

*BIC Meeting of
August 20, 2014*

Agenda Item #5



August 15, 2014

Building Inspection Commission
1660 Mission Street
San Francisco, CA 94103

RE: Proposed Substitute Ordinance File #140120
Building Code: Earthquake Performance Evaluation of Private School Structures

Honorable Members of the Commission:

At the regular meeting of August 13, 2014, the full Code Advisory Committee (CAC) deliberated on a proposed substitute ordinance (File #140120) amending the Building Code to require that existing private elementary and secondary schools obtain an evaluation by a licensed structural engineer for performance during a future earthquake, to assess a fee for Building Department review and related evaluation processing, to exempt certain buildings from the evaluation requirements, to provide that buildings where voluntary seismic retrofit work is done to specified standards shall not be identified as a seismic hazard under later-enacted local building standards, and to require that a building changing to a school occupancy classification comply with the evaluation requirements; making environmental findings and findings under the California Health and Safety Code; and directing the Clerk of the Board of Supervisors to forward this ordinance to the California Building Standards Commission upon final passage.

The CAC forwards a unanimous recommendation for support as further modified and attached, to the Building Inspection Commission for their consideration at this time.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kirk Means".

Kirk Means
DBI Technical Services Division
Secretary to the Code Advisory Committee

cc: Tom C. Hui, S.E., C.B.O., Director
Edward Sweeney, Deputy Director
David Leung, Manager
Ned Fennie, Jr., Chair, Code Advisory Committee
William Strawn, Legislative Affairs
Patrick Otellini, Director of Earthquake Safety

Attach: Proposed Ord. File #140120 as approved

1 [Building Code - Earthquake Performance Evaluation of Private School Structures]

2
3 **Ordinance amending the Building Code to require that existing private elementary and**
4 **secondary schools obtain an evaluation by a licensed structural engineer for**
5 **performance during a future earthquake, to assess a fee for Building Department**
6 **review and related evaluation processing, to exempt certain buildings from the**
7 **evaluation requirements, to provide that buildings where voluntary seismic retrofit**
8 **work is done to specified standards shall not be identified as a seismic hazard under**
9 **later-enacted local building standards, and to require that a building changing to a**
10 **school occupancy classification comply with the evaluation requirements; making**
11 **environmental findings and findings under the California Health and Safety Code; and**
12 **directing the Clerk of the Board of Supervisors to forward this ordinance to the**
13 **California Building Standards Commission upon final passage.**

14 NOTE: Unchanged Code text and uncodified text are in plain Arial font.
15 Additions to Codes are in *single-underline italics Times New Roman font*.
16 Deletions to Codes are in *strikethrough italics Times New Roman font*.
17 Board amendment additions are in double-underlined Arial font.
18 Board amendment deletions are in ~~strikethrough Arial font~~.
19 Asterisks (* * * *) indicate the omission of unchanged Code
20 subsections or parts of tables.

19 Be it ordained by the People of the City and County of San Francisco:

20 Section 1. General Findings.

21 (a) The Planning Department has determined that the actions contemplated in this
22 ordinance comply with the California Environmental Quality Act (California Public Resources
23 Code Sections 21000 et seq.). The Board of Supervisors hereby affirms this determination.
24 Said determination is on file with the Clerk of the Board of Supervisors in File No. _____ and
25 is incorporated herein by reference.

1 (b) Pursuant to Charter Section D3.750-5, the Building Inspection Commission
2 considered this ordinance on February 19, 2014 at a duly noticed public hearing.
3

4 Section 2. Findings under the California Health and Safety Code. The Board of
5 Supervisors hereby finds that this ordinance does not modify a State "building standard," as
6 that term is defined in Section 18909 of the California Health and Safety Code. Therefore, the
7 finding of local climactic, geological, or topographical conditions required by Sections 18941.5
8 and 17958.7 is not required.
9

10 Section 3. Specific Findings. The Board of Supervisors hereby finds and declares as
11 follows:

12 (a) In Section 19160 of the California Health and Safety Code, the Legislature
13 declared that because of the generally acknowledged fact that California will experience
14 moderate to severe earthquakes in the foreseeable future, increased efforts to reduce
15 earthquake hazards should be encouraged and supported. Section 19161 authorizes each
16 city, city and county, or county to assess the earthquake hazard in its jurisdiction and identify
17 buildings that may be potentially hazardous to life in the event of an earthquake.

18 (b) In December 2004, the California Seismic Safety Commission (SSC) issued a
19 report on "Seismic Safety in California's Schools," which contains Findings and
20 Recommendations on Seismic Safety Policies and Requirements for Public, Private, and
21 Charter Schools. The SSC report was made in response to inquiries from members of the
22 Legislature, the public and parents, and to concerns about the risks posed by older school
23 buildings, the different seismic standards for public, private and charter schools, and the
24 safety of buildings converted to school use.
25

1 (c) The data collected by the SSC for its 2004 report showed that almost 9% of
2 California's school children attended private schools, ten counties had more than 10% of their
3 total students enrolled in private schools, and of these ten counties San Francisco was the
4 highest at 29.1%. Because under State law private schools are not required to meet the
5 stringent safety requirements of public schools unless they are new buildings or have been
6 extensively remodeled, private schools pose a greater risk than comparably aged public
7 schools in a future moderate or large earthquake.

8 (d) San Francisco's Community Action Plan for Seismic Safety and Earthquake Safety
9 Implementation Program.

10 (1) On October 17, 2011, the Office of the Mayor released the first draft of the
11 City's Earthquake Safety Implementation Program (ESIP), which is a 30-year Workplan to
12 update building codes, retrofit privately-owned buildings, and prepare for post-disaster
13 recovery that encompasses 50 objectives with the goal of making San Francisco as safe as it
14 can be before the next earthquake hits.

15 (2) The ESIP Workplan is based upon, and incorporates the goals and
16 recommendations of, the Community Action Plan for Seismic Safety (CAPSS) that was
17 unanimously endorsed in December 2010 by an advisory group of over 60 representative
18 stakeholders, community leaders, professional experts, and City officials. The CAPSS
19 program was developed over a ten-year period, resulting in agreement upon acceptable
20 earthquake impacts for San Francisco and, through dozens of meetings and workshops,
21 development of a plan to achieve the City's resilience goals.

22 (3) The CAPSS recommendations are consistent with the proposed goals and
23 policies of the Resilient City initiative, a multi-year study program by San Francisco Planning
24 and Urban Research Association's (SPUR), as well as the Planning Department's Community
25 Safety Element and the City's Hazard Mitigation Plan.

1 (e) The first legislative enactment under the ESIP was an ordinance mandating the
2 seismic retrofit of certain wood-frame buildings in San Francisco, which was approved by the
3 Mayor on April 18, 2013 (Ordinance No. 66-13). The next category of buildings to be
4 evaluated under the ESIP is private elementary and secondary (K-12) schools.

5 (f) Among California towns and cities, San Francisco has the highest percentage of
6 children attending private schools. Since the collapse of or extensive damage to even a few
7 schools is an unacceptable risk, it is essential that all private schools be evaluated to assess
8 their ability to perform in an earthquake.

9 (g) A Private Schools Earthquake Working Group was formed under the ESIP to study
10 the issue of the seismic safety of private schools in San Francisco. It met for over a year, with
11 publicly-noticed open meetings. In its December 31, 2013 report entitled "Earthquake Risk
12 and San Francisco's Private Schools," the Working Group found that:

13 (1) San Francisco's private school buildings appear to have approximately
14 double the risk of the City's public school buildings in future earthquakes;

15 (2) 43% of the City's private school buildings have characteristics that indicate
16 they are likely to perform well in future earthquakes;

17 (3) 33% of the City's private school buildings have characteristics that indicate
18 they might perform poorly in future earthquakes; and

19 (4) for 24% of the City's private school buildings, the Working Group did not
20 have enough information to determine likely seismic performance in future earthquakes.

21 (h) As the next phase in the City's implementation of its program for earthquake
22 preparedness and post-earthquake resilience, this ordinance mandates that all private
23 elementary and secondary schools in San Francisco obtain an evaluation of structural safety
24 and be rated for performance during a future earthquake.

1 (i) In 2013 The Board of Supervisors unanimously approved legislation to expand the
2 City's existing GreenFinanceSF program to provide public financing for commercial property
3 owners to conduct both voluntary and mandatory seismic upgrades. This Mello-Roos style
4 funding program allows property owners to repay their loan in the form of special tax financing
5 assessments.

6
7 Section 4. The Building Code is hereby amended by adding Sections 3428, 3428.1,
8 3428.2, 3428.3, 3428.4, 3428.5, 3428.6, 3428.7, and 3428.8, to read as follows:

9 **Chapter 34**

10 **EXISTING STRUCTURES**

11 * * * *

12 **SECTION 3428 – EARTHQUAKE EVALUATION OF PRIVATE SCHOOL STRUCTURES**

13
14 **3428.1 General.** *Every building classified as an Educational Group E occupancy under section 305 of*
15 *this code that is not under the jurisdiction of the Division of State Architect's Structural Safety section,*
16 *and all non-building structures accessory to such buildings, shall be evaluated in accordance with the*
17 *provisions of this Section 3428. All evaluations required by Section 3428 shall be conducted under the*
18 *supervision of a licensed structural engineer.*

19 **Exceptions:**

- 20 1. Evaluation is not required for buildings occupied by 25 or more persons for less than 12
21 hours per week or four hours in any given day.
- 22 2. Evaluation is not required for schools with an enrollment of 25 or fewer students.
- 23 3. Evaluation is not required for buildings not classified as Group E occupancy such as
24 churches, places of religious worship, accessory residential buildings or similar non-
25 educational uses.

1
2 **Section 3428.1.1. Retroactivity.** The requirements of Section 3428 are retroactive and shall apply to all
3 buildings and non-building structures within the scope of Section 3428 that are in existence as of the
4 effective date of Section 3428 regardless of the date of construction.

5
6 **3428.2 Scope and Criteria.** Each building and non-building structure shall be evaluated using ASCE
7 41-13 with the evaluation objective of Structural Life Safety with the BSE-1E hazard and Nonstructural
8 Life Safety with the BSE-1E hazard as modified by an Administrative Bulletin to be adopted by the
9 Department. An Evaluation required by Section 3428 shall not in itself trigger any additional non-
10 earthquake related work.

11
12 **3428.3 Evaluation Scope Submittal.** Within one year of the effective date of Section 3428, the building
13 owner or the owner's authorized agent shall submit to the Department an Evaluation Scope document
14 listing each structure to be evaluated, the evaluation objective to be applied, and other information
15 requested by the Department.

16
17 **3428.4 Evaluation Report Submittal.** No later than three years after the effective date of Section 3428,
18 the building owner or the owner's authorized agent shall submit an Evaluation Report to the
19 Department. The Evaluation Report shall conform to content and format requirements provided in the
20 Administrative Bulletin adopted by the Department pursuant to Section 3428.6.

21
22 **3428.5 Voluntary Minimum Life-Safety Retrofit.** For a period of 20 years after the effective date of
23 Section 3428, any building or non-building structure within the scope of Section 3428 for which
24 voluntary seismic strengthening is performed that meets or exceeds the criteria of ASCE 41-13, S-3 N-
25 C with the BSE-1E hazard shall not be identified as a seismic life-safety hazard pursuant to any local

1 building standards adopted after the effective date of Section 3428 unless the City has concluded that
2 the building has incurred disproportionate damage, as defined by Section 3402.1, or otherwise has
3 been structurally damaged or structurally altered, as defined by Section 3404, such that the building no
4 longer meets the engineering criteria under which it was retrofitted. In the event of damage, building
5 repair, addition or alterations to correct damage, meeting or exceeding the engineering criteria under
6 which the structure was originally retrofitted must be made in compliance with this code to continue
7 the 20-year limit under this Section 3428.5.

8
9 **3428.6 Administrative Bulletin.** The Department shall prepare an Administrative Bulletin detailing the
10 procedural implementation requirements for this Section 3428.

11
12 **3428.7 Enforcement.** Buildings and non-building structures in violation of this Section 3428 may be
13 considered to be unsafe. The Department may apply the provisions of Section 102A, including 102A.13,
14 Repair and Demolition Fund, in remedying such unsafe conditions. Enforcement action may be
15 initiated by the Department for failure to comply with any of the requirements of Section 3428,
16 including failure to submit an Evaluation Scope document or Evaluation Report within the time
17 designated by Sections 3428.3 and 3428.4.

18
19 **3428.8 Fees.** Fees based on standard hourly rates in accordance with the SFBC Table 1-A-D –
20 Standard Hourly Rates shall be charged to compensate the Department for review and for related
21 evaluation processing.

22
23 Section 5. The Building Code is hereby amended by revising Section 3408.4.1, to read
24 as follows:

1 **3408.4.1 Change of occupancy.** In addition to the other requirements of this code, the term
2 “comply with the requirements of this code for such division or group of occupancy,” as used
3 in this section, shall also mean compliance with the lateral force provisions of Section 3401.10
4 when the change results in an increase of more than 10 percent in the occupant load of the
5 entire building or structure, and which also increases the occupant load by more than 100
6 persons as compared to the occupant load of the existing legal use or the use for which the
7 building was originally designed. *A building changing occupancy to an E occupancy, and is*
8 *otherwise subject to Section 3428, shall comply with Section 3428.*
9

10 Section 6. City Outreach and Assistance. The City shall develop a program focused on
11 providing case management to school building owners, schools, and parents through
12 providing technical information, identifying resources, and assisting schools and school
13 building owners to comply with the requirements of Section 3428. Among other functions, this
14 program will serve as a resource for parents, school building owners, and schools – especially
15 those schools leasing their space – by providing the status of evaluations, assistance in
16 completing evaluations, and any information related to seismic work and potential building
17 impacts and costs.

18
19 Section 7. Inter-departmental working group. The City shall convene an inter-
20 departmental working group of all agencies involved in the building permit approval process to
21 assist with expediting and prioritizing permits for those seeking to comply with section 3428.5,
22 and to the extent allowable by law help alleviate the requirements for any non-seismic related
23 work required, including State and Federal mandates as well as any work subject to local
24 discretion including but not limited to the Unreasonable Hardship provisions of Chapter 11B of
25 the San Francisco Building Code.

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2 Section 8. Evaluations, plans, supporting documents and other materials are subject to
3 the standard procedures for making such information available as directed by the
4 Department's Records Management Division.

5
6 Section 9. Effective Date. This ordinance shall become effective 30 days after
7 enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the
8 ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board
9 of Supervisors overrides the Mayor's veto of the ordinance.

10
11 Section 10. Scope of Ordinance. In enacting this ordinance, the Board of Supervisors
12 intends to amend only those words, phrases, paragraphs, subsections, sections, articles,
13 numbers, punctuation marks, charts, diagrams, or any other constituent parts of the Municipal
14 Code that are explicitly shown in this ordinance as additions, deletions, Board amendment
15 additions, and Board amendment deletions in accordance with the "Note" that appears under
16 the official title of the ordinance.

17
18 Section 11. Directions to Clerk. The Clerk of the Board of Supervisors is hereby
19 directed to forward a copy of this ordinance to the California Building Standards Commission
20 upon final passage.

21
22 APPROVED AS TO FORM:
23 DENNIS J. HERRERA, City Attorney

24 By: _____
25 JUDITH A. BOYAJIAN
Deputy City Attorney

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