

July 24, 2024 Rules Committee

Proposed Soft Story Program Update

Building Safety Services Division

Community Development Department



What is a “soft story” building?



The term “soft story” refers to multi-story wood frame buildings with a weak, flexible or otherwise vulnerable first story



Soft story buildings are identified by large openings on the ground floor walls, typically due to garage doors, open parking stalls or large storefront windows

Why are soft story buildings a problem?

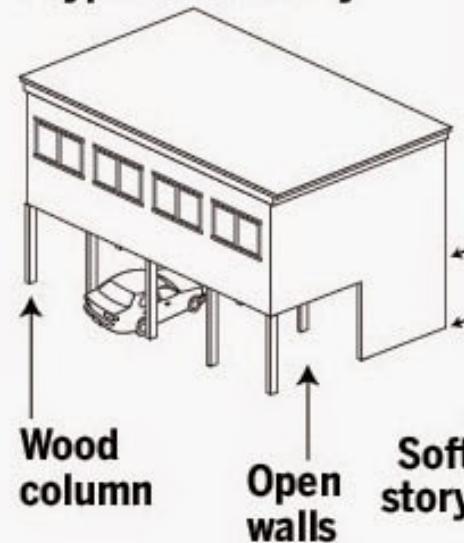
Soft story buildings are susceptible to collapse in an earthquake because heavier upper floors are resting on a weaker ground floor



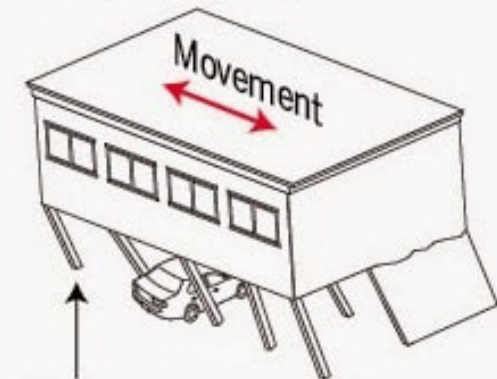
Danger of soft-story design

Soft-story buildings with structurally weak first stories, such as them, are more susceptible to collapse in an earthquake because a weaker ground floor.

A typical soft-story



During an earthquake



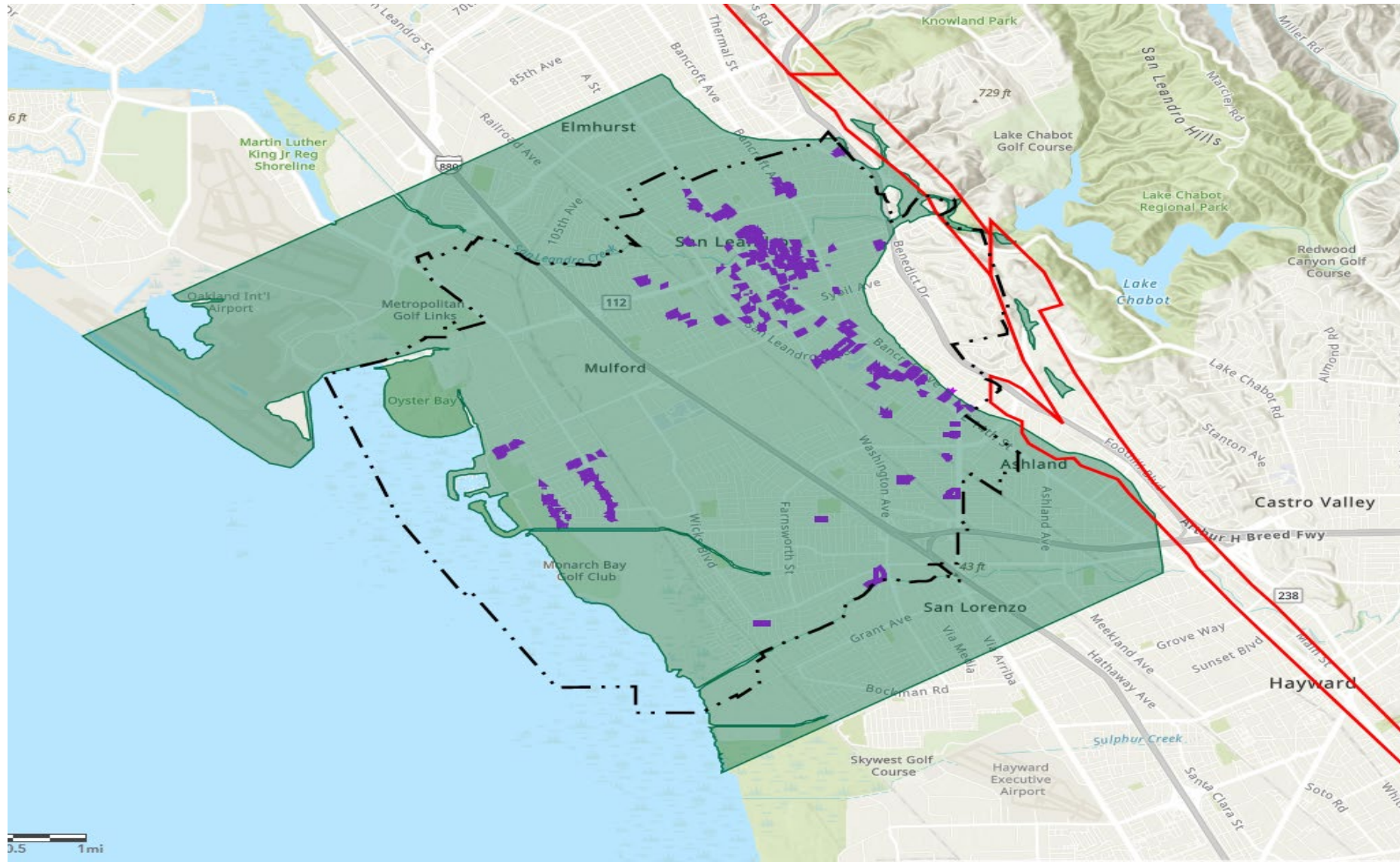
Heavier top floor puts disproportionate lateral stress to the soft story — causing a possible collapse.

Soft Story Retrofit – City Council & Community Priority

- City completed an extensive soft story survey in 2007
- 370+ properties with over 4,000 units were identified as soft story buildings
- City Council allocated federal American Rescue Plan Act (ARPA) grant funds in 2021 to develop a soft story program
- Staff presented a general overview & received initial direction from Rules Committee in January 2023



Soft Story Locations in San Leandro



Green = liquefaction areas*
Purple = soft story buildings
Red = Hayward Fault

**Liquefaction is defined as: ground failure or loss of strength that causes otherwise solid soil to behave temporarily as a viscous liquid.*

What are potential consequences of soft story collapse?

Injuries and fatalities

Loss of housing

Economic repercussions

Property damage

- *Damaged buildings*
- *Crushed vehicles*



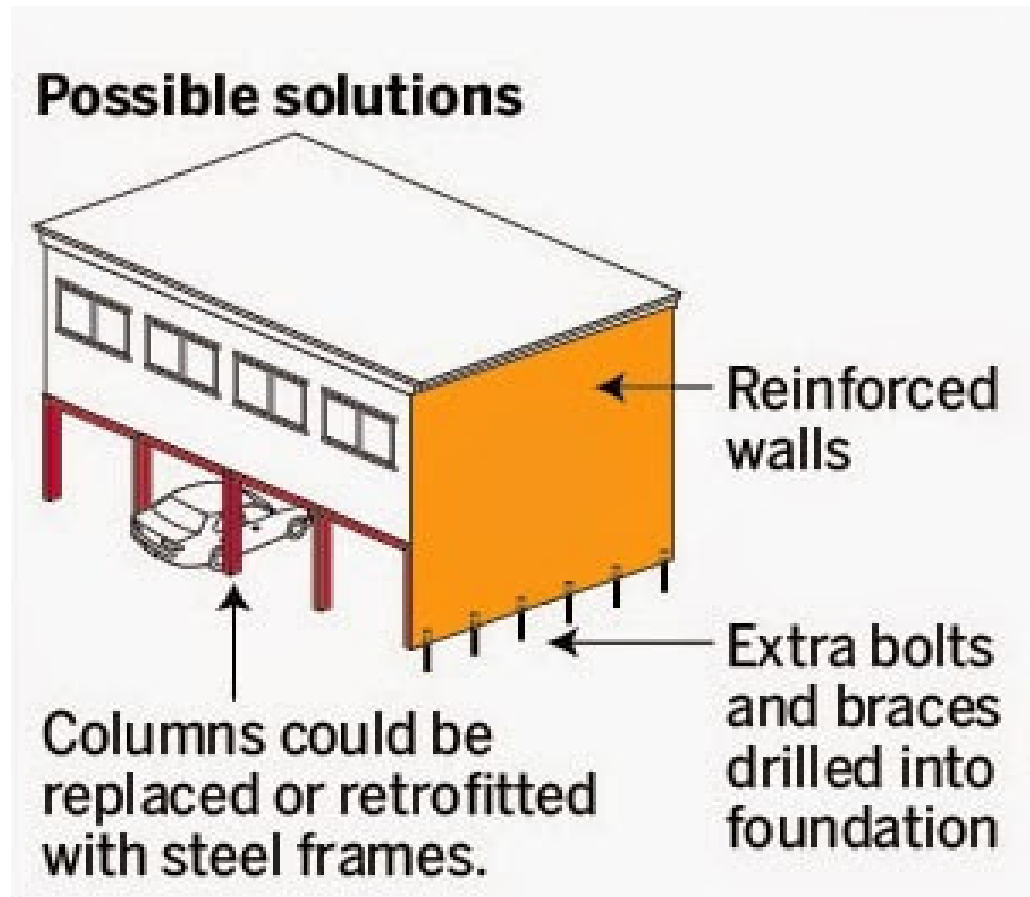
How do you fix a soft story building?

Steel Moment Frames

Shear Walls

Foundation Upgrades

Bracing Systems



What have neighboring Cities done?

	ALAMEDA (mandatory screening – voluntary retrofit)	HAYWARD (mandatory screening)	OAKLAND (mandatory screening and retrofit)
SCOPE	<ul style="list-style-type: none"> All wood framed residential buildings of 5 or more units Permitted before 1985 	<ul style="list-style-type: none"> All buildings of 2 or more stories with 3 or more units Permitted before 1/1/1979 	<ul style="list-style-type: none"> All wood framed residential buildings of 5 or more units Permitted before 1985
ORDINANCE DATE	<ul style="list-style-type: none"> March 2009 	<ul style="list-style-type: none"> July 2023 	<ul style="list-style-type: none"> January 2019
MANDATORY REQUIREMENTS	<ul style="list-style-type: none"> Initial Engineering screening Install earthquake gas shut off valve Notify building tenants Post warning on building 	<ul style="list-style-type: none"> Complete building screening 	<ul style="list-style-type: none"> Complete mandatory evaluation Obtain permits and complete retrofit

What have neighboring Cities done?

	ALAMEDA	HAYWARD	OAKLAND
PHASING	<ul style="list-style-type: none"> 18 months 	<ul style="list-style-type: none"> 1 year 	<ul style="list-style-type: none"> 1 to 6 years dependent pm size and complexity of building
EXEMPTIONS	<ul style="list-style-type: none"> 60 days to appeal determination of soft-story status 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> 1 year to prove they should have more time to comply
ACCOMODATIONS	<ul style="list-style-type: none"> Parking spaces could be eliminated if required to complete retrofit 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Parking, setback and height requirements could be waived Number of units could be increased
SUCCESS RATE	<ul style="list-style-type: none"> 63% of identified buildings retrofitted 	<ul style="list-style-type: none"> 3% of identified buildings retrofitted 	<ul style="list-style-type: none"> 28% of identified buildings retrofitted

Proposed San Leandro Ordinance (based on City of Alameda)

	Proposed San Leandro Ordinance (mandatory screening – voluntary retrofit)
SCOPE	<ul style="list-style-type: none"> • All wood framed residential buildings 5 or more units. • Permitted before 1985
MANDATORY REQUIREMENTS	<ul style="list-style-type: none"> • Initial Engineering screening • Install earthquake gas shut off valve • Notify building tenants • Post warning on building
PHASING	<ul style="list-style-type: none"> • <u>18 months (phased over 6 month intervals)</u> • Notifications to property owners will be issued based on size and hazard of building.
EXEMPTIONS	<ul style="list-style-type: none"> • 60 days to appeal determination of soft-story status
ACCOMODATIONS	<ul style="list-style-type: none"> • Parking spaces could be eliminated if required to complete retrofit

Soft Story public meetings (June 25 & June 27, 2024)



Meeting notices sent in early June to over 1,300 property owners of apartments, condos & townhomes (including HOAs)



June 25 meeting held online (Zoom) & June 27 meeting in person at Main Library



Attendees included condo owners, fixed income owners, owners with duplexes and triplexes & HOA representatives

Summary of notable public comments from June public meetings:

- **Will the City provide financial assistance to help property owners comply with a new ordinance?**
 - Staff response: The cities studied did not provide financial assistance. Also, public subsidies (State & federal) may come with “heavy strings” attached.
- **How soon would compliance need to occur regarding screening & renovations?**
 - Staff response: the proposed ordinance may allow compliance over an extended period
- **Does my building met the definition of a soft story?**
 - Staff response: Public information/education will occur after ordinance adoption
- **How much does an engineering screening report cost?**
 - Staff response: estimated report cost is \$3K to \$7K depending on size

Costs

- For property owners, the cost to retrofit a building averages between \$5,100 to \$8,700 per dwelling unit (Source: Alameda, Hayward, Oakland building permit records, 2018-2022)
- For the City, there are no anticipated impacts on current Building staffing and budget to administer a Soft Story Program
 - *Projected to be full cost recovery based on permit fees*

Next Steps

- Staff recommends that we prepare a draft Soft Story Ordinance modeled after City of Alameda's program for public review

