



# Understanding your Elevation Certificate (EC)

WHAT THE NUMBERS REPRESENT AND  
HOW THEY ARE USED FOR FLOOD INSURANCE RATINGS

# Section A Information



## Federal Emergency Management Agency ELEVATION CERTIFICATE

**IMPORTANT: FOLLOW THE INSTRUCTIONS ON PAGES 9-16**

OMB Control Number: 1660-0008  
Expiration: 11/30/2018

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		FORM 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.)		

Must use the  
most recent  
EC Form

## Information needed to start the Elevation Certificate (EC)

A1. Building Owner's Name: Legal Owner of the building

A2. Building Street Address: Physical street address of the building

A3. Legal description: Use the Tax Lot and Block numbers



# Section A Information cont'd



A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)	
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: <input type="radio"/> NAD 1927 <input type="radio"/> 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	A9. For a building with an attached garage:
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____	a) Square footage of attached garage _____ sq ft
c) Total net area of flood openings in A8.b _____ sq in	b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____
d) Engineered flood openings? <input type="radio"/> Yes <input type="radio"/> No	c) Total net area of flood openings in A9.b _____ sq in
	d) Engineered flood openings? <input type="radio"/> Yes <input type="radio"/> No

## Information collected when performing the work

A4. Building Use: Describe the current use and if it is new building, addition to existing building or accessory building.

A5. Provide the Latitude and Longitude and the Horizontal Datum

A6. & A7. Photos should accurately show the proper Building Diagram Number. Supplemental information is provided on next couple of pages.

# Section A6. Why photographs are taken

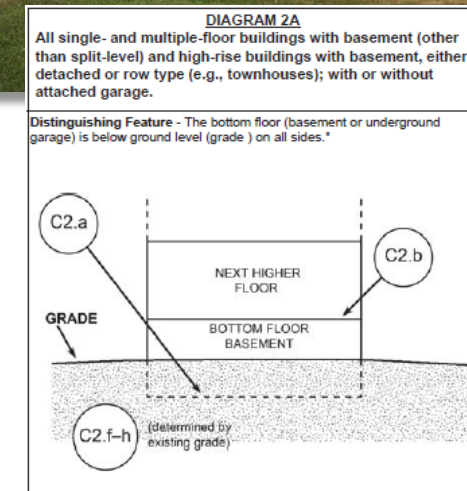
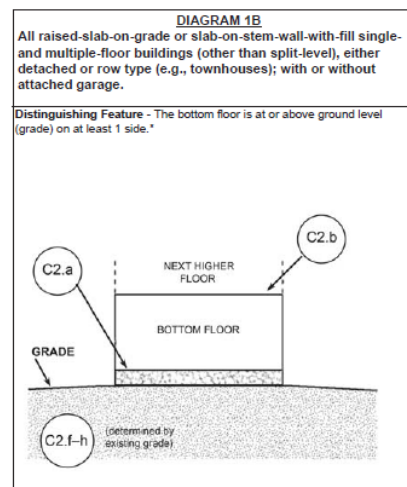
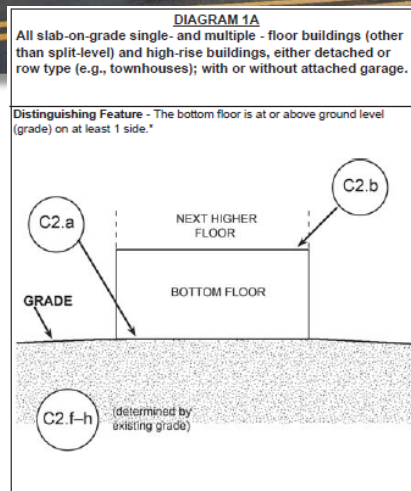


**FEMA NFIP instructions for A6** - If the Elevation Certificate is being used to obtain flood insurance through the NFIP, the certifier must provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least 3" × 3". Digital photographs are acceptable

# Section A7. Building Diagrams



The ten (10) diagrams are reviewed to select the most appropriate diagram to identify and determine the elevations requested in Section C. The diagram used should most closely resemble the building being certified.

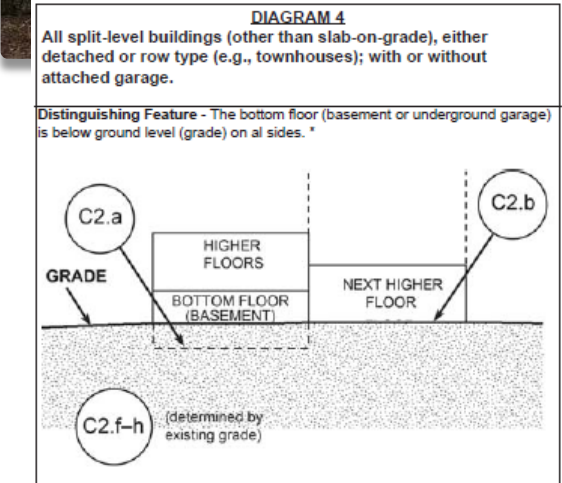
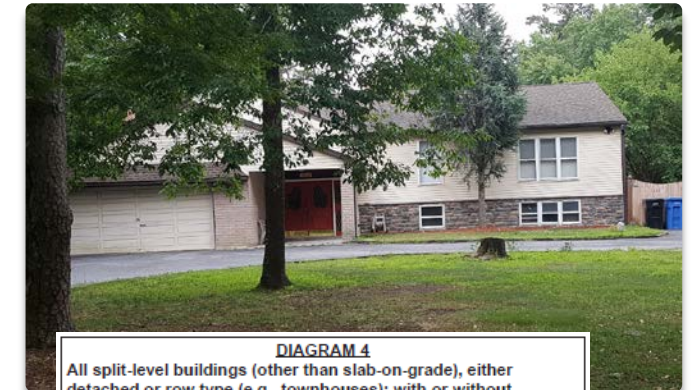
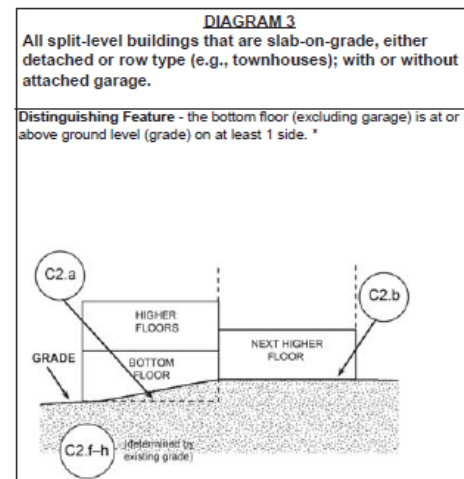
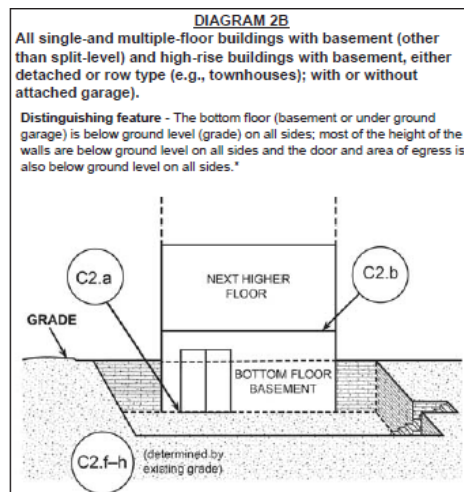




# Section A7. Building Diagrams



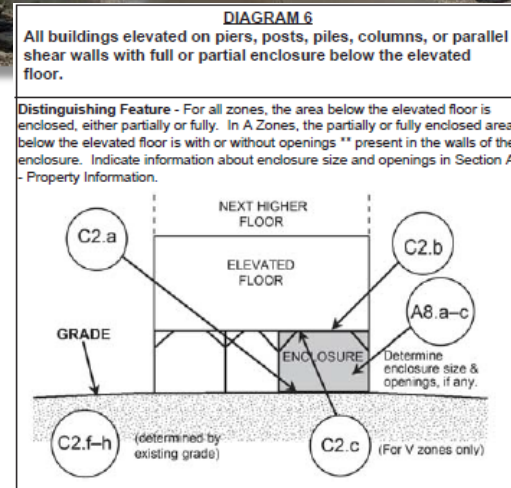
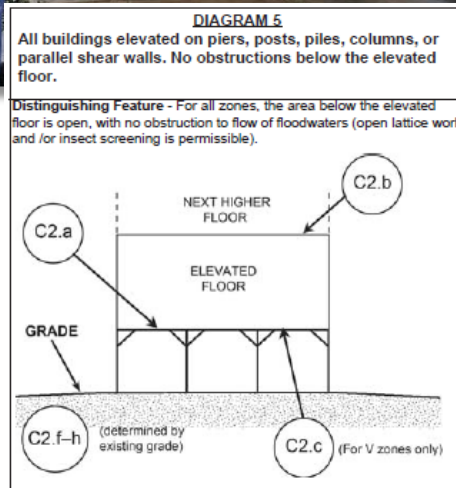
The ten (10) diagrams are reviewed to select the most appropriate diagram to identify and determine the elevations requested in Section C. The diagram used should most closely resemble the building being certified.



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The ten (10) diagrams are reviewed to select the most appropriate diagram to identify and determine the elevations requested in Section C. The diagram used should most closely resemble the building being certified.

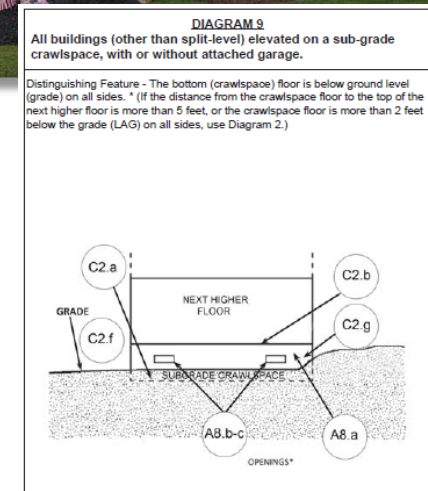
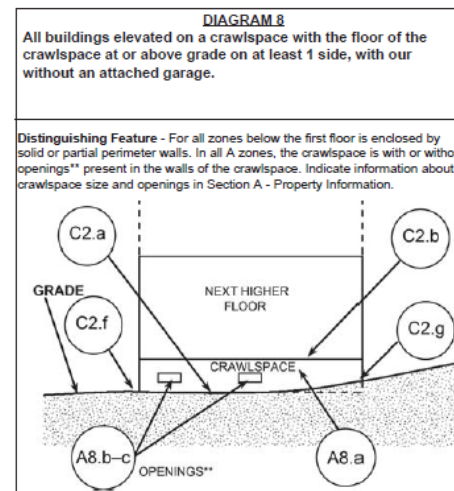
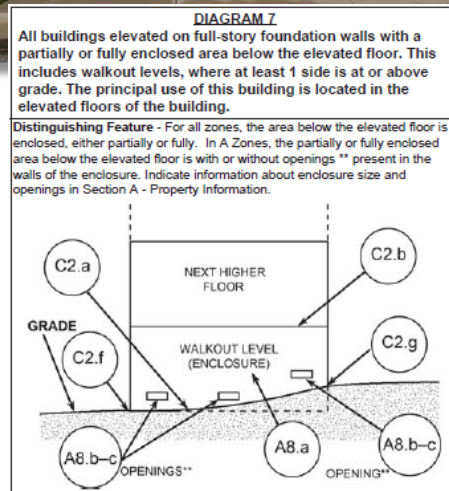




# Section A7. Building Diagrams



The ten (10) diagrams are reviewed to select the most appropriate diagram to identify and determine the elevations requested in Section C. The diagram used should most closely resemble the building being certified.





# Section A8 & A9 Permanent Flood Openings



A8. For a building with a crawlspace or enclosure(s):	A9. For a building with an attached garage:
a) Square footage of crawlspace or enclosure(s) _____ sq ft	a) Square footage of attached garage _____ sq ft
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____	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 A8.b _____ sq in	c) Total net area of flood openings in A9.b _____ sq in
d) Engineered flood openings? <input type="radio"/> Yes <input type="radio"/> No	d) Engineered flood openings? <input type="radio"/> Yes <input type="radio"/> No

Eligible permanent flood openings in the crawlspace or enclosure(s) that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. There must be at least two openings in the crawlspace or enclosure(s) on separate walls. A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention. For every square foot of enclosure or garage area you need that many square inches of flood openings.

This is a common area that could make your building non-compliant, ask your surveyor, the municipal construction official or municipal floodplain manager for assistance. Simple modifications could make your building complainant.

# Section A8. Crawlspace and Enclosures



Provide the square footage of the crawlspace or enclosure(s) below the lowest elevated floor for an elevated building with or without permanent flood openings.  
Take the measurements from the outside of the crawlspace or enclosure(s)





# Section A9. Attached Garages



Provide the square footage of the garage with or without permanent flood openings. Take the measurements from the outside of the garage. Area should be considered a garage with or without a permanent door.



# Section C Information



## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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

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.

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

Benchmark Utilized: \_\_\_\_\_ Vertical Datum: \_\_\_\_\_

Indicate elevation datum used for the elevations in items a) through h) below. ☐ NGVD 1929 ☐ NAVD 1988

☐ Other/Source: \_\_\_\_\_

## Flood Insurance Rate Map (FIRM) Information

Section C is used for all properties located in the Flood Hazard Zones or properties requesting a Letter of Map Amendment (LOMA)

C1. The elevation data provided for the EC is based on whether the building is existing or proposed. For new construction the Finished Construction box must be checked.

C2. Elevations. Shows the benchmark that the Surveyor utilized in completing the EC.



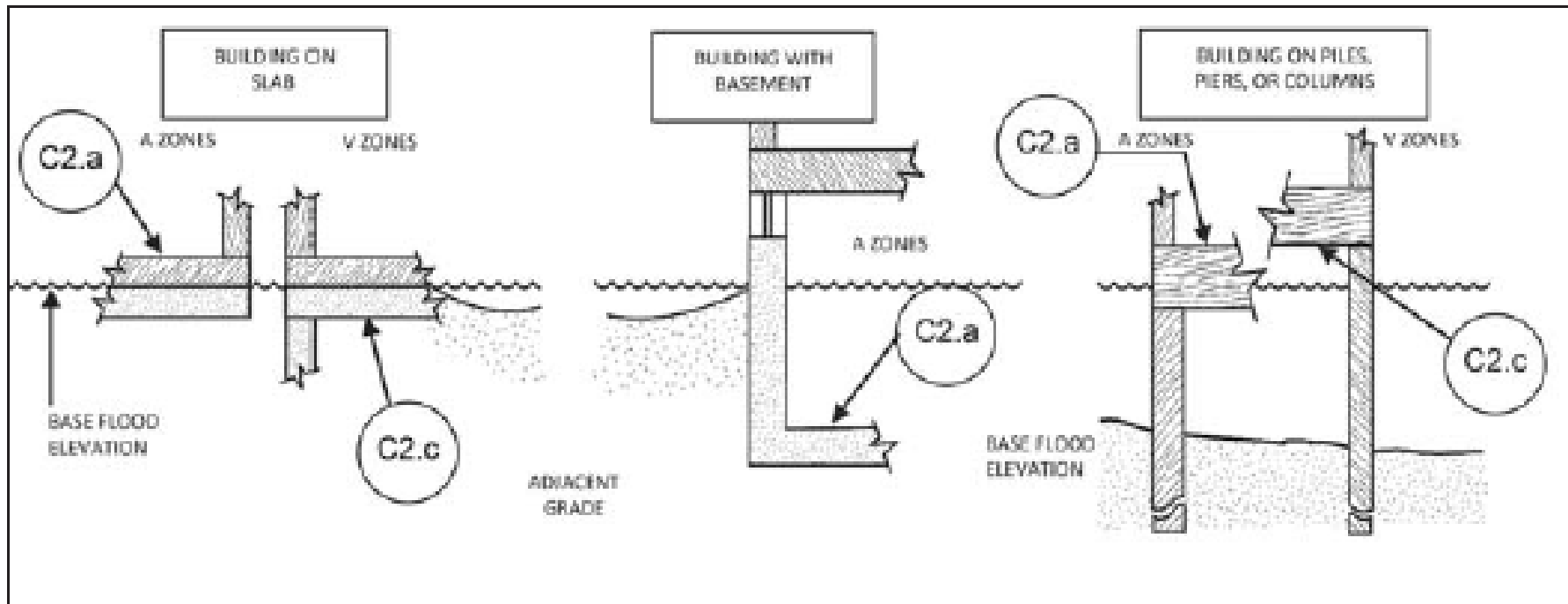
# Section C Information cont'd



## FEMA NFIP Instructions for Items C2. a-d

Enter the building elevations (excluding the attached garage) indicated by the selected building diagram (Item A7) in Items C2.a-c. If there is an attached garage, enter the elevation for top of attached garage slab in Item C2.d. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If the building is located in a V zone on the FIRM, complete Item C2.c. If the flood zone cannot be determined, enter elevations for all of Items C2.a -h. For buildings in A zones, elevations a, b, d, and e should be measured at the top of the floor. For buildings in V zones, elevation c must be measured at the bottom of the lowest horizontal structural member of the floor (see drawing below). For buildings elevated on a crawlspace, Diagrams 8 and 9, enter the elevation of the top of the crawlspace floor in Item C2.a, whether or not the crawlspace has permanent flood openings (flood vents). *If any item does not apply to the building, enter "N/A" for not applicable*

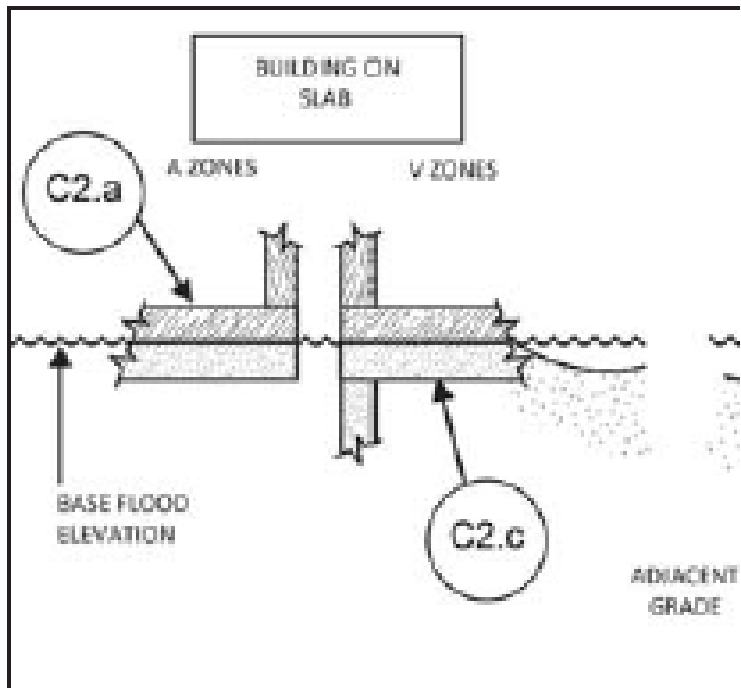
# Section C Information cont'd



FEMA NFIP Diagram elevation details for Items C2a and C2.c for buildings on slabs, buildings with basements, and buildings on piles, piers or columns.



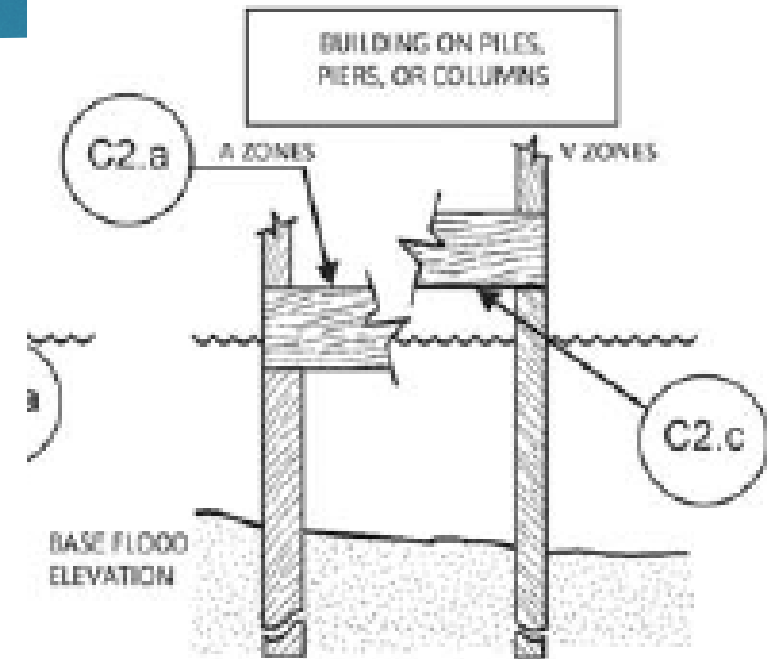
# Elevation data for buildings on Slab



C2.a

Location where elevation is taken for C2a and C2c.

# Elevation data for buildings on piles



Location where elevation is taken for C2a and C2c.

In most communities compliance for new construction or substantial improvement must include freeboard above the Base Flood Elevation

In Upper Township compliance for new construction the C2.c must be two (2') feet above the BFE in both the A and V zones.



# Section C2.a-c Information



C2.a



C2.b

C2.c



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

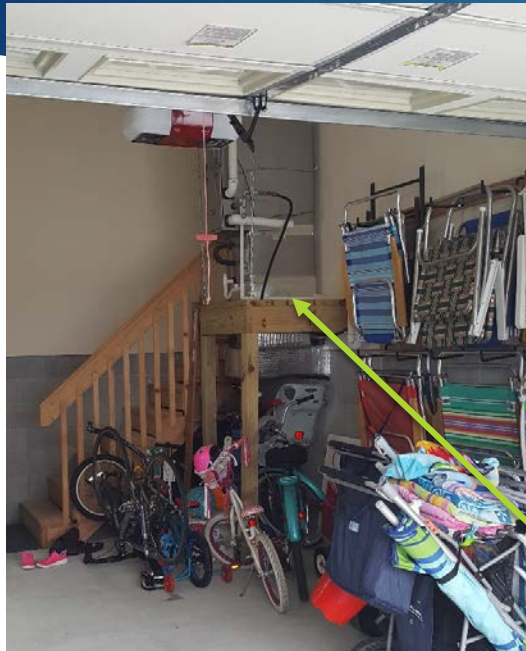
\_\_\_\_\_ - \_\_\_\_\_

☐ feet ☐ meters

In most communities compliance for new construction or substantial improvement must include freeboard above the Base Flood Elevation

In Upper Township compliance for new construction the C2.c must be two (2') feet above the BFE in both the A and V zones.

# Section C2.d-e Information



C2.e

C2.d

Typical machinery and equipment: Elevators, furnaces, hot water heaters, heat pumps and air conditioners

This is a common area that could make a building non-compliant. If your equipment is below the BFE, then your insurance premium will be higher.

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



# Section C2.e Information



FEMA NFIP Instructions - Enter the lowest platform elevation of at least 1 of the following machinery and equipment items: elevators and their associated equipment, furnaces, hot water heaters, heat pumps, and air conditioners in an attached garage or enclosure or on an open utility platform that provides utility services for the building. Note that elevations for these specific machinery and equipment items are required in order to rate the building for flood insurance. Local floodplain management officials are required to ensure that all machinery and equipment servicing the building are protected from flooding. Thus, local officials may require that elevation information for all machinery and equipment, including ductwork, be documented on the Elevation Certificate. If the machinery and/or equipment is mounted to a wall, pile, etc., enter the platform elevation of the machinery and/or equipment. Indicate machinery/equipment type and its general location, e.g., on floor inside garage or on platform affixed to exterior wall, in the Comments area of Section D or Section G, as appropriate. *If this item does not apply to the building, enter "N/A" for not applicable.*

# Section C2.f-g Information



C2.f



C2.g

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

Enter the elevation of the ground, sidewalk or patio slab immediately next to the building. Use the natural grade if possible.



# Section C2.h Information



C2.h

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

Enter the lowest grade elevation at the deck support or stairs.

# Comments



Your EC will can be used for two purposes, first to show compliance with the flood hazard regulations to determine if your building is compliant for flood insurance rating purposes; and second to show compliance with the flood hazard regulations for new construction or substantial improvement to an existing structure.

Discuss with your Surveyor, Municipal Construction Official or Municipal Floodplain Manager if you have any questions if your building is compliant or not and what can be done to mitigate the non-compliance issue. Many times some cost effective measures can be taken to make your building compliant.

Common areas of non-compliance beyond the floor below the BFE are not enough area of flood opening, flood opening too high above grade, machinery below the BFE, non-floodproof building material below the BFE or habitable area below the BFE.

In Upper Township new construction or substantial improvement to an existing structure the bottom of the lowest horizontal structural member (C2.c) must be two (2') feet above the BFE. (This includes any machinery or equipment.) Other towns have different requirements for freeboard.