How is Development Defined?

Any man-made change to real estate including, but not necessarily limited to:

- Demolition, construction, reconstruction, repair, placement of a building, or any structural alteration to a building;
- substantial improvement of an existing building;
- installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than one hundred eighty (180) days per year;
- installation of utilities, construction of roads, bridges, culverts or similar projects;

1

How is Development Defined? (cont.)

- redevelopment of a site, clearing of land as an adjunct of construction
- construction or erection of levees, dams, walls, or fences;
- drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface;
- storage of materials including the placement of gas and liquid storage tanks, and channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters.

"Development" does not include resurfacing roads, or gardening, plowing, and similar practices that do not involve filing, grading, or construction of levees.

2

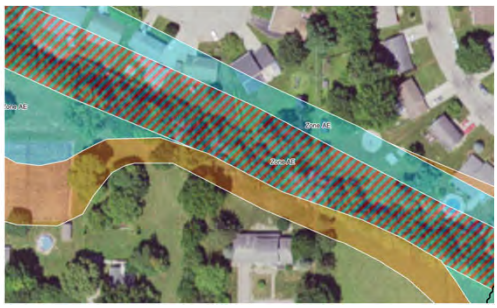
What needs a Permit?

- Any development as just defined in the mapped 1% floodplain – Zone A, Zone AE, Zone AO, Zone AH, and Zone V/VE
- Most ordinances – Development of a critical facility in the 1% and 0.2% chance floodplain
- Development includes repair or damages and interior improvements that meet the requirements of this ordinance – i.e. no substantial damage repairs/substantial improvements unless the mitigation plan to elevate or floodproof (non-residential) is included

3

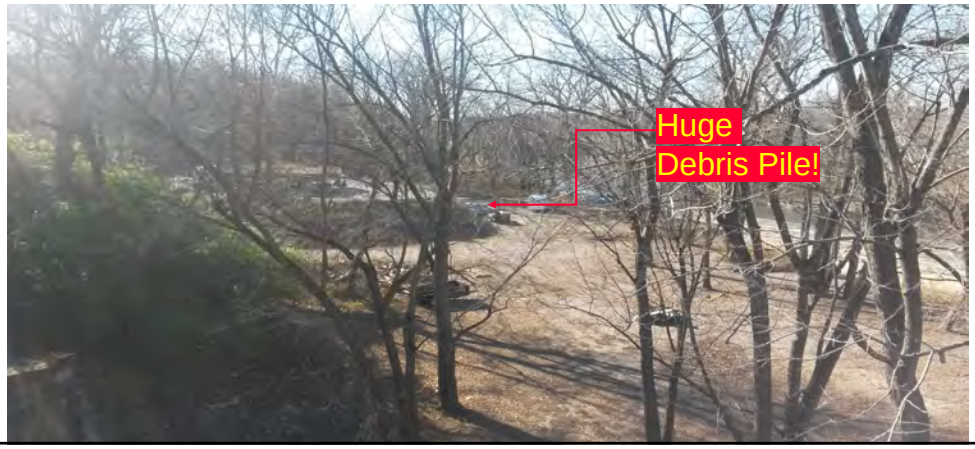
Understanding Floodway Permitting

- In IL, IDNR has jurisdiction over all waterways based on drainage area
- CLOMR/LOMR required if grading in the floodway
- Professional Engineer required to review permits
- Cumulative impact of similar projects must be considered



4

Any Floodplain "Development" (fences, fills, grading, etc..) Cannot Block or Obstruct the Flow of Water



5

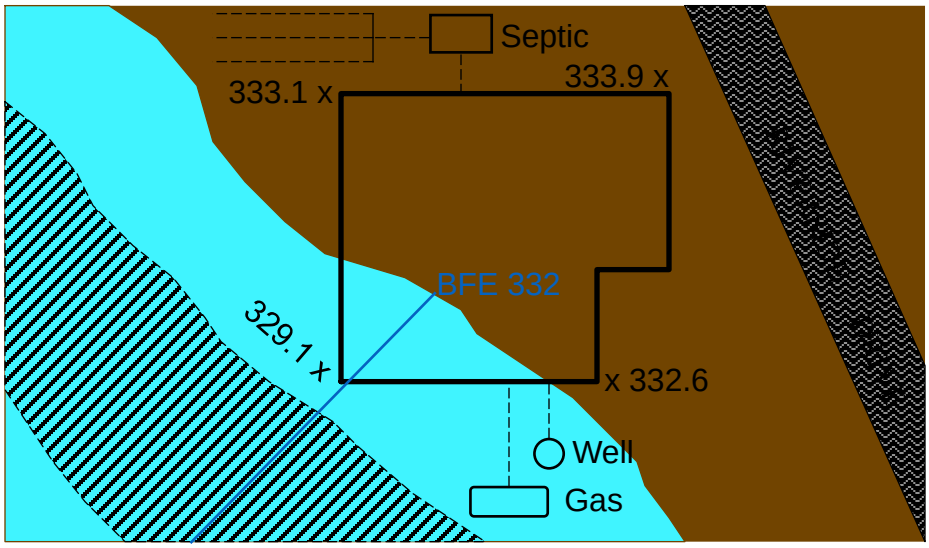
Building Protection Standards..

Methods to Elevate Buildings in an A Zone

- Elevation on Fill
- Elevation on flow-thru walls
- Elevation by poles, piers, or columns

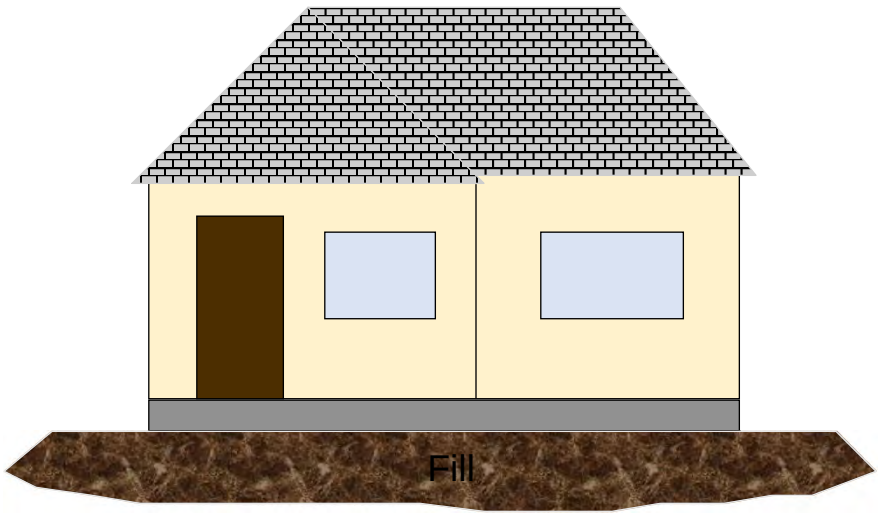
6

Get a Site Plan with elevations



7

Slab on Fill



8

Criteria for Elevation on Fill

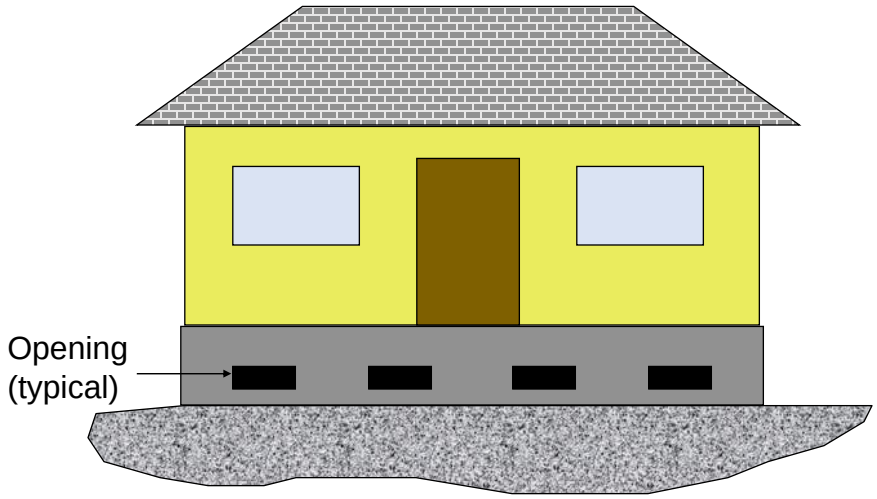
- Usually limited to three or four feet in height
- Fill placed in 6” layers and compacted (95% proctor)
- Extend fill 10’ around structure
- Side slopes 1’ vertical to 1.5’ horizontal
- Erosion control

9

House built on fill above the flood elevation

10

Perimeter Wall Foundation



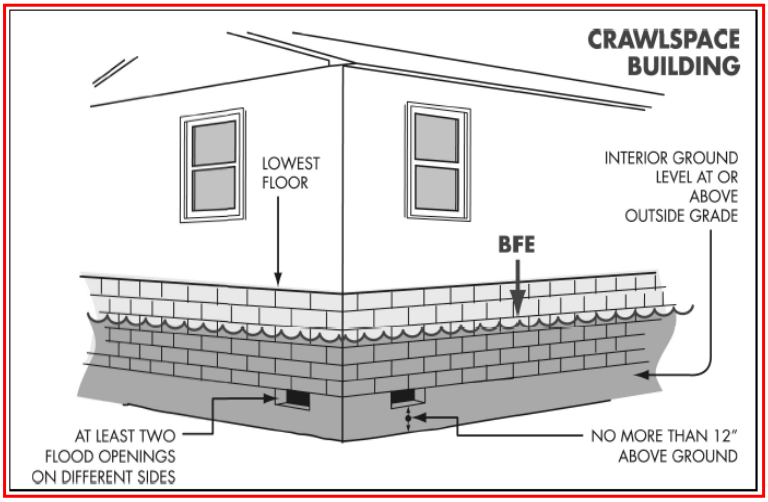
11

Criteria for Elevation on Perimeter Wall Foundations

- Usually limited to three or four feet in height above grade
- Enclosed areas below the lowest floor must have openings to equalize hydrostatic pressures (1” per 1 sq. ft.).
- Openings no more than one foot above grade.
- Flood resistant materials
- NO HVAC, electric, utilities, etc.

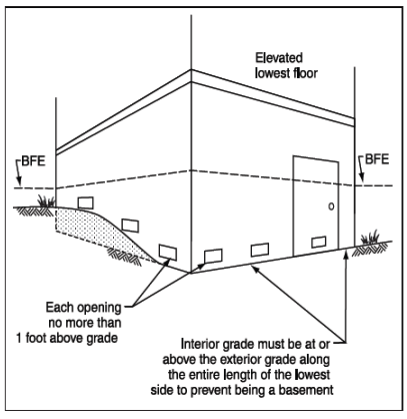
12

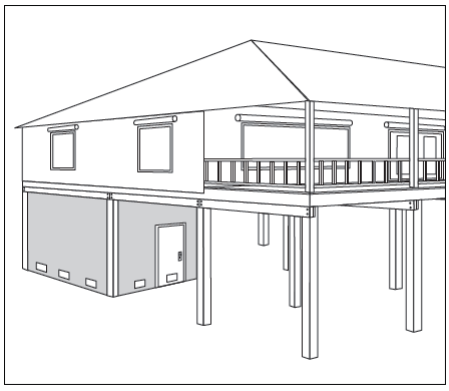
Elevation on Solid Perimeter Walls



13

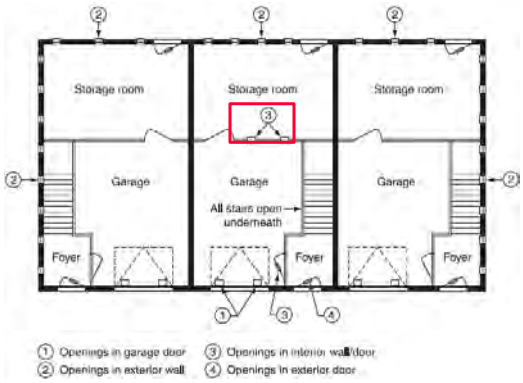
Any enclosed area must be flow thru





14

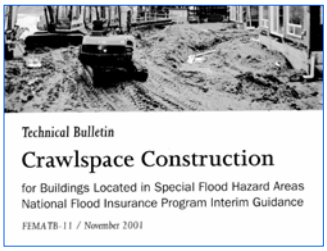
Any enclosed area must be flow thru and interior rooms must have openings, i.e. enclosed stairwell



15

Crawlspace Rules – TB 11

- Total height no more than 4 feet
- Interior grade no more than 2’ below grade with interior drainage controls
- Flow through openings ratio 1” per 1’
- Flood resistant materials
- Prohibited in V-Zones



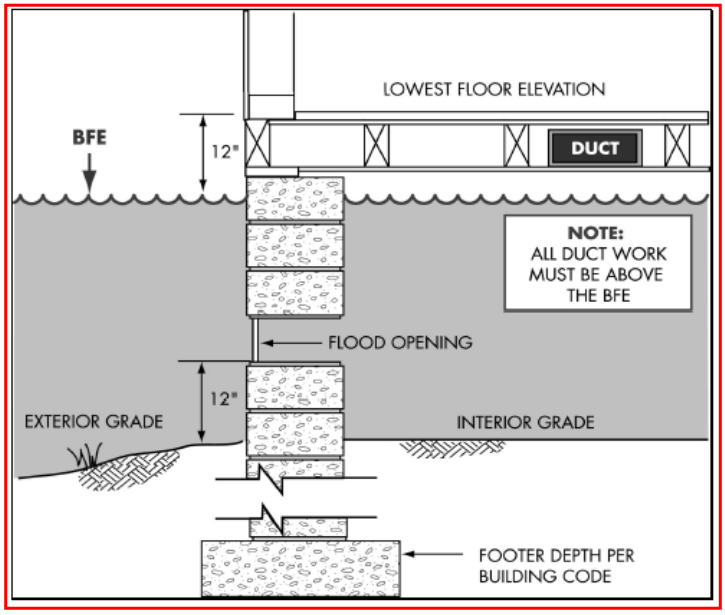
Technical Bulletin

Crawlspace Construction

for Buildings Located in Special Flood Hazard Areas National Flood Insurance Program Interim Guidance

FEMA TB-11 / November 2001

16



17

Crawlspaces – TB 11

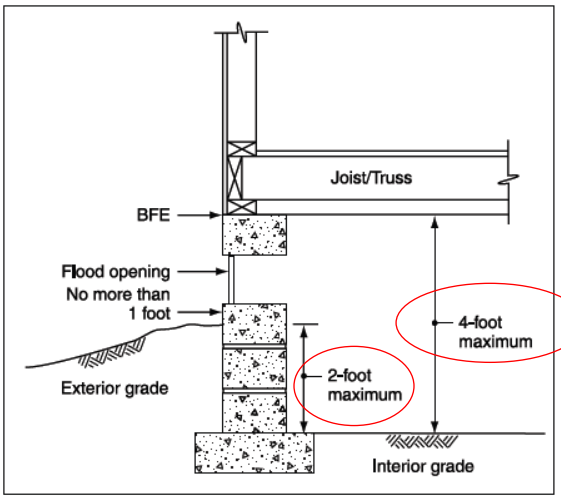
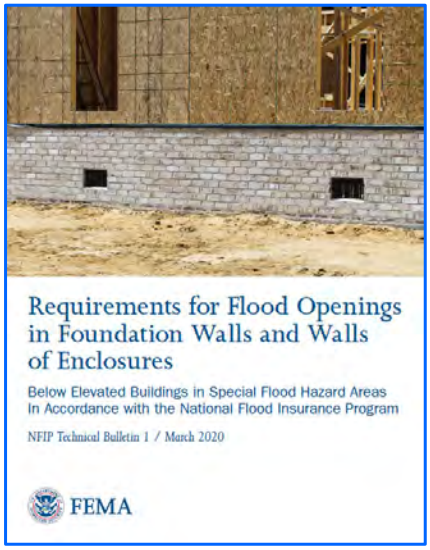


Figure 2. Limitations on below-grade crawlspaces in shallow flood hazard areas (TB 11)

18



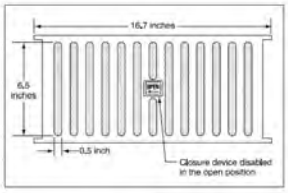
Technical Bulletin #1 issued 3/2020

www.FEMA.gov

Search window:
Technical Bulletin 1

19

Non-engineered vents



Must account for any obstruction due to grates or screening

Use the air flow opening indicated by manufacturer or net opening must be measured

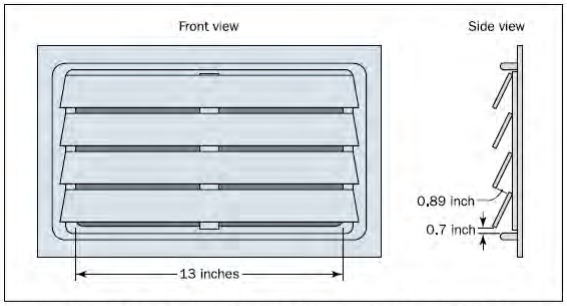


Figure 19: Example of non-engineered opening: Typical standard air vent with fixed, angled blades providing approximately 44 square inches of net open area; measurement of net open area uses slot width of 13 inches times the sum of the spaces between the blades

20

Engineered Flood Vents

- Each vent is rated differently
- Standard rate of rise is 5 ft per hour
- Get the ICC Evaluation Report.
- For a faster rate of rise, such as storm surge, levee overtopping or flash flooding, additional vents may be needed. Look to local gage data.

21

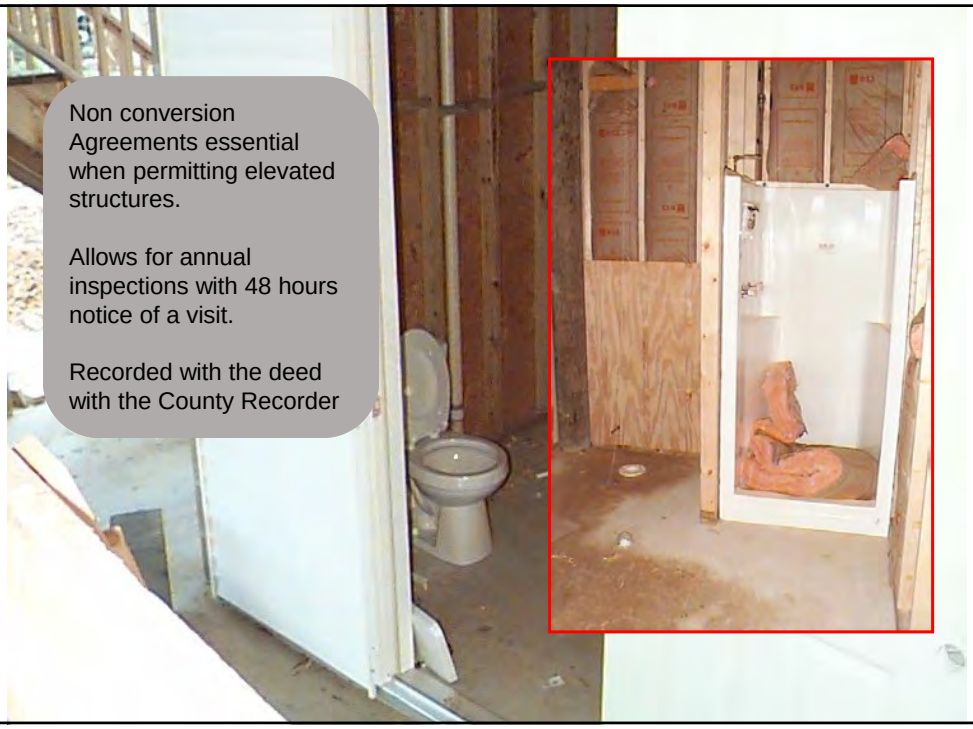
House built on elevated foundation walls

Flow through lower area

22


Do all these vents count?

23


Non conversion Agreements essential when permitting elevated structures.
Allows for annual inspections with 48 hours notice of a visit.
Recorded with the deed with the County Recorder

24

NONCONVERSION AGREEMENT
FOR CERTAIN STRUCTURES IN THE FLOODPLAIN

Whereas, Permit # _____ has been issued to construct, improve, or repair the property at _____ *[address]* in the City of _____, _____*[state]*, and

Whereas, the permitted building has the lowest floor elevated above the *[design flood elevation/base flood elevation plus __feet]* and the design and construction of the building meets current building code and flood damage prevention ordinance requirements, and

Whereas, as a condition of a Certificate of Occupancy, the owner must agree to not alter the building at a later date so as to violate the building code or flood damage prevention ordinance requirements,

Now, therefore, the undersigned owner of said property hereby agrees to the following:

1. That the enclosed area below the lowest floor shall be used solely for parking of vehicles, limited storage, or access to the building and will never be used for human habitation without first becoming fully compliant with the flood damage prevention ordinance in effect at the time of conversion.
2. That all interior walls, ceilings, and floors below the *[design flood elevation/base flood elevation plus __feet]* shall be unfinished or constructed of flood-resistant materials.
3. That mechanical, electrical, or plumbing devices that service the building shall not be installed below the *[design flood elevation/base flood elevation plus __feet]*.
4. That the openings in the walls of the enclosed area below the lowest floor shall not be blocked, obstructed, or otherwise altered to reduce the size of the openings or restrict the automatic entry and exit of floodwater.
5. That any variation in construction beyond what is permitted shall constitute a violation of this agreement and Section ____of Ordinance #_____ .
6. That the owner and subsequent owners agree to allow a representative of the City of _____ in the premises to verify compliance with this agreement at least once each year. The City representative will provide at least 48 hours notice of such visit.
7. That this Agreement shall be recorded with the deed to the above property so that subsequent owners are made aware of these restrictions.

_____ Signature of Property Owner
Printed name: _____
Date: _____

_____ Witness
Printed name: _____
Date: _____

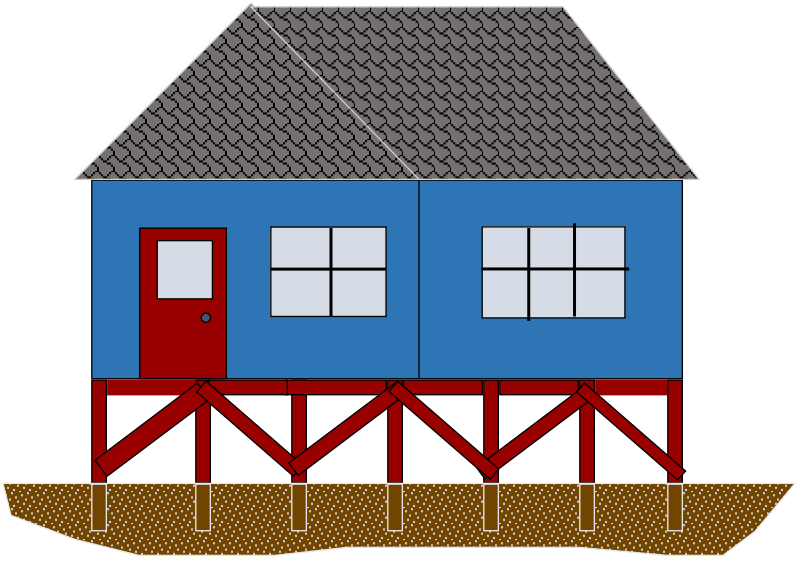
This space reserved for deed recording notations.

Non Conversion Agreement

CRS Credit Available

25

Post or Pile Foundation



26

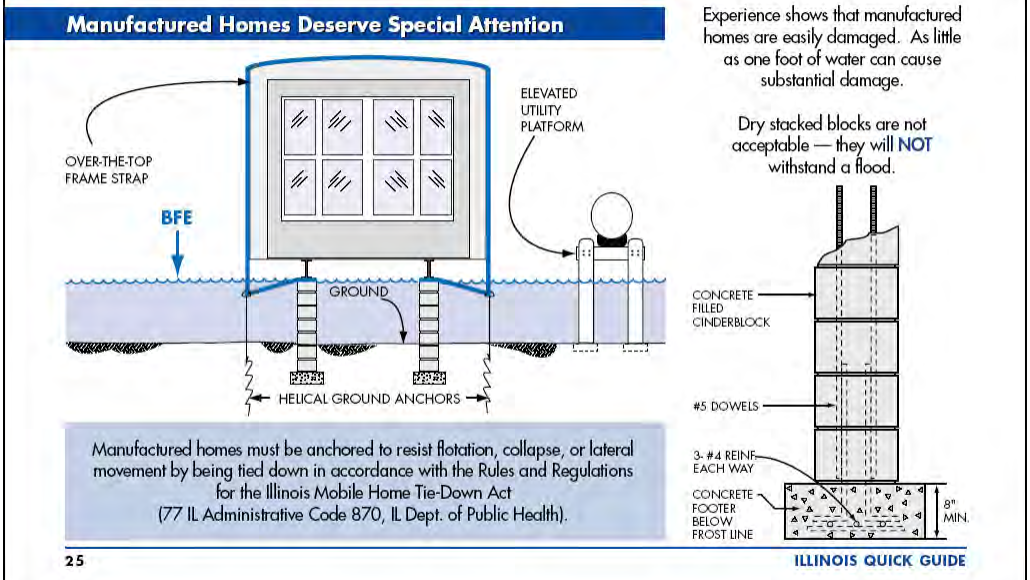
Post or Pile Foundation

- Should be used in areas of deep flooding and/or high velocities (floodways)
- Properly anchored to resist wind and water forces
- Lower area must remain open (not enclosed later). Get non-conversion agreement.

27

House built on piers or poles above the flood elevation

28



29

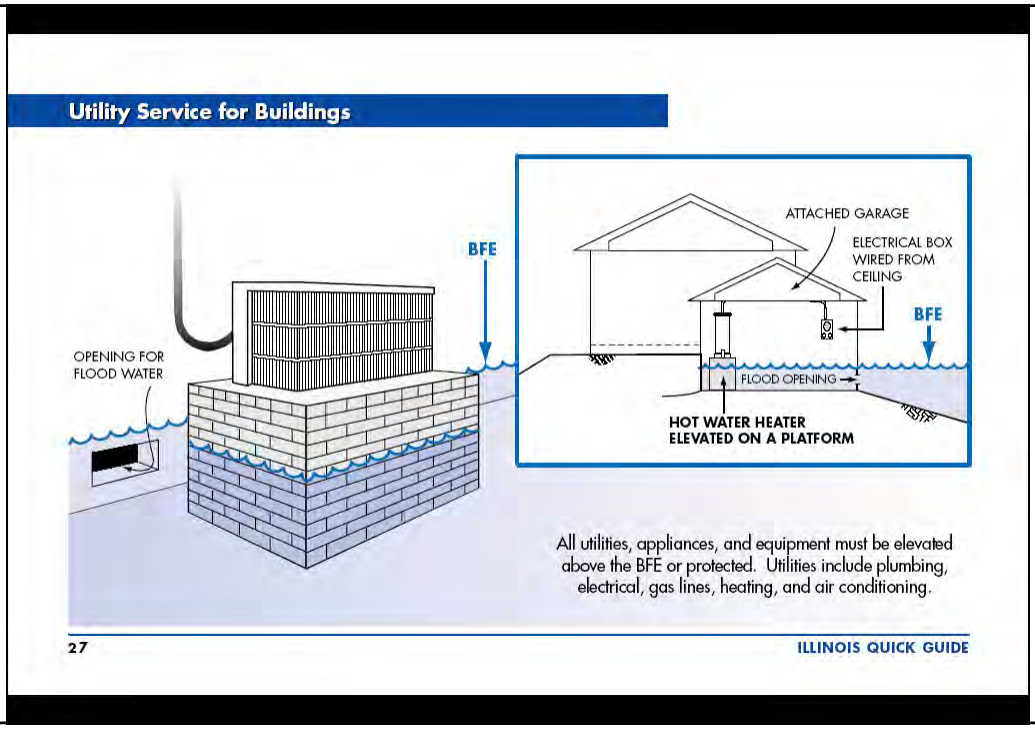
Why Anchor?

30

Standards for Utilities and Building Systems

All new construction and improvement shall be constructed with electrical, HVAC, plumbing 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.

31



32

Above ground tanks

33

34


Utilities
Power
Outlet
Base Flood Elevation
Vented area below elevated floor.

35

36

Recreational Vehicles & Travel Trailers

1. Self propelled or towable by a light duty truck
2. No porch or deck
3. No permanent dwelling. Only seasonal use.
4. No more than 400 sq. ft.
5. Wheels on axles and inflated
6. Quick disconnect utilities
7. Licensed and titled as an RV
8. Supported by wheels or jacks. No blocks.

37

If an RV is on-site for more than 180 days, it must:

38

Wet Floodproofing / Minor Accessory Structures

"Permanent or contingent measures applied to a structure and/or its contents that prevent or provide resistance to damage from flooding by allowing flood waters to enter the structure."

39

Wet Floodprofing / Minor Accessory Structures

When to use Wet Floodproofing

- Enclosed areas below the BFE that are used for parking, building access, or limited storage
- Attached or detached garages
- Minimal value storage sheds and garages

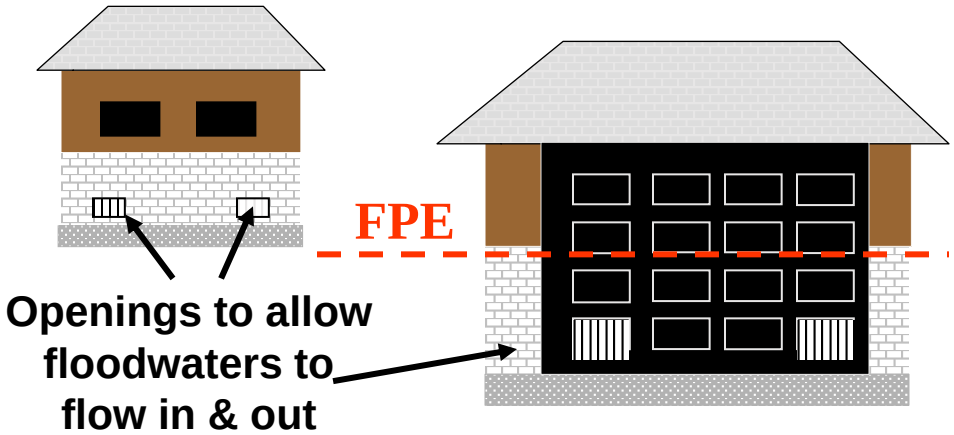
40

Wet Floodproofing Garages and sheds

- Non-habitable
- Use only for storage and parking & no later modification
- Accessory to an existing structure on same lot
- Flood resistant materials
- No HVAC
- Flow-thru openings
- Less than $15,000 in value and less than 500 sq. ft.

41

Accessory Structure Wet Floodproofing Standards

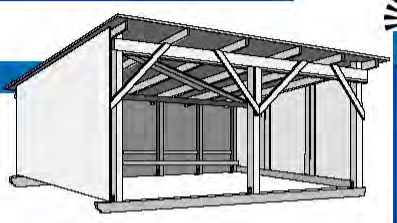


42

Agricultural Structures

Variances are allowed for:

- Pole frame buildings
- Steel grain bins
- Steel frame corn cribs
- General purpose feeding barns open on one side



Variances are not allowed for:

- Livestock confinement buildings
- Poultry houses
- Dairy operations
- Similar livestock operations

Important Information

Farm houses are not agricultural structures.

Contact IDNR/OWR for additional guidance on variances for agricultural structures.

IL State Specific Guidance

Non-elevated agricultural structures must be considered on a site-specific basis and may be permitted only by a variance. Applicants must show that sites are in "wide, expansive floodplain areas" and no other alternative location outside of the Floodplain exists.

The best flood protection is to elevate agricultural buildings, but certain types can be approved by variance if they are "wet floodproofed."

30 ILLINOIS QUICK GUIDE

43

Non-Residential Floodproofing

ONLY NON-RESIDENTIAL STRUCTURES MAY BE FLOODPROOFED IN LIEU OF ELEVATION.

44

Floodproofing Requirements

1. Non-residential construction may be floodproofed below the BFE so that the structure is watertight with walls substantially impermeable to the passage of water.

2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

45

Floodproofing Certificate

- A Floodproofing Certificate is required for all floodproofed structures
- The Floodproofing Certificate must be signed by an Engineer
- The form can be obtained at: www.FEMA.gov/library/floodproof

46

NATIONAL FLOOD INSURANCE PROGRAM

FLOODPROOFING CERTIFICATE

FOR NON-RESIDENTIAL STRUCTURES

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation; however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

BUILDING OWNER'S NAME	FOR INSURANCE COMPANY USE
STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX NUMBER	POLICY NUMBER
OTHER DESCRIPTION (List and Block Numbers, etc.)	COMPANY NAIC NUMBER
CITY STATE ZIP CODE	

SECTION I FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Provide the following from the proper FIRM:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (In AO Zones, Use Depth)

SECTION II FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect)

Floodproofing Design Elevation Information:

Building is floodproofed to an elevation of ..... feet NGVD. (Elevation datum used must be the same as that on the FIRM.)

Height of floodproofing on the building above the lowest adjacent grade is ..... feet.

(NOTE: for insurance rating purposes, the building's floodproofed design elevation must be at least one foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium.)

SECTION III CERTIFICATION (By Registered Professional Engineer or Architect)

Non-Residential Floodproofed Construction Certification:

I certify that, based upon development and/or review of structural design, specifications, and plans for construction, the design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

The structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation indicated above, with walls that are substantially impermeable to the passage of water.

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

I certify that the information on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME	LICENSE NUMBER (or Affix Seal)		
TITLE	COMPANY NAME		
ADDRESS	CITY	STATE	ZIP CODE
SIGNATURE	DATE	PHONE	

Copies should be made of this Certificate for: 1) community official, 2) insurance agent/company, and 3) building owner.

The Floodproofing Certificate must be signed by an engineer and on file for EVERY floodproofed structure

47

Substantial Improvement

48

"Improvement" Triggers

- ✓ Reconstruction
- ✓ Rehabilitation
- ✓ Addition
- ✓ Other improvements

49

Substantial Improvement

NFIP Definition

Any **reconstruction, rehabilitation, addition, or other improvement of a structure**, the cost of which **equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement.** This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

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

Illinois Model includes limit on lateral or vertical additions

- 50% increase in market value or
- 20% increase in floor area

50

Substantial Improvement

The Formula

$$\frac{\text{Cost of improvement project}}{\text{Market value of the building}} \geq 50\%$$

Example: $\frac{\$75{,}000 \text{ project}}{\$140{,}000 \text{ house}} = 54\%$

51

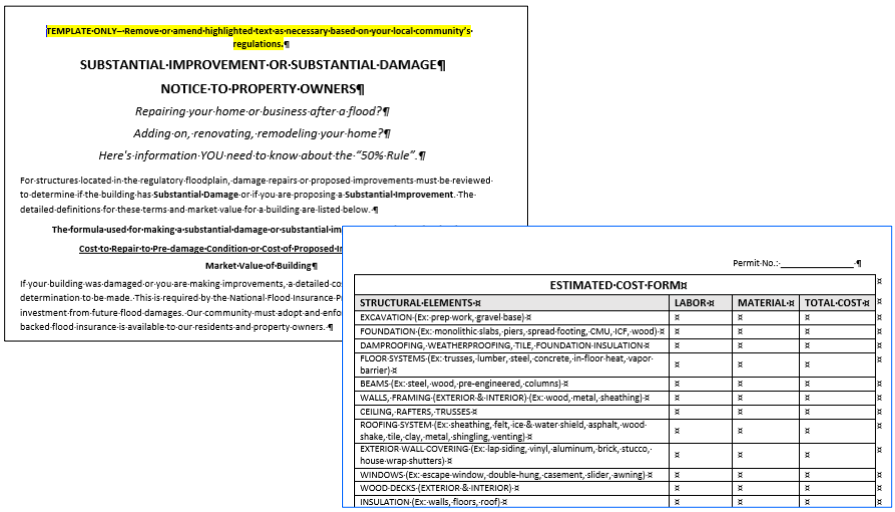
"Market Value"

- Independent professional appraisal
- Tax assessors data
- Detailed Actual Cash Value estimates
- Building department/professional estimates

- Professional appraisal (Section 4.5.1)
- Adjusted assessed value (Section 4.5.2)
- Actual cash value (Section 4.5.3)
- "Qualified estimates" (Section 4.5.4)
- FEMA's *Substantial Damage Estimator* (Section 7.5)

52

Substantial Improvement Permit Packet



TEMPLATE ONLY--Remove or amend highlighted text as necessary based on your local community's regulations.

SUBSTANTIAL IMPROVEMENT OR SUBSTANTIAL DAMAGE

NOTICE TO PROPERTY OWNERS

Repairing your home or business after a flood?

Adding on, renovating, remodeling your home?

Here's information YOU need to know about the "50% Rule".

For structures located in the regulatory floodplain, damage repairs or proposed improvements must be reviewed to determine if the building has **Substantial Damage** or if you are proposing a **Substantial Improvement**. The detailed definitions for these terms and market value for a building are listed below.

The formula used for making a substantial damage or substantial im

Cost to Repair to Pre-damage Condition or Cost of Proposed

Market Value of Building

If your building was damaged or you are making improvements, a detailed co determination to be made. This is required by the National Flood Insurance P investment from future flood damages. Our community must adopt and enfo backed flood insurance is available to our residents and property owners.

Permit No.: _____

ESTIMATED COST FORM

STRUCTURAL ELEMENTS	LABOR	MATERIAL	TOTAL COST
EXCAVATION (Ex: prep work, gravel base)			
FOUNDATION (Ex: monolithic slabs, piers, spread footing, CMU, ICF, wood)			
DAMPROOFING, WEATHERPROOFING, TILE, FOUNDATION INSULATION			
FLOOR SYSTEMS (Ex: trusses, lumber, steel, concrete, in-floor heat, vapor barrier)			
BEAMS (Ex: steel, wood, pre-engineered, columns)			
WALLS, FRAMING (EXTERIOR & INTERIOR) (Ex: wood, metal, sheathing)			
CEILING, RAFTERS, TRUSSES			
ROOFING SYSTEM (Ex: sheathing, felt, ice & water shield, asphalt, wood shake, tile, clay, metal, shingling, venting)			
EXTERIOR WALL COVERING (Ex: lap siding, vinyl, aluminum, brick, stucco, house wrap shutters)			
WINDOWS (Ex: escape window, double-hung, casement, slider, awning)			
WOOD DECKS (EXTERIOR & INTERIOR)			
INSULATION (Ex: walls, floors, roof)			

53

Cost of Improvement or Damage

Repair or improvement cost data:

- Qualified contractors' estimates
- NFIP data (screening tool)*
- Standard Building Code/ Marshall & Swift/ RS Means

Related data:

- Tax assessments
- Surveys
- Other local agencies or departments

* Note any NFIP claims won't include repairs to basement improvements that are not covered under an NFIP policy, doesn't reflect the deductible and includes clean up costs

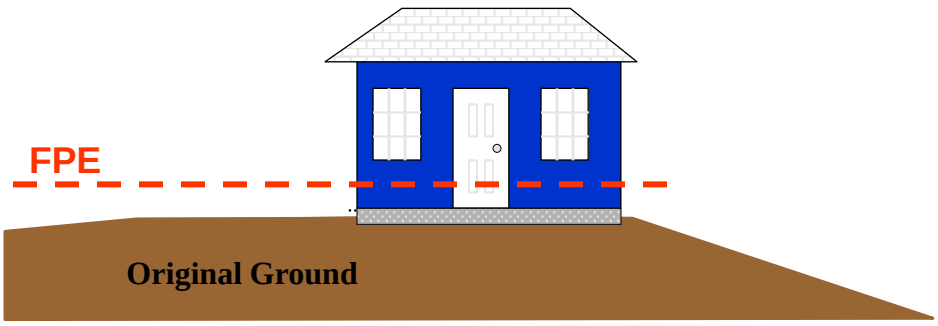
54

Costs to be excluded

- Cleanup and dehumidifiers
- Repairing existing health/safety violations
- Preparation – specifications, surveys, building permit fees, plans
- Site work – septic systems, wells, water supplies, landscaping
- Items separate from / incidental to improvement

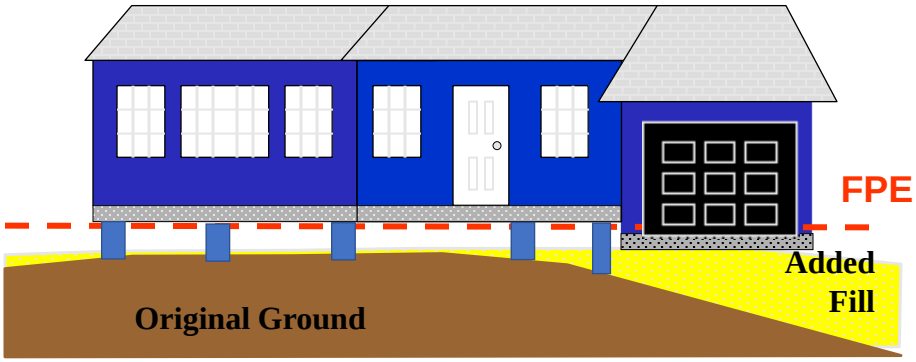
55

Existing House



56

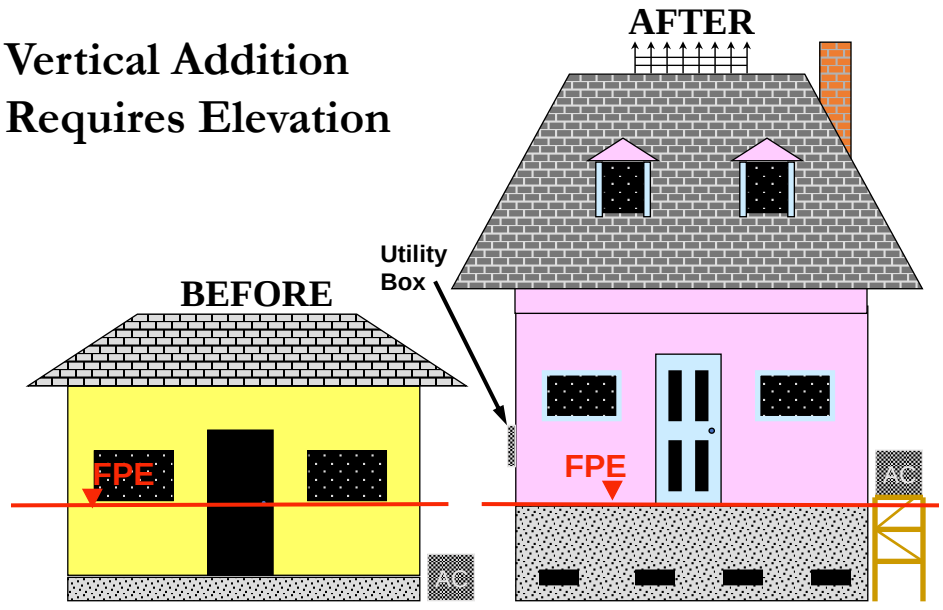
Substantial Improvement
Existing House + Garage/FR/BR Addition



Raise Existing House, Build Addition above FPE, add opening to Garage below BFE

57

Vertical Addition
Requires Elevation



Existing Pre-FIRM Residential Structure

After Substantial Improvement

58

Substantial Damage

NFIP Definition - "The 50% Rule": A building that has incurred damage of any origin whereby the cost of restoring the building to its before damaged condition would equal or exceed 50 percent of the market value of the building before the damage occurred.

- Damage source includes flood, fire, tornado, etc..
- A sub dam structure must be brought into compliance with floodplain regulations (elevated or floodproofed).
- The Illinois state model ordinance includes CUMULATIVE tracking of damages and improvements.

59

Substantial Damage
State Spreadsheet Template

PIN:

Property Address:

Buildings on Property:

Fair Market Value of Building (FMV) Source (select one):

_____ Township Assessor

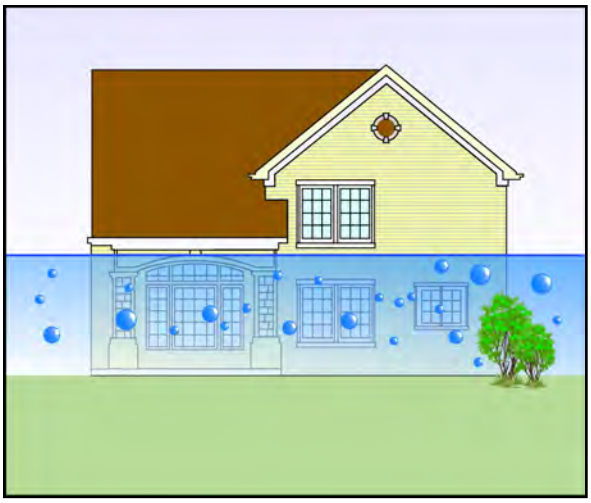
_____ Homeowner Provided Appraisal

Improvements

Building Permit # or SDE	Date	Work Done	FMV ** at Time of Permit/ Damage Assessment	Value of Work	Percentage	Percentage to Date
Cumulative tracking for rolling 10 year						
02070003		Remodel		$41,800.00	past 10 years	0.00%
05050028		Electric Upgrade		$800.00	past 10 years	0.00%
	4/18/2013	SDE/ April 2013 flood	$112,320.00	$5,520.00	4.91%	4.91%
17010060	1/19/2017	Kitchen and bathroom	$114,540.00	$22,280.00	19.45%	24.37%
17010060		Deck and Front Porch repairs, not reflected in initial	$114,540.00	$7,500.00	6.55%	30.91%

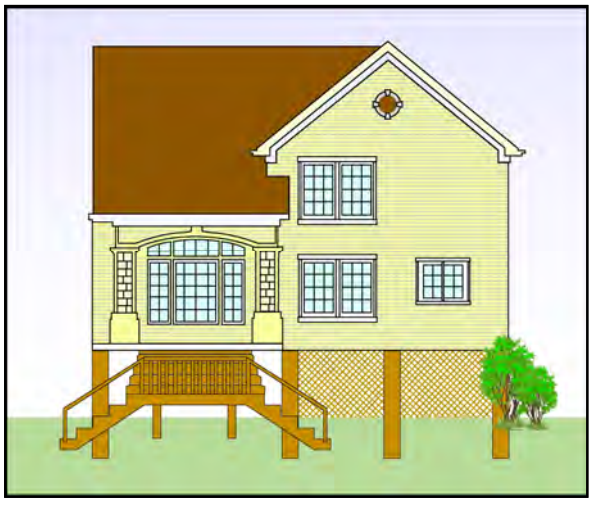
60

Existing House with Floor Below FPE -Flooded



61

Substantially Damaged House Raised & Rebuilt above FPE



62

Non-Triggers

Correcting existing violations of codes that are minimum necessary for safe living conditions, including:

- Health codes
- Sanitary codes
- Safety codes

Alteration of registered “historic structure” that maintains its historic character

63

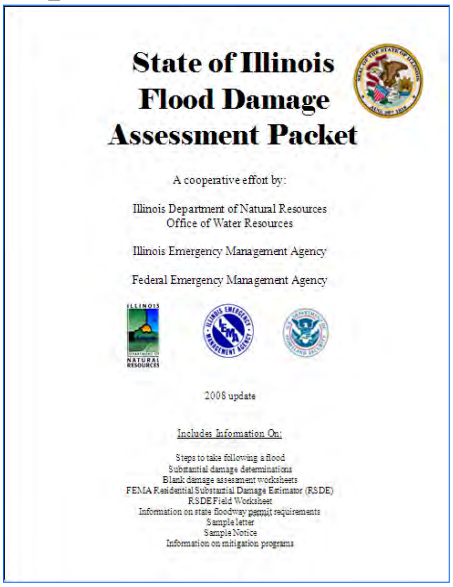
Post-Flood Requirements

- Perfect time to reconstruct the RIGHT WAY!
- Available mitigation funds???
- Flood Insurance help???
- Obtain state or cooperative assistance
- ALL RED TAGGED (substantially damaged) buildings must be brought into compliance regardless of insurance or mitigation availability.

64

Post Flood Responsibilities

- MOVE FAST! Don't wait for FEMA!
- Identify, tag, and document flooded structures
- Post information for the public on permit requirements. Use media sources.
- Provide technical information
- Contact State or FEMA for assistance and guidance if needed.


State of Illinois
Flood Damage
Assessment Packet

A cooperative effort by:

Illinois Department of Natural Resources
Office of Water Resources

Illinois Emergency Management Agency

Federal Emergency Management Agency

2008 update

Includes Information On:

Steps to take following a flood
Substantial damage determinations
Blank damage assessment worksheets
FEMA Residential Substantial Damage Estimator (RSDE)
RSDE Field Worksheet
Information on state floodway permit requirements
Sample letter
Sample Notice
Information on mitigation programs

65

Field Inspections During Flood Crest

66

Post Flood – Survey

- Document high water marks
- Digital photos
- Mark locations on map
- Post notices on properties
- Follow up letters

67

Substantial Damage Regs Work!

Flooded 2008

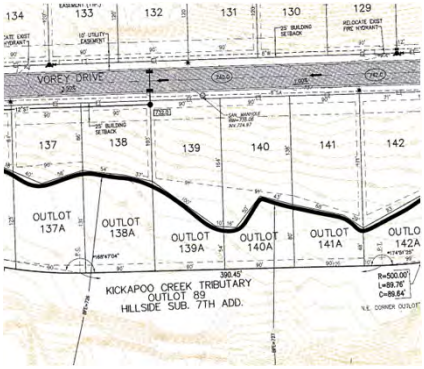
Red Tagged!

Not Flooded 2013

68

Part 4

Ordinance Administration



69

Part 4 - Topics

- Duties of Floodplain Administrators
- Variances
- Community Audits & Compliance
- Recordkeeping
- Elevation Certificates

70

LOCAL PERMIT RESPONSIBILITIES

To participate in the National Flood Insurance Program (NFIP) certain duties are required!!!!!

71

Everyday Activities

A. Review applications
B. Provide base flood data (where available)
C. Review plans and specifications
D. Ensure that other state and federal permits are obtained
E. Provide notice of water course alterations
F. Issue/deny permits
G. Inspect development
H. Look out for violations
I. Maintain records
J. Complete post- flood damage inspections and estimates

72

A. Review Applications

- Review and evaluate development permit applications
  - Is development in flood***plain***?
  - Is development in flood***way***?
- Require a permit for <u>any</u> development in the floodplain

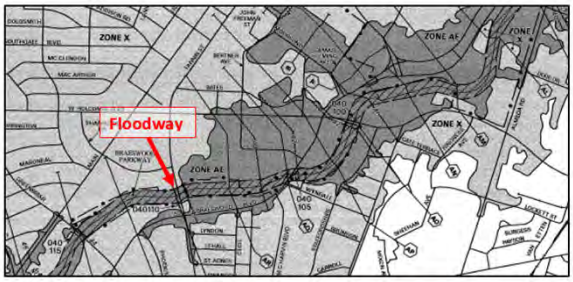


Figure 1: FIRM Panel Showing Delineation of the Floodway, FIRM Panel No. 48201C0860L

73

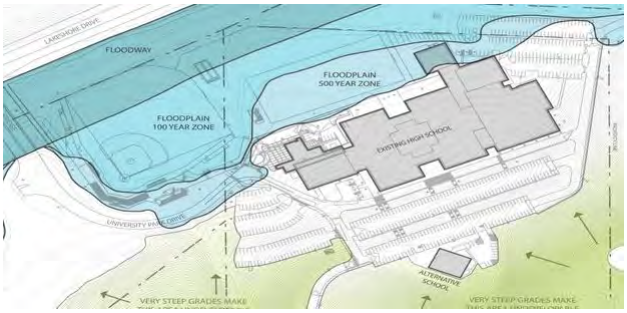
B. Provide Base Flood Data

- Interpret floodplain boundaries and provide BFE data when available
- If your community map has unnumbered A zones
  - Determine BFE <u>or</u>
  - Require that applicant hire engineer <u>or</u>
  - Make FEMA do it (by applying for a LOMA)

74

C. Review plans and specs

- Ensure conformance with NFIP floodplain management criteria
- Include review of
  - site plan
  - foundation design
  - thoroughly notated plans



75

Got GIS? Risk Identification!

- Use of digital maps identifying flooded structures.
- GIS database used for extracting information about structures and flooding
- Add photos, elevation certificates, damage/improvement records, etc.
- Link to permitting software to identify floodplain/floodway parcels

76

D. Ensure other permits obtained

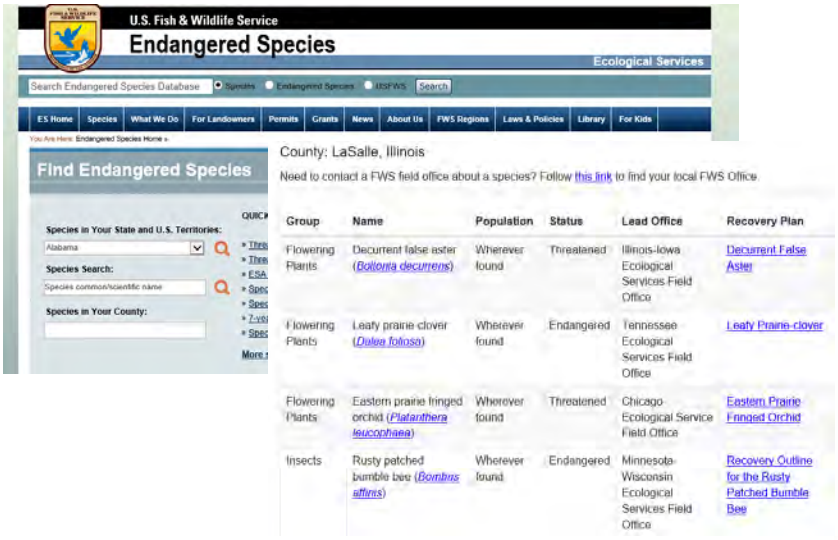
Advise applicant of other state or federal permits or approvals that may be necessary

Examples include:

- Wetland/404 permit – Corps of Engineers
- NPDES permit - IEPA
- Endangered Species Act *– USFWS/Nat'l Marine Fisheries Service
- State floodway permit requirements
- Other local permits such as storm water management permits, septic permits, etc.

77

Endangered Species Act



78

E. Notice of water course alterations

Provide required notification of changes in existing water courses to:

- FEMA
- State
- Adjacent communities

79

F. Issue or deny permits

Floodplain Administrator can:

- Issue floodplain development permit
- Conditionally approve permit
- Deny permit

80

G. Inspect development

- Check development location
- Verify construction according to plans

Inspect
- ✓ Setback from floodway
- ✓ Foundation construction, elevation, openings size and location
- ✓ Flood resistant material requirements
- ✓ Utilities and other building systems
- ✓ Anchoring, at/above BFE, floodproofing

81

H. Look out for violations

- Investigate potential violations
  - ✓ Reported by citizens
  - ✓ Reported by other officials
  - ✓ Found by chance
- Implement enforcement provisions
- Retrofit to protect from future flooding
- EDUCATE to avoid future violations!

82

I. "Perfect" Set of Records

- Applications
- Permit and inspection records
- Compliance files – variances, ECs*
- LOMCs and other flood studies
- Old ordinances, old flood maps
- Back-up copies in secure location
- Logical filing system, i.e., by address

* Although not required by NFIP, helps community show compliance to state and FEMA and helps the future owner with flood insurance rating.

83

Variance

- Grant of relief from requirements of floodplain development ordinance
- Permits construction in a manner that would otherwise be prohibited
- Stays with property if sold
- Not relief from flood insurance! Can lead to high flood insurance premiums
- Granted by local governing body

84

Conditions for Variances

1. For a piece of property, not owner
2. Is the minimum necessary to afford relief
3. If within designated regulatory floodway, cannot cause increase in flood levels during base flood
4. No extraordinary public expense
5. No increase in flood heights
6. No fraud or victimization of public
7. No conflict with existing local laws or ordinances
8. No increased threat to public safety or creation of nuisance

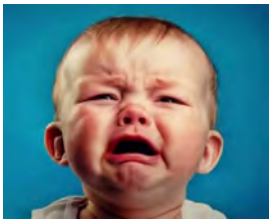
85

Key to Valid Variance

- "Unnecessary hardships"
- Loss of all beneficial or productive use
- Deprivation of reasonable return on property
- Property valueless without variance
- Inability to develop property in compliance with the regulations
- Reasonable use cannot be made consistent with regulations

86

Insufficient Reasons



- Less than drastic depreciation of property
- Convenience of property owner
- Circumstances of owner not the land
- To obtain better financial return
- Property similar to others in neighborhood
- Hardship created by owner's own actions

87

If a Variance is Issued

A community must maintain a record of all variance actions, including those denied, along with the justifications (findings of fact).

88

A Word of Advice…

DO NOT GRANT VARIANCES!

They place people and property at risk, and flood insurance costs sky-rocket.

If you're going to grant a variance be sure to DOCUMENT!...

...This is the community's only protection after the flood when damages have occurred.

89

If full compliance isn't possible…

- Corrective measures should be coordinated with state NFIP Coordinator and FEMA.
- A compliance plan must be developed, with all code required enforcement actions taken

90

Last Resort: Section 1316 of National Flood Insurance Act

- ✓ All other means of enforcement exhausted
- ✓ Community officially declares the structure in violation with a notice to owner explaining prospective denial of flood insurance
- ✓ Declaration/request sent to FEMA
- ✓ **Flood insurance denied** until 1316 declaration rescinded by FEMA

FEMA

91

Compliance!

100+ community visits per year.

15+ workshops per year.

5,000 technical assistance per year.

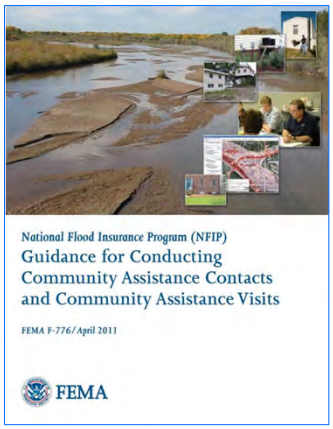
Illinois leads the nation in communities on probation or suspended from the NFIP.

7 communities nationwide kicked out of NFIP. 5 are in Illinois! We (Paul) are serious!

92

Community Assistance Visit (CAV)
Community Assistance Contact (CAC)

CAVs and CACs provide a way for the FEMA and the state to offer technical assistance to NFIP communities and a way of addressing deficiencies or violations.



93

Community Assistance Visit
Possible Violations

Examples of deficiencies and violations……

- Failure to require ANY permits;
- Failure to obtain state floodway permit;
- Failure to use proper flood elevation data;
- Non-compliant ordinance;
- Structures newly built below BFE;
- Substantial improvements without compliance
- Substantial damage repairs allowed without compliance
- HVAC or electric components not elevated;
- Failure to correct violations to practicable extent;
- Pattern & practice of issuing non-compliant variances;
- Allowing non-compliant lower enclosures or no vents;
- Fill and debris.

94

Community Assistance Visit

95

Community Assistance Visit (cont)

IF YOU CAN'T GET THE WHOLE THING, GET WHAT YOU CAN REASONABLY AND PRACTICALLY GET, to limit flood damage exposure to people and property. Save your community's good standing in the National Flood Insurance Program!

96

WHO'S TO BLAME?

- The developer?
- The builder?
- The owner?
- The building official?
- The realtor?
- The prior administration?

WE DON'T CARE!!!!

Regardless of who is at fault, the violation must be corrected.

97

Probation

- Formal notification to the community that FEMA regards the community's floodplain management program as not compliant with the minimum standards of the NFIP.
- An additional $50 dollar premium will be charged on policies sold or renewed during the probation period.
- The minimum probation period is one year.

98

Suspension

- A community is subject to suspension unless it corrects program deficiencies and remedies all violations by the compliance deadlines set during the probation period.

99

Effects of Suspension or Non-Participation in the NFIP

- **No federally-backed flood insurance.**
- **No federal/state grants and loans.**
- **No federal flood disaster assistance.**
- **No federal mortgage insurance.**

100

If your community has any Rep Loss properties…

- There is ***NO, NO, NO, NO, NO, NO, NO, NO*** reason that you should not have adopted a cumulative substantial damage provision in your local ordinance!!!

NO REASON!

101

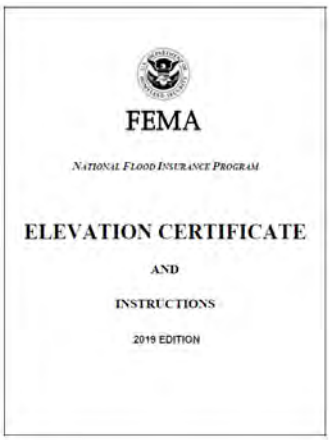
Illinois is ranked #1 in the nation:

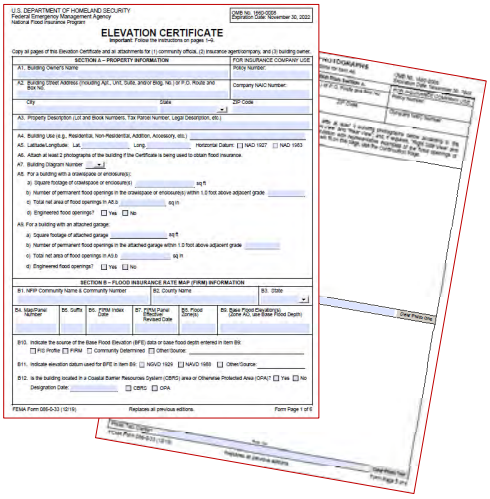
1. **Overall flood loss reduction**
2. **Fewest number of flood insurance claims occurring on newer post-FIRM structures (1%).** *Some states have as much as 50% of flood claims taking place on newer post-FIRM buildings.
3. **Mitigation of repetitive loss properties (50% no longer make damage claims)**



102

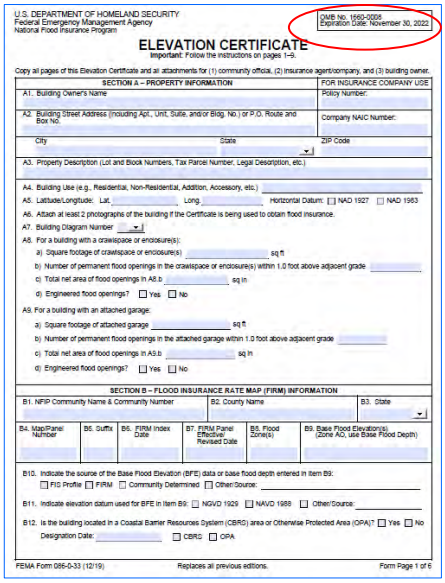
FEMA Elevation Certificate





103

The Elevation Certificate



11/30/22 Expiration Date

Photos required for insurance and must have been taken within 90 days. Do not accept internet street view photos

Keep using until new one is issued. Once issued an EC is invalid if signature is dated after new form is issued.

104

ECs – Why and When are they Needed?

- Flood insurance rating to get the most accurate quote
- New construction in or near floodplain (at discretion of the community)
- Elevation of an existing building using NFIP/ICC funds (3 needed – existing foundation, new foundation before house lowered and as-built)
- Letter of Map Amendment

105

Section A

- Attach a map to show building location if appropriate, especially on rural properties. Be careful with Lat/Long readings. (MO LOMA shown in IL.)
- Identify whether the enclosure, crawlspace or garage has engineered flood openings. If yes attach certificate from manufacturer and comments must have model number
- Carefully choose the correct Building Diagrams.

106

Section A – Property Information

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

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

SECTION A – PROPERTY INFORMATION	FOR INSURANCE COMPANY USE
A1. Building Owner's Name	Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	Company NAIC Number:
City State	ZIP Code
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)	
A5. Latitude/Longitude: Lat. Long. Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.	
A7. Building Diagram Number	
A8. For a building with a crawlspace or enclosure(s):	
a) Square footage of crawlspace or enclosure(s) sq ft	
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade	
c) Total net area of flood openings in A8.b sq in	
d) Engineered flood openings? ☐ Yes ☐ No	

Background information on the property….NOT you.

107

Section A- Property Information

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

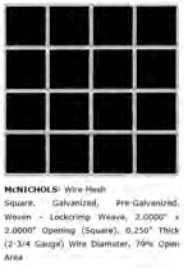
Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION	FOR INSURANCE COMPANY USE
A1. Building Owner's Name	Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	Company NAIC Number:
City State	ZIP Code
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)	
A5. Latitude/Longitude: Lat. Long. Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.	
A7. Building Diagram Number	
A8. For a building with a crawlspace or enclosure(s):	
a) Square footage of crawlspace or enclosure(s) sq ft	
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade	
c) Total net area of flood openings in A8.b sq in	
d) Engineered flood openings? ☐ Yes ☐ No	

Architect will use interior dimensions while EC requires outside dimensions. May mean a shortage in net area of openings.

If yes, ICC ES form from manufacturer must be attached.

Must subtract any bars, louvers or grates. Provide notes on manufacturer in Comments area.



McNICHOLS® Wire Mesh Square, Galvanized, Pre-Galvanized, Woven - Lockcrimp Weave, 2.0000" x 2.0000" Opening (Square), 0.250" Thick (2-3/4 Gauge) Wire Diameter, 79% Open Area

108

DIAGRAM 1A

All slab-on-grade single- and multiple-floor buildings (other than split-level) and high-rise buildings, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least 1 side.*

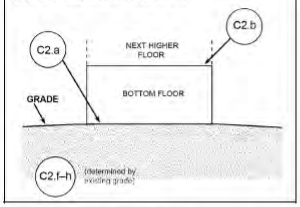


DIAGRAM 1B

All raised-slab-on-grade or slab-on-stem-wall-with-fill single- and multiple-floor buildings (other than split-level), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least 1 side.*

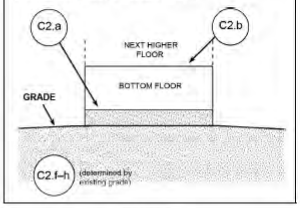


DIAGRAM 2A

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

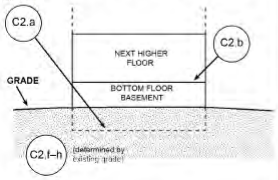
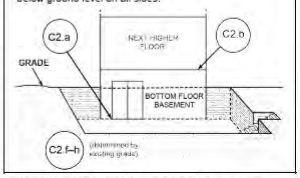


DIAGRAM 2B

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides; most of the height of the walls is below ground level on all sides; and the door and area of egress are also below ground level on all sides.*



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

109

Building Diagrams

DIAGRAM 3

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (excluding garage) is at or above ground level (grade) on at least 1 side.*

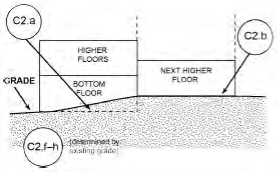


DIAGRAM 4

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

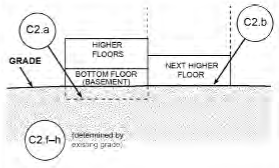


DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is open, with no obstruction to flow of floodwaters (open lattice work and/or inset screening is permissible).

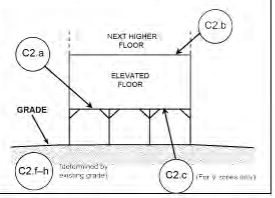
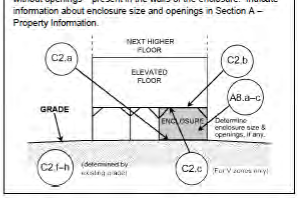


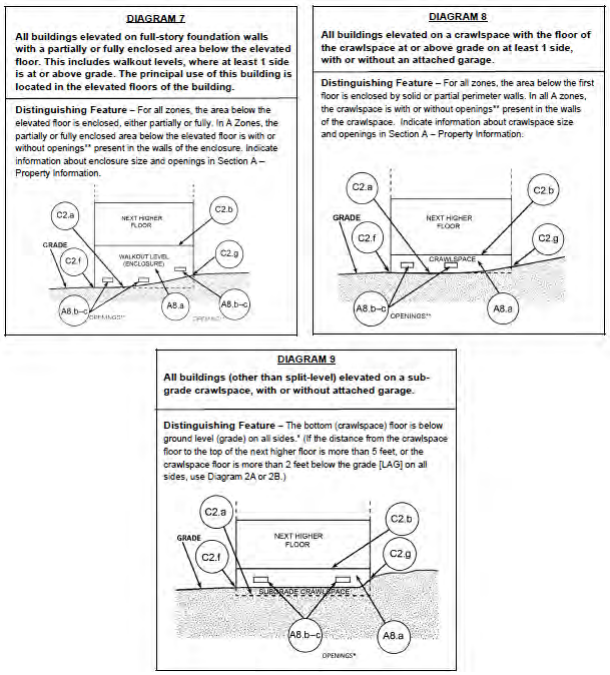
DIAGRAM 6

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.



110



111

FOUNDATION TYPE

Select one of the six different foundation types that best describes the building.

*Asterisks indicate foundation types that may be eligible to receive the proper flood openings discounts.

Slab on Grade (Non-Elevated)
A building whose foundation is slab-on-grade or slab-on-stem wall with fill.

Basement (Non-Elevated)
A non-elevated building that has a floor or any area of the building, including any sunken room or portion of a room, below the ground level (subgrade) on all sides.

***Crawlspace (Elevated or Non-Elevated Subgrade Crawlspace)**
A building that has its lowest floor raised above the ground by a crawlspace.

Elevated without Enclosure on Posts, Piles, or Piers
A building that has its lowest floor raised above the ground by posts, piles, piers, columns, or parallel shear walls with no enclosure below the lowest elevated floor.

***Elevated with Enclosure on Posts, Piles, or Piers**
A building that has its lowest floor raised above the ground by posts, piles, piers, columns, or parallel shear walls with an enclosure below the elevated floor.

***Elevated with Enclosure Not on Posts, Piles, or Piers (Solid Foundation Walls)**
A building that has its lowest floor raised above the ground by foundation walls (solid perimeter walls) with a full floor enclosure.

112

FIRST FLOOR HEIGHT DETERMINATION

The First Floor Height (FFH), or the height of the building's first lowest floor above the adjacent grade, is another rating variable critical to understanding flood risk. FEMA will determine a FFH value using application information and various datasets. Elevation Certificates (EC) are no longer required but can be an optional tool for establishing FFH. A policyholder may submit an EC to provide another FFH value. FEMA's system will review the two values and apply the FFH value that is most beneficial to the policyholder. If using an EC to provide a FFH value, the following fields must be entered:

- EC date
- Building Diagram Number
- Information from section C or E of the EC as shown to the right

Using Optional Elevation Certificate (EC) Information from Section C to Complete the Application Form

1. Enter the Lowest Adjacent Grade (LAG) (section C2f. of the EC)
2. Enter the Lowest Floor Elevation (LFE)*
3. Enter the First Floor Height (the First Floor Height is the difference between the LAG and LFE)

Using Optional Elevation Certificate (EC) Information from Section E to Complete the Application Form

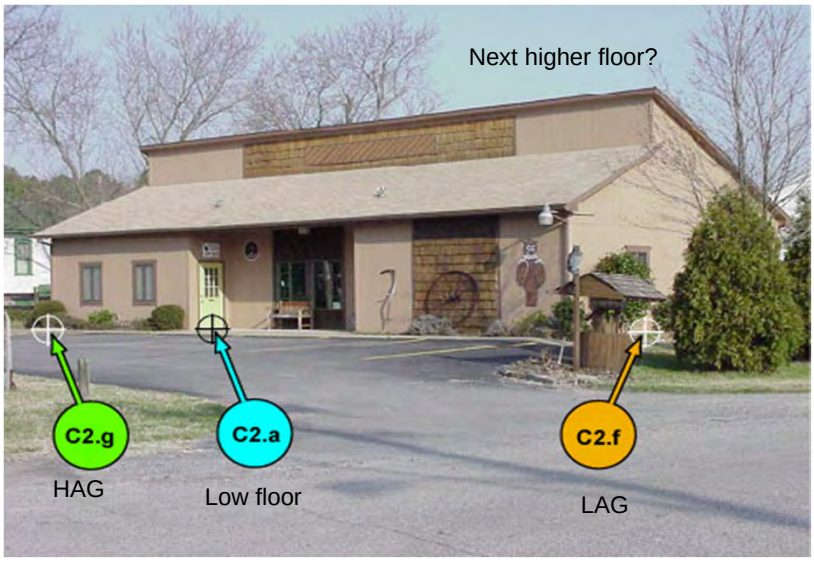
1. Enter the First Floor Height*

* To determine the LFE when using Section C of the EC or First Floor Height when using Section E of the EC, see FIM Section 3. II. C. 4. c. Table 15 or 16.

All ECs and land surveys must be signed, acccompanied by photographs and submitted to the NFIP insurers. See FIM Section 3. II. C. 4. d.

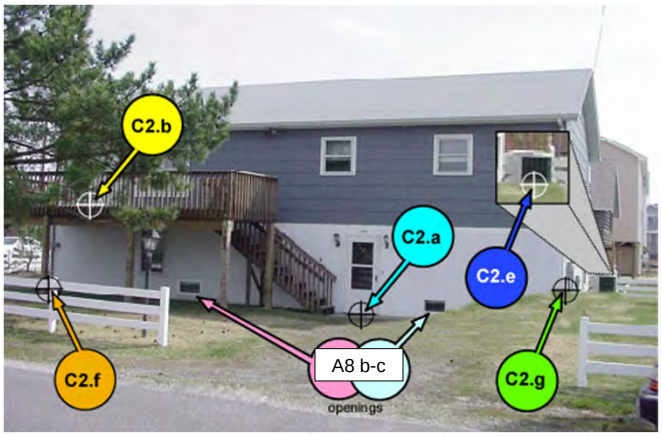
113

Diagram #1 and 1B – Slab or wall



114

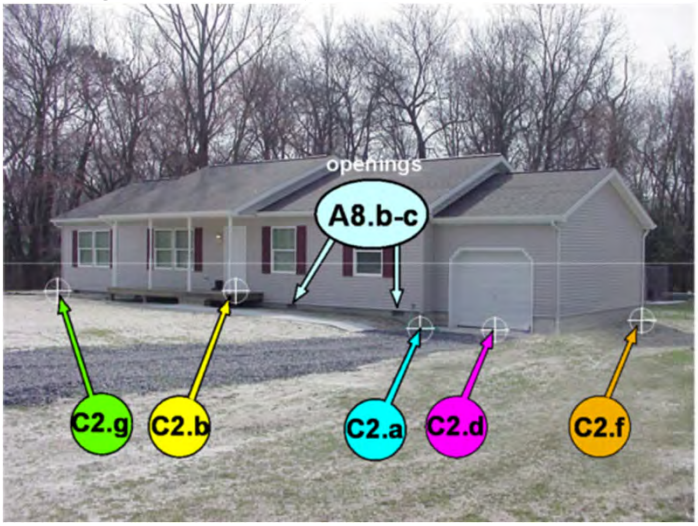
Diagram # 7 - Fully enclosed lower area



Permanent Flow Thru openings are VERY important!

115

Diagram #8 and #9 – Crawlspaces (above grade crawl and below grade crawls)



116

Section A- Property Information- Crawlspaces or enclosures

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) _____ sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____

c) Total net area of flood openings in A8.b _____ sq in

d) Engineered flood openings? ☐ Yes ☐ No

A9. For a building with an attached garage:

a) Square footage of attached garage _____ sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____

c) Total net area of flood openings in A9.b _____ sq in

d) Engineered flood openings? ☐ Yes ☐ No

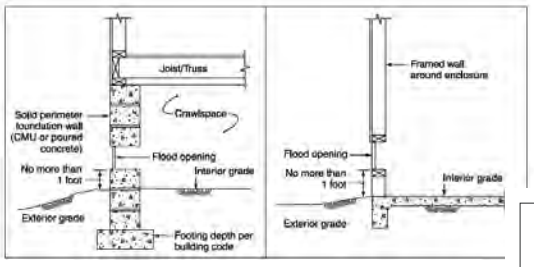
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)

117

Crawlspaces



Interior above grade?
or
Interior below grade?

If interior grade is used to comply with opening elevation must be noted in the Comment section as photos will not show compliance.

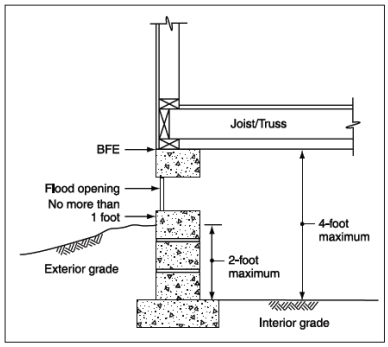
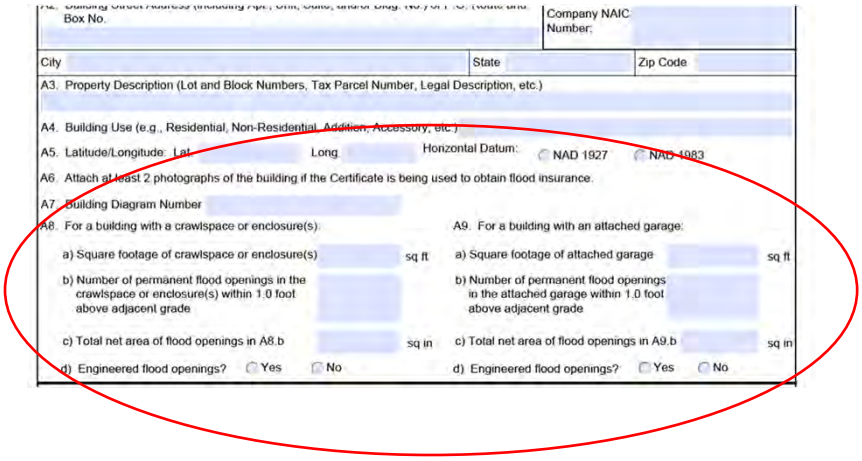


Figure 2. Limitations on below-grade crawlspaces in shallow flood hazard areas (TB 11)

118

Section A – Property Information - Openings



Box No. | Company NAIC Number:

City | State | Zip Code

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)

A5. Latitude/Longitude: Lat. Long. Horizontal Datum: ○ NAD 1927 ○ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade

c) Total net area of flood openings in A8.b sq in

d) Engineered flood openings? ○ Yes ○ No

A9. For a building with an attached garage:

a) Square footage of attached garage sq ft

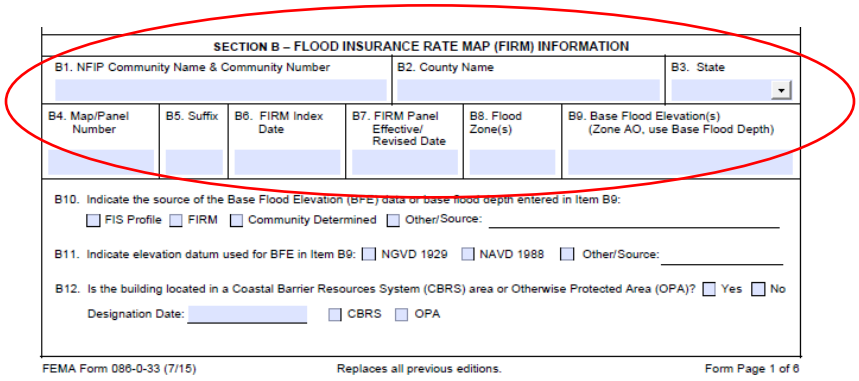
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade

c) Total net area of flood openings in A9.b sq in

d) Engineered flood openings? ○ Yes ○ No

119

Section B – Flood Insurance Rate Map (FIRM) Information



SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
☐ FIS Profile ☐ FIRM ☐ Community Determined ☐ Other/Source:

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source:

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☐ No
Designation Date: ☐ CBRS ☐ OPA

FEMA Form 086-0-33 (7/15) Replaces all previous editions. Form Page 1 of 6

Don't list map number for the community number

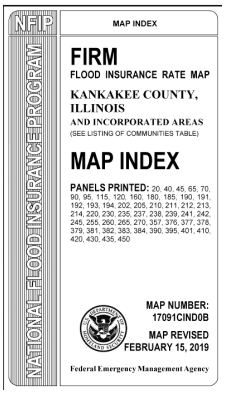
120

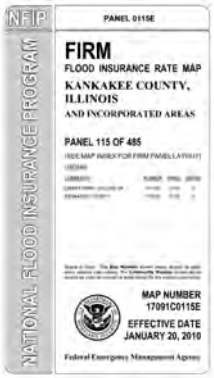
Section B

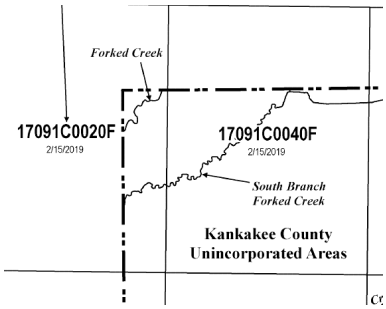
FEMA Map Service Center website

Map Index date could differ from panel date. Cook, Kane, Lake, and Kankakee are all affected.

Product ID	Effective Date	LOMC	Size	Download	View
17091CIND0B	02/15/2019		0MB		
17091C0020F	02/15/2019		18MB		
17091C0040F	02/15/2019	LOMC	44MB		
17091C0045F	02/15/2019		47MB		
17091C0065E	01/20/2010	LOMC	96MB		
17091C0070E	01/20/2010	LOMC	33MB		
17091C0090E	01/20/2010		33MB		

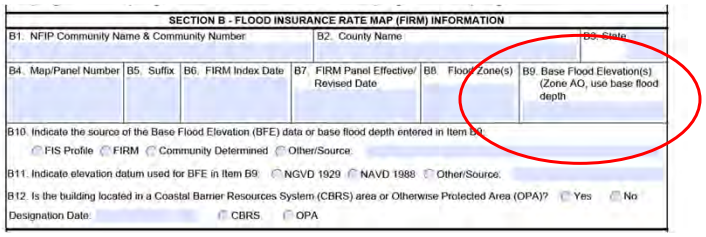






121

Section B – Base Flood Elevation Information Sources



1. **Flood Insurance Study**
   - **Floodway data table**
   - **Flood Profile**
2. **FIRM (least accurate)**

122

Flood Insurance Rate Map(FIRM)

Base Flood Elevation (BFE)

Cross-Sections (Hexagon)

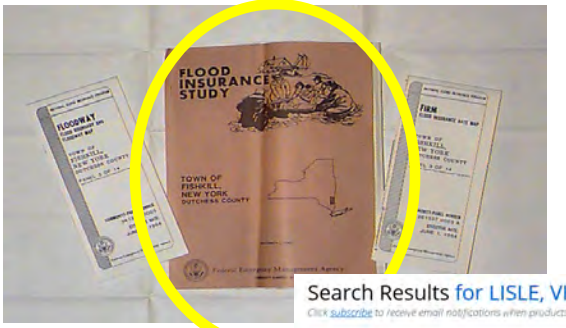
What is the BFE at the northwest corner of this house about a quarter of the way between BFE line 688 and 686?

From FIRM – about 686.5

Do you think the private drives might make a difference?

123

Flood Insurance Study (FIS)



Search Results for LISLE, VILLAGE OF

Click subscribe to receive email notifications when products are updated.

Please Note: Searching All Products by county displays all products for all communities within the county. You can refine your search results by specifying your specific jurisdiction location using the drop-down menus above.

Effective Products (39)
- FIRM Panels (9)
- FIS Reports (4)

Product ID	Effective Date	Size	Download
17043CV001A	12/16/2004	13MB	
17043CV002A	12/16/2004	12MB	
17043CV003A	12/16/2004	33MB	
17043CV004A	12/16/2004	33MB	

- LOMC (25)
- NFHL Data-State (1)

124

FIS Floodway Data Table

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
East Branch Tributary No. 3 (EBEB)								
EBEB0047	684[1]	164[2]	239	1.4	670.2	670.2	670.2	0.0
EBEB0048	1,0[illegible]3[1]	84[2]	97	3.4	674.9	674.9	674.9	0.0
EBEB0049	[illegible]	[illegible]	[illegible]	[illegible]	686.0	686.0	686.1	0.1
EBEB0050	1,754[1]	57	126	2.6	686.1	686.1	686.2	0.1
EBEB0051	1,890[1]	57	62	5.2	686.5	686.5	686.5	0.0
EBEB0052	2,6[illegible]3[1]	125	264	1.2	699.1	699.1	699.2	0.1
EBEB0053	3,263[1]	110	198	1.1	713.7	713.7	713.7	0.0

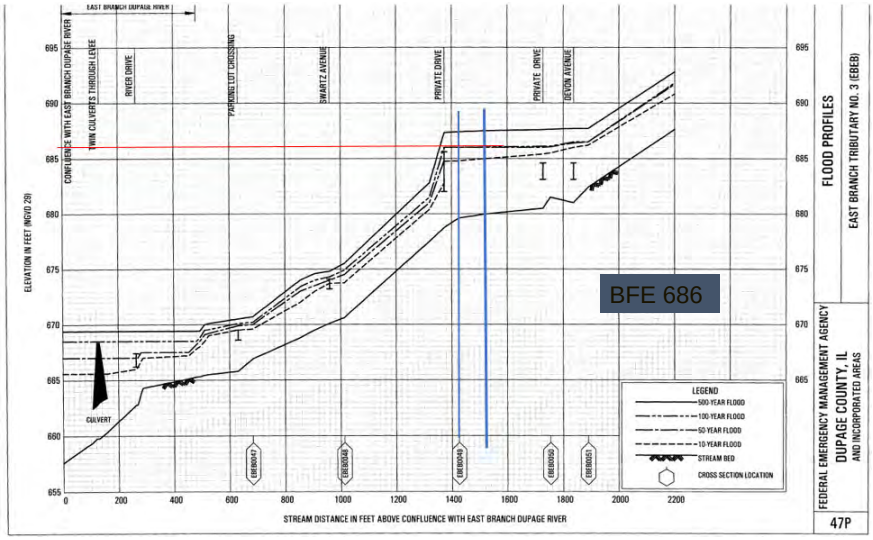
[1] In feet above confluence with East Branch DuPage River

[2] Actual floodway width cannot be shown on FIRM due to redelineation of floodplain

TABLE 11 — FEDERAL EMERGENCY MANAGEMENT AGENCY — DUPAGE COUNTY AND INCORPORATED AREAS — **FLOODWAY DATA** — EAST BRANCH TRIBUTARY NO. 3 (EBEB)

125

FIS Flood Profile



126

BFEs in Unnumbered A Zones (unstudied floodplains)

- Check with local Public Works for any bridge or culvert plans
- LOMAs in the area –Use National Flood Hazard Layer
- Highway Engineer/IDOT bridge designs
- Hire an engineer to do a quick normal depth calculation using StreamStats or peak flow calculation
- FEMA 256 - Managing Floodplain Development in Zone A Areas can be found online (https://www.fema.gov/sites/default/files/documents/fema_approx-zone-a-guide.pdf?id=2215)
- Engineering study - **Required if development is greater than 5 acres or 50 lots, even if an IDNR permit is not required.**
- FEMA will make a determination through a LOMA--determination will be based on a (conservative) approximate BFE

127

Section C – Building Elevation Information

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

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

Benchmark Utilized: _____ Vertical Datum: _____

Indicate elevation datum used for the elevations in items a) through h) below.

☐ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

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

		Check the measurement used.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)		☐ feet	☐ meters
b) Top of the next higher floor		☐ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)		☐ feet	☐ meters
d) Attached garage (top of slab)		☐ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)		☐ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)		☐ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)		☐ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support		☐ feet	☐ meters

If any item does not apply to the building, enter "N/A" for not applicable.

List of machinery and equipment must be in the comments

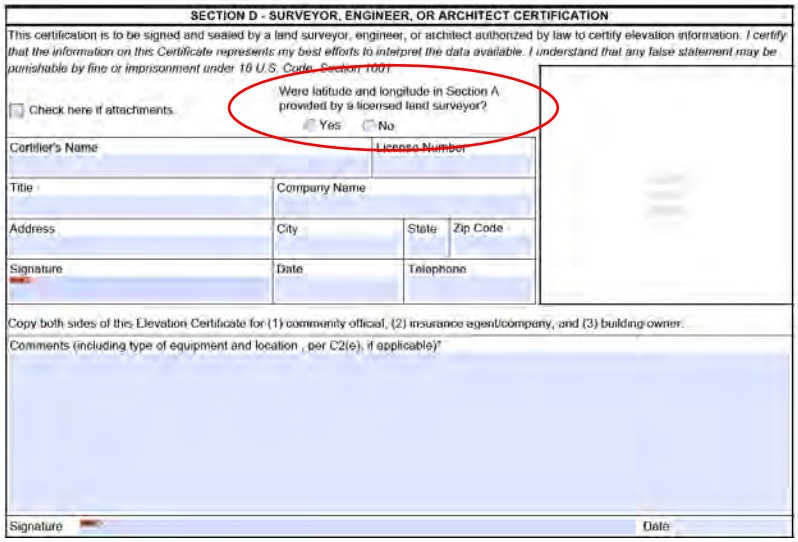
128

Elevation of deck stairs and supports

- Section C(h) now captures the lowest adjacent grade at lowest elevation of deck or stairs, including structural support.
- Decks that extend out o lower ground may be a problem
- This information is required if the EC is being used to support a request for a LOMA or LOMR-F.
- Is Deck connected to the structure? If standalone structure add details to Comments

129

Section D – Surveyor Certification



SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

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

Check here if attachments.

Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No

Certifier's Name | License Number

Title | Company Name

Address | City | State | Zip Code

Signature | Date | Telephone

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

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

Signature | Date

Only surveyors can do lat and long?

130

Section E – Building Information Risk Rating 2.0 – Now for ALL Flood Zones

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

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

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

For insurance purposes or local ordinance compliance not for LOMA/LOMR-F purposes

131

Section F
Property Owner's Agent

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

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

Property Owner or Owner's Authorized Representative's Name:

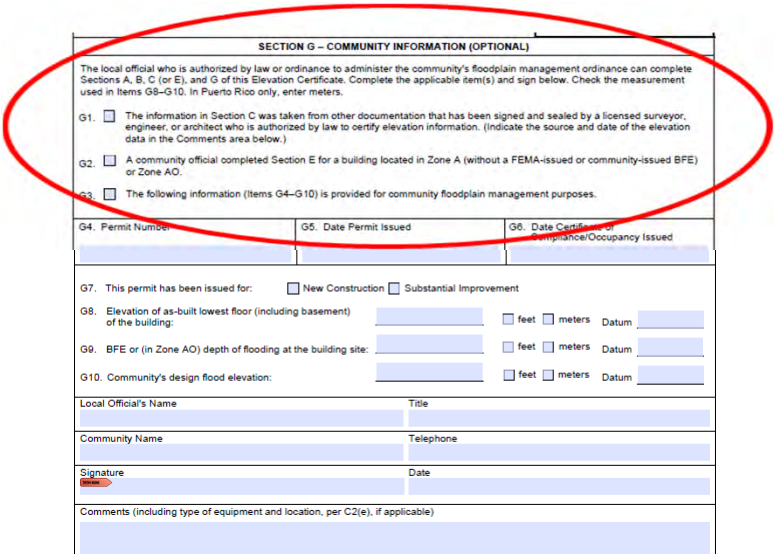
Address	City	State	ZIP Code
Signature	Date	Telephone	

Comments:

☐ Check here if attachments.

132

Section G
Community Authorization



SECTION G – COMMUNITY INFORMATION (OPTIONAL)

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

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

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

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

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

Local Official's Name	Title

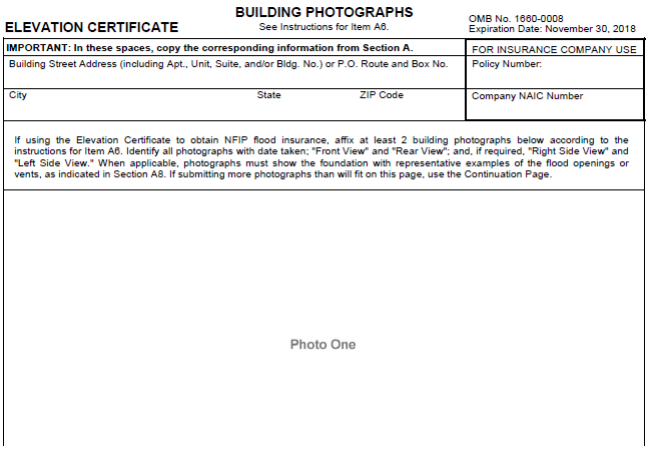
Community Name	Telephone

Signature	Date

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

133

Last Two Pages – Building Photos



ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS
See Instructions for Item A6.

OMB No. 1660-0008
Expiration Date: November 30, 2018

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

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

Photo One

Required for new insurance policies!!!

134

Lowest Adjacent Grade

Guidance: FEMA MT1 Technical Guidance

https://www.fema.gov/media-library-data/1578063996253-6d359d42781bcf6f8e196625da3498f6/MT1_Technical_Guidance_Nov_2019.pdf

The LAG is defined as the elevation of the lowest point of ground touching a structure and must include:

- Structural supports for a building such as piers, posts, or columns
- Attached garage
- Supports for an attached deck
- The bottom of a loading dock (see Section 4.10)
- Attached stairs including exterior basement stairs (see Section 4.10)
- The bottom of window wells (see Section 4.10)
- Any accessory or additional building attached by a breezeway, pedestrian bridge, etc.

135

Lowest Adjacent Grade

Deck supports can often bring a structure into the floodplain along a creek or lake.

Deck can be freestanding, i.e. no ledger board. If this is the case add notes and make sure photos show supports and bracing

h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support ☐ feet ☐ meters

136

Part 4 Summary Review

- Where did we confuse you?
  - Duties of Floodplain Administrators
  - Variances
  - Substantial damage/improvement
  - Community Audits & Compliance
  - Recordkeeping
  - Elevation Certificates

137

BREAK

START →

138