2021 Seattle Code Changes

Photo by John Skelton

Seattle Department of Construction & Inspections

Land Use Committee

Micah Chappell, SDCI

August 7, 2024

SDCI Vision, Purpose, and Values

- **Our vision** is to set the standard for awesome local government service.

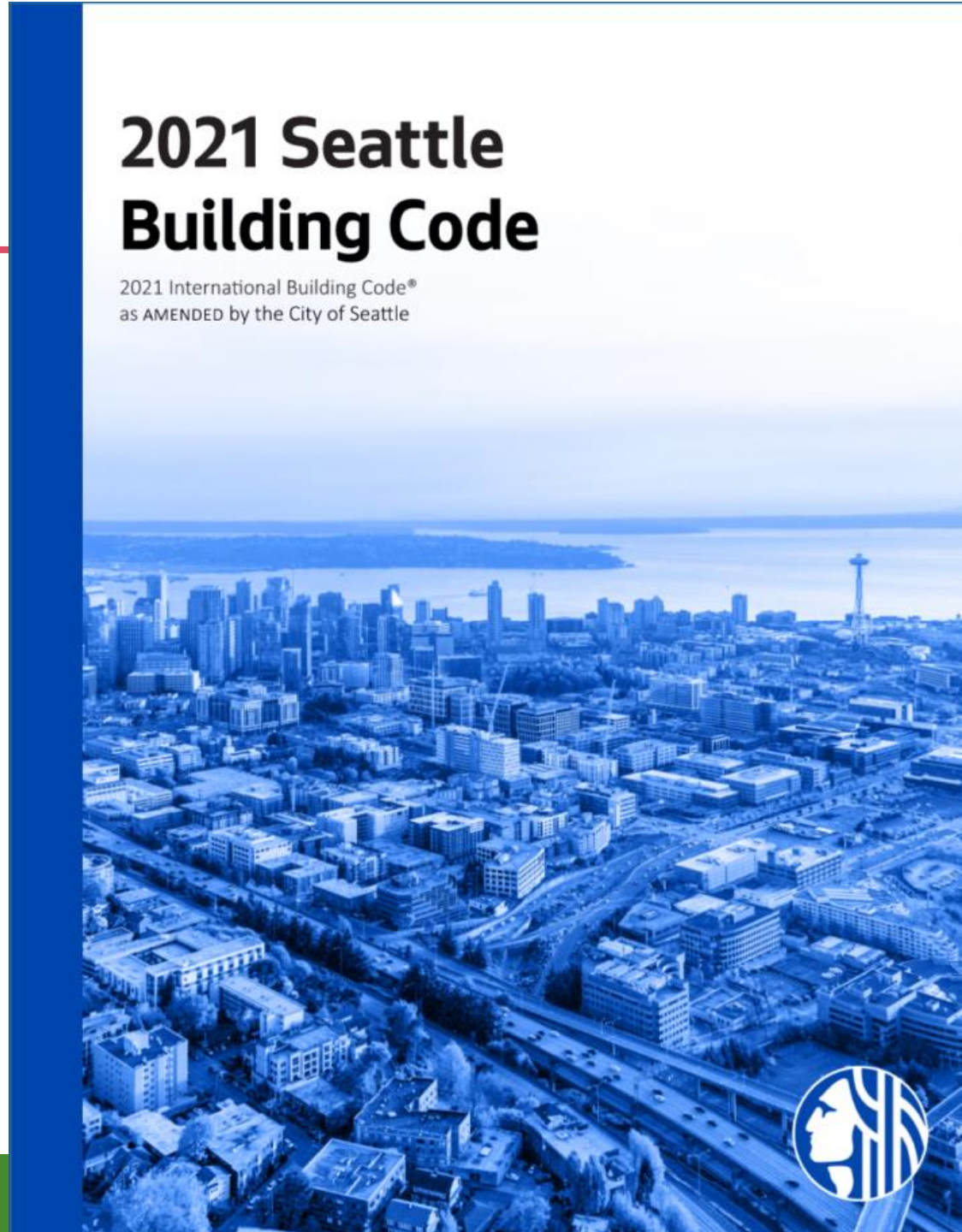
- **Our purpose** is helping people build a safe, livable, and inclusive Seattle.

- **Our values** are equity, respect, quality, integrity, and service.

2021 Code Implementation

- 2021 WA State Codes effective date: **March 15, 2024**

- Proposed 2021 Seattle Codes effective date: **November 15, 2024**



2021 Seattle Building Codes

2021 Seattle Building Code
2021 Seattle Residential Code
2021 Seattle Existing Building Code
2021 Seattle Fire Code
2021 Seattle Mechanical Code
2021 Seattle Energy Code
2021 Seattle Plumbing Code (Public Health Seattle-King County)
2021 Seattle Fuel Gas Code (Public Health Seattle-King County)
2023 Seattle Boiler Code
2023 Seattle Electrical Code

Major Changes in 2021 - Building Code

- Mass Timber Type IV-B ceilings 100% exposed
- Adopts newest version of accessibility standard-A117.1
- Tsunami Loads-adopts latest Washington Tsunami Design Zone maps
- Elevator out of service and decommissioning requirements
- Energy Storage Systems (ESS) requirement updates
- Additional State EV infrastructure requirements

Major Changes in 2021 - Residential Code

- State EV infrastructure requirements for one and two-family dwellings
- Lofts-modifies existing requirements to be more flexible on these spaces

Major Changes in 2021 Seattle Codes – Electrical Code

Electrical Code

- **ESS (Energy Storage Systems)**

New installations of Energy Storage Systems will require a plan review.

- **Photovoltaic installations (PV)**

Installations of PV equipment will be required to pass an on-site cover inspection before the installation can be completed.

- **Smoke Control Fans**

Smoke control fans will need to be identified on the one-line drawings submitted as part of construction documents.

- **Calculated Electric Load**

Modify Article 220.84 to prevent calculated excess service capacity when using advanced heat pump systems.

- **Electric Vehicle Charging Infrastructure**

Modifies Article 220.57 and 625. 27 to align EV charging infrastructure requirements with the Washington State Code.

Major Changes cont. – Mechanical and Plumbing

Mechanical Code

- **Smoke Filtration -** For specific occupancies, ducted air handlers and ventilation systems shall provide a MERV 13 filter and un-ducted air handlers shall provide a MERV 4 filter. This will assist with maintaining the air quality in a building during a forest fire or other adverse event.

- **Minimum Kitchen Exhaust System-** Intermittent kitchen exhaust system requirements set a minimum airflow rate or capture efficiencies for kitchen range hoods based on the type of kitchen appliance. The intent is to reduce the exposure to detrimental health impacts from the pollutants produced by cooking.

Plumbing Code

- Modified definitions and language addressing dead ends in water supply systems

2021 Energy Code Changes - New Buildings

- Low-Rise MF has been moved from Residential Energy Code to Commercial Energy Code (WA)
- Electric-ready commercial kitchens
- Option for multifamily to provide additional solar or efficiency in lieu of submetering
- Post-occupancy completion requirements for commissioning work
- Energy modeling target remains 10% more stringent than WA code for hotel and multifamily

2021 Energy Code - Alterations to Existing Buildings

- Switch from gas heat to heat pump no longer triggers full building upgrade
- Buildings that only have to provide “future decarbonization plan”
  - Affordable housing
  - Hospital, jail, assisted living
  - Nonprofit
  - Small (<20,000 sf)
  - If requiring $$$ electrical service upgrade
- Others can maintain 50% of gas heat capacity
  - If new heat pump is primary heat source
  - *Temporary* replacement of 100% of capacity allowed
- Replacement of existing air-cooled chillers must be heat pump

Unreinforced Masonry (URM) Retrofit Recognition Codes

Photo by John Skelton

Seattle Department of
Construction and Inspections

Amanda Hertzfeld, SDCI

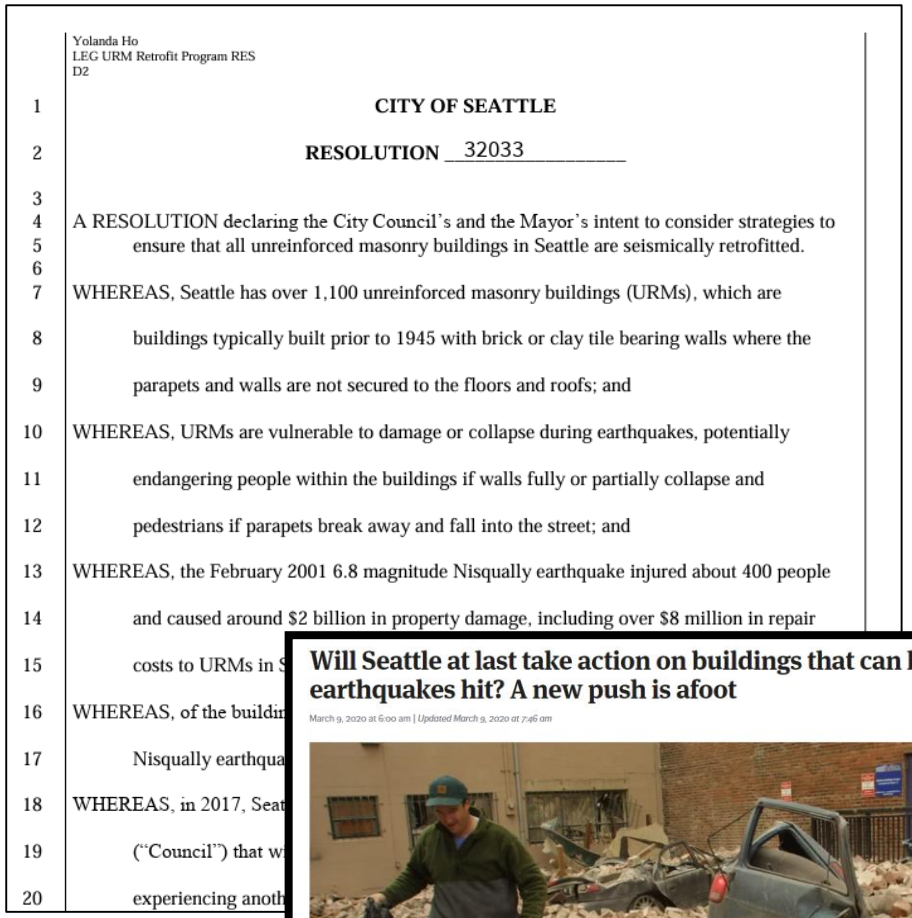
August 7, 2024

2021 Joint Council/Mayoral Resolution 32033

1. Reduce risk of injury and death from URM collapse for occupants and pedestrians.

2. Preserve historically and culturally significant structures.

3. Minimize the impact of URM retrofits on vulnerable populations to the extent financially feasible.



Yolanda Ho
LEG URM Retrofit Program RES
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CITY OF SEATTLE

RESOLUTION 32033

A RESOLUTION declaring the City Council's and the Mayor's intent to consider strategies to ensure that all unreinforced masonry buildings in Seattle are seismically retrofitted.

WHEREAS, Seattle has over 1,100 unreinforced masonry buildings (URMs), which are buildings typically built prior to 1945 with brick or clay tile bearing walls where the parapets and walls are not secured to the floors and roofs; and

WHEREAS, URMs are vulnerable to damage or collapse during earthquakes, potentially endangering people within the buildings if walls fully or partially collapse and pedestrians if parapets break away and fall into the street; and

WHEREAS, the February 2001 6.8 magnitude Nisqually earthquake injured about 400 people and caused around $2 billion in property damage, including over $8 million in repair costs to URMs in S

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Nisqually earthqua

WHEREAS, in 2017, Seat

("Council") that w

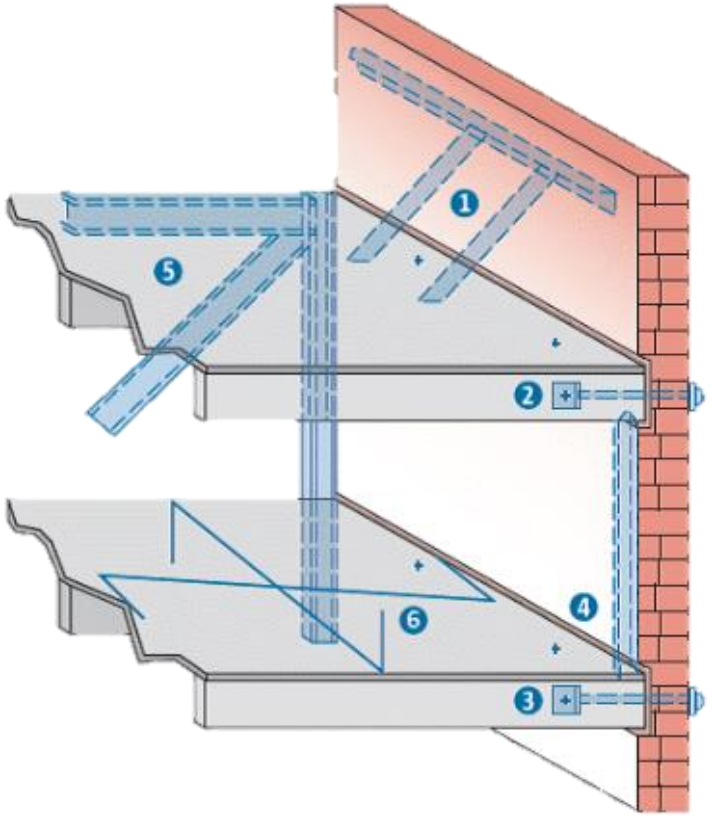
experiencing anoth

Will Seattle at last take action on buildings that can kill when earthquakes hit? A new push is afoot

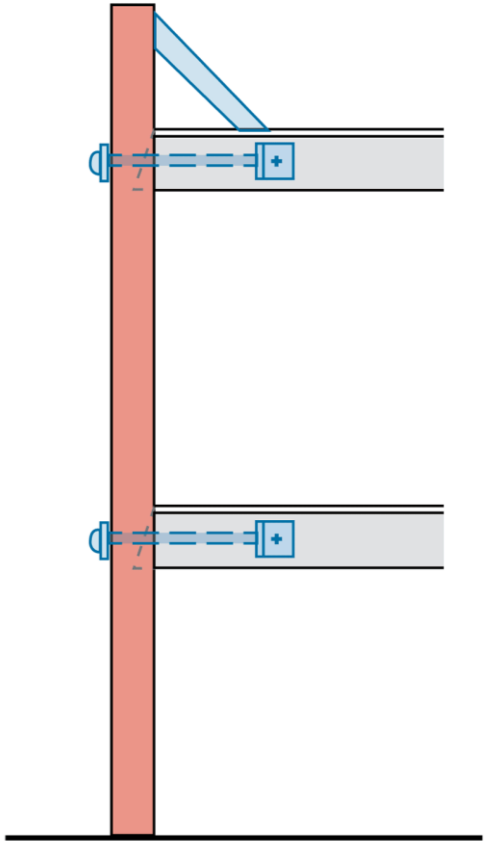
March 9, 2020 at 6:00 am | *Updated March 9, 2020 at 7:46 am*

The Seattle Times

URM Earthquake Retrofit Standard



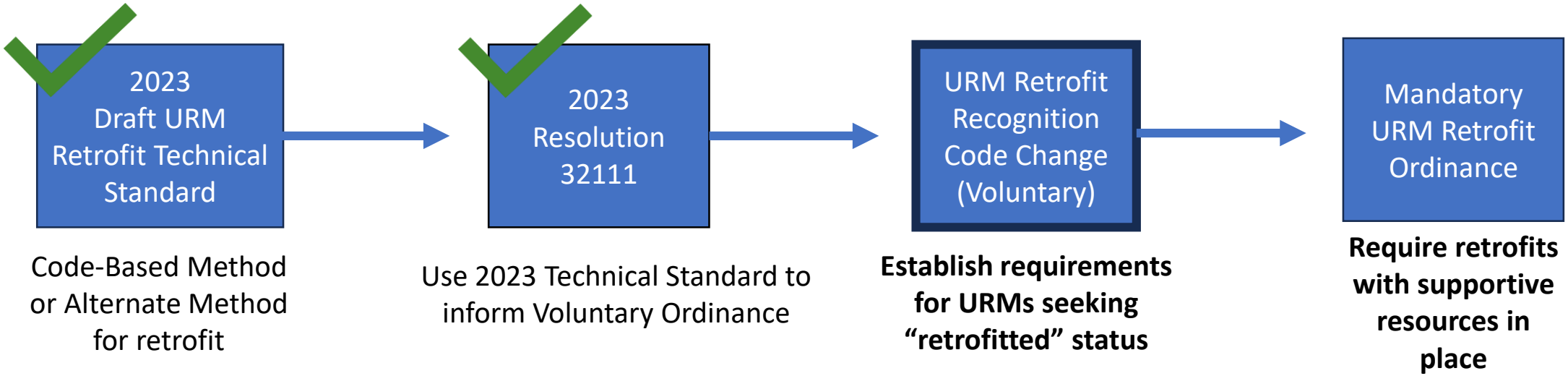
Existing Code-Based Method



New Alternate Method

Pathway to Required URM Retrofits

- Short-term goal: URM Retrofit Recognition Code Change *(2024)*
  1. Defines minimum seismic safety requirements for a “retrofitted” URM building.
  2. Establishes the Alternate Method for URM retrofit, minimizing cost and collapse hazard.
  3. Encourage voluntary URM retrofits by improving owner confidence.
- Long-term goal remains establishing a Mandatory URM Retrofit Ordinance.



Questions?

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