A photograph of a flooded rural landscape. In the foreground, a grassy field is partially submerged in water. In the middle ground, a large barn with a red roof and a tall, white, cylindrical silo are visible, surrounded by trees. The background shows a dense forest of bare trees under a hazy sky. The image is framed by a green header and a blue footer.

Flood Insurance in the Chehalis Basin

French Wetmore, CFM
April 19, 2018

Flood Insurance

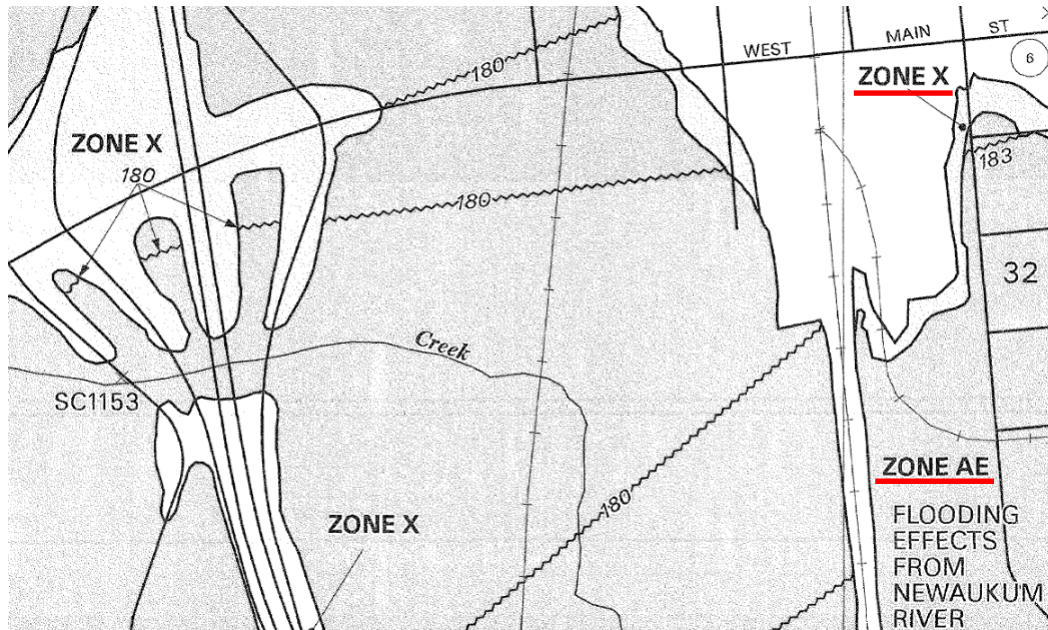
Basic Facts on Flood Insurance

- Provides coverage for buildings and/or contents
- Generally unavailable through the private market
- Rules and rates set by FEMA
- Sold through any property insurance agent
- Mandated for mortgages and Federal aid for buildings in the floodplain
- Floodplain = mapped on the community's Flood Insurance Rate Map

Flood Insurance

Flood Insurance Premiums

- Premium rates vary with the flood risk
 - In the mapped floodplain: A and V Zones
 - Outside mapped floodplain: B, C, X Zones



PANEL 1361C

FIRM
FLOOD INSURANCE RATE MAP
CITY OF
CHEHALIS,
WASHINGTON
LEWIS COUNTY
PANEL 1361 OF 2500
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CHEHALIS, CITY OF 530104 1361 C

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

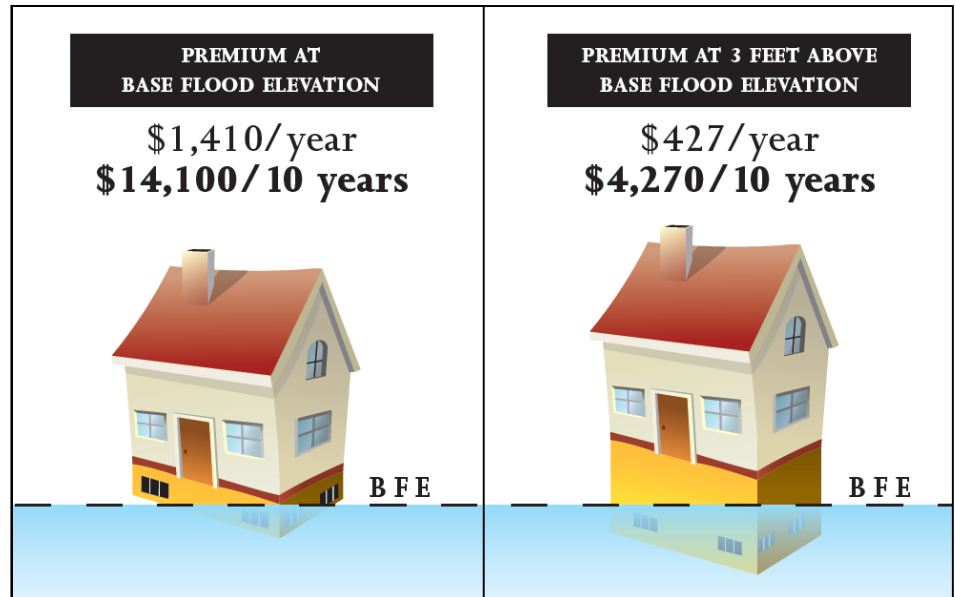
MAP NUMBER
5301041361C
MAP REVISED:
JULY 17, 2006

FEDERAL DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency

Flood Insurance

Flood Insurance Premiums

- In the mapped floodplain:
 - Rates based on elevation of lowest floor
 - Above or below the base flood elevation
- Older (“pre-FIRM”) buildings are grandfathered in with “subsidized rates”
- Not as low as elevation rated premiums



Flood Insurance

Flood Insurance in the Chehalis Basin

NFIP Policies in Effect as of 3/14/2018						
Community	Premium	V Zone	A Zone	X Zone	Total	Coverage
ABERDEEN, CITY OF	\$ 809,378	0	472	71	543	\$ 93,266,200
BUCODA, TOWN OF	\$ 40,210	0	40	7	47	\$ 7,590,100
CENTRALIA, CITY OF	\$ 641,138	0	470	257	727	\$ 167,272,200
CHEHALIS, CITY OF	\$ 351,758	0	206	27	233	\$ 66,348,300
COSMOPOLIS, CITY OF	\$ 4,968	0	4	7	11	\$ 1,898,800
ELMA, CITY OF	\$ 3,414	0	0	8	8	\$ 1,412,800
GRAYS HARBOR COUNTY*	\$ 409,975	13	151	258	422	\$ 95,629,100
HOQUIAM, CITY OF	\$ 971,404	0	649	14	663	\$ 85,003,200
LEWIS COUNTY *	\$ 748,587	0	529	468	997	\$ 236,337,800
MONTESANO, CITY OF	\$ 10,538	0	4	2	6	\$ 2,424,400
NAPAVINE, TOWN OF	\$ 351	0	0	1	1	\$ 280,000
OAKVILLE, CITY OF	\$ 3,762	0	0	6	6	\$ 1,648,100
PE ELL, TOWN OF	\$ 3,497	0	2	2	4	\$ 1,167,100
THURSTON COUNTY *	\$ 403,966	6	255	435	696	\$ 175,345,300
Total	\$4,402,946	19	2,782	1,563	4,364	\$935,623,400

Flood Insurance

Flood Insurance in the Chehalis Basin

- Average premium in the Basin: \$1,000/year

	Pre-FIRM ("Subsidized") in A Zone	Avg. Pre-FIRM Premium in A Zone
Centralia	76%	\$1,200
Aberdeen	89%	\$1,685
Hoquiam	95%	\$1,495

- 40% of the properties in Centralia's floodplain have flood insurance

Flood Insurance

Flood Insurance in the Chehalis Basin

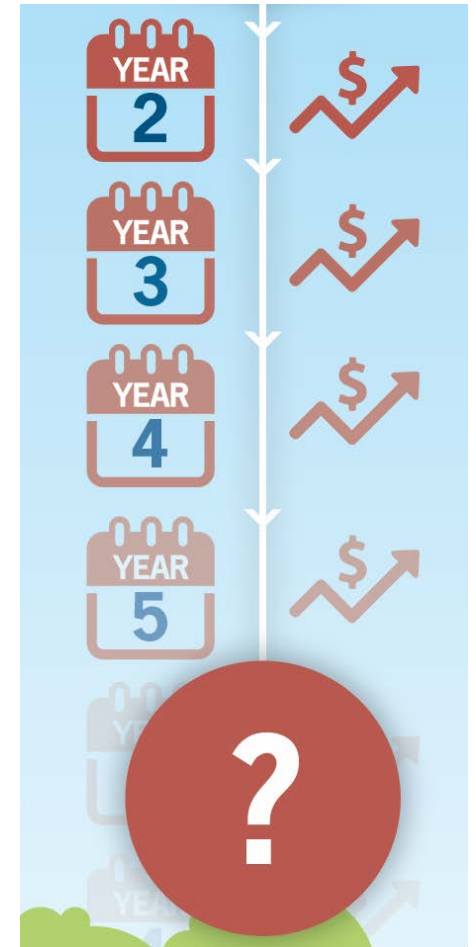
- 2012 NFIP act: phase out the subsidy
- 2014 NFIP act: phase out the subsidy more slowly
- Premiums increased
- Policies were dropped
- Centralia: ↓20%
- Aberdeen: ↓40%
- Hoquiam: ↓42%

Loss of Coverage 2014 – 2018			
Community	5/31/2014	3/14/2018	Loss
Aberdeen	905	543	40%
Bucoda	66	47	29%
Centralia	910	727	20%
Chehalis	252	233	8%
Cosmopolis	15	11	27%
Elma	N/A	8	N/A
Grays Harbor County *	545	422	23%
Hoquiam	1,146	663	42%
Lewis County *	1,233	997	19%
Montesano	3	6	N/A
Napavine	0	1	N/A
Oakville	10	6	40%
Pe El	6	4	33%
Thurston County *	802	696	13%
Total	5,893	4,364	26%

Flood Insurance

Policy Holders



- Not cheap
- Premiums are going up
- Complicated
- Often handled by mortgage holder
- Don't need it if not flooded lately
- Don't need it if not in A Zone
- Don't see an end to premium increases
- Don't see how premiums are related to flood protection



Flood Insurance

FEMA Letter to Policy Holders

Letter D - A Zone, Pre-FIRM, Primary Residence

 **FEMA** 

Month DD, YYYY

John Smith Jones
123 Main Street
Anytown, USA 12345

INSURANCE COMPANY: [NAME]
POLICY NUMBER: 1234567890
EFFECTIVE DATES: MM/DD/YYYY to MM/DD/YYYY
BUILDING COVERAGE: \$XXX,XXX
BUILDING DEDUCTIBLE: \$X,XXX
CONTENTS COVERAGE: \$XXX,XXX

What Will Your Flood Risk Cost?

Get the Lowest Rate You Can Qualify For.

Your situation (LETTER D): Your property is at high risk for flooding. You can expect your discounted rate to increase by at least 5 percent, and up to 18 percent, each year. Until you get an Elevation Certificate, there's no way to predict when the 5 to 18 percent yearly increases will stop. Keep in mind, all rates are subject to change from year to year because of adjustments like inflation. Know your options.

Option 1 Do Nothing

Your discounted rate will increase by up to 18 percent each year.

Option 2 Get an Elevation Certificate

There's no way to know exactly when having an Elevation Certificate will be beneficial, but www.FEMA.gov/cost-of-flood provides some guidance. If you get an Elevation Certificate, you can continue to pay the discounted rate if it's lower.

Cost: \$500 - \$1,000

Flood Insurance

What is Needed

- Policy holders interested in lowering their premiums (or stopping the increases)
- Explanation of the rating system
- Lowest floor elevations
- Advice on protection methods

Flood Insurance

Flood Authority Building Data

ID	FIRM BFE	Number	Street	Fin Floor NGVD	Elevation Difference	LUNAME
8629	—	1411	ESHOM RD	165.8	#VALUE!	single-residential
3960	—	1412	ESHOM RD	166.1	#VALUE!	single-residential
7570	—	1412	ESHOM RD	Outbuilding	#VALUE!	single-residential
2875	—	1416	ESHOM RD	167.5	#VALUE!	single-residential
1919	—	2105	EUREKA AVE	195.8	#VALUE!	single-residential
5532	—	2105	EUREKA AVE	Outbuilding	#VALUE!	single-residential
4439	195.8	2206	EUREKA AVE	196.2	0.4	single-residential
4440	—	2206	EUREKA AVE	198.2	#VALUE!	single-residential
8055	—	2206	EUREKA AVE	Outbuilding	#VALUE!	single-residential
2529	—	2209	EUREKA AVE	197.8	#VALUE!	single-residential
6147	—	2209	EUREKA AVE	Outbuilding	#VALUE!	single-residential
4577	—	2213	EUREKA AVE	198.5	#VALUE!	single-residential

Flood Insurance

Flood Insurance Rating Spreadsheet

					Year	Premium @ 18% increase		
Single family house, one floor, slab on grade foundation								
Building coverage: \$100,000 CRS Class					1	\$1,017		
Deductible factor: 1.000					2	\$1,200		
+ 0.4 = At BFE					3	\$1,416		
Zone	Height	First \$60,000 Rate	Cost	Additional Rate	4	\$1,671	Federal e Policy Fee	Total Premium
page Rate 2								
AE	Pre-FIRM	\$0.99	\$594.00	\$0	5	\$1,972	\$50.00	\$1,017
AE	With basement	\$1.05	\$630.00	\$1	6	\$2,327	\$50.00	\$1,233
page Rate 7								
AE	3 feet > BFE	\$0.32	\$192.00	\$0	7	\$2,746	\$50.00	\$286
AE	2 feet > BFE	\$0.47	\$282.00	\$0			\$50.00	\$372
AE	1 foot > BFE	\$0.87	\$522.00	\$0			\$50.00	\$608
AE	At BFE	\$2.02	\$1,212.00	\$0	8	\$3,240	\$50.00	\$1,268
AE	1 foot < BFE	\$5.26	\$3,156.00	\$0	9	\$3,823	\$50.00	\$3,075
AE	2 feet < BFE	\$7.51	\$4,506.00	\$0			\$50.00	\$4,443
AE	3 feet < BFE	\$9.25	\$5,550.00	\$0	10	\$4,511	\$50.00	\$5,547
page Rate 2								
X	N/A	\$1.06	\$636.00	\$0	11	\$5,323	\$50.00	\$858
X	With basement	\$1.19	\$714.00	\$0			\$50.00	\$989

Flood Insurance

Flood Insurance Rating Spreadsheet

Elevation Rated – October 2017 Flood Insurance Manual

Single family house, one floor, slab on grade foundation

Building coverage: \$100,000

CRS Class: 6

Deductible factor: 1.000

Building elevation accuracy is ± 1 foot

Zone	Height	First \$60,000		Additional Coverage		ICC	Sub	CRS	Sub	Reserve	HFIAA	Federal	Total
		Rate	Cost	Rate	Cost	Premium	Total	Discount	Total	Fund	Surcharge	Policy Fee	Premium
page Rate 2													
AE	Pre-FIRM	\$0.99	\$594.00	\$0.90	\$360.00	\$70.00	\$1,024.00	20%	\$819.20	\$122.88	\$25.00	\$50.00	\$1,017
AE	With basement	\$1.05	\$630.00	\$1.33	\$532.00	\$70.00	\$1,232.00	20%	\$985.60	\$147.84	\$50.00	\$50.00	\$1,233
page Rate 7													
AE	3 feet > BFE	\$0.32	\$192.00	\$0.08	\$32.00	\$5.00	\$229.00	20%	\$183.20	\$27.48	\$25.00	\$50.00	\$286
AE	2 feet > BFE	\$0.47	\$282.00	\$0.09	\$36.00	\$5.00	\$323.00	20%	\$258.40	\$38.76	\$25.00	\$50.00	\$372
AE	1 foot > BFE	\$0.87	\$522.00	\$0.13	\$52.00	\$5.00	\$579.00	20%	\$463.20	\$69.48	\$25.00	\$50.00	\$608
AE	At BFE	\$2.02	\$1,212.00	\$0.20	\$80.00	\$5.00	\$1,297.00	20%	\$1,037.60	\$155.64	\$25.00	\$50.00	\$1,268
AE	1 foot < BFE	\$5.26	\$3,156.00	\$0.25	\$100.00	\$5.00	\$3,261.00	20%	\$2,608.80	\$391.32	\$25.00	\$50.00	\$3,075
AE	2 feet < BFE	\$7.51	\$4,506.00	\$0.52	\$208.00	\$34.00	\$4,748.00	20%	\$3,798.40	\$569.76	\$25.00	\$50.00	\$4,443
AE	3 feet < BFE	\$9.25	\$5,550.00	\$0.91	\$364.00	\$34.00	\$5,948.00	20%	\$4,758.40	\$713.76	\$25.00	\$50.00	\$5,547
page Rate 2													
X	N/A	\$1.06	\$636.00	\$0.29	\$116.00	\$5.00	\$757.00	10%	\$681.30	\$102.20	\$25.00	\$50.00	\$858
X	With basement	\$1.19	\$714.00	\$0.41	\$164.00	\$5.00	\$883.00	10%	\$794.70	\$119.21	\$25.00	\$50.00	\$989

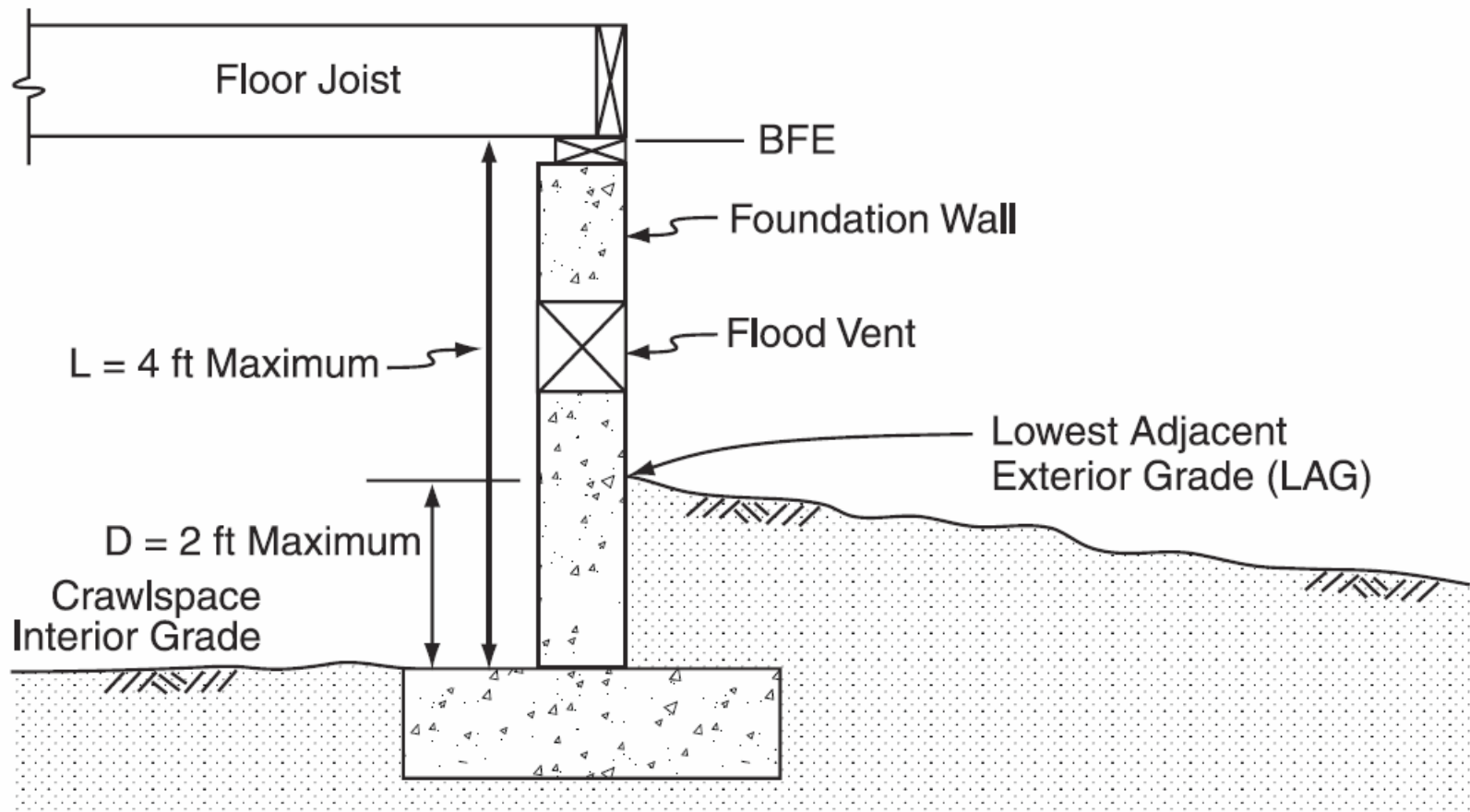
Flood Insurance

Rating Crawlspace → Openings



Flood Insurance

Rating Crawlspace → Crawlspace Floor



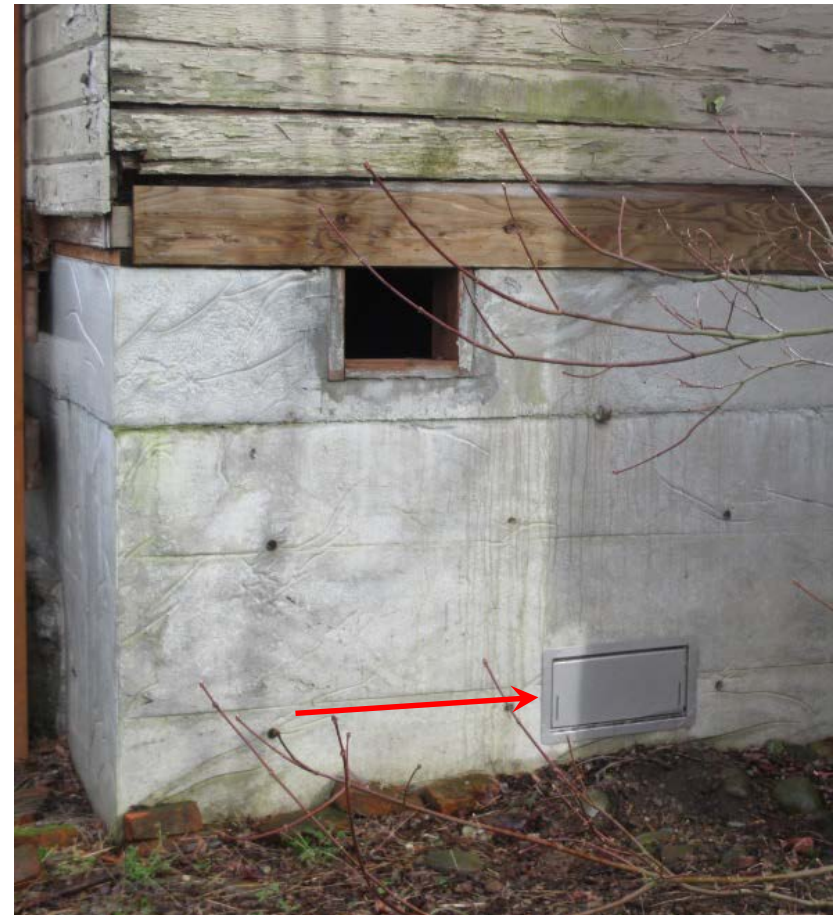
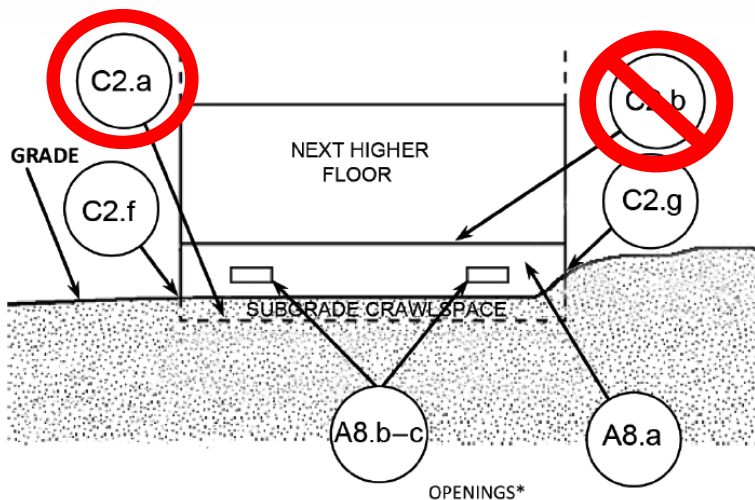
Flood Insurance

Rating Crawlspaces → Crawlspace Floor

DIAGRAM 9

All buildings (other than split-level) elevated on a sub-grade crawlspace, with or without attached garage.

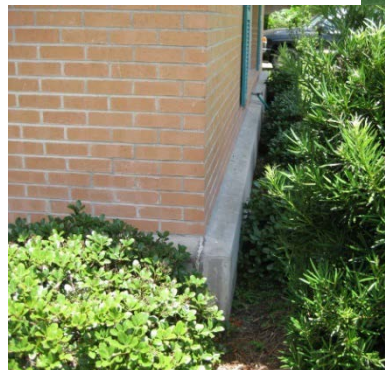
Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2A or 2B.)



Flood Insurance

Property Protection Opportunities

- Acquisition
- Building elevation
- Barriers
- Dry floodproofing
- Foundation changes
- Wet floodproofing
- Utility protection



Flood Insurance

Property Protection → Insurance Recognition?

- Acquisition
- Building elevation
- Barriers
- Dry floodproofing
- Foundation changes
- Wet floodproofing
- Utility protection



Flood Insurance

Pilot Project

- Public meeting 4/26
- Insurance rating
- Elevation Certificates
- Site visits
- Protection advice
- Estimate demand
- Financial assistance recommendations

