Paper No. 2168. (quote when citing this article)
Eleventh World Conference on Earthquake Engineering
ISBN: 0 08 042822 3

11 WCEE

Abstract

DEVELOPING SEISMIC RESISTANT COMMUNITIES
–Creating Safe Communities for Safe Buildings–
Lessons For Local Governments

Donald E. Geis, Director of Community Planning Programs
The International City/County Management Association
777 North Capitol Street, NE, Washington, DC 20002-4201

What good is a safe building if you don't have a safe community to put it in? While much emphasis in seismic planning, design and engineering is given to individual buildings and groups of buildings, too little is often given to the support community at large where those buildings are located. Mitigating the loss of life, the property and environmental damage, and the socioeconomic disruption caused by earthquakes can best be accomplished when it is approached in a more holistic manner, giving more attention to the various support systems and components of the community built environment: where and how they are planned, how they relate to each other, and to the ecological and geological systems they are a part of.

Research and practical experience associated with Mexico City and other earthquakes over the past few decades have taught us that there is an integral relationship between how we plan and build our communities--the appropriate form, configuration, function and use--and the capacity of those communities to effectively resist the forces and results of earthquakes. We have also learned that it is essential to have seismically safe communities if we are to truly have seismically safe buildings and a safe environment for our citizens.

More attention must therefore be given to assisting government officials and seismic professionals from all disciplines at the local level to better understand and use the principles and techniques associated with mitigation and developing seismic resistant communities. It is here at the local level where the responsibility, and the decisions and actions required to develop disaster resistant communities occur. Examples of such planning-development considerations would include: community development patterns; infrastructure-transportation and utilities-design and configuration; relationship of built-environment and natural systems; hierarchial patterns of open space systems; housing and neighborhood design; and building group configuration and location. It is also important to understand that such an approach increases the effectiveness and success of the other phases of emergency management--preparedness, response, and recovery.

What then is a seismically safe community? How can we develop such communities, implementing the appropriate principles and techniques into the day-to-day planning and development decision-making process at the local level? What is the relationship between a seismically safe community and seismically safe buildings? What other benefits-economic, social and environmental-can we achieve within this process? These are the questions that need to be addressed.