier of the City, or any of its agencies, shall comply with all the provisions of the Civil Rights Act of 1964, as amended; The Equal Employment Opportunity Act of 1972; Presidential Executive Orders 11246, 11375, 11411; Part 60 of Title 41 of the Code of Federal Regulations; The Age Discrimination in Employment Act of 1967; and laws, regulations or amendments as may be promulgated hereunder.

B. Requirements of the State of Kansas:

1. The contractor shall observe the provisions of the Kansas Act against discrimination (Kansas Statutes Annotated 44-1001, et seq.) and shall not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, physical handicap unrelated to such person's ability to engage in the particular work, national origin or ancestry;
 2. In all solicitations or advertisements for employees, the contractor shall include the phrase, "Equal Opportunity Employer", or a similar phrase to be approved by the Kansas Commission on Civil Rights;
 3. If the contractor fails to comply with the manner in which the contractor reports to the Kansas Commission on Civil Rights, in accordance with the provisions of KSA 1976 Supp. 44-1031, as amended, the contractor shall be deemed to have breached this contract and it may be cancelled, terminated or suspended in whole or in part by the contracting agency;
 4. If the contractor is found guilty of a violation of the Kansas Act against discrimination under a decision or order of the Kansas Commission on Civil Rights, which has become final, the contractor shall be deemed to have breached the present contract, and it may be cancelled, terminated or suspended in whole or in part by the contracting agency;
 5. The contractor shall include the provisions of Paragraph 1 through 4, inclusively, of this subsection B, in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor.
- C. Exempted from these requirements are: (State of Kansas)
1. Any contractor, subcontractor, vendor or supplier who has already complied with the provisions set forth in sections pertaining to the State of Kansas by reason of holding a contract with the Federal government, or a contract involving Federal funds.

Non-Discrimination--Equal Employment Opportunity/
Affirmative Action Program Requirements
Page Two

2. Contracts entered into by a contractor, subcontractor, vendor or supplier who employs fewer than four (4) employees during the term of this contract.
3. Contracts with the City of Wichita with a cumulative total of five thousand dollars (\$5,000) or less during the fiscal year of the City.

D. Provisions of the City of Wichita, Kansas, relating to Non-Discrimination--Equal Employment Opportunity/Affirmative Action Program Requirements:

1. The vendor, supplier, contractor or subcontractor shall observe the provisions of the Code of the City of Wichita against discrimination (Section 2.12.900, et seq. of the Code of the City of Wichita, Kansas) and shall not discriminate against any employee or applicant for employment in the performance of work under the present contract, purchase order or agreement because of race, religion, color, sex, physical handicap, national origin, ancestry or marital status. The vendor, supplier, contractor or subcontractor shall practice Non-Discrimination and Equal Employment Opportunity in all employment relations, including but not limited to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The vendor, supplier, contractor or subcontractor shall submit an Equal Employment Opportunity or Affirmative Action Program when required to the Civil Rights and Equal Employment Opportunity Commission of the City of Wichita, Kansas, in accordance with the guidelines established for review and evaluation;
2. The vendor, supplier, contractor or subcontractor will, in all solicitations or advertisements for employees placed by or in behalf of the vendor, supplier, contractor or subcontractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, physical handicap, national origin, ancestry or marital status. In all solicitations or advertisements for employees the vendor, supplier, contractor or subcontractor shall include the phrase, "Equal Opportunity Employer", or a similar phrase that is deemed acceptable by the Wichita Commission on Civil Rights and Equal Employment Opportunity;
3. The vendor, supplier, contractor or subcontractor will furnish all information and reports required by the rules, regulations and the orders issued by the Commission pursuant thereto, and will permit access to books, records and procedures concerning employment relations by the Civil Rights and Equal Employment Opportunity Commission of said City for the purpose of investigation to ascertain compliance with Non-Discrimination and Equal Employment Opportunity Requirements. If the vendor, supplier, contractor or subcontractor fails to comply with the manner in which he/she or it reports to the Commission in accordance with the provisions hereof, the vendor, supplier, contractor or subcontractor shall be deemed to have breached the present contract, purchase

order or agreement and it may be cancelled, terminated or suspended in whole or in part by the City or its agency; and further Civil Rights complaints, or investigations may be initiated against such vendor supplier, contractor or subcontractor;

4. If the vendor, supplier, contractor or subcontractor is found guilty of a violation of any provision of the Code of the City of Wichita pertaining to and regulating Non-Discrimination and Equal Employment Opportunity under a decision or order of the Civil Rights and Equal Employment Opportunity Commission of the City of Wichita, Kansas, which has become final, the vendor, supplier, contractor or subcontractor shall be deemed to have breached the present contract, purchase order or agreement, and it may be cancelled, terminated or suspended in whole or in part by the City of Wichita, and such other sanctions and remedies may be imposed as provided by law;

5. The vendor, supplier, contractor or subcontractor shall include the provisions of subsections 1 through 4, inclusively, of this present section in every subcontract, subpurchase order or subagreement so that such provisions will be binding upon each subcontractor, subvendor or subsupplier.

E. Exempted from these requirements are: (City of Wichita)

1. Any contractor or subcontractor, vendor or supplier of the City of Wichita, or any of its agencies, who wishes to enter into a contract, purchase order or agreement which is covered by the provisions of Section 2.12.908 of the Code of the City of Wichita, Kansas, shall, prior to entering into such contract, purchase order or agreement, submit to the Civil Rights and Equal Employment Opportunity Commission of the City of Wichita, Kansas, a preliminary report on forms provided by the Commission concerning Non-Discrimination and Equal Employment/Affirmative Action for review and evaluation. Upon review of the preliminary form submitted:

a. Those contractors, subcontractors, vendors or suppliers who have less than four (4) employees, whose contracts, purchase orders or agreements cumulatively total less than five thousand dollars (\$5,000) during the fiscal year of said City are exempt from any further Equal Employment Opportunity or Affirmative Action Program submittal.

b. The provisions of Section 2.12.908 shall not apply to vendors, suppliers, contractors or subcontractors who have already complied with the provisions set forth in this section by reasons of holding a contract with the federal government or contract involving Federal funds; provided that such contractor, subcontractor, vendor or supplier provides written notification of a compliance review and determination of an acceptable compliance posture within a preceding forty-five (45) day period from the federal agency involved.

c. Those contractors, subcontractors, vendors or suppliers not exempted herein whose preliminary report reveals deficiencies shall be required to submit goals and timetables for correction of such deficiencies in accordance with instructions included with the preliminary report for review, evaluation and acceptance prior to a contract, purchase order or agreement award.

F. Failure of any contractor, subcontractor, vendor or supplier to report to the Kansas Civil Rights Commission as required by KSA 1976 Supp. 44-1031, as amended, or to the Civil Rights and Equal Employment Opportunity Commission of the City of Wichita as required by 2.12.908, of the Code of the City of Wichita, Kansas; or has been found guilty of a violation of the City's ordinances, state statutes, or Federal statutes, or regulations pertaining to unlawful discrimination, which finding, decision or order has become final, shall be deemed a breach of this contract and said contract may be cancelled, terminated or suspended in whole or in part by the City or its contracting agency.

