



Unreinforced Masonry (URM) Retrofit Program Development

Frequently Asked Questions

What is an URM?

URM stands for Unreinforced Masonry building. A typical URM is a brick building built prior to 1940 that lacks the steel reinforcement and structural connections needed to stand up to seismic motion. Based on an inventory of buildings in the City, Seattle DCI estimates Seattle has over 1150 URM structures, most with commercial and residential occupants. We estimate that almost 40 percent of these have been retrofitted to some degree, with about 10 percent having been substantially retrofitted.

How do I know if the building I own, rent or do business in has been identified as a potential URM?

Seattle DCI posted a [Confirmed URM List](#) on the [URM project website](#). You can find it in the first section on the [Project Documents](#) tab. The list is sorted by address and grouped into neighborhoods. If your building's address is on the list and you do not agree with the URM designation you can provide information to Seattle DCI to reconsider the designation. We posted the [procedure to change the designation](#) on the same page on the website.

If I own an URM, what should I do?

If you decide on a major renovation, to re-occupy a vacant building, or change the use or occupancy of your building you may be asked to comply with seismic regulations in the Seattle Building Code. Otherwise, the City will not require you to upgrade your entire building. For more information on alterations to URMs please see the following:

- CAM 314, *Seattle Building Code Requirements for Existing Buildings that Undergo Substantial Alterations* at <http://go.usa.gov/Yn3x>
- SBC Section 3404.9.2 (requires evaluation and mitigation of seismic deficiencies) at <http://bit.ly/2ctc5gt>
- Director's Rule 5-2004, *Alteration and Repair of Unreinforced Masonry Chimneys* at <http://bit.ly/2dpqdY4>

Why require retrofits?

The primary reason for requiring retrofits of URMs is public safety. However, there are also concerns about retaining important buildings that are the heart of the historic and cultural character of many neighborhoods. An additional by-product of increasing public safety in URM buildings is an improvement in the ability of businesses to reopen in a timely manner following a smaller earthquake — a city's resiliency is key to recovery.

Many URMs buildings are located in areas subject to strong ground motion. Damage to these buildings during earthquakes is well-documented and has been a growing concern not only for the City of Seattle, but for the region and the State of Washington. Two-thirds of the buildings in Seattle determined to be unsafe to enter immediately following the Nisqually Quake in 2001 were URMs. When a building is damaged, occupants in the building are in danger of injury. Debris from the damaged buildings often will block the adjacent sidewalks and roadways which delays emergency response to those trapped in the structure and prolongs overall neighborhood recovery.

Many URMs are designated historic structures or older buildings that contribute to their neighborhood's character. Their loss can impact how a neighborhood recovers from an earthquake and what kind of urban fabric will replace these anchor buildings. For example, when the 1989 Loma Prieta earthquake occurred in northern California, Santa Cruz lost the downtown historic buildings and was removed from the National Register of Historic Places. Over the last 20 years the city center was rebuilt with new buildings and a different cultural character than before the earthquake.

What is the City doing to address URM earthquake retrofits?

In response to this risk, the City of Seattle is considering policy options for improving rates of seismic retrofit as part of a larger URM Retrofit Program. The goal is to improve seismic safety without demolishing buildings or leaving them vacant



due to an inability or unwillingness to upgrade. This is a relatively new area; if the City were to decide to move forward with required retrofits, it would be the first jurisdiction outside of California to do so .

The City created a list of confirmed URMs by merging various building surveys and performing a building by building validation. The list is on the [URM project website](#). Seattle DCI has summarized the analysis of the database in the [Report to Policy Committee of URM List Validation](#), which also includes a link to the list of confirmed URMs in Appendix H.

In 2008, Seattle DCI established a Technical Advisory Committee, which consisted of engineers, architects, building owners, and other stakeholders. This group, working closely with the Structural Engineers Association of Washington (SEAW), drafted a proposed standard for URM retrofits. The standard proposed by the Technical Committee is similar to San Francisco's "bolts plus" minimum standard. The main feature of the "bolts plus" standard is to tie the masonry walls to the floors and roofs with bolts. Such a standard would reduce risk of injuries and building collapse during an earthquake. However, the building itself could still be heavily damaged. Some buildings may not qualify and will require a more extensive retrofit

In March 2012, Seattle DCI convened an advisory committee to provide a sounding board for city staff as a URM retrofit program is developed. Background Reports and Materials, including the URM Survey Report, the Technical Committee Report, summary of the State of California retrofit programs, and all URM Policy Committee documents can be found on the Seattle DCI website. The URM Policy Committee page can be accessed at: www.seattle.gov/dpd/urm.

The policy committee will reconvene in fall and winter 2016-2017. They will finalize the recommendations to Seattle DCI regarding the upgrade program.

What is the City doing to address URM earthquake retrofits?

The URM Policy Committee met several times in 2012 to address the issues listed below. The central tasks of the URM Policy Committee included making recommendations for:

Threshold for retrofit requirement:

Single family homes and multifamily buildings with fewer than 3 units are exempt. All other structures would have to comply.

- **Timeline for retrofit:** All buildings would be required to be retrofitted 7, 10 or 13 years after an

ordinance is passed. More critical buildings, like schools, would have to comply with the shorter timeline, while most buildings would be in the 13-year category.

- **Incentive options:** The committee is continuing to explore options such as transfer of development rights programs; low-cost loans; insurance benefits
- **Penalty or actions:** Recommended penalties include fines, notification of tenants, and liens.
- **Financial incentives:** This is another issue that the committee will continue to explore.
- **Standards for compliance:** The standard recommended by the URM Technical Committee will form the basis for Policy Committee discussions.

How can I get information on the Policy Committee?

The best way to keep up with the progress of the URM Policy Committee is to go to our website at <http://seattle.gov/dpd/urm>.

You can also sign up on the email list to receive periodic announcements at milestones in the process.

Can I participate in the discussions?

The meetings of the URM Policy Committee are public meetings so that you can attend to hear the discussion. If you have comments on any of the issues under discussion, please email your comments to: [SCI URM Policy Committee Comments@seattle.gov](mailto:SCI_URM_Policy_Committee_Comments@seattle.gov).

*This email is for commenting only; you will not receive a response.

What are the next steps?

The Policy Committee Group will meet in fall and winter 2016-2017. The Committee will finalize their recommendations.

