

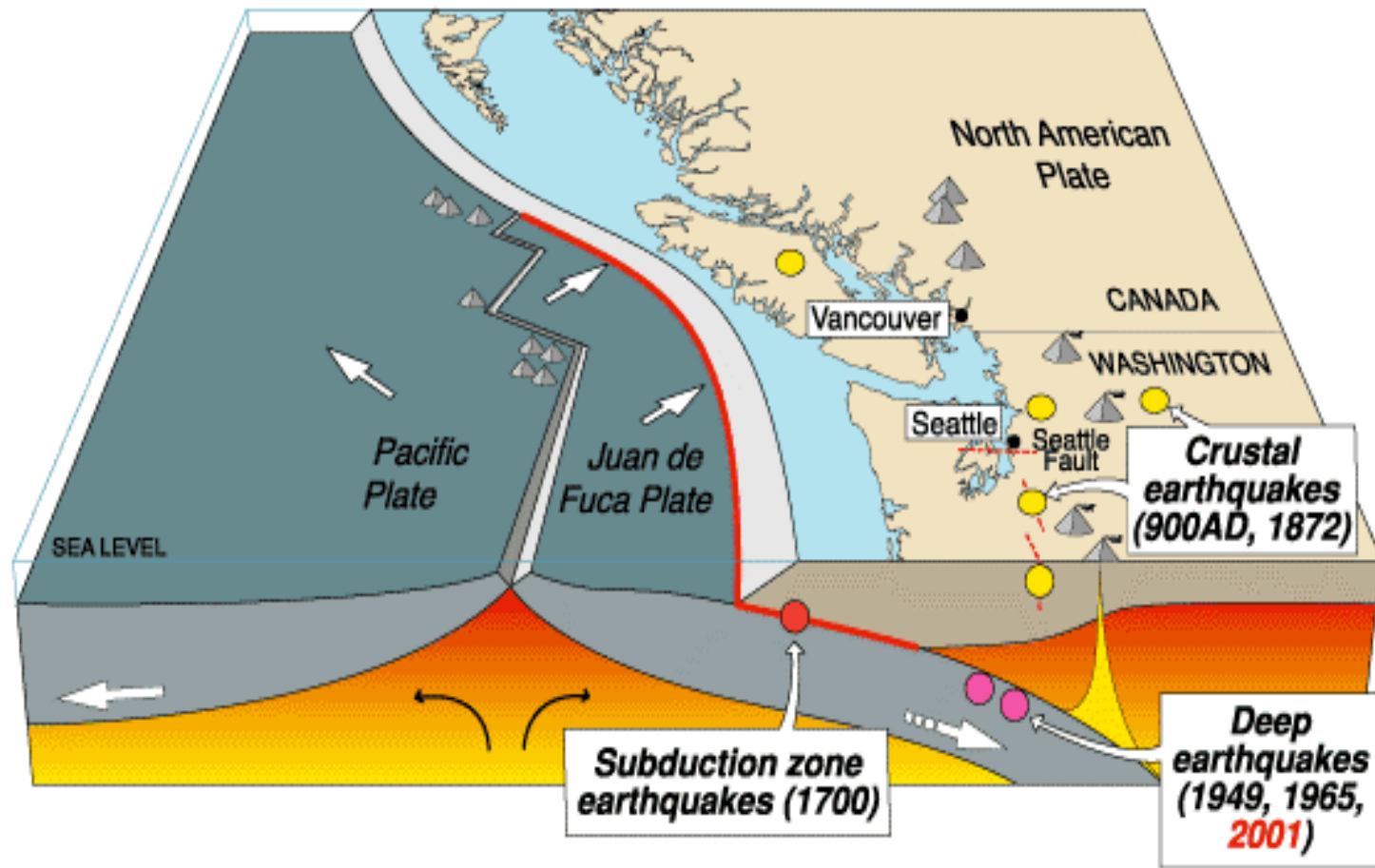
URM Overview

Unreinforced Masonry Policy Committee

March 8, 2012

Geology & Earthquake Hazards

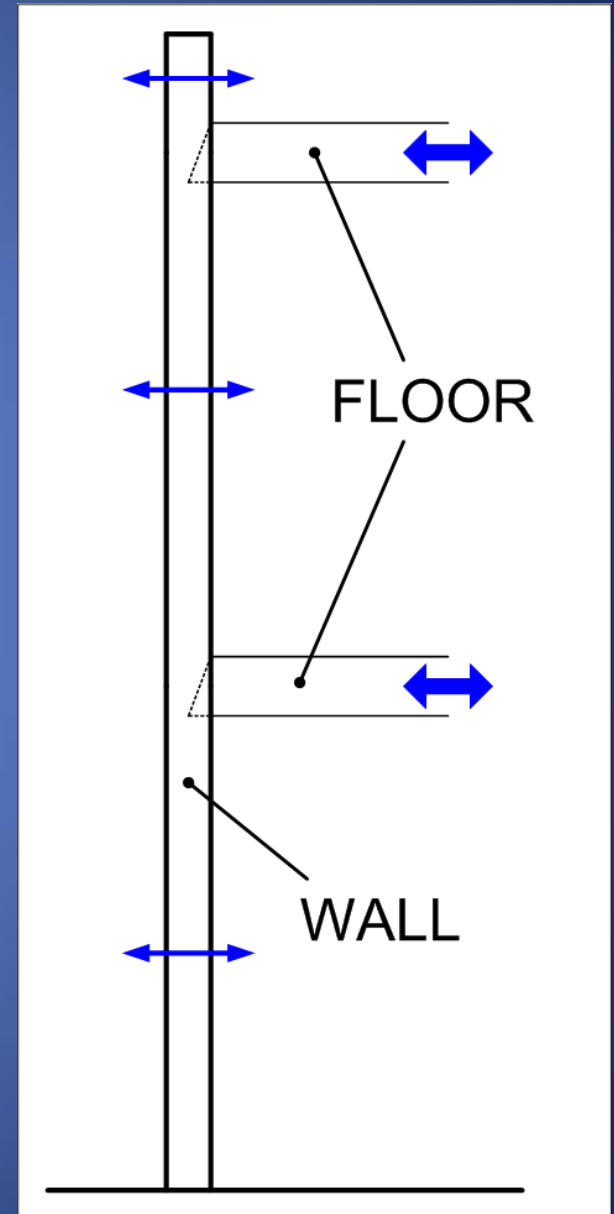
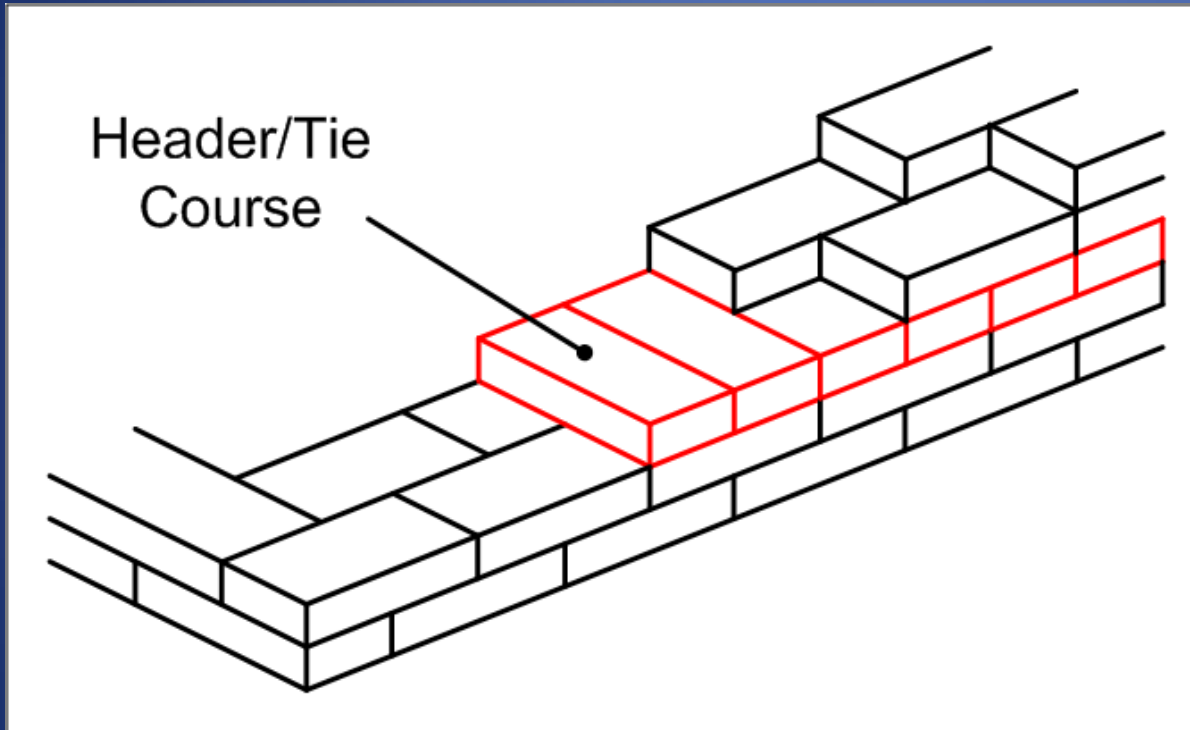
Cascadia earthquake sources



What is a URM?



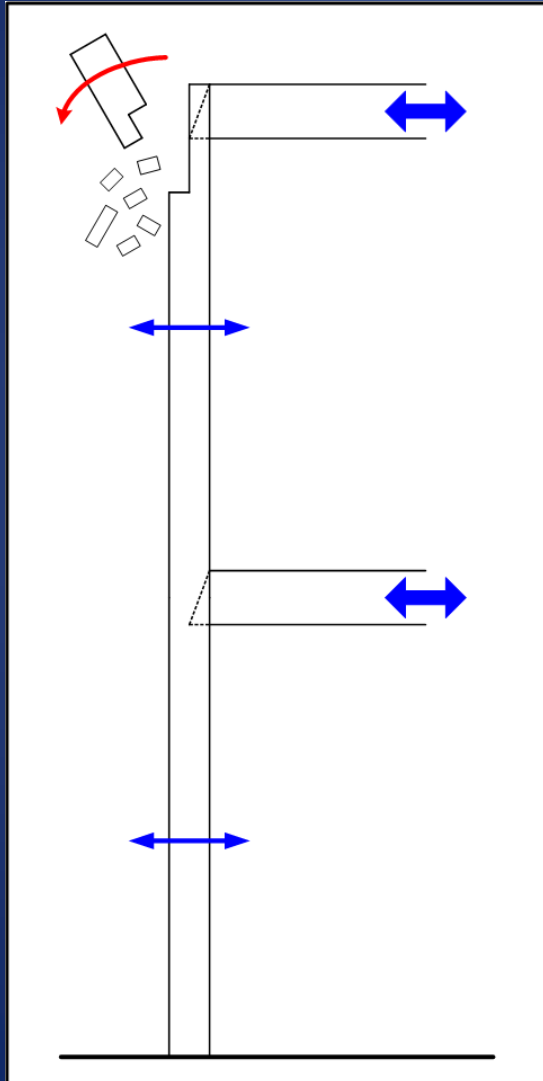
What is a URM?



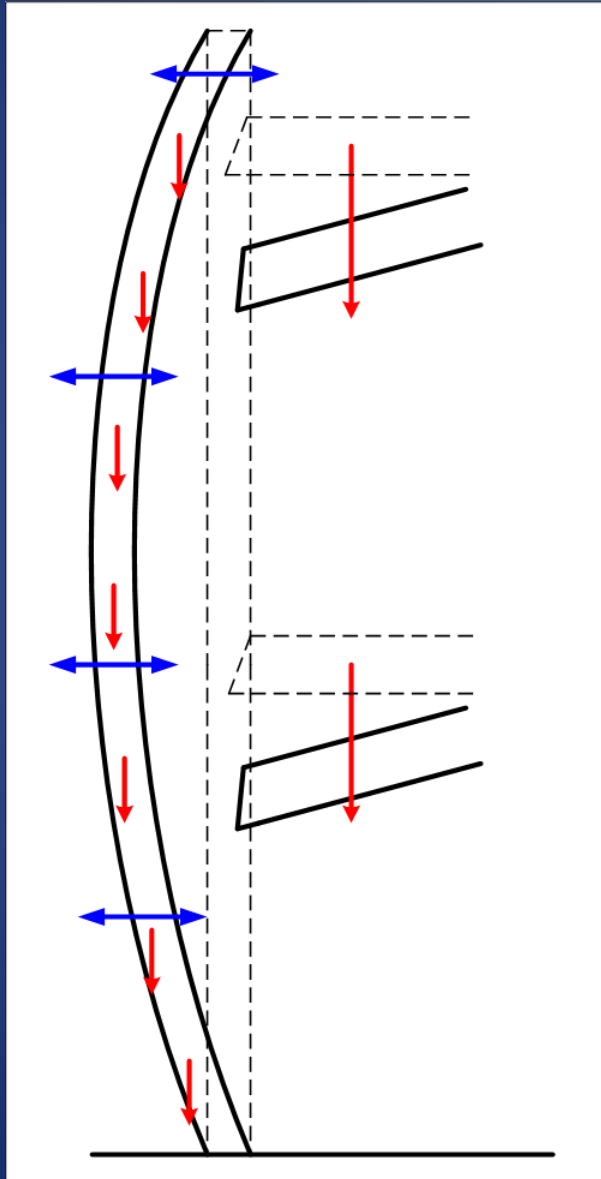
What is a URM?



Earthquake (Mis)Behavior



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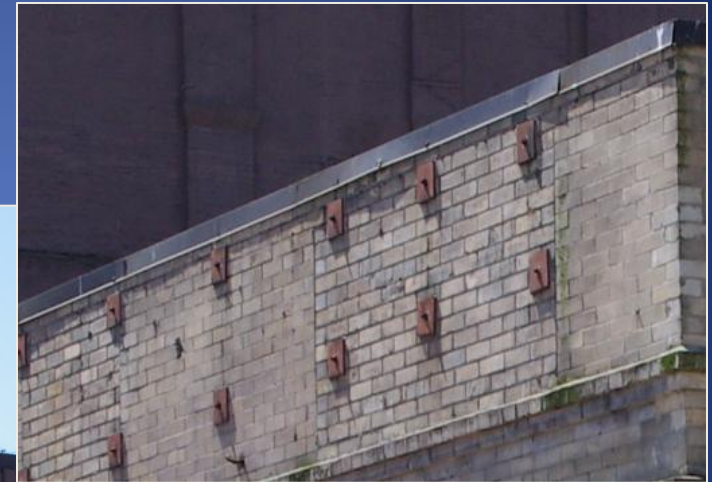
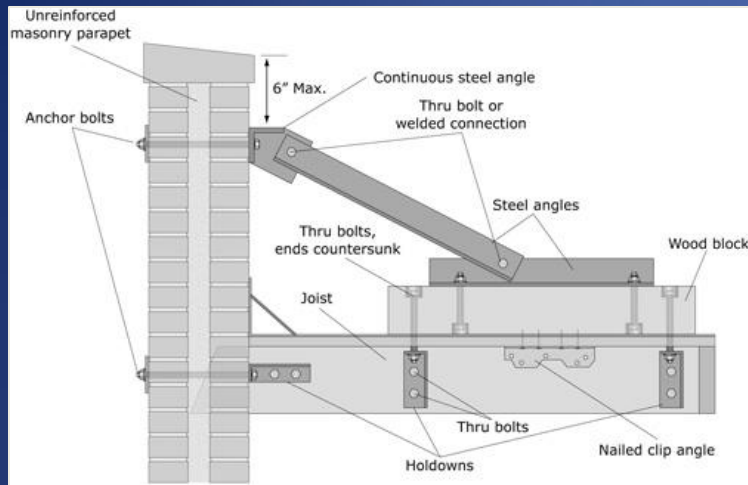


Current City Policy

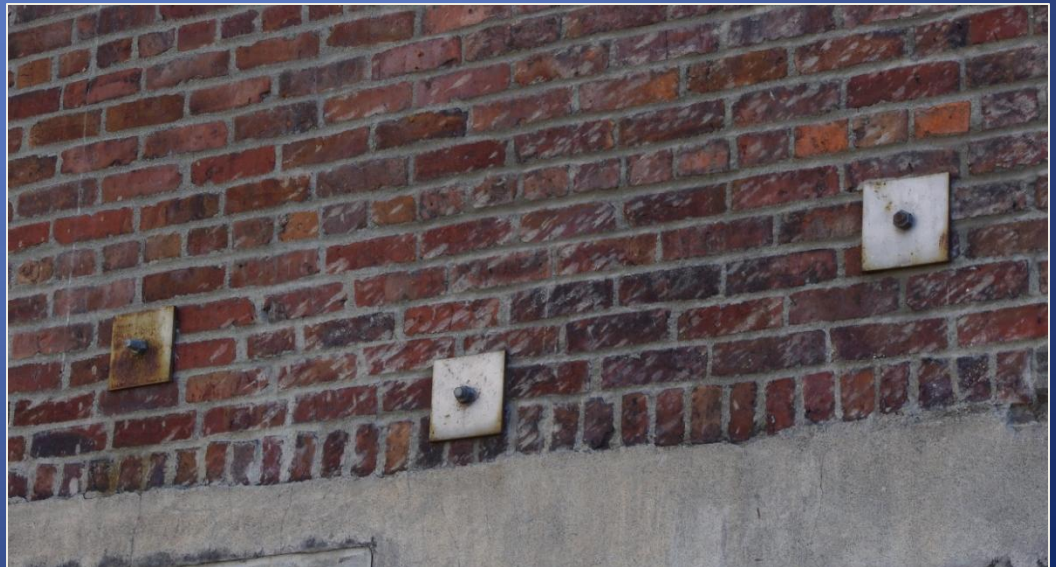
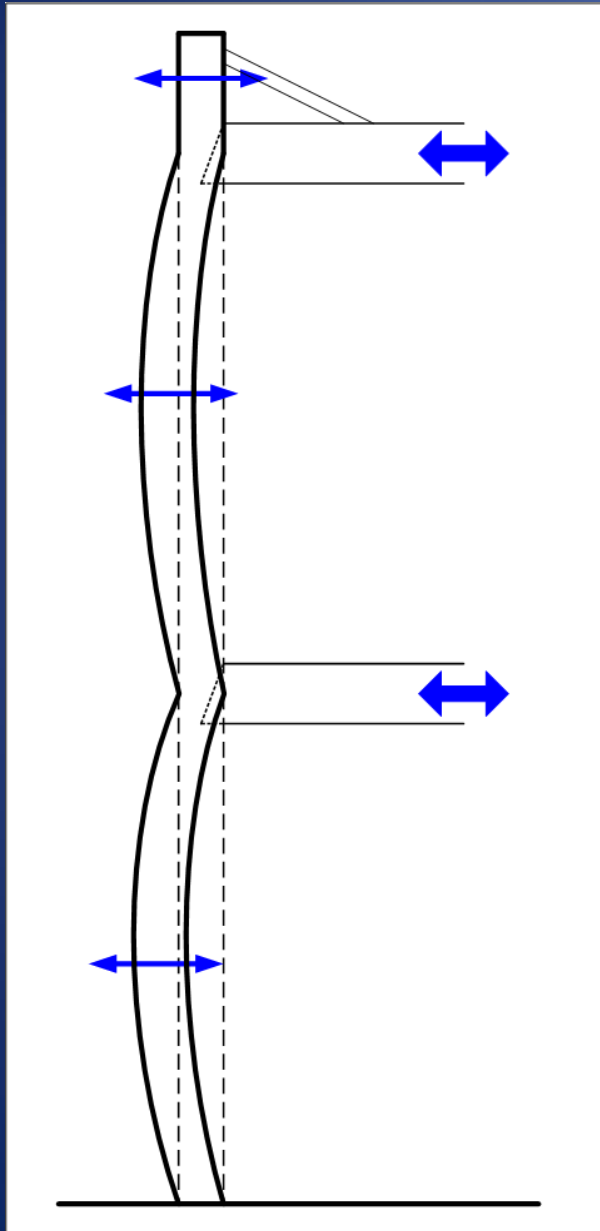
Triggered when doing work requiring permit:

- Brace parapets
- Limited strengthening if minor to moderate damage from event
- Seismic report, retrofit when trigger “substantial repair/alteration”
 - Substantial increase in occupant load
 - Extending useful or economic life of building
 - Major damage from event

Retrofits – Brace Parapets



Retrofits – Bolt Wall to Floor/Roof



Retrofits – Add Braces/Walls



Previous Efforts

- Dangerous buildings ordinances (1974-1978)
- 2008-2009 Effort
 - Policy, Technical Committees met
 - Biggest issue = cost of retrofit
 - Project mothballed in 2010 for lack of funding