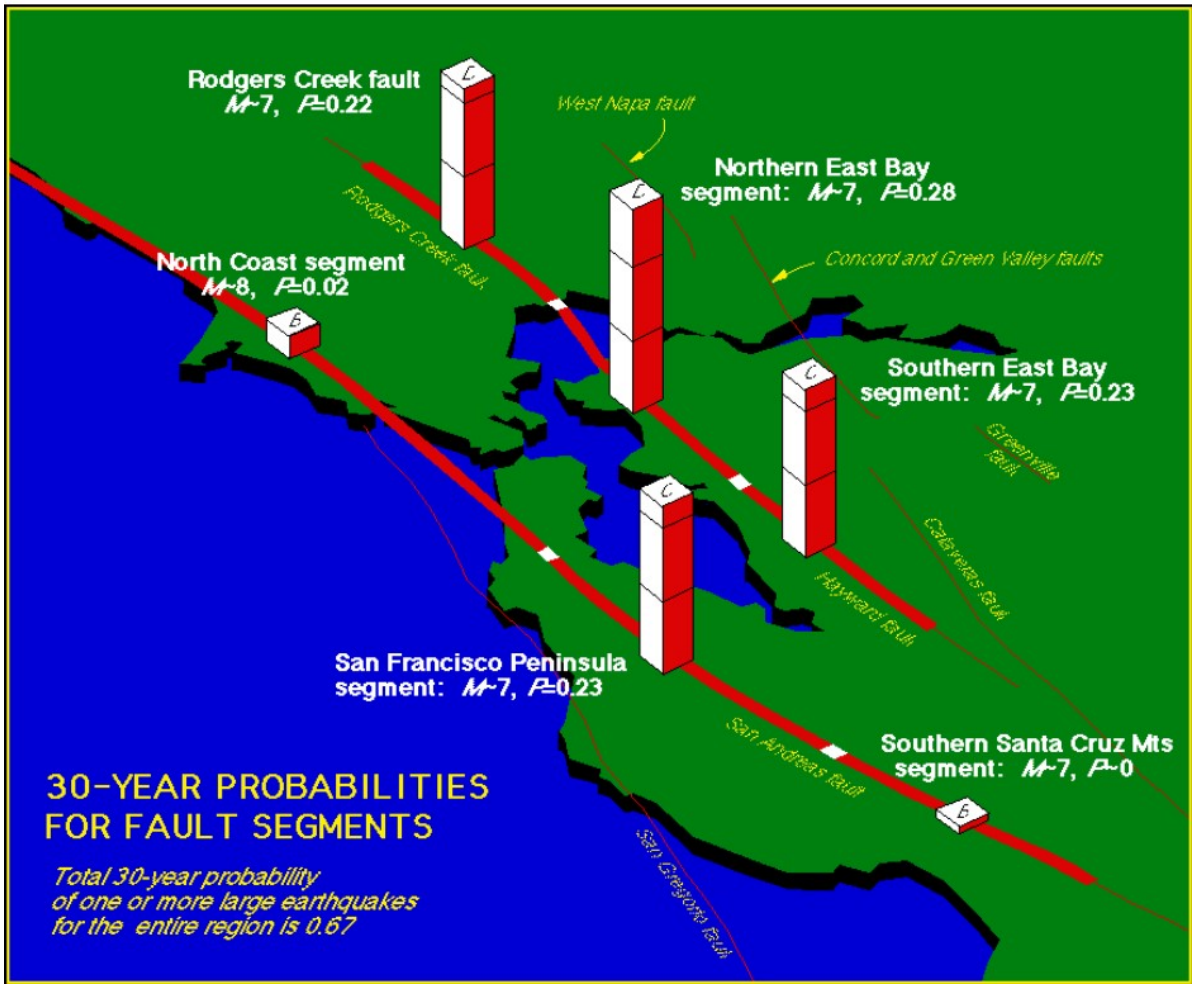
Bay Area Retrofit
www.bayarearetrofit.com

510-548-1111
Workers' Comp. #2246
Contractors Lic. #558462
Liability Insurance GL3984008
Bond #6334450

SAMPLE

The bar graph below tells us the probability of a large earthquake on the 3 segments of the San Andrea Fault that are a threat to your home.

The San Francisco Peninsula Segment is the most serious threat because it has the highest probability of rupturing and is the closest to your house. In other words, its rupture will create the highest shaking intensity based on the Modified Mercalli Intensity Scale (MMI). The probability of a rupture is only 2% when forecast over the next 30 years. This means there is about is 1 chance in 50 that the fault will rupture in your lifetime.



This is where you are in terms of the MMI scale. You are in zone 7.8.

The table shown uses the MMI scale but uses roman numerals to designate shaking intensity zones instead of Arabic numbers. On that table your house is in Zone VIII.

TABLE: PERCENT OF DWELLING UNITS RED TAG

TYPE	INTENSITY			
	V	VI	VII	VIII
Mobile Homes	0	0	0.87	40
Unreinforced Masonry	0	0.05	2.9	45
Non-Wood , 4-7 Stories, <1940	0	0.30	8.0	45
Non-Wood, 4-7 Stories, >1939	0	0	0	16
Non-Wood, 7+ Stories, <1940	0	0.30	8.0	45
Non-Wood, 7+ Stories, >1939	0	0	0	16
Wood-Frame, 4-7 Stories, <1940, Multi-Family	0	1.4	2.5	45
Wood-Frame, 4-7 Stories, >1939, Multi-Family	0	0	0.09	10
Wood-Frame, 1-3 Stories, <1940, Multi-Family	0	0.05	0.53	11
Wood-Frame, 1-3 Stories, >1939, Multi-Family	0	0.01	0.04	6.5
Wood-Frame, 1-3 Stories, <1940, Single Family	0.01	0.04	0.12	1.8
Wood-Frame, 1-3 Stories, >1939, Single Family	0	0	0.02	0.18
"Other" (tents, caves, boats, etc.)	0	0	0	0

This table tells us houses in this zone will be red-tagged as unlivable on average only 1.8% of the time or about 1 chance in 55, if my math is accurate. To look at it more broadly, you have a 1 in 50 chance of experiencing a large earthquake in the next 30 years and at the same time you have a 1 in 55 chance of your building being red-tagged when it happens. I don't know anything about statistics, but overall I think this translates into a 1

chance in 2500 or so of your house being red-tagged in your lifetime. Red tagged meaning enough damage to be considered uninhabitable. In short, I would venture to say the odds of ever facing the kind of damage you fear is miniscule.

It must also be remembered that the highest percentage of damage will involve hillside homes which are at far more risk than your house. Most of the 1.8% will be these kinds of houses. This reduces your odds even further.

If you still want to pursue a complete seismic retrofit I can send you a proposal but I need to warn you it will cost $45,000 or so. If you want to do something that is cheap and will significantly increase your home's resistance just in case, I recommend putting a shear wall to the left of the front vent and one on one of the back walls and forget about any foundation work. Putting plywood on a wall alone keeps the wall from collapsing and is the most important part of any retrofit. This will cost $20,000.

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