



Concrete Building Safety Program

Stakeholder Working Group Meeting #2 Summary Memo

November 16, 2022

Working Group Attendees (19)

City & County of San Francisco Staff (6/9)

Invited

Judson True, *Director of Housing Delivery, Office of Mayor Breed*
Lisa Gluckstein, *Housing & Land Use Policy Advisor, Office of Mayor Breed*
Raquel Bito, *President, Building Inspection Commission*
Neville Pereira, *Deputy Director of Permit Services, Department of Building Inspection*
Raymond Lui, *Structural Engineering Section Manager, San Francisco Public Works*
Dan Sider, *Senior Advisor for Special Projects, San Francisco Planning Department*
Liz Watty, *Director of Current Planning, San Francisco Planning Department*
Susan Ma, *Joint Development, Project Manager, Office of Econ. & Workforce Dev.*
Holly Babe Faust, *Construction Rep., Mayor's Office of Housing & Comm. Dev.*

Attended

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X
X
X
X
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X
X

Technical Experts (6/6)

Invited

Duke Crestfield, *Principal, Triangle Engineering*
Ned Fennie, *Architect, DBI Code Advisory Committee*
David Friedman, *Board Member, SPUR*
Sarah Atkinson, *Earthquake Resilience Policy Manager, SPUR*
Robert Kraus, *Structural Engineer, Structural Engineers Assoc. of Northern California*
Jenna Wong, *Assistant Professor of Civil Engineering, San Francisco State University*

Attended

X
X
X
X
X
X

Residential Building Owners (4/6)

Invited

Chris Cummings, *Dir. of Housing Development, Tenderloin Neighborhood Dev. Corp.*
Heather Lea Heppner, *Housing Preservation Mgr., Chinatown Comm. Dev. Center*
Janan New, *Executive Director, San Francisco Apartment Association*
Charley Goss, *Govt & Community Affairs Mgr., San Francisco Apartment Association*
George Orbelian, *Building Owner, 640 Mason Street*
Freeda Rawson, *Associate Director of Resident Services, Mercy Housing California*

Attended

X
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X
X
X
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Commercial Building Owners (1/3)

Invited

Alex Bastian, *Director, Hotel Council of San Francisco*
Lisa Yergovich, *Principal, Architectural Resources Group (on behalf of BOMA SF)*

Attended

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X

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

Tenant Representatives (0/3)

Invited

John Elberling, *Executive Director, Yerba Buena Neighborhood Consortium*
Raquel Redondiez, *Director, SoMa Pilipinas*
Fred Sherburn-Zimmer, *Executive Director, Housing Rights Committee of SF*

Attended

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Business Representatives (0/3)

Invited

Rodney Fong, *President & CEO, San Francisco Chamber of Commerce*
Emily Abraham, *Dir. of Legislative & Community Affairs, SF Chamber of Commerce*
Johnny Jaramillo, *Executive Director, PlaceMade*

Attended

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Labor Representatives (0/1)

Invited

Rudy Gonzalez, *Secretary-Treasurer, SF Building & Construction Trades Council*

Attended

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Builders & Developers (2/3)

Invited

Matt Field, *President, TMG Partners*
Gregory Johnson, *Associate Director, CBRE*
Brian Main, *Vice President, Construction Manager, Plant Construction*

Attended

X
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X

Project Team Attendees (12)

Office of Resilience & Capital Planning (3), Project Lead

Brian Strong, *Chief Resilience Officer*
Melissa Higbee, *Resilience Program Manager*
Laurel Mathews, *Senior Earthquake Resilience Analyst*

Applied Technology Council (3), Technical Lead

Ayse Hortacsu, *Project Technical Team Manager*
Joe Maffei, *Project Technical Director*
Karl Telleen, *Project Technical Team Member*

CivicMakers (3), Engagement Lead

Judi Brown, *Project Director & Lead Facilitator*
Mike King, *Project Manager*
Terri Feeley, *LBE Subcontractor & Facilitator*

Other City Staff (3)

Christine Gasparac, *Assistant Director, Department of Building Inspection*
Patrick Hannan, *Communications Director, Department of Building Inspection*
Jeff Buckley, *Legislative Aide, District 11 Supervisor Safai's Office*

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

Meeting Purpose

1. Share the City's up-to-date thinking and progress related to the following programmatic topics: tilt-up building retrofits and building information reporting.
2. Clearly distinguish between technical policy considerations (to be handled by the City team) and non-technical policy considerations (to be influenced by the working group during the meeting).
3. Learn how to work together to provide programmatic recommendations that working group members can support (or at least live with).

Meeting Background Materials

1. [Stakeholder Engagement Summary Report](#) (July 2022)
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Meeting Summary

Welcome & Introductions

Project team and working group attendees convened virtually via Zoom. Judi Brown, Lead Facilitator, welcomed participants and led participants through quick verbal introductions. Laurel Mathews, Senior Earthquake Resilience Analyst, presented a quick overview of the Concrete Building Safety Program, the role of the working group, and the day's topics for discussion. Judi Brown reminded participants about the day's agenda and objectives, and the group's agreements for positive, productive conversation.

Tilt-Up Buildings

Joe Maffei, Project Technical Director, presented an overview of tilt-up buildings. The presentation included information on potential retrofit levels and standards, program scope, and the potential criteria for buildings to be included in the program. Working group members were invited to ask questions and make comments following the presentation.

Terri Feeley, Lead Facilitator, led working group members into a discussion of three questions related to the presentation content. Working group members were assigned to three breakout groups, each with a project team facilitator and technical team member. Each group discussed the same three questions. The questions and the working group comments are noted on the following pages.

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

Breakout Group Questions & Comments:

Note: the language below in italics reflects the spirit of the dialogue but is not always a direct quote.

Question #1: Are some tilt-up buildings more important to protect in an earthquake?

General Takeaway: Possibly. Working group members were divided on whether building use and/or occupancy would be useful in determining if some tilt-up buildings are more important than others in the event of an earthquake. Members also acknowledged the interrelation between the two criteria (e.g., wanting to prioritize uses that result in high occupancy). They offered a number of points in favor, counter-points against, and other considerations that warrant further exploration.

Points in favor of building use or occupancy as a criterion:

- *High occupancy use should be a factor, as it relates to life safety.*
- *We should front-load considerations on risk-to-life.*
- *The most important buildings are the ones that may fall down and kill people.*
- *We should consider the density of occupants and the amount of time the building is occupied (e.g., housing > warehouse).*
- *We should retrofit important uses now. Other (less important) uses can be retrofitted when triggered by a change-of-use.*

Counter-points against use or occupancy as a criterion:

- *Building uses sometimes change over time. For instance, a hardware store might turn into a shoelace store.*
- *It is a messaging challenge if different buildings require different retrofit levels. It might make sense to design a simpler program for this reason (i.e., the unpredictability of future building use). Distinguishing buildings based on use makes the program more complicated to implement.*

Other considerations:

- *After the potential for loss of life, the second layer to consider is a city-wide look at functionality (system-wide) and see if the city has any tilt-up buildings in the mix.*
- *In the Soft Story Program, building use played a role primarily in an attempt to slice the population of buildings into groups to get the best bang-for-the-buck in terms of number of dwelling units protected.*
- *We need to look at how and where building uses have shifted. For instance, the change to more grocery deliveries makes it harder to prioritize grocery stores. The Uber driver getting it from the warehouse may need to be more protected. The last-mile warehouse might be more critical now than the grocery store itself.*

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

- *Where are the places people go during an emergency? Schools, community centers, hospitals, etc. Schools and hospitals are already under state seismic rules. The current building code looks at risk categories. Occupancy (load) and type are also important. Occupant load only matters at >3,000 people, so we need to think about the importance to the community around them. That means looking at commercial corridors.*

Question #2: Should some tilt-up buildings be retrofitted to a higher standard?

General Takeaway: Having two retrofit standards for tilt-up buildings may not be worth the distinction. Working group members offered a number of points in favor, counter-points against, and other considerations that warrant further exploration.

Points in favor of retrofitting some tilt-up buildings to a higher standard:

- *If the higher standard is to include seismic bracing of life-safety-related non-structural components (as opposed to higher standard of structural retrofit), that could be synergistic with tilt-up structural retrofit work and be consistent with the objectives of the program.*

Counter-points against retrofitting some tilt-up buildings to a higher standard (or having two standards:

- *Higher standards can be a slippery slope.*
- *If it is a nominal cost and effort to go from 75% to 100% of code, just require 100% (or incentivize to get beyond 75%).*
- *By the time you put the anchors in, the difference between getting from 75% to 100% of code is very little.*
- *75% of code versus 100% of code may be too fine of a point to distinguish.*
- *Aim for a high rate of program compliance by keeping the retrofit work focused on low-hanging fruit (e.g., working on the underside of the roof) and avoid higher standards that would raise issues of exterior work, roofing, adjacency, etc.*
- *Getting to the connections may be the costly part. The incremental cost for a bigger connector is very small, and most of them you can probably get to easily.*

Other considerations:

- *Do we want to do a baseline percentage (X percent of code), or should there be certain elements that the owner must address?*
- *Lateral force resisting needs to be included.*
- *The Soft Story Program did not address non-structural components.*

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

Question #3: What criteria should the City use to distinguish important tilt-up buildings?

General Takeaway: Working group members were divided on whether building use and/or occupancy would be useful criteria in distinguishing important tilt-up buildings. They offered a number of use and occupancy considerations that warrant further exploration.

Important building uses:

- *Warehouses and storage facilities, especially those that store resources for our recovery (e.g., medical supplies). (+2)*
- *Grocery stores. (+1)*
- *Food banks. (+1)*
- *Cell phone towers. Buildings that have our communications on them.*
 - *Infrastructure generally would be outside of the [program's] scope, but it is very important.*
- *BART.*
- *Buildings adjacent to important uses or supplies.*
- *Ambulance.*
- *Medical buildings like clinics.*
- *Pharmacies.*
- *Childcare facilities.*

Other building use considerations:

- *Trader Joe's is a higher priority than an auto body shop.*
- *Some important uses are not searchable in a database. For example, afterschool programs. Could we ask for more information about these uses in the screening form?*

Occupancy considerations:

- *There are several ways to determine occupancy, including code occupancy and occupant load. But none are consistent over time; all can change if the use of the building changes. Whatever criteria we use, we want it to be objective.*
- *It is also important to consider a building's hours of operation. How many hours of the day are the buildings in use?*
- *Also, it is important to ask who is using these buildings. Are there preschoolers, seniors, physically disabled persons, developmentally disabled persons? These are populations that might not be able to exit a building easily.*
- *Multi-story tilt-ups can have a lateral force deficiency. The Tenderloin Police Station is 2 stories, for instance. It should be a higher priority due to occupancy.*

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

Building Information Reporting

Joe Maffei presented an overview of the typical stages and schedule of a building retrofit program, followed by a presentation on the first stage of the program: building information reporting. The presentation included the types of information typically collected on a building information reporting form, and the City's objectives for reporting. Working group members were invited to ask questions and make comments following the presentation.

Judi Brown led working group members into a discussion of two questions related to the presentation content. Working group members were assigned to three breakout groups, each with a project team facilitator and technical team member. Each group discussed the same two questions. The questions and the working group comments are noted on the following pages.

Breakout Group Questions & Comments:

Note: the language below in italics reflects the spirit of the dialogue but is not always a direct quote.

Question #1: What is a reasonable deadline for owners to complete the form?

General Takeaway: Working group members wanted more information to feel confident in their answer to this question, but generally agreed that anywhere from 1 to 3 years was sufficient time for owners to complete the form. They offered a number of answers, questions and considerations that warrant further exploration.

Answers:

- 1 year (for tilt-ups) (+2)
- 2 years (+2)
 - Context: *Timeline used by Los Angeles' Non-Ductile Concrete Retrofit Program.*
 - Rationale: *May allow for more community education.*
- 3 years (for non-ductile concrete buildings) (+1)

Questions and considerations:

- *Some working group members felt that this was too specific a question to answer at this time.*
- *How does the timing of the form relate to the full ~25-year timeline of the program?*
- *How do the qualitative discussions about "important buildings" discussed in the previous breakout relate to the specific questions about "schedule categories" discussed in this breakout?*
- *How do reports about buildings influence the building's value?*
- *How much time was given in the Soft Story Program Ordinance and what was the response? Did people follow the schedule? Was it sufficient?*

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

- *A representative from the San Francisco Apartment Association recalled that the timeline was not an issue.*
- *Copy what worked for the Soft Story Program. Keep in mind, there might be more screening forms for DBI to process and the forms might be a little more complex.*
- *Only a limited number of engineers can do the work of completing the form. They are also largely the same engineers who can design a solution. We do not want to create a crisis where owners cannot find engineers to complete the work in time. The good news is that the screening form does not take much time to fill out so one engineer can do many of them.*
- *We need to give ourselves time to communicate and get the attention of owners about this program. Follow the Soft Story Program and engage with owners before the program starts. The Soft Story Program had good terminology to help the community understand the risks inherent in their buildings. This program needs to think of a more intuitive buzz-word name for these buildings that helps people understand the risks. We may lose them with “tilt-ups”, and we will definitely lose them with “non-ductile concrete”. Educating the owner to understand the hazard in their building and coming up with more descriptive titles may help with the implementation. It may help with the “why” of compliance. Also, if the City is going to provide any financial support, we need to communicate that early. Owners will need to apply and receive the money before starting the work.*
- *Owners should be clear on what we are going to do with the information. For instance, if they fill out this form voluntarily, are they accidentally trapping themselves into an unknown future retrofit requirement?*
- *Many of these buildings will not have drawings on file. We need to plan for that and have clear next steps identified. Can DBI start searching for what they have on file? DBI has some indexing challenges, where old drawings are on file but unsearchable. Which of these problems can be addressed administratively (e.g., through legislation)?*
- *We need to run a very contained screening phase. For instance, we do not want to keep adding requirements if an owner does not have drawings. Alternatively, buildings that do not have drawings should not be exempt on those grounds, same for buildings that do not submit the screening form.*

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

Question #2: How should the City define schedule categories or tiers?

General Takeaway: Working group members were divided on how best to balance the needs inherent in defining schedule categories or tiers, but they offered a number of ideas, approaches, questions and considerations that warrant further exploration.

Schedule category ideas and approaches:

- *By vulnerability or risk.*
 - *Sub-idea: By soil class.*
 - *Sub-idea: By areas of the city that are most prone to violent shaking.*
- *By life safety.*
- *By year of original construction (oldest to newest).*
 - *Context: Similar to Facade Inspection Ordinance.*
- *By occupancy (unoccupied buildings go first because they are most efficient to retrofit).*

Schedule category questions and considerations:

- *The screening process needs to be staggered. Having DBI administer two different programs for two types of buildings with the same screening deadline may be too much to manage effectively. Likewise, administering two programs at once with different screening deadlines is going to be confusing for the community. Separating and staggering the programs makes the most sense. (+2)*
- *If buildings are assigned to different schedule categories, will the applicable building code edition be different for each schedule category? Will the building code edition affect the retrofit scope?*
- *If schedule categories are defined by a random variable, such as whether the parcel number is even or odd, will that affect the sales value of buildings?*
- *Tenderloin Neighborhood Development Corporation owns a lot of buildings that are all old, concrete, residential, in one neighborhood (so they are probably on the same soil). Can we structure the schedule categories so that a large owner does not get hit with a requirement to retrofit its whole portfolio all at once?*
- *Basing the schedule categories on soil class will lead to a density of work regionally, which it could be more of a headache in the short-term.*
- *Do we do the more difficult buildings (which are often the residential sites requiring re-location of tenants) first or last, given that these are usually the ones with the greatest risk of loss of life? Commercial buildings present the same challenge, because they may be working around lease cycles (e.g., 10 years).*

Concrete Building Safety Program

Stakeholder Working Group Meeting #1 Agenda

Wrap Up & Next Steps

Laurel Mathews provided an overview of next steps for how the working group's comments will be incorporated into a draft tilt-up program ordinance and building information reporting form, respectively. Those documents will be shared back with the working group for their review and comment in February 2023. Laurel reminded working group members about the topics for the next meetings scheduled in January and February 2023. Brian Strong thanked everyone for attending and closed out the meeting.
