

Buildings, Building Codes, and Earthquake Safety in Southern California

NEW CONSTRUCTION

"Building Codes regulate construction to protect the health, safety and welfare of people and provide efficiency through a common set of consensus construction rules."

Seismic Building Performance

Seismic building performance is the condition of a building during and after an earthquake and is measured considering public safety, building damage, and building repair time during or after a seismic event. Building damage can also result in fire, water damage as well as loss of business as a result of building downtime.

While the building code requires a Life Safety performance level for most building types, it is just a minimum. The building code also provides requirements for higher performance levels beyond Life Safety, if an owner chooses to do so, as is the case with hospitals, public safety facilities, and other special structures.

How is a Building Code created/updated in California?

- Building codes are created at the national level and published every 3 years, such as the International Building Code (IBC). California adopts these building codes every 3 years on recommendation and action by the Building Standards Commission (BSC).
- The BSC has a series of public hearings to adopt or make stronger what is recommended by the I-codes to create the California Building Code (CBC).
- Once adopted, the CBC is accepted or strengthened further by agencies and local jurisdictions. Code amendments or City Ordinances that go "beyond the CBC" can be adopted outside of the 3-year cycle at the local level.

LIFE SAFETY (CODE MINIMUM)

Building poses minimal risk to life during an earthquake, but may not be salvageable**



FUNCTIONAL RECOVERY

While there may be some damage, the building functions and use can be restored with minimal repair or downtime



OPERATIONAL

Building can continue to be occupied immediately after an earthquake such as a hospital, certain public safety buildings, etc.



**While there may be a cost increase for higher levels of performance, the impact to the adjacent buildings, business or service interruption, and the greater community may be more than just the cost of the building itself.