

FILE NO. 080281

ORDINANCE NO. 258-08

1 [Building Code - Slope Protection Act.]

2

3 Ordinance amending the San Francisco Building Code by adding Sections 106A.4.1.4

4 et seq. to establish the Slope Protection Act and create procedures that require the

5 ~~Structural Advisory Committee~~ to review and make recommendations on specified

6 permit applications for all property that fall within certain mapped areas of within the

7 ~~City that exceeds an average slope of 25% grade~~, and to require mandatory denial of

8 the permit by the Building Official under specified circumstances; amending Section

9 105A.6.2 to specify the composition of the Structural Advisory Committee for permit

10 applications subject to within the Slope Protection Act area when the Building Official

11 authorizes establishment of such a Committee; amending Building Code Section

12 106A.3.2 to require that the applicant for certain permit applications subject to the

13 Slope Protection Act provide substantial documentation that there exists sufficient

14 infrastructure to support the proposed residential development and that the proposed

15 emergency access routes meet standards in effect at the time of the application;

16 amending Building Code Section 1701A.5 to require special inspections throughout the

17 construction process for sites subject to the Slope Protection Act.

18 Note: Additions are *single-underline italics Times New Roman*;

19 deletions are *strikethrough italics Times New Roman*.

20 Board amendment additions are double underlined.

21 Board amendment deletions are ~~strikethrough normal~~.

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

23 Section 1. The San Francisco Building Code is hereby amended by adding Sections

24 106A.4.1.4 et seq. to read as follows:

25 106A.4.1.4. The Slope Protection Act. This Section of the San Francisco Building Code shall  
be known as the Slope Protection Act.

1           106A.4.1.4.1 Creation. The Slope Protection Act shall apply to all property within San  
2 Francisco that falls within certain mapped areas of the City exceeds an average slope of 25%  
3 grade, except those properties already subject to the Edgehill Mountain Slope Protection Area or the  
4 Northwest Mt. Sutro Slope Protection Area. For purposes of this Section "property" shall mean a legal  
5 lot of record. Heightened review of certain permit applications, as provided in this section, shall be  
6 given to all property subject to this Act.

7           106A.4.1.4.2 Purpose. Because landslides, earth movement, ground shaking and subsidence  
8 are likely to occur on or near steeply sloped properties and within other defined areas causing  
9 severe damage and destruction to public and private improvements, the Board of Supervisors finds that  
10 the public health, safety and welfare is best protected if the Building Official causes permit applications  
11 for the construction of new buildings or structures and certain other construction work on property  
12 subject to the Slope Protection Act to undergo additional review be peer reviewed for structural  
13 integrity and effect on hillside slope stability. The requirements for projects subject to the Slope  
14 Protection Act are in addition to all other applicable laws and regulations, including any and all  
15 requirements for environmental review under the California Environmental Quality Act; compliance  
16 with the requirements contained herein does not excuse a project sponsor from compliance with any  
17 other applicable laws and regulations.

18           106A.4.1.4.3 Scope. Properties are subject to these requirements where any portion of  
19 the property lies within the areas of "Earthquake-Induced Landslide" in the Seismic Hazard  
20 Zone Map, released by California Department of Conservation, Division of Mines and  
21 Geology, dated November 17, 2000, or amendments thereto; or within the "Landslide Hazard  
22 Areas" mapped as "Landslide Locations" in Figure 4 of the San Francisco Seismic Safety  
23 Investigation report prepared by URS/John A. Blume & Associates, Engineers, June 1974, or  
24 any successor map thereto.

1           Proposed construction work that is subject to these requirements includes the  
2 construction of new buildings or structures having over 1000 square feet of new projected roof  
3 area and horizontal or vertical additions having over 1000 square feet of new projected roof  
4 area. In addition, these requirements shall apply to the following activity or activities, if, in the  
5 opinion of the Director, the proposed work may have a substantial impact on the slope stability  
6 of any property: shoring, underpinning, excavation or retaining wall work; grading, including  
7 excavation or fill, of over fifty (50) cubic yards of earth materials; or any other construction  
8 activity.

9           ~~106A.4.1.4. 4.3~~ Mandatory submittal of reports and geotechnical engineering review by  
10 ~~Structural Advisory Committee and other City officials. All permit applications submitted to the~~  
11 ~~Central Permit Bureau Department of Building Inspection for construction of new buildings or~~  
12 ~~structures subject to the Slope Protection Act shall be submitted to include report(s) prepared and~~  
13 ~~signed by both a licensed geologist and a licensed geotechnical engineer identifying areas of~~  
14 ~~potential slope instability, defining potential risks of development due to geological and~~  
15 ~~geotechnical factors, and drawing conclusions and making recommendations regarding the~~  
16 ~~proposed development. These reports and shall undergo design review reviewed by the~~  
17 ~~Structural Advisory Committee, as defined by Building Code Section 105A.6 a licensed~~  
18 ~~geotechnical engineer. Such design review shall verify that appropriate geological and~~  
19 ~~geotechnical issues have been considered and that appropriate slope instability mitigation~~  
20 ~~strategies, including drainage plans if required, have been proposed. No permits as specified~~  
21 ~~above for properties subject to the Slope Protection Act shall be issued unless and until the~~  
22 ~~Building Official has consulted with and received a written communication from~~  
23 ~~representatives of the Department of Planning, Department of Public Works and Fire~~  
24 ~~Department, each of whom has made a visit to the site for which the project is proposed, and~~  
25

1 the Building Official has received a written report from the Structural Advisory Committee  
2 concerning the safety and integrity of the proposed design and construction. As part of its  
3 review, the Structural Advisory Committee shall consider the effect that construction activity  
4 related to the proposed project will have on the safety and stability of the property subject to  
5 the Slope Protection Act and properties within the vicinity of such property.

6 106A.4.1.4.54 Structural Advisory Committee and Mandatory denial by Building Official.

7 After reviewing all submitted information pursuant to Section 106A.4.1.4.4, the Director, in his  
8 or her sole discretion, may require that the permit application be subject to review by a  
9 Structural Advisory Committee, as defined by Building Code Section 105A.6. When subject to  
10 such Structural Advisory Committee review, no permits shall be issued unless and until the  
11 Building Official has consulted with and received a written communication from  
12 representatives of the Department of Planning, Department of Public Works and Fire  
13 Department, each of whom has made a visit to the site for which the project is proposed, and  
14 the Building Official has received a written report from the Structural Advisory Committee  
15 concerning the safety and integrity of the proposed design and construction. As part of its  
16 review, the Structural Advisory Committee shall consider the effect that construction activity  
17 related to the proposed project will have on the safety and stability of the property subject to  
18 the Slope Protection Act and properties within the vicinity of such property.

19 In the event that the Building Official establishes a Structural Advisory Committee, and such  
20 Committee determines that there is a reasonable likelihood that the proposed design and construction  
21 would result in unsafe conditions or would increase the likelihood of hillside instability, and such  
22 unsafe conditions or instability cannot be mitigated to the satisfaction of the Structural Advisory  
23 Committee, the Building Official shall deny the permit. The Building Official's decision to deny the  
24 permit is appealable only to the Board of Appeals.

1           106A.4.1.4.65 Regulations to implement the Slope Protection Act. The Building Official is  
2 hereby authorized to adopt rules, regulations, administrative bulletins, or other written guidelines to  
3 assist the Department in implementing this Section, including, but not limited to, requirements for  
4 applicants to demonstrate that a project site is not subject to the Slope Protection Act.

5           Section 2. The San Francisco Building Code is hereby amended by amending Section  
6 105A.6.2, to read as follows:

7           105A.6.2 Members. For consideration of each building with such special features, the  
8 Structural Advisory Committee shall consist of members who are knowledgeable in the  
9 structural engineering and construction issues presented by those special features. Members  
10 shall be selected from a list of qualified engineers submitted by the Structural Engineers  
11 Association of Northern California and approved by the Building Official. One member shall be  
12 selected by the Building Official, one member shall be selected by the owner, and the third  
13 member shall be selected jointly. Compensation of the Structural Advisory Committee  
14 members shall be by the owner. However, when the project for which Committee review is  
15 required is located in the Edgehill Mountain Slope Protection Area as defined by Building  
16 Code Section 106A.4.1.2 or the Northwest Mt. Sutro Slope Protection Area as defined by  
17 Building Code Section 106A.4.1.3 or is located in subject to Committee review pursuant to the  
18 Slope Protection Area Act, as defined in Building Code Section 106A.4.1.4.5, (a) the Committee  
19 shall consist of a structural engineer, a geologist and a geotechnical engineer; (b) the  
20 Committee shall consult with an architect, who shall be a voting member of the Committee; (c)  
21 the selection of the Committee members shall be as follows: one member shall be selected  
22 jointly by the Building Official and the Director of Public Works, one member shall be selected  
23 solely by the Building Official and one member and the consulting architect shall be selected  
24 jointly by the Building Official and the owner from recommendations made by interested  
25

1 persons, including but not limited to residents of the neighborhood surrounding the project  
2 location; and (d) to the extent feasible, the Committee members should be selected from a list  
3 submitted by the Structural Engineers Association of Northern California

4 Section 3. The San Francisco Building Code is hereby amended by amending Section  
5 106A.3.2, to read as follows:

6 106A.3.2 Submittal documents. Plans, specifications, engineering calculations,  
7 diagrams, soil investigation reports, special inspection and structural observation programs  
8 and other data shall constitute the submittal documents for a permit. When such plans are not  
9 prepared by an architect or an engineer, the Building Official may require the applicant  
10 submitting such plans or other data to demonstrate that state law does not require that the  
11 plans be prepared by a licensed architect or engineer. The Building Official may require plans,  
12 computations and specifications to be prepared and designed by an engineer or architect  
13 licensed by the state to practice as such even if not required by State law. Materials submitted  
14 by a licensed architect or engineer must be signed and sealed with an original signature on  
15 the first sheet of each set of documents, and facsimile stamps plus the required registration  
16 seal of the architect or engineer on the balance of the sheets.

17 Two complete sets of plans and specifications and three copies of the soil investigation  
18 report (when required) shall be submitted. Additional complete sets of plans and specifications  
19 may be required for special permit processing services that may be offered by the City and  
20 County of San Francisco.

21 **EXCEPTIONS:**

22 1. The requirements for plans or specifications may be waived by the  
23 Building Official, provided that the nature and extent of the proposed construction can be  
24 clearly described in writing, and such a description is filed with the application.

1                   2.       In addition to all other requirements of this Section 106A.3.2, the following  
2 requirements shall apply to: (a) applications for construction of new buildings or structures,  
3 and to alterations that involve a substantial increase in the building envelope of an existing  
4 building or structure, within the Edgehill Mountain Slope Protection Area, created by Building  
5 Code Section 106A.4.1.2, and within the Northwest Mt. Sutro Slope Protection Area, created  
6 by Section 106A.4.1.3 and (b) application for construction of new buildings or structures on  
7 property subject to the Slope Protection Act created by Building Code Section 106A.4.1.4:

8                   The Building Official may not waive the requirements for submittal documents set forth  
9 in this Section 106A.3.2.

10                  Submittal documents shall substantiate that the building or structure will comply with  
11 applicable codes and regulations.

12                  Submittal documents shall include (1) plans prepared by a State-licensed architect or  
13 engineer and (2) a construction/staging plan establishing that the proposed construction will  
14 not compromise the health, safety or welfare of neighboring property owners. Submittal  
15 documents shall demonstrate to the satisfaction of the Building Official, based on consultation  
16 with and written communications from appropriate City officials, including the Director of the  
17 Department of Public Works, that there is sufficient infrastructure (including utilities and  
18 streets) to support the proposed residential development and that the proposed emergency  
19 vehicle access routes comply with the standards in use by the Fire Department or similar  
20 agency in effect at the time the application is submitted.

21                  Section 4. The San Francisco Building Code is hereby amended by amending Section  
22 1701A.5, to read as follows:

23                  1701A.5 Types of Work. Except as provided in Section 1701A.1, the types of work  
24 listed below shall be inspected by a special inspector.

1           1.     Concrete. During the taking of test specimens and placing of reinforced  
2 concrete. See Item 12 for shotcrete.

3                   EXCEPTIONS:

4           1.     Concrete for foundations conforming to minimum requirements of Table  
5 18-I-C or for Group R, Division 3, or Group M, Division 1 Occupancies, provided the building  
6 official finds that a special hazard does not exist.

7           2.     For foundation concrete, other than cast-in-place drilled piles or caissons,  
8 where the structural design is based on an  $f'c$  no greater than 2,500 pounds per square inch  
9 (psi) (17.2 MPa). This exception shall not apply to foundations serving as retaining walls of  
10 soil over 5 feet (1829 mm) in height measured from the base of the foundation.

11           Section 1701.5. Revise this item as follows:

12           15.    Special cases. Work which, in the opinion of the Building Official, involves  
13 unusual hazards or conditions such as underpinning, shoring, removal of hazardous materials  
14 and new construction methods not covered by this code.

15           Section 1701A.5. Add the following items:

16           17.    Exterior facing. During fastening of all exterior veneer and ornamentation  
17 facing units constructed of concrete, masonry, stone or similar materials, and all curtain walls  
18 weighing more than 15 pounds per square foot (73.39 kg/m<sup>2</sup>) of wall.

19                   EXCEPTIONS:

20           1.     Veneers weighing less than 5 pounds per square foot (24.46 kg/m<sup>2</sup>)  
21 located less than 15 feet (4.57 m) above grade.

22           2.     Anchored veneer located less than 10 feet (3.048 m) above grade.

23           18.    Demolition. Demolition of buildings more than two stories or 25 feet (7.62  
24 m) in height. See Section 3303.9 for demolition requirements.

1           EXCEPTION: Type V buildings.

2           19.    Retrofit of unreinforced masonry bearing wall buildings.

3           19.1   During the testing of mortar quality and performance of masonry shear  
4 tests in accordance with Section 1614C when required by Sections 1606C.3.3 and 1607C.2.

5           19.2   During repointing operations in accordance with Section 1616C when  
6 required by Sections 1606C.3.3.7 and 1607C.1.

7           19.3   During the installation of new shear bolts when required by the exception  
8 to Section 1607C.4.

9           19.4   Prior to the placement of the bolt and grout or adhesive for embedded  
10 bolts as required by Section 1607C.4.

11          19.5   During the prequalification tests in accordance with Section 1615C.3 as  
12 permitted by Footnote 8 to Table 16C-E.

13          20.    Bolts installed in existing masonry or concrete. Except for through bolts  
14 with plate washers conforming to Table 16C-E, bolts that are newly installed in existing  
15 masonry or concrete shall be tested in accordance with Section 1615C. The number and type  
16 of tests required shall be the same as required by Section 1607C.

17          21.    Shear walls and floor systems used as shear diaphragms. All  
18 connections, including nailing, tiedowns, framing clips, bolts and straps, for those parts of a  
19 lateral force resisting system utilizing the following components:

20          21.1   Plywood diaphragms, where shear values exceed  $2/3$  the values in  
21 Tables 23-II-H and 23-II-I-1.

22          21.2   Double sheathed shear walls, in all cases.

23          21.3   Plywood shear walls, wherever nailing or hardware are not visible to the  
24 district inspector at the time of cover-up inspection.

1            If nailing is not visible to the inspector at the called inspection, or if the special  
2 inspector has not inspected the work prior to the concealment, all work concealing such  
3 nailing shall be removed in order to permit a complete inspection.

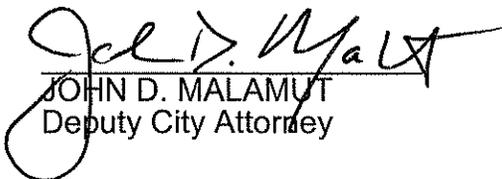
4            21.4 Gypsum wallboard shearwalls where shear values exceed one-half of the  
5 values permitted by Footnote 1 of Table 25A-I.

6            21.5 Fiberboard shearwalls where shear values exceed one-half of the values  
7 in Table 23-II-J.

8            21.6 Particle-board diaphragms, where shear values exceed one-half of the  
9 values in Table 23-I-I-2.

10           22.    ~~Construction of a new building or structure on property~~ subject to the Slope  
11 Protection Act, created by Section 106A.4.1.4; or construction of a new building or structure, or  
12 alterations that involve a substantial increase in the envelope of an existing building or  
13 structure within the Edgehill Mountain Slope Protection Area, created by Building Code  
14 Section 106A.4.1.2, or the Northwest Mt. Sutro Slope Protection Area, created by Building  
15 Code Section 106A.4.1.3; provided, however, that, until the special inspection reports required  
16 by Building Code Section 1701A.3 are submitted to and approved by the Department, the  
17 phase of construction subsequent to the phase or element for which the report was completed  
18 cannot commence.

19  
20 APPROVED AS TO FORM:  
21 DENNIS J. HERRERA, City Attorney

22 By:   
23        JOHN D. MALAMUT  
24        Deputy City Attorney



# City and County of San Francisco

City Hall  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102-4689

## Tails

## Ordinance

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**File Number:** 080281

**Date Passed:**

Ordinance amending the San Francisco Building Code by adding Sections 106A.4.1.4 et seq. to establish the Slope Protection Act and create procedures to review and make recommendations on specified permit applications for all property that fall within certain mapped areas of the City, and to require mandatory denial of the permit by the Building Official under specified circumstances; amending Section 105A.6.2 to specify the composition of the Structural Advisory Committee for permit applications within the Slope Protection Act area when the Building Official authorizes establishment of such a Committee; amending Building Code Section 106A.3.2 to require that the applicant for certain permit applications subject to the Slope Protection Act provide substantial documentation that there exists sufficient infrastructure to support the proposed residential development and that the proposed emergency access routes meet standards in effect at the time of the application; amending Building Code Section 1701A.5 to require special inspections throughout the construction process for sites subject to the Slope Protection Act.

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October 28, 2008 Board of Supervisors — PASSED ON FIRST READING

Ayes: 10 - Alioto-Pier, Chu, Daly, Dufty, Elsbernd, Maxwell, McGoldrick,  
Mirkarimi, Peskin, Sandoval

Absent: 1 - Ammiano

November 4, 2008 Board of Supervisors — FINALLY PASSED

Ayes: 11 - Alioto-Pier, Ammiano, Chu, Daly, Dufty, Elsbernd, Maxwell,  
McGoldrick, Mirkarimi, Peskin, Sandoval

File No. 080281

I hereby certify that the foregoing Ordinance was FINALLY PASSED on November 4, 2008 by the Board of Supervisors of the City and County of San Francisco.



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Angela Calvillo  
Clerk of the Board

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Date Approved

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Mayor Gavin Newsom

Date: November 17, 2008

I hereby certify that the foregoing ordinance, not being signed by the Mayor within the time limit as set forth in Section 3.103 of the Charter, became effective without his approval in accordance with the provision of said Section 3.103 of the Charter.



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Angela Calvillo  
Clerk of the Board

File No.  
080281