



A Comprehensive Solution

We Need Different Approaches for Homes and Apartments

SINGLE-FAMILY HOMES – A THREE-PRONGED APPROACH TO EDUCATION

The Approach

Our research points to the need for a comprehensive, three-part approach encouraging owners of single-family homes and mobile homes to retrofit.

- (1) Increase their understanding of risk.
- (2) Explain what needs to be done to strengthen their housing.
- (3) Provide financial incentives.

Risk Perception

People act when they understand the consequences of not acting. The correlation between risk perception and action is large. Our survey of homeowners indicates that those who retrofit (versus those who do not) are more likely to:

- ◆ believe that the risk of an earthquake in their neighborhood is very high (versus very low);
- ◆ have seen ABAG’s ground shaking hazard maps;
- ◆ have experienced a major damaging earthquake;
- ◆ have lived in the area during the Loma Prieta earthquake;
- ◆ purchase earthquake insurance; and
- ◆ have food and water on hand for several days.

Knowing What to Do

People act when they understand what they need to do. The correlation between knowing what to do and acting is also large. The single most common reason for not retrofitting provided by the homeowners responding to ABAG’s survey was “I don’t know what I need to do.” Interestingly, there is a high correlation between people with a college education and those acting to retrofit their homes. It should not take a college education to understand what to do; the public education program

to encourage a three- to five-day supply of food and water has been effective in reaching people without college degrees. Our message on how and why to retrofit must be targeted to a broader audience.

Money

People act when they believe they can afford to act. Although more people with high incomes are retrofitting than those with low incomes, many existing financial incentive programs for homeowners are currently having a negligible impact on retrofit work. The programs must be accessible and understandable to the low-income populations they are designed to help, rather than for well-informed, higher-income college-educated homeowners.

Why the Program Must Be Comprehensive

People act when they are provided with a consistent message. The higher-than-average percentage of residents who have retrofitted their homes in the City of Berkeley (38%), for example, cannot be attributed to a single factor, but must be viewed as a combination of:

- (1) high risk perception, made credible by City efforts to retrofit city-owned buildings, as well as school district efforts to retrofit school buildings;
- (2) widespread knowledge of what to do, helped by a high education level and the knowledge that one's neighbors have retrofitted; and
- (3) targeted city programs to provide financial incentives.

The following sections describe the reasons for, and details of, each of these program components. None of these approaches, on its own, is nearly as effective as it is when used as part of a comprehensive program.

I can't think of a Bay Area community that wouldn't benefit from strong local programs which encourage retrofitting.

*Rosemary Corbin
Mayor, City of
Richmond*



source – Earthquake Engineering Research Institute (EERI)

MULTIFAMILY RESIDENTIAL BUILDINGS – THE NEED FOR GOVERNMENT INITIATIVES

Apartments and Condos Are a Large Concern

Multifamily residential buildings are projected to account for 84% of the uninhabitable units in the Hayward earthquake “nightmare.”

Few Owners Retrofit

At the present time, only a small percentage of multifamily residential buildings with five or more units have been retrofitted – even in Berkeley. Existing local government financial incentives are typically limited to buildings housing less than five units. ABAG has financial services programs available for retrofitting larger residential buildings, but these are limited to nonprofit owners.



source: FEMA

In addition, the owners of multifamily buildings see no short-term financial benefits to retrofitting. The costs of retrofitting are difficult to recover with increased rents. Apartment owners also are not responsible for the costs of housing and caring for displaced residents following earthquakes since those costs are borne by federal, state and local governments and by non-profit and community-based agencies, such as the American Red Cross and Salvation Army. In larger buildings, the owner rarely lives in the building and thus does not benefit from the large increases in life safety. In contrast, the potential long-term consequences to the overall economy of the Bay Area are significant.

More Can Be Done

Our efforts should focus on establishing programs similar to those for strengthening unreinforced masonry buildings and applying those programs to soft-story, multifamily residential buildings. Local governments need to:

- (1) inventory soft-story multifamily residential buildings in their community;
- (2) notify the owner and tenants of the potential hazard;
- (3) recommend the owner have an engineering report identifying potential hazards and recommended solutions; and
- (4) encourage retrofitting by, for example:
 - ◆ developing new financial incentives for owners and extending existing incentives for small residential properties to all residential construction, or
 - ◆ establishing disclosure programs.

Individual cities could develop these programs and, in fact, several cities in California have beginnings of such programs – Los Angeles has a voluntary retrofit ordinance and San Jose has compiled an excellent guide for apartment owners and has been developing generic retrofit plans. However, we believe it is much more efficient for the California to adopt statewide legislation supporting local governments developing such programs.