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CITY OF OAKLAND

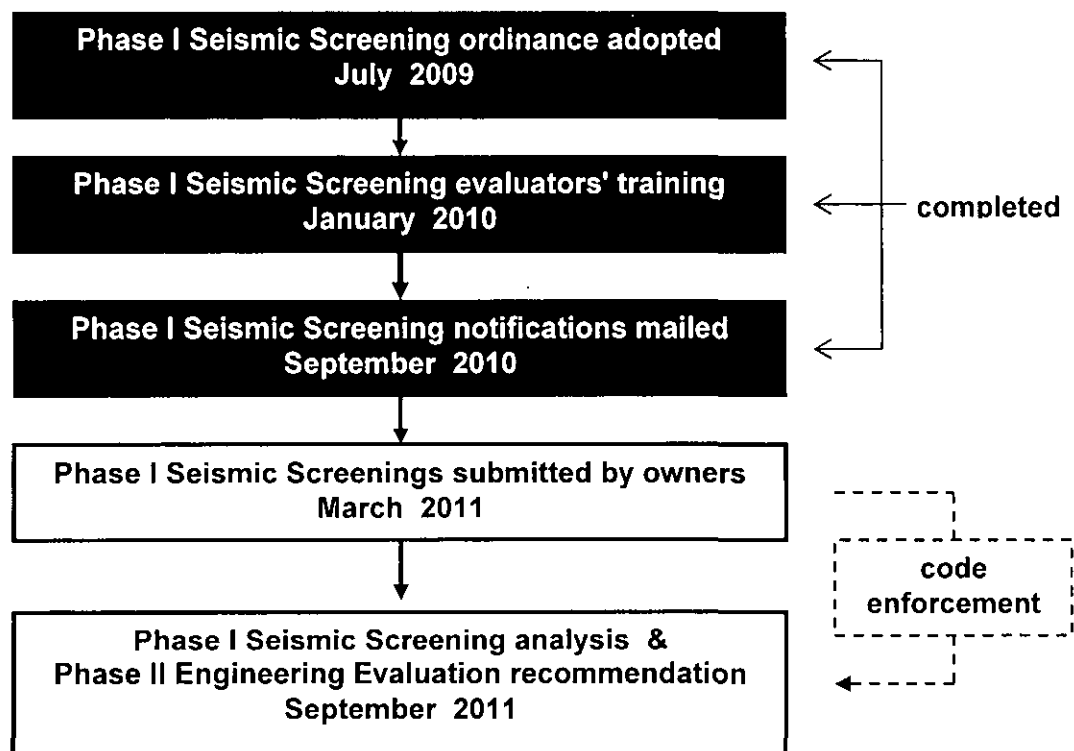
AGENDA REPORT

TO: Office of the City Administrator
ATTN: Dan Lindheim
FROM: Community and Economic Development Agency
DATE: September 14, 2010

RE: **Report And Recommendation On The Implementation Of Municipal Code Chapter 15.26 Requiring a Phase I Seismic Screening Of Residential Buildings**

SUMMARY

On July 28, 2009, the City Council adopted Ordinance No. 12966 C.M.S. (Municipal Code Chapter 15.26) which requires property owners to complete a low-cost Phase I Seismic Screening for 1,400 apartment and condominium buildings with five (5) or more residential units and garage parking or commercial storefronts on the ground floor ("soft story"). Staff has completed the notification by certified and regular mail of these building owners and the introductory training of contractors, engineers, and home inspectors. The next steps for staff will be analyzing the Screening forms (see attachment), which owners must submit within six (6) months of notification, and reporting the results to the City Council with an analysis of the parameters and impacts for potentially requiring Phase II Engineering Evaluations of residential buildings which are vulnerable to significant structural damage from a major earthquake.



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September 14, 2010

FISCAL IMPACT

This is an informational report. As such, there is no fiscal impact.

BACKGROUND

In the fall of 2008, the Association of Bay Area Governments (ABAG) coordinated field surveys by volunteers and developed a list of 1,400 buildings with five (5) or more residential units which potentially have "soft-stories". These buildings house 20,000 renters and owners in 13,000 units. While there are other multiple family buildings in Oakland which have three (3) or four (4) units, these only house 5,000 residents. Oakland Municipal Code (OMC) Chapter 15.26 requires owners of the buildings included in the ABAG survey to submit a low-cost Phase I Seismic Screening form within six (6) months of notification which is prepared by contractors, engineers, or home inspectors. This information will be used by staff to make a recommendation for requiring or not requiring more-costly Phase II Engineering Evaluations for "soft-story" residential buildings.

KEY ISSUES AND IMPACTS

Phase I Seismic Screening

The mandatory low-cost, non-engineered Phase I Seismic Screening is intended to ascertain whether or not "soft-story" buildings require a more expensive Phase II Engineering Evaluation. No mandatory seismic retrofitting is required or proposed.

The Phase I Seismic Screening program includes the following:

- **Owner Notification** (completed)

Property owners identified in the ABAG survey have been notified in writing by Building Services that they must complete the screening and submit a report within six (6) months (March 2011).

- **Evaluator Training** (completed)

In collaboration with ABAG and Councilmembers' staff, introductory training for contractors, engineers, and home inspectors was given in January 2010. Building Services has posted the list of inspectors, contractors, and engineers who have completed the training on its webpage.

- **Seismic Screening Form Submittal** (March 2011)

For those property owners who do not comply submit a Phase I Seismic Screening form by March 2011, Building Services will initiate a Code Enforcement action (Oakland

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Municipal Code sections 15.08.130 and 15.08.140) and may impose administrative penalties up to \$5,000.

▪ **Report**

Building Services will present a report to the Community and Economic Development Committee with an analysis of the Phase I Seismic Screening data and recommendations for requiring or not requiring a Phase II Engineering Evaluation for "soft-story" residential buildings.

Engineers will have the option of using one of following structural standards for the Phase II Engineering Evaluation:

- The current edition of the California Building Code, which requires the most stringent seismic analysis. In this case, the building's water, sewer and electrical lines would remain intact, and the building could be expected to remain habitable following a major earthquake.
- The California Historical Building Code (if the building qualifies), which requires a moderate seismic analysis. In this case, the building would not be expected to collapse, but repairs would be substantial.
- The most current edition of the International Existing Building Code (IEBC), Appendix Chapter A4, which requires the least stringent seismic analysis. In this case, the building would not be expected to collapse, but the building would not be habitable following a major earthquake.

Seismic Retrofitting

Until Phase II Engineering Evaluations are completed, no recommendation can be made whether seismic retrofitting should be mandatory or voluntary. The cost for seismically retrofitting a residential building in San Francisco is estimated to range from \$58,000 to \$114,000 or \$13,000 to \$19,000 per unit. These costs are not based on a specific retrofit standard and do not include upgrades for handicapped accessibility, fire separations, etc. The Phase I Seismic Screening requirement will provide data for the number of residential buildings in Oakland which are potentially high risk for major damage or collapse.

SUSTAINABLE OPPORTUNITIES

Economic

Requiring low-cost seismic screenings of Oakland's residential buildings which may be vulnerable to significant structural damage from a major earthquake will potentially reduce the short and long-term economic impacts of the City's anticipated loss of one-third (33%) of its housing stock .

Environmental

Requiring low-cost seismic screenings to identify residential buildings which may be vulnerable to significant structural damage from a major earthquake will potentially reduce the quantities of debris, airborne dust, fire contaminants, and other environmental contaminants.

Social Equity

Requiring low-cost seismic screenings to identify residential buildings which may be vulnerable to significant structural damage from a major earthquake benefits residents who cannot otherwise effectuate such investigations.

DISABILITY AND SENIOR CITIZEN ACCESS

OMC Chapter 15.26 does not directly improve disability and senior citizen access at this time.

RECOMMENDATION AND RATIONALE

Staff recommends that the Committee accept this report and request an update in September 2011 on the implementation of OMC Chapter 15.26.

ACTION REQUESTED OF THE CITY COUNCIL

No action by the City Council is requested at this time.

Respectfully submitted,



Walter S. Cohen, Director
Community and Economic Development Agency

Prepared by
Raymond M. Derania
Deputy Director - Building Services

APPROVED AND FORWARDED TO THE COMMUNITY
AND ECONOMIC DEVELOPMENT COMMITTEE:


Office of the City Administrator

Attachment: Phase I Seismic Screening form

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Earthquake Safety - Residential Buildings
Soft-Story Seismic Screening Program
 Level 1 Screening Form - \$78.60 filing fee

Alameda County Assessor's Records			
BUILDING ADDRESS _____			PTS _____
PARCEL NUMBER _____	YEAR BUILT _____	LIVING UNITS _____	BUILDING STORIES _____

Step 1	
<i>Fill-in the Building Owner information below, and then go to Step 2.</i>	
Building Owner	
OWNER NAME _____	AGENT NAME _____
MAILING ADDRESS _____	_____
CITY/ STATE _____	_____
PHONE/ E-MAIL _____	_____

Step 2
<i>If one or more of the following criteria apply to your building, it may be exempt from the Soft-Story Seismic Screening Program (go to Step 6). If none of the criteria apply, go to Step 3.</i>
1. has fewer than 5 apartments or condominiums, or 2. was built after 1990, or 3. is a 1 story building, or 4. does not have parking or commercial space on the ground floor, or 5. was previously EQ retrofitted

Step 3	
<i>Fill-in the Screener information below (see Step 6 and attached FAQ), and then go to Step 4a.</i>	
Soft-Story Screener	
NAME _____	COMPANY _____
MAILING ADDRESS _____	CITY/ STATE _____
PHONE/ E-MAIL _____	STATE LICENSE (AS APPLICABLE) _____

Step 4a

Attach a dimensioned sketch of the Ground Floor perimeter footprint with the following information (see attached FAQ), and then go to Step 4b.

1. labels identifying areas of different use or occupancy in the Ground Floor
2. outline of the story above the Ground Floor (balconies, cantilevers, setbacks)
3. labels identifying each side of the building for coordination with photographs
4. gaps (windows, doors, portals) wider than 2 feet in perimeter and interior walls
5. north arrow, street name, and property line setbacks (see attached Assessor's map)
6. locations/ lengths/ materials of perimeter walls, interior walls longer than 2 feet, and columns

plan view sketch of the Ground Floor

(a larger-scale sketch may be attached to this form)

N



Step 4b

Fill-in the Ground Floor information below (see attached FAQ), and then go to Step 5.

Ground Floor - Summary Measurements

1. PERIMETER FOOT-PRINT TOTAL AREA _____ sq. ft.
2. FLOOR/ CEILING MATERIALS concrete deck wood frame (see FAQ for illustration) 3. SIGNIFICANT GROUND SLOPE No Yes (over 6 ft. rise) *If yes, a Level 2 Eval. is required*
4. PERIMETER WALL MATERIALS (check all) wood frame steel frame steel column concrete concrete block wood column 5. INTERIOR WALL MATERIALS (check all) wood frame steel frame steel column concrete concrete block wood column
6. PERIMETER FRONT WALL (parallel to street)
SOLID + GAP WALL LENGTH _____ feet SOLID WALL LENGTH _____ feet
7. PERIMETER LEFT WALL (facing front entrance)
SOLID + GAP WALL LENGTH _____ feet SOLID WALL LENGTH _____ feet
8. PERIMETER RIGHT WALL (facing front entrance)
SOLID + GAP WALL LENGTH _____ feet SOLID WALL LENGTH _____ feet
9. PERIMETER REAR WALL
SOLID + GAP WALL LENGTH _____ feet SOLID WALL LENGTH _____ feet
10. INTERIOR WALLS (parallel to Front/ Rear perimeter walls)
SOLID + GAP WALL LENGTH _____ feet SOLID WALL LENGTH _____ feet
11. INTERIOR WALLS (parallel to Left/ Right perimeter walls)
SOLID + GAP WALL LENGTH _____ feet SOLID WALL LENGTH _____ feet

Soft-Story Screener's Level 1 Certification - Ground Floor information

I certify that the sketch (Step 4a) and measurements (Step 4b) are correct to the best of my knowledge.

signature _____ date _____

Step 5

Attach photographs of the Ground Floor perimeter walls of the building, and then go to Step 6.

exterior photograph of the Front Wall of the building

exterior photograph of the Rear Wall of the building

provide brief explanation in this square if photograph is not attached

Step 5

Attach photographs of the Ground Floor perimeter walls of the building, and then go to Step 6.

exterior photograph of the Left Wall of the building

provide brief explanation in this square if photograph is not attached

exterior photograph of the Right Wall of building

provide brief explanation in this square if photograph is not attached

Step 6

The following summary of the Soft-Story Seismic Screening Program is intended to assist building owners and screeners with determining if a building is within the scope of ordinance no. 12966 CMS, and with understanding the requirements of OMC Chapter 15.26 and the alternatives for compliance.

1. Separate buildings on the same parcel require separate Level 1 screenings forms (or Level 2 evaluations).
2. Additional information and the full text of Chapter 15.26 are available at www.oaklandnet.com. The attached Frequently Asked Questions (FAQ) has clarifying illustrations.
3. A building is subject to the Soft-Story Seismic Screening Program only if it
 - is at least two (2) stories high, and
 - has at least five (5) dwelling units (apartments or condominiums), and
 - has a parking garage or commercial tenant space (or both) on the ground floor, and
 - has not been structurally retrofitted for earthquake after its original construction, and
 - was designed before the 1988 edition of the Uniform Building Code was adopted (January 1, 1991).
4. If an owner believes that a building is exempt from the Screening Program, he or she must submit the supporting documentation to the Building Services Division with a written request that the building be removed from the Soft-Story Building inventory. Exempt buildings will not be charged a filing fee.
5. If a building is not exempt from the Screening Program, owners must submit a Level 1 screening (or Level 2 evaluation) to the Building Services Division *within six (6) months* following notification by the City or within two (2) years following adoption of the ordinance (July 29, 2011). Failure to submit a screening or evaluation will subject the building owner to penalties (\$5,000).
6. A Level 1 screening may be prepared by a licensed engineer or architect, licensed B contractor, building inspector, or a home inspector. A Level 2 evaluation may only be prepared by a licensed engineer or architect, and the preparer's report must be provided to the building's occupants and future tenants.
7. There is \$78.60 fee for filing a Level 1 screening (or Level 2 evaluation). The information in the screenings (and evaluations) will be compiled by Building Services and presented to the City Council for its consideration of potential amendments to Chapter 15.26.
8. The Association of Bay Area Governments (ABAG) periodically provides Level 1 screening workshops for owners and screeners. For scheduling information, go to www.oaklandnet.com.

Building Owner's Submittal - Level 1 Soft-Story Seismic Screening Form
(agent must provide notarized authorization - see attachment)

signature _____

date _____

agent

owner

Earthquake Safety - Residential Buildings

Soft-Story Seismic Screening Program

Frequently Asked Questions

▪ **What is a Soft-Story building?**

A soft-story building is a structure constructed before 1991, when the California Building Code adopted enhanced earthquake design standards, which has large ground-floor openings (parking garage, store-front windows) with slender columns supporting the upper stories. Soft-story buildings are particularly likely to lean or collapse (“pancake”) in an earthquake. Soft-story buildings on sloping ground have an even higher risk of collapsing. This disastrous consequence occurred in San Francisco’s Marina District during the 1989 Loma Prieta earthquake in Santa Cruz.

▪ **Why is Oakland concerned about Soft-Story buildings?**

The Hayward fault runs beneath the Warren Freeway and Interstate 580 in Oakland. The United States Geological Survey and other earthquake researchers have determined that the Hayward fault has the greatest likelihood in the United States of a major earthquake in the near future. Major earthquakes occur along the Hayward fault about every 140 years, and the last occurrence was in 1868. Ground-shaking from an earthquake beneath Oakland will be hundreds of times stronger than the motion caused by the Loma Prieta earthquake. Unless Oakland prepares now, the damage to its housing stock will be catastrophic, causing billions of dollars in economic loss, many injuries and fatalities, and displaced residents.

▪ **Why should owners be concerned about Soft-Story buildings?**

The Association of Bay Area Governments (ABAG) estimates that communities ravaged by natural disasters (hurricane, flood, earthquake, tornado) need a decade or more to recover fully. If your building is damaged in an earthquake, it may be months before it can be evaluated for re-occupancy, and much longer before it is repaired. This inevitable delay will result in lost rental income and a stalled local economy. Thousands of families who are housed in temporary shelters may lose hope in their future in Oakland, and many may simply move away and not return.

▪ **What is the Soft-Story Seismic Screening Program?**

The new ordinance (12966 CMS) mandates that owners of certain residential buildings provide simple and low-cost information to the City about their building’s ground-floor structural supports (dimensions, materials, photographs, floor plan). It does not require any type of structural retrofit.

▪ **Are all buildings included in the program?**

The Soft-Story Seismic Screening Program only applies to buildings which meet all of the following criteria:

- ✓ constructed before 1991 (when the 1988 California Building Code was adopted), and
- ✓ parking or commercial space on the ground-floor (see below for definition), and

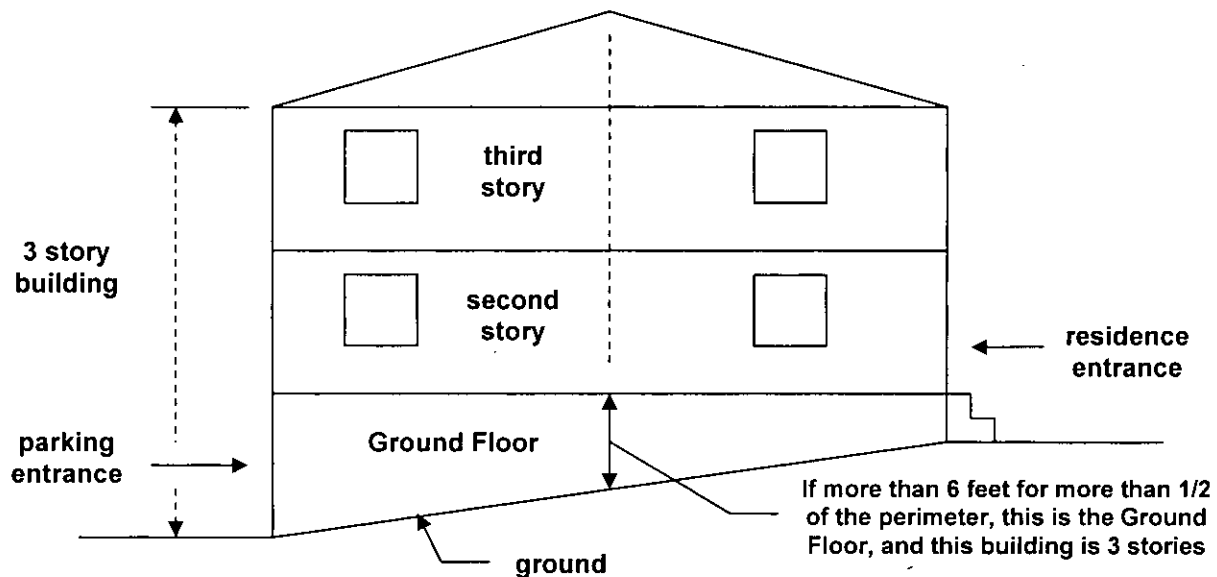
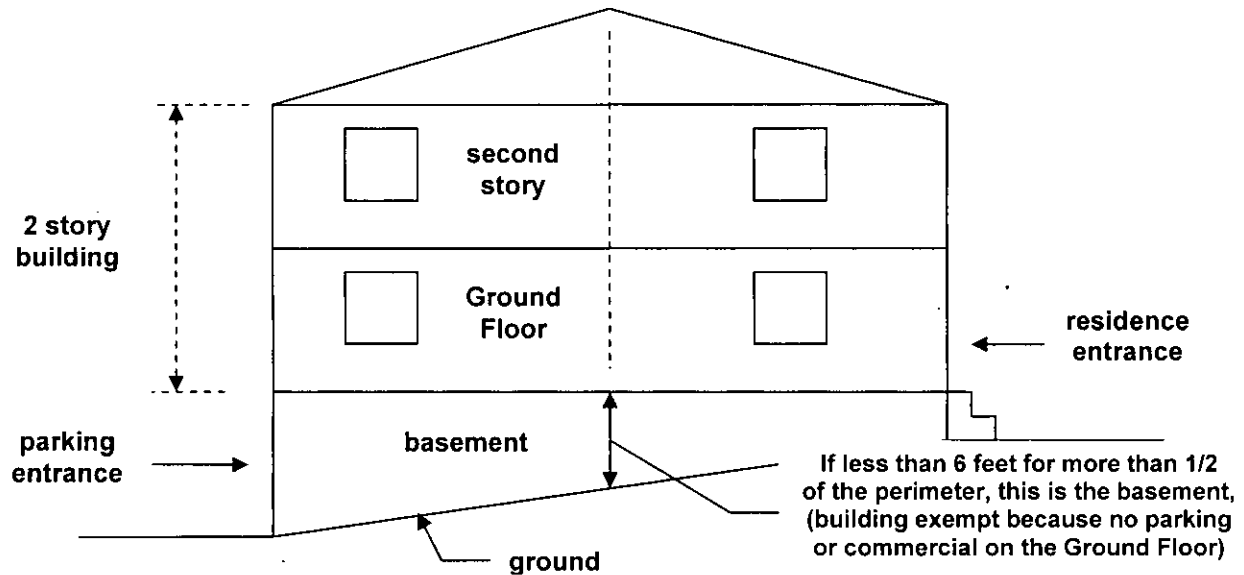
- ✓ five (5) or more apartments, condominiums, or live-work units, and
- ✓ not structurally retrofitted for earthquake forces, and
- ✓ two (2) or more stories (see below for definitions).

▪ **What should I do if I think my building is exempt from the program?**

The building owner should submit a written request to Building Services with supporting documentation (example: permit for original construction or seismic retrofit). No fee will be charged for evaluating this submittal.

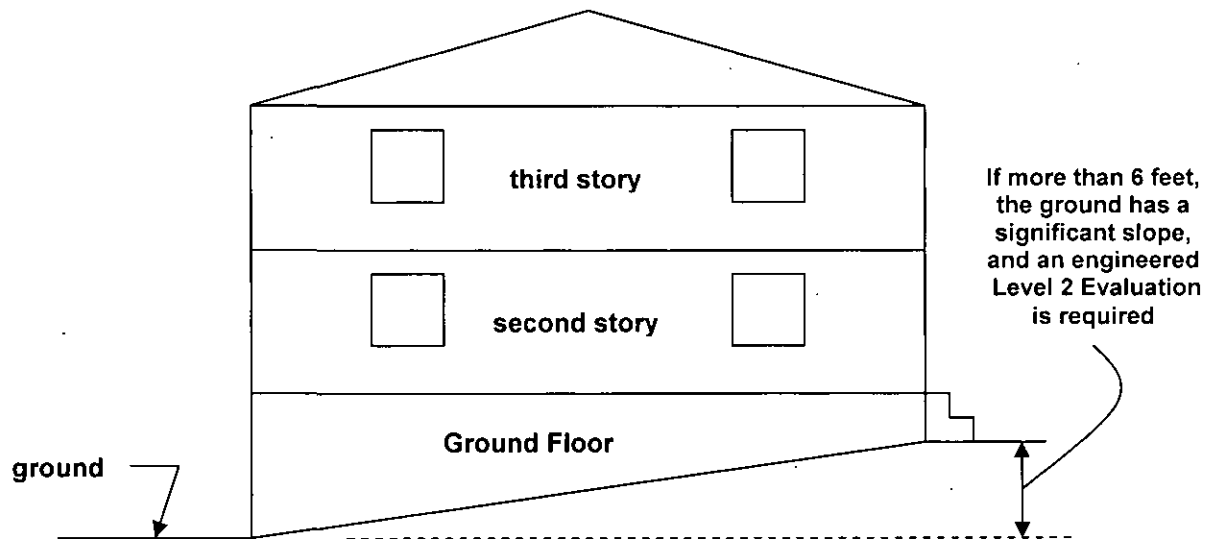
▪ **What is the difference between the Ground-Floor and a basement?**

The ground-floor is the lowest story of a building which is not considered an exposed basement. If any part of a basement rises more than six feet above adjacent grade for more than 1/2 (50%) of the building's perimeter (front, sides, and rear), then the space is considered the Ground Floor.



▪ **What is a significant ground slope?**

If the rise of the ground adjacent to any side of the Ground Floor is more than 6 feet, your building has a significant ground slope and is more vulnerable to major damage or collapse in an earthquake. These buildings are required to have a more detailed Level 2 Evaluation report prepared by a licensed engineer or architect. Do not submit a Level 1 Screening form.



▪ **How do I count the number of residential units in my building?**

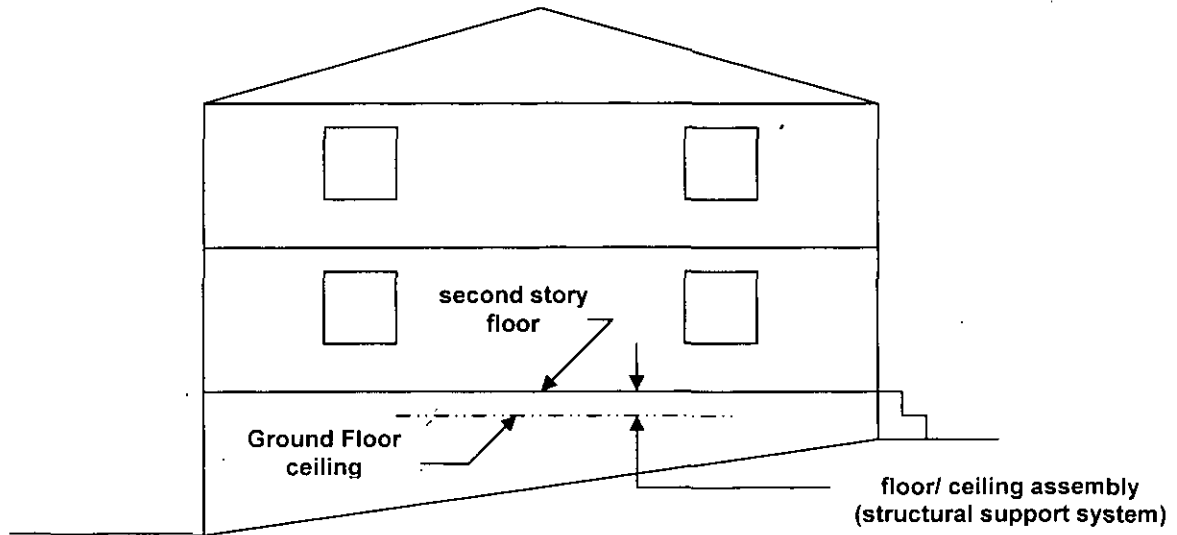
- ✓ Include units with one or more sleeping rooms.
- ✓ Include units regardless of ownership status (example: owned, rented, leased, owner-occupied, time-share, or vacant).
- ✓ If you are not sure, consult with the Building Services Division.

▪ **How do I count the number of stories in my building?**

- ✓ Unfinished attics need not be counted as a story.
- ✓ If the number of stories varies from one part of the building to another, use the maximum number of stories at any part.
- ✓ Small penthouses, equipment rooms, elevator machinery rooms, and similar rooftop enclosures that in total occupy less than 1/3 of the roof area need not be counted as a story.

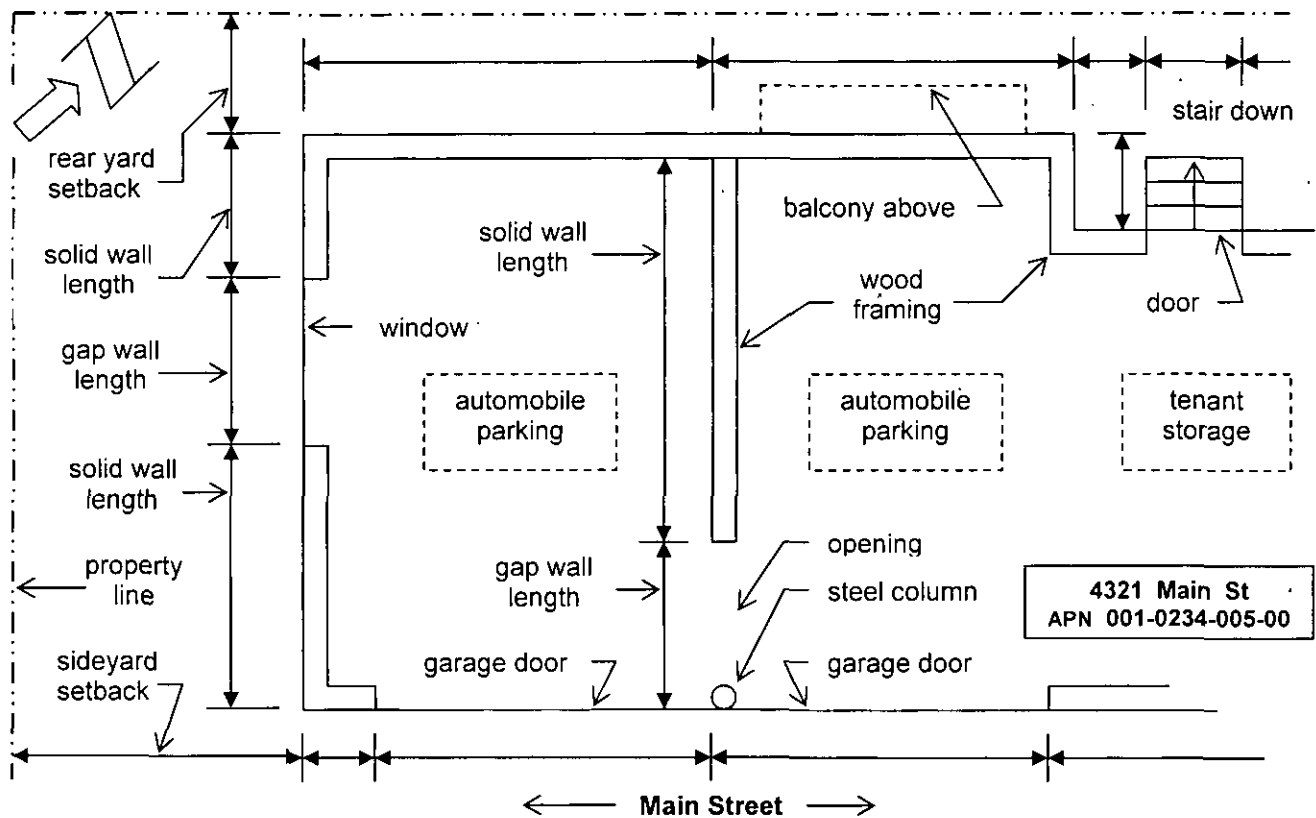
▪ **What is a floor/ ceiling assembly?**

The floor/ ceiling assembly is the overhead structural system that separates the Ground Floor from the story above and supports the floor above. It is typically either wood framing or a concrete deck.



▪ **What should the sketch of the Ground-Floor footprint look like?**

The sketch should be proportional and dimensioned (feet & inches). Walls should be drawn as double-lines, and doors and windows should be drawn as single lines. Wall and column materials should be labeled (steel, wood, concrete, concrete block). Doors, windows, and other openings less than 3 feet wide need not be shown. Projections and setbacks of the floor above should be shown as dashed lines. Stairs should be shown. Property line setbacks should be shown. Street location, building address, and parcel number should be shown.



Doors, windows, and other opening should be labeled. Ground-Floor uses should be labeled. Incidental uses, such as single small closets used for storage or to enclose mechanical equipment, need not be shown.

- ✓ Residential use includes any area used for sleeping rooms or for kitchen, restrooms, lounges, fitness rooms, shower rooms, or other rooms serving residential units elsewhere.
- ✓ Commercial use includes offices, retail, and small food sales. Assembly use includes auditorium, social hall, and restaurant with seating for fifty patrons or more.
- ✓ Parking use includes any area accessible by car or other motor vehicle from the street or driveway, whether or not it is actually used for parking, and whether or not individual stalls or spaces are marked.
- ✓ Drive-through means a driving lane through the building.
- ✓ Storage, utility, and equipment use includes any contiguous area larger than a single closet used for storage, laundry, workshop, boiler, elevator, etc.
- ✓ Crawlspace includes any unfinished, lower height area used primarily for ventilation or for access to under-floor utility lines.

The sketch grid in the Level 1 Screening form assumes that your building has a simple footprint. For L-shaped, O-shaped with a courtyard, and similar non-rectangular footprints which will not easily fit on the grid, additional sheets may be attached as needed.

▪ **How long do I have to submit the Screening form?**

Building owners have until July 29, 2011, to file a Level 1 Screening form (or a Level 2 Evaluation report), unless they receive written notification from Building Services before then that their building is potentially included in the Soft-Story inventory.

▪ **Who can complete the Screening form?**

A building owner may hire a home inspector, contractor, engineer, or architect to complete the Level 1 Screening form (Level 2 Evaluation report requires an engineer or architect). Workshops are held periodically for building owners and screeners. A list of attendees and scheduling information is available from Building Services by faxing 510/ 238-2263.

▪ **How can I get a copy of the Screening form?**

Level 1 Screening forms are available from Building Services by faxing 510/ 238-2263.

▪ **What fee does the City charge for processing the Screening form?**

Building Services charges a \$78.60 filing fee for processing the Level 1 Screening form (or a Level 2 Evaluation report), which may be paid by credit card or check (payable to the City of Oakland).

▪ **Does the City charge for filing an exemption from the Soft-Story Seismic Screening Program?**

There is no fee for submitting documentation that substantiates a building is exempt from the Program.