



Memo

Date: March 30, 2023
To: Seattle City Councilmembers
From: Nathan Torgelson, Director Seattle Department of Construction and Inspections
Subject: 1st Quarter 2023 Update on Unreinforced Masonry (URM) Program Development

[Resolution 32033](#), passed in 2021, requested that the Seattle Department of Construction and Inspections (SDCI), in partnership with other City departments, design a mandatory Unreinforced Masonry (URM) retrofit program with the primary goal of protecting life safety given the dangers of collapsing and damaged URM buildings in an earthquake. Additionally, the strategy should work to preserve structures and landmarks that are historically significant, enhance the City's resiliency to earthquake events, and minimize the impact such a program is likely to have on vulnerable populations, to the extent financially feasible.

Work is underway, in coordination with other departments and external partners, to develop the standards of the program, detail a communication strategy for the community (including building owners as well as those living in current URM buildings), and identify resources to reduce the costs and impacts associated with seismic retrofits.

Since the adoption of the Resolution, SDCI has begun this work through two separate tracks – policy development and the hiring of a URM Program Manager, and technical standard development, including an update to the Draft Technical Standards for these buildings.

The recent tragic earthquakes in Turkey and Syria have brought media attention to the development of Seattle's URM retrofit program, with recent inquiries from KIRO, KOMO, KUOW, the Seattle Times, and the New York Times. Published stories have been positive and supportive of the work. Reporters have also inquired about soft-story and non-ductile concrete structures, which Seattle has not inventoried. These are structure types with known seismic vulnerabilities, though less catastrophic than URMs. SDCI and the Office of Emergency Management (OEM) have had discussions about creating a more holistic seismic resilience plan for the city, which would include conducting an inventory of these other vulnerable structure types.

Tuesday, February 28th was the 22nd anniversary of the magnitude 6.8 Nisqually earthquake which caused approximately \$2 billion in property damage, including over \$8 million in repair costs to URMs in Seattle, and injured about 400 people. Seattle has an 86% chance of experiencing another magnitude 6.8 earthquake within the next 50 years. Retrofitting the City's 1100 URMs is critical in reducing injuries and fatalities in expected future earthquakes.

URM Policy Development

SDCI has developed an Interdepartmental Team (IDT) and has reinitiated elements of the Policy Committee responsible for crafting the 2017 URM Program Recommendations through four working groups. These working groups will meet monthly, followed by a quarterly convening of all the groups.

The IDT will also meet monthly, to ensure recommendations from the groups are feasible and supported. The four working groups are:

1. Communications Working Group: (*Met February 27*) focused on developing a communications plan to strategically educate building owners and tenants on requirements, encourage retrofits above minimum standards, and build public support for ordinance adoption. Next steps: Develop a communication plan for the general public, establish a sub-group to create case studies of successful retrofits and their financing mechanisms.
2. Funding Working Group: (*Met February 28*) with the intent of developing multiple funding pathways to reduce the financial burden of retrofits. There are two sub-groups, Retrofit Credits/TDR and Grants & Financing. Next Steps: The Retrofit Credit sub-group will present at a future joint session of the Land Use and Public Safety Committee to discuss needs for a successful Retrofit Credit program. The Grant & Finance sub-group will explore feasible financing solutions and incentives as well as feasible federal grant opportunities.
3. Owner & Tenant Needs Working Group: (*Met March 1*) focused on displacement of tenants and options for short and long-term relocation. Creative financing and strong communications will be critical in overcoming these barriers. Next steps: Analysis of estimated displacements, race and social justice impacts; Information session with retrofit developers on completed projects and lessons learned.
4. Technical Standard Briefing Working Group: (*will be scheduled once draft standard is available, expected early May*) meant to educate interested stakeholders on the development process of the technical standard and provide a forum for questions and answers.

Creating a successful URM retrofit program is a fine balance of public safety, affordable housing, and historic preservation. Given this complexity and with several new Councilmembers coming on board in January 2024, we anticipate the earliest adoption date for this ordinance is summer 2025.

URM Policy Development Working Groups				
Group	Technical Standard Briefing Working Group	Communications Working Group	Funding Working Group	Owner & Tenants Needs Working Group
<i>Intent</i>	<i>Provide forum for Q&A on technical standard</i>	<i>Community engagement and acceptance</i>	<i>Mitigate cost of retrofits</i>	<i>Solve for physical and economic displacement</i>
<i>Sub-Group</i>		<i>Case-studies sub-group</i>	<i>Retrofit Credit/TDR sub-group</i>	
<i>Sub-Group</i>			<i>Grant & Finance sub-group</i>	

URM Technical Standard Task Group

In addition to the Policy Development Working Groups listed above, a group of subject matter experts, led by SDCI, has been working on the technical front as a parallel track. Particularly, since Q3 of 2021, this group has been working on updating the Draft Technical Standard for retrofits previously published by the now disbanded URM Technical Committee in March 2012. The update is necessary to better

align with the latest building codes and structural design standards that incorporate latest research and science as it relates to ground motion hazards and structural retrofit methodology.

The URM Technical Standard Task Group currently consists of nine practicing structural engineers from the local engineering community with expertise in the technical challenges and design standards dealing with URM retrofit projects and are passionate about the subject. Four SDCI structural engineers also serve on the Task Group.

The Task Group continues to work toward the goal of updating the Draft Technical Standard for retrofits. It held its initial kick-off meeting on July 19, 2022, where two sub-task groups were identified to address specific portions of the technical standard that needed in-depth review. Recently, a third sub-task group was created to establish guidelines and compliance processes for previously retrofitted structures. The group is currently focusing on vetting processes and assumptions for the Alternate Method baseline retrofit standard with field experts, presenting to the Structural Engineers Association of Washington (SEAW) Existing Building Committee on February 22 and the Earthquake Engineering Committee on March 14. The next Task Group meeting is currently scheduled to take place in April.

Next Steps

A meeting of the URM Interdepartmental Team will be scheduled, as will April Policy Development Working Group (as outlined above in the chart) meetings. Upon completion of the draft Technical Standard, a meeting with the Briefing Working Group will be scheduled. The Technical Standard Task Group will begin to develop a Director's Rule clarifying the proper interpretation and implementation of the retrofit requirements in the updated Technical Standard that will assure compliance with the anticipated retrofit Ordinance. The intent of the Director's Rule is to provide transparency on future requirements and support for building owners interested in voluntarily conducting retrofits prior to official adoption of the mandatory URM retrofit Ordinance and Program.