

Agenda Item #4: Resolution on Freeboard Requirements

HRPDC Quarterly Commission Meeting
January 15, 2015

Benjamin J. McFarlane, AICP
Senior Regional Planner

Background

March 2014 – HRPDC approves creation of Special Committee on Recurrent Flooding and Sea Level Rise to develop policy recommendations for local governments to consider adopting

September 2014 – Committee reaches consensus on encouraging local governments to consider adopting freeboard requirements.

December 2014 – Committee approves proposed resolution encouraging localities to adopt new freeboard requirements.

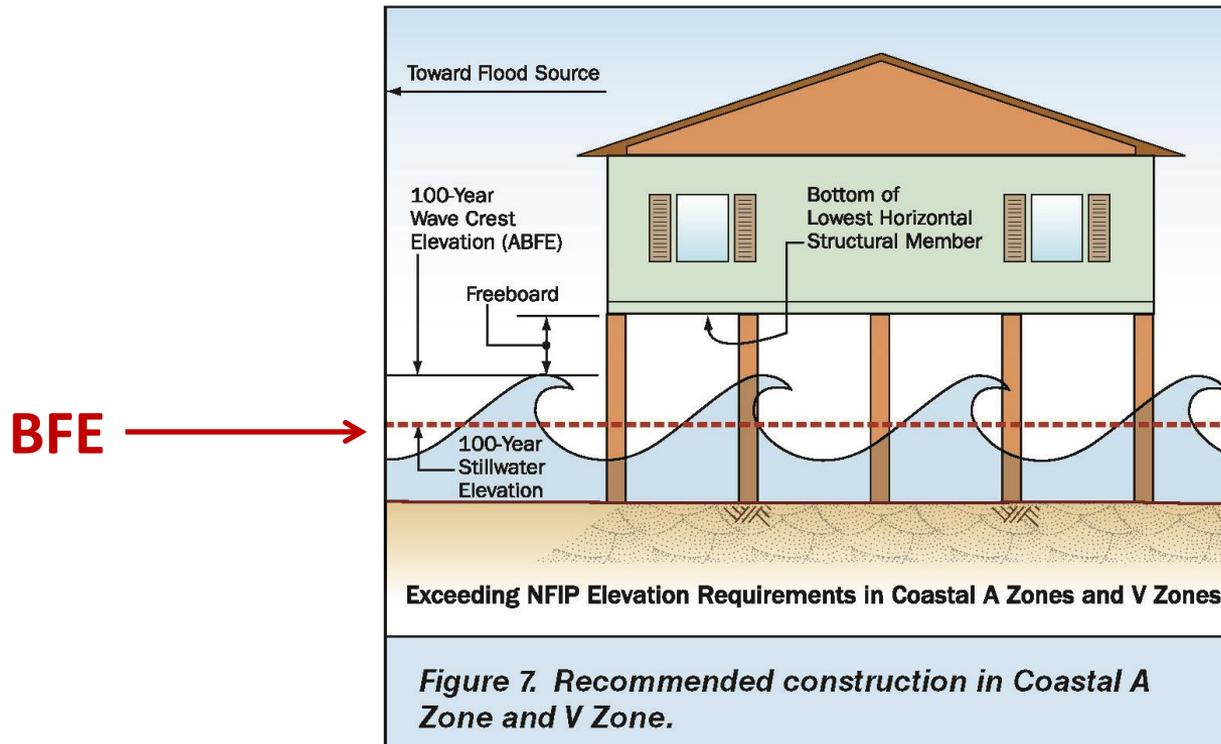
Definitions

- **A Zone** – Areas subject to inundation by the 1-percent-annual-chance flood event
- **V Zone** – Areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action.

Source: Federal Emergency Management Agency

<https://www.fema.gov/national-flood-insurance-program/definitions>

Definitions

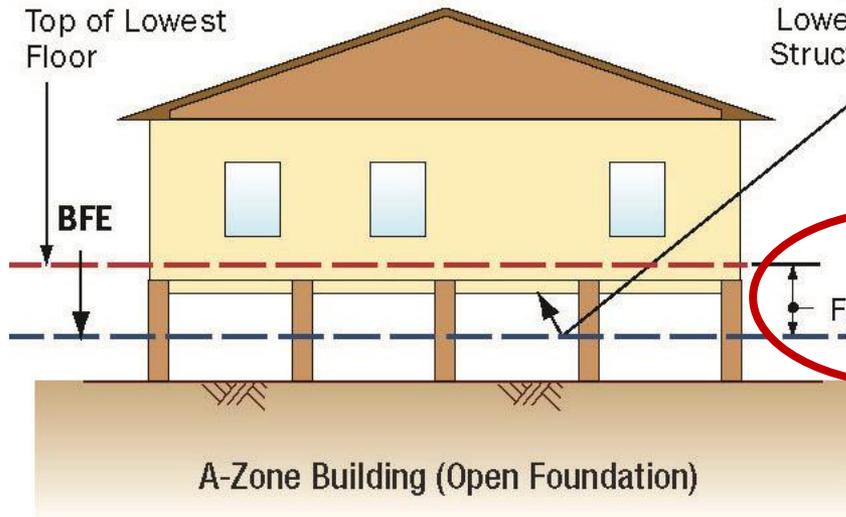


Base Flood Elevation – The elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year.

Definitions

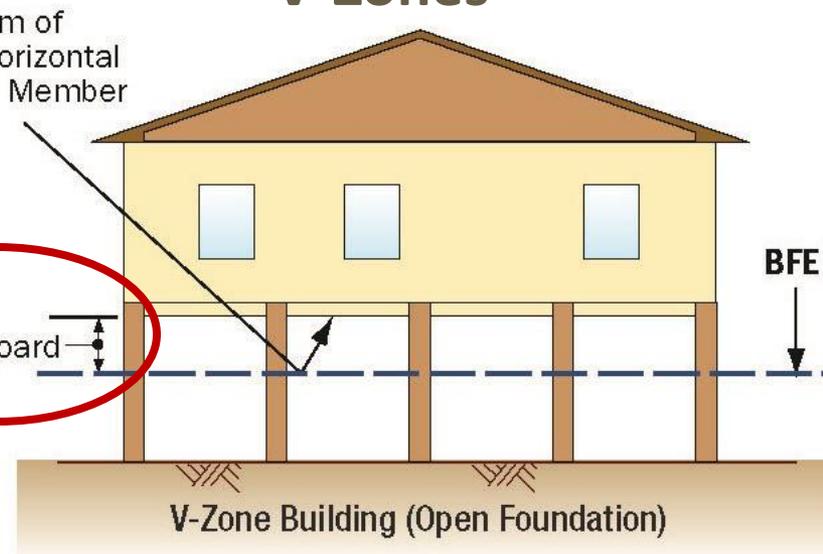
Freeboard - An additional amount of height above the Base Flood Elevation used as a factor of safety (e.g., 2 feet above the Base Flood) in determining the level at which a structure's lowest floor must be elevated or floodproofed to be in accordance with state or community floodplain management regulations.

A-Zones



Measured between BFE and top of lowest floor.

V-Zones



Measured between BFE and bottom of lowest horizontal structural member.

Benefits of Freeboard

- Protection of homes and other structures from damage caused by flooding and wave action
 - Reduced costs for repairs and cleanup
- Continued protection against flooding caused or increased by sea level rise
 - VIMS recommends planning for 1.5' of sea level rise over the next 20 to 50 years
- Reduction of flood insurance costs for individual property owners and for communities through the Community Rating System (CRS)

Insurance Savings with Freeboard

Freeboard	1 Floor Home w/o basement	More than 1 floor w/o basement	More than 1 floor w/ basement
4'	\$1,019	\$754	\$494
3'	\$983	\$748	\$476
2'	\$911	\$700	\$446
1'	\$699	\$537	\$343
0'	\$0	\$0	\$0
-1'	-\$2,940	-\$2,183	-\$1,357

Annual flood insurance savings for maximum building coverage (\$250,000) for single-family homes in AE zones. Based on post-FIRM construction rates from FEMA October 2014 Flood Insurance Manual Table 3B.

Insurance Savings with Freeboard

Freeboard	\$250,000 Replacement Cost	\$375,000 Replacement Cost	\$500,000 Replacement Cost
4'	\$4,500	\$5,725	\$7,475
3'	\$4,175	\$5,175	\$6,775
2'	\$3,200	\$3,975	\$4,900
1'	\$1,600	\$1,925	\$2,575
0'	\$0	\$0	\$0
-1'	-\$2,200	-\$2,850	-\$3,875
-2'	-\$5,250	-\$6,775	-\$8,925
-3'	-\$7,200	-\$9,025	-\$11,125

Annual flood insurance savings for maximum building coverage (\$250,000) for single-family homes in VE zones. Based on post-FIRM construction rates from FEMA October 2014 Flood Insurance Manual Table 3E.

Current Freeboard Requirements

Freeboard	Localities
0'	Franklin, Smithfield, Suffolk, Surry, Williamsburg
1'	Newport News, Southampton
1.5'	Chesapeake, Isle of Wight, Portsmouth, York*
2'	Gloucester, James City, Virginia Beach
3'	Hampton, Norfolk, Poquoson, York*

* York County requires 1.5' of freeboard in AE zones and 3' of freeboard in VE zones.

Resolution

- **NOW THEREFORE, BE IT RESOLVED**, the Hampton Roads Planning District Commission hereby encourages localities in Hampton Roads to consider adopting freeboard requirements as part of their floodplain management regulations if they have not already done so and to consider adopting higher freeboard requirements if such requirements are already included in local regulations.

Recommended Action

- The HRPDC staff and the Special Committee on Recurrent Flooding recommend that the Commission adopt the proposed Resolution 2015-01, “Resolution of the Hampton Roads Planning District Commission Encouraging Local Governments in Hampton Roads to Consider Adopting New or Higher Freeboard Requirements to Reduce the Impacts of Recurrent Flooding and Sea Level Rise on Public and Private Property.”

Benjamin J. McFarlane, AICP
Senior Regional Planner
Hampton Roads Planning District Commission
bmcfarlane@hrpdcva.gov