



# US Resiliency Council

## What is a USRC Rating?

The USRC building rating system identifies expected consequences of an earthquake or other hazards affecting buildings. You can use a USRC Rating to understand the expected performance of the building in which you live, work or invest. The USRC Building Rating System assigns one to five stars for three performance measures—Safety, Damage, and Recovery.



[www.USRC.org](http://www.USRC.org)

Safety	★★★★☆
Damage	★★★★☆
Recovery	★★★★☆



EARTHQUAKE - 2015

### What Hazards Can a Building be Rated For?

The USRC’s long term goal is to provide building ratings for a broad range of natural and manmade hazards. The USRC is launching with a national earthquake building rating, and will grow to include other hazards such as wind, flood, storm and fire.

### What is Included in the USRC Earthquake Rating?

The earthquake rating considers the performance of a building’s structure, its mechanical, electrical and plumbing systems, and architectural components such as cladding, windows, partitions, and ceilings. The performance of these elements affects occupant safety, the cost and time to carry out necessary repairs, and when you can begin using the building following an earthquake.

Ratings are based on ground shaking intensity expected to occur during the lifetime of the building and is consistent with the benchmarks in the International Building Code.

The **SAFETY** rating describes the potential for people in the building to get out of the building unharmed after benchmark shaking intensity.

The **DAMAGE** rating (expressed as Repair Cost) describes the estimated cost to repair the building after earthquake benchmark shaking as a percentage of the building’s replacement cost.

The **RECOVERY** rating (expressed as Time to Regain Basic Function) is an estimate of the minimum time required to effect repairs and to remove safety hazards and obstacles to an extent necessary for using the building. Additional time might be needed to restore the building to provide the functions and operations at levels prior to the earthquake.

### Types of USRC Ratings

#### USRC Transaction Rating

A USRC Transaction Rating is used for transactional due diligence that accommodates both the schedule and cost demands of the leasing, sales, finance and insurance representatives of the real estate industry.

A USRC registered Transaction Rating must be performed by a USRC Certified Professional Rater, is limited to three stars in each dimension, and is confidential. Random audits of USRC Transaction Ratings are performed to maintain credibility.

#### USRC Verified Rating

A USRC Verified Rating is used by building owners for promotional, marketing and publicity purposes (e.g. at the entrance of the building). All USRC registered Verified Ratings must be performed by a USRC Certified Professional Rater, and are technically reviewed to maintain credibility.

### More Information:

Information on the USRC, the rating system, and the procedures can be found at [www.usrc.org](http://www.usrc.org). The USRC welcomes your inquiries.

## USRC ratings do not address the following:

- Damage caused by water and gas pipe breakage
- Damage to the building contents
- Demand surge following the earthquake
- Repair of historic features or hazardous materials; removal
- Code required upgrades
- Business interruption
- The time needed to fully restore all building functions; and repair all damage
- The time needed to restore utilities and transportation systems

## Getting the most out of a USRC rating

The USRC star ratings reflect performance estimates made by USRC certified engineers who have reviewed the building's engineering design. Many factors beyond the control of an engineer affect the earthquake performance of a building. You should understand what these are and take steps to protect your interests accordingly. These factors may include:

- Ground shaking intensity often varies from the intensities expected for the region;
- Construction might deviate from the plans, or changes could have been made after the rating was made
- Building occupants might introduce hazardous materials or create additional hazards.

Knowing these USRC rating definitions and limitations allows building owners and tenants to prepare for earthquakes, improve occupant safety, reduce repair costs and shorten the time to regain partial and full building use. The USRC strongly recommends that building tenants carefully consider the basis for the rating, excluded items and associated uncertainty, and then take measures to remove hazards from the work place and prepare plans for business resumption.

## Can I Improve My Rating?

### Existing Buildings

Most cities do not require that an existing building be brought into full compliance with the current building code when an owner voluntarily seeks to improve a building's structural capacity. Even after certain safety issues are corrected, the performance expectations can vary widely and remain unknown. The full benefits and value of mitigation efforts may not be understood. The USRC's rating system allows owners to show that the anticipated building performance aligns with an objective standard. Likely performance is understood, and higher levels of seismic performance, as demonstrated by a USRC rating, will be broadly recognized and add to the building's value.

## Who Uses the Rating System?

Building owners, brokers, buyers, lenders, insurers, architects and tenants all can benefit from the USRC rating system. The USRC rating system is based on national building standards and audited to prevent the manipulation of results.

**Owners use USRC ratings because** properties having high USRC ratings benefit from increased perceived value, potentially increasing leasing rates and transaction efficiency. For example, in the Tokyo market, office buildings rated on par with a USRC five star rating receive 40 percent higher lease rates than equivalent buildings with a rating similar to a USRC three star rating. The benefits of a USRC rating can be similar to the benefits associated with LEED® accredited properties which demonstrate that buyer's, leasee's and renters are prepared to pay a premium for highly rated buildings.

**Lenders and Insurers** use USRC ratings to make informed real estate transactions associated with lending decisions and defining insurance products.

**Architects** use the USRC rating as an integral part of resilient design strategies for their clients.

**Tenants** value the USRC rating as it relates to both safety and recovery time following a major event.

**Governments and Institutions** use USRC ratings to identify safe buildings and make long-term strategic plans for reducing reconstruction costs and recovery time following earthquakes. Currently over 40 jurisdictions in California require "Green" or LEED® certification of new public and private developments to improve long-term sustainability. The next step in this progression is to include certification of a building's resilience to natural hazards. The city of Los Angeles has committed to being the first city to adopt and implement a voluntary rating system, utilizing the system designed by the USRC.

## New Buildings

Building codes are minimum standards intended to have a low likelihood of collapse in the maximum considered earthquake but there will be substantial damage in many structures rendering them unfit for occupancy or use. For a new building, a seismic design that results in a four or five star USRC rating may add only 1 to 10 percent to construction costs, or about as much as a typical contingency budget. The USRC rating system allows an owner to specify the desired level of performance rather than accept by default the performance of a building designed to the minimum level prescribed by the building code. A USRC rating empowers developers and building users to make informed decisions about what aspects of performance matter most to them and to explore the cost-effectiveness of seeking higher levels of performance.