

Oct. 2013
Carol S. Bruch
cbruch@ucdavis.edu

Date: 1/28/15
Submitted in Housing Committee
Council File No: 14-7677-57

10-Point Plan for Los Angeles' Dangerous Non-ductile Concrete Buildings 8

Report: Communication from the public

1) Concrete buildings that were constructed and had their permits locked in prior to 1980 are potentially hazardous in the event of an earthquake. Unless Building and Safety decides otherwise under (2) below, they must be evaluated by a qualified architect or engineer at the expense of the owner(s) to establish the adequacy of their seismic capacity. The expert's report must be filed with Building and Safety for its review. Building and Safety may order that another assessment be completed by another professional at the expense of the owner(s) if it is unsatisfied with the scientific adequacy of the initial or any subsequent evaluation.

2) The buildings to be evaluated are those that are brought to the attention of Building and Safety, including (a) the partial inventory compiled by Professor Jack Moehle and the Concrete Coalition, (b) the concrete buildings identified by reporters for the Los Angeles Times in their article and interactive postings of October 13, 2013, (c) in any other fashion, for example, by publications, professionals, members of the public and organizations. Building and Safety shall remove from the list buildings that are not concrete, had their permits locked in after 1979, have already been evaluated to these standards and found not to require retrofitting, have been adequately retrofitted, or have been razed.

3) The city shall employ all available means, such as posters, flyers, mailings, public meetings, press releases, advertisements, media events, social media and YouTube, to educate the public about the potential dangers of older concrete buildings and ask that specific concrete buildings that may have been built before 1980 be brought to the attention of [a named city office] so that if they meet the requirements in (1) and (2) above, their safety can be evaluated and, if it proves necessary, appropriate steps can be taken (e.g., retrofitting or razing).

4) Once identified, the building owner(s), lessees or renters and inhabitants shall be notified that the building may be hazardous in the event of an earthquake, and that its seismic capacity must be evaluated and a report submitted to Building and Safety within ___ months. Signs warning the public of the potential hazard (see appendix A) shall be posted [by the owner(s)/by the city] on the exterior of the building, within 5 feet of every entrance and maintained until the building has been successfully retrofitted, razed, or Building and Safety determines that it does not require retrofitting.

5) Except as otherwise required by federal or state law, the evaluation of these buildings shall employ applicable portions of the most recent version of the International Existing Buildings Code, the most recent version of the Seismic Evaluation and Retrofit of

Existing Buildings of the American Society of Civil Engineers, or any comparable source that Building and Safety authorizes. For forms of concrete construction that lack a generally recognized model code, such as lift-slab buildings with concrete lateral force resisting systems, the architect or engineer conducting the evaluation shall apply substantially equivalent standards.

6) Every building for which a seismic capacity of less than 75% of that which is required for new construction shall be retrofitted at the expense of the owner(s) to achieve at least 75% of current requirements or shall be razed.

7) Except as required by federal or state law, the standards that govern new buildings shall not apply to retrofitting unless they are needed to achieve the desired increase in seismic capacity.

8) To facilitate retrofitting, all permit and inspection fees shall be waived [or?].

9) The city shall create a revolving loan fund with favorable terms for owners or seek other creative financing options, such as those being established in San Francisco, and shall address how costs may be passed through to tenants or renters and what accommodations will be provided for the needy.

10) To encourage retrofitting and recognize that retrofitting reduces public costs for post-disaster relief, the city shall support city, state and federal proposals for tax credits or other forms of public/private sharing for the costs of evaluating concrete buildings described in (1) above and retrofitting or razing those that are hazardous in the event of an earthquake.

file: 10 point plan for LA's concrete buildings 10-27-2013 csb

10-Point Plan for Los Angeles' Dangerous Non-ductile Concrete Buildings

Appendix A

Building and Safety shall direct the owner(s) of every pre-1980 concrete building that it determines must be evaluated for seismic capacity to post in a conspicuous place within five feet of each entrance to the building, and maintain until the building is removed from its list of buildings to be evaluated, retrofitted or razed, a clearly visible warning sign. The sign shall not be less than 8" by 10" and shall contain the following statement, with the first two words printed in 50-point bold red type and the remaining words in at least 30-point bold black type:

"Earthquake Warning: This is a potentially hazardous building. You may not be safe inside or near this building during an earthquake."

file: 10 point plan Appendix A

10 Point Plan: Rationale by Point Number

1) (a) The LA Times article of October 13, 2013 used 1976 as the demarcation between non-ductile concrete construction and concrete buildings that provide ductility. The Concrete Coalition's attempted inventory, however, speaks of pre-1980 buildings. The structural engineer I consulted thought pre-1980 probably reflects the lag-time in implementing new building code provisions. Los Angeles Building and Safety, of course, will know how best to define the demarcation here. (b) Allowing Building and Safety to reject outright an evaluation or retrofit design that is scientifically inadequate seeks to deter otherwise foreseeable efforts by some owners or HOAs to arrange supposed expert advice that is actually knowingly false. This provision avoids mens rea requirements by focusing instead on substance -- an objective assessment of scientific adequacy. It is prompted by a well-known problem with inaccurate, supposedly expert, opinions that protect HOA board members under Calif. Corp. Code § 7231 from personal liability for decisions they make. (c) The evaluation should include a statement of what work would be required to bring the building into compliance. The specificity of this information should be established with the guidance of Building and Safety. Berkeley regulated this with its Municipal Code § 19.39.070, a section that is currently being revised. The proposed revision and a staff report will be available at the city's website during the first week of November 2013. Further revisions may, of course, be made during the City Council's deliberations.

2) Given the inadequacy of public records, this provision recognizes that it would be impossible to producing a comprehensive list of suspect buildings. The Concrete Coalition's 2011 report of its attempted inventory states as much, and Los Angeles Building and Safety officials made the same point in June. Rather than waste valuable time and resources on a futile undertaking, this point suggests an inexpensive, practical means of doing the best one can do.

3) This addresses how the city can mobilize those outside Building and Safety to assist in identifying suspect buildings.

4) This provision is modeled on Berkeley Municipal Code §19.39.030(A)(2), which employs similar signs for potentially hazardous soft-story buildings. It extends Berkeley's requirement that the warning sign be posted near each main building entrance to all entrances. This avoids arguments over what is a main entrance and alerts those who make deliveries or arrive through other entrances, for example, from parking areas or loading docks. It provides important assurance that those who live or work in the building are in fact informed. It may also protect owners, if a court

determines that a person's knowing choice to reside or work in the building after receiving this warning may constitute an assumption of the risk after a clear chance to avoid injury. It may provide similar protection as to others who enter the building. It also, of course, is likely to impose financial pressure on owners to move forward with the process.

5) Some provisions of federal law, such as the ADA, may apply to many retrofits under the supremacy clause. That possibility is recognized here. Similarly, the California Building Code also controls, except where Los Angeles is authorized to employ more stringent provisions. San Francisco obtained speedy authorization to employ standards for soft-story buildings that were published by FEMA in 2012, and it may be anticipated that Los Angeles will have similar success if there are sources it feels better suited to local conditions. See also Berkeley Municipal Code § 19.39.030. The two that are identified here are broadly recognized, although there are certain deficiencies as well, for example, with ASCE 41, which is nevertheless included because of its broad use by the engineering community. To ensure continued relevance, updated code provisions are expressly included. And the authorization for Building and Safety to provide other sources is intended to permit the incorporation of new research results, for example, from FEMA studies or the work of the Concrete Coalition. See generally, Health and Safety Code §19160(m). The omission in these sources of some non-ductile concrete buildings, such a lift slabs, is also addressed. Its language authorizing an expert to apply substantially equivalent standards for these situations is modeled on Calif. Health and Safety Code §19161(a)(2). Finally, the permissible scope of city-mandated retrofitting may be subject to overriding state law. See point 7 below.

6) I understand this to be Building and Safety's standard for retrofits.

7) State law recognizes the importance of reducing the financial impediments to retrofitting. It therefore exempts seismic retrofits and mitigation efforts from property tax reassessments until the property is sold. It also, however, limits this favorable treatment to costs that increase seismic capacity. Point 7 here, therefore, recognizes that if the city were also to require unrelated upgrades, it would, at the least, impose financial impediments to retrofitting. It might also lead to a challenge under the state constitution or the supremacy provision recommended here in point 5. See California Constitution Article 13A, § 2, Health and Safety Code §19160(f), and California Revenue and Taxation Code § 74.5.

8) I previously made this suggestion, but was told that the salaries of Building and Safety personnel depend on this revenue source. An engineer, and architect and a public official all advised that it is, therefore, unlikely to be enacted. The press,

however, has reported an intention on the part of some officials to ease the financial burden for owners of mandated evaluation and retrofitting. This is, therefore, included as one option and, also, as a place holder for whatever accommodation may be enacted.

9) The press has also reported that some city officials have called for a state-operated revolving loan fund for retrofitting costs. My research suggests that this will not be possible, due to the magnitude of the funds that would be required in comparison to state or federal funding for other mitigation programs. Even if so, the city might nevertheless seek voter approval for a state or local bond to finance a loan program. Other helpful options are, however, already available. This point therefore suggests enacting and negotiating financial provisions similar to those underway in San Francisco in connection with its soft-story program. Particular attention should be given to how owner are permitted to pass their costs on to tenants, what exceptions are available to tenants, what the consequences are for owners when such exceptions are granted, and what property falls outside rent-control provisions. Steps owners may take to avoid the strictures of the pass through law should also be addressed. And Patrick Otellini, who directs San Francisco's implementation, has noted that they have encountered difficulties, because they have no way to assist poor owners.

10) This point, is substantively related to point 8, which addresses how Los Angeles may choose to share in the costs of seismic evaluation and retrofitting. Research shows that money devoted today to mitigation efforts will avoid larger post-disaster public expenditures in the future. See generally, National Institute of Building Sciences, Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities, Vol. 1 (2005), at iii, *available at* http://www.nibs.org/?page=mmc_projects#nhms (follow links) (on average, every dollar spent by FEMA in hazard mitigation provides four dollars in future benefits). A fair comparison, of course, must distinguish post-earthquake costs from those that follow other natural hazards and must discount future costs to present value. Point 10 here would impose an express obligation on the city to support proposals at the city, state and federal levels for some form of public/private sharing of the costs imposed by seismic evaluation and retrofitting.

N.B.: The Berkeley Municipal Code soft-story ordinance, contained in Chapter 19.39, contains many useful models for a Los Angeles non-ductile concrete ordinance. Procedural matters are addressed in detail, for example, how appeals are to be addressed, and model forms are also available. See, e.g., http://cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Building_and_Safety/ss%20merge%20notice%20and%20order.pdf. Berkeley expects

to make its program mandatory as to retrofitting, effective January 1, 2014. A draft of the anticipated revision is available at the city's website. http://www.ci.berkeley.ca.us/Planning_and_Development/Building_and_Safety/Soft_Story_Program.aspx Berkeley planned a two-stage program, but delayed the second stage, mandatory retrofitting, because of the economic downturn. To its pleasant surprise, 40% of the buildings that were identified as hazardous under the first stage of the program, which mandated only an evaluation, were voluntarily retrofitted. Berkeley's experience undoubtedly influenced San Francisco's decision to adopt a soft-story ordinance that mandates at the same time both evaluation and retrofitting. That city's soft-story ordinance may also provide helpful models, of course, particularly as to financial programs.

file: 10 Point Plan Rationale.docx