



INFORMATION SHEET

NO. S-19

DATE : October 2, 2018

CATEGORY : Structural

SUBJECT : **Properties Subject to the Slope and Seismic Hazard Zone Protection Act (SSPA) Ordinance**

PURPOSE : The purpose of this Information Sheet is to clarify the permit process for projects subject to the Slope and Seismic Hazard Protection Act (SSPA).

REFERENCE : 2016 San Francisco Building Code (SFBC)
State of California Department of Conservation Division of Mines and Geology (CDMG) Seismic Hazard Zones Map for San Francisco released November 17, 2000.
Ordinance No. 121-18: Slope and Seismic Hazard Protection Zone Act (effective 6/23/2018)
Topographic Map of San Francisco: 4H:1V Slope dated July 25, 2018.

DISCUSSION :

A. Project and Properties Subject to Slope and Seismic Hazard Zone Protection Act (SSPA) Ordinance:

1. Properties are subject to the requirements of this ordinance if: (1) any portion of the property lies within the areas of the "Earthquake Induced Landslide Zones" in the Seismic Hazard Zone Map, release by the California Department of Conservation, Division of Mines and Geology, dated November 17, 2000 or (2) the property exceeds an average slope of 4 horizontal to 1 vertical (4H:1V) per Topographic Map of San Francisco: 4H:1V Slope dated July 25, 2018 ; and
2. Proposed construction involves the following: (1) construction of a new building or structure having over 1,000 square feet of new projected roof area; (2) horizontal or vertical addition having over 500 square feet of new projected roof area; (3) shoring; (4) underpinning; (5) grading, including excavation or fill, of over 50 cubic yards of earth materials; or (6) or any other construction activity that, in the opinion of the Building Official, may have a substantial impact on the slope stability.

B. Projects Exempted from SSPA Ordinance:

The following projects are exempted from the SSPA Ordinance and do not require completion or submittal of the SSPA Checklist:

1. Proposed construction without plans.
2. Proposed construction without structural alterations or grading with less than 50 cubic yards of earth materials.

C. Permit Submittal and SSPA Checklist:

In addition to the Department of Building Inspection (DBI) requirements and guidelines for permit submittal and review, the SSPA shall not conflict with or diminish any other submittal or review criteria's established in the SFBC, DBI guidelines or regulations.

1. Applicants shall include plans illustrating the slope of the property, and/or provide a survey verifying the accuracy of the slope of the property by a Land Surveyor licensed in the State of California.
2. Applicants shall complete all sections of the SSPA Checklist and have the SSPA Checklist attached onto the plans.
3. A DBI Plan Reviewer shall review all permits and verify completeness and accuracy of the SSPA Checklist.

D. Guidelines for Completing the SSPA Checklist:

1. Completing Section 1:

Applicants shall mark the appropriate box in Section 1 "Property Location" to determine whether the subject property falls within the Earthquake Induced Landslide Hazard Zones in San Francisco.

2. Completing Section 2:

Applicants shall mark the appropriate box in Section 2 "Average Slope of Property" to identify whether the average slope of the subject property exceeds 4H:1V.

3. Completing Section 3:

Applicants shall mark all appropriate boxes in Section 3 "Proposed Construction" associated with the proposed construction. If required, a DBI Plan Reviewer shall mark the box associated with "Others" indicating additional scope of work that may have a substantial impact on the slope stability of the site or create a potential for earthquake induced landslide hazards.

4. Completing Section 4:

The licensed design professional of record shall provide and complete all information required in Section 4 "Licensed Design Professional Verification and Signatures" and affix their professional stamp and signature in the allocated box.

E. Additional Reports Required for Properties Subject to SSPA Ordinance:

In addition to the SSPA Checklist, project sponsors for properties subject to the SSPA ordinance shall include a geotechnical investigation conducted in accordance with SFBC Section 1803.2 and report(s) prepared and signed by both a license geologist and a license geotechnical engineer in accordance with SFBC Section 1803.6. In addition, the report(s) shall address the following per SFBC Section 106A.4.1.4.4:

1. Identifying areas of potential slope instabilities.
2. Defining potential risks of development due to geological and geotechnical factors, including, but not limited to, ground slopes, soil types, geological conditions and history of landslides in the vicinity.
3. Making recommendations regarding the appropriate slope instability mitigation strategies, including drainage plans if required.

F. Assignment of a Project Review Tier and Establishment of a SSPA Review Committee

1. After review of the SSPA Checklist and submittal documents, a DBI Plan Review Engineer shall assign a Review Tier to the project based on the following guidelines:

EXEMPTED: REPORTS PER SECTION E AND THIRD PARTY PEER REVIEW NOT REQUIRED

If the box in Section 1 “Property Location” **AND** the box in Section 2 “Average Slope of Property” are marked “No” **OR** if all the boxes in Section 3 “Proposed Construction” are marked “No”, reports per Section E and Third Party Peer Review are exempted by the SSPA.

TIER I: REPORTS PER SECTION E BUT THIRD PARTY PEER REVIEW NOT REQUIRED

If the box in Section 2 “Average Slope of Property” **AND** any boxes in Section 3 “Proposed Construction” are marked “Yes” **AND** the property does not lie within any areas of potential landslide hazard, DBI shall require mandatory submittal of reports per Section E only.

TIER II: REPORTS PER SECTION E AND THIRD PARTY PEER REVIEW REQUIRED:

If the box in Section 2 “Average Slope of Property” **AND** any boxes in Section 3 “Proposed Construction” are marked “Yes” **AND** the property lies within the areas of potential landslide hazard, DBI shall require mandatory submittal of reports per Section E and require the project be subject to a third party peer review.

If the DBI Plan Review Engineer (or the SSPA Review Committee, if established), in his or her (its) discretion, determines from the submitted documents that the project has a substantial impact on the slope stability of the site or creates a potential for earthquake induced landslide hazards, DBI may require that the third party peer review be followed by the establishment of a Structural Advisory Committee (SAC) and re-assigned the project to Tier III.

TIER III: STRUCTURAL ADVISORY COMMITTEE (SAC) REVIEW

If the box in Section 1 “Property Location” **AND** any boxes in Section 3 “Proposed Construction” are marked “Yes”, DBI shall require mandatory submittal of reports per Section E and require the permit application be subject to review by a Structural Advisory Committee (SAC), as defined by SFBC Section 105A.6.

2. In circumstantial conditions where a project or property present complex challenges, the DBI Plan Review Engineer may request the assistance of the SSPA Review Committee. The Committee will meet to determine the Review Tier applicable to the subject project. The Director shall appoint the members of the SSPA Review Committee where the Committee shall comprise of no less than three (3) DBI Engineers with the following minimum qualifications appointed by the Director:
 - a. A Supervising Engineer licensed as a Structural Engineer in California.
 - b. A Supervising Engineer licensed as a Civil Engineer in California.
 - c. A Plan Review Engineer licensed as a Geotechnical Engineer in California.

G. Discretionary Third Party Peer Review

The DBI Plan Review Engineer (or SSPA Review Committee, if established), in his or her (its) discretion, may require a Third Party Peer review by a licensed geotechnical engineer.

The Third Party Peer Review shall provide additional and specialized expertise to supplement DBI review. The Third Party geotechnical engineer will meet with the Engineer of Record (EOR) and with the Plan Review Engineer as needed throughout the review process. If a SSPA Review Committee is established, the Plan Review Engineer shall provide the Committee with regular updates, as necessary, and any reports or findings.

Review by the Third Party geotechnical engineer is not intended to replace quality assurance measures ordinarily exercised by the EOR. Responsibility for the design remains solely with the EOR and the burden to demonstrate conformance of the design to the intent of the SFBC provisions and DBI guidelines or regulations reside solely with the EOR. The responsibility for conducting the plan review resides with the DBI Plan Review Engineer with assistance from the SSPA Review Committee if one is established.

The Third Party geotechnical engineer shall be licensed as a Geotechnical Engineer in California and shall be a recognized expert in the relevant field of geotechnical and geological engineering, and possess other areas of knowledge and experience relevant to the project.

The DBI Plan Review Engineer (or SSPA Review Committee, if established) shall select the Third Party geotechnical engineer. The Project Sponsor then may engage the Third Party geotechnical engineer as a consultant for assistance as appropriate. The Third Party geotechnical engineer shall have no conflict of interest with respect to the project and shall not be considered part of the design team for the project. The responsibility of the Third Party geotechnical engineer is to assist DBI in ensuring compliance of the design with the SFBC. The Third Party geotechnical engineer will be contracted with DBI and his or her responsibility shall be to DBI.

DBI will be responsible for the payment and other expenses for the professional service of the Third Party geotechnical engineer. The Third Party geotechnical engineer shall provide to the Plan Review Engineer (or the SSPA Review Committee, if established) a written copy of his or her proposed scope of work of their contract and associated fees. The proposed scope of service in the contract and any changes proposed to be made thereto shall be approved by the Plan Review Engineer (or the SSPA Review Committee, if established).

H. Structural Advisory Committee (SAC) Review

After a Third Party Peer Review, the Plan Review Engineer (or SSPA Review Committee, if established) in his or her (its) discretion, may establish a Structural Advisory Committee (SAC), as defined by SFBC Section 105A.6, to review the project and advise on matters pertaining to the design and construction of the project that may affect the slope stability of the site or create a potential for earthquake induced landslide hazards.

During review required under SFBC Section 106A4.1.4.4, the SAC shall verify that the project sponsor considered appropriate geological and geotechnical issues and proposed appropriate slope instability mitigation strategies, including drainage.

SAC review shall also consider other factors relevant to mitigate slope instabilities, including, but not limited to, ground slopes, soil types, geologic conditions, history of landslides in the vicinity, nature of construction, proximity and type of adjacent construction, and effects of the construction activity on the safety and stability of the subject property and properties within the vicinity.

DBI will be responsible for the payment and other expenses for the professional services of the SAC members. The SAC members shall provide to the Plan Review Engineer (or the SSPA Review Committee, if established) a written copy of his or her proposed scope of work of their contract and associated fees. The proposed scope of service in the contract and any changes proposed to be made thereto shall be approved by the Plan Review Engineer (or the SSPA Review Committee, if established).

I. Communication with City Planning, Public Works and the Fire Department:

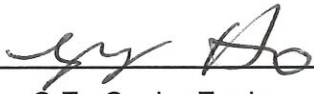
No permits as specified above for properties subject to the SSPA ordinance that involve review by the Structural Advisory Committee (SAC) shall be issued unless and until DBI has consulted with and received written communication from representatives of the Departments of City Planning, Public Works, and the Fire Department, each of whom has made a visit to the site for which the project is proposed, and DBI has received a written report from the Structural Advisory Committee (SAC) concerning the safety and integrity of the proposed design and construction.

J. Mandatory Denial by DBI:

In the event that DBI establishes a Structural Advisory Committee (SAC) and such Committee determines that there is a reasonable likelihood that the proposed design and construction would result in unsafe conditions or would increase the likelihood of hillside or slope instability, and such unsafe conditions or instability cannot be mitigated to the satisfaction of the Committee, DBI shall deny the permit. DBI's decision to deny the permit is appealable only to the Board of Appeals.

K. Tracking Permits Subject to SSPA Ordinance:


1. MIS shall enable PTS/SFPermit to flag permits subject to the SSPA ordinance.
2. MIS shall enable PTS/SFPermit to generate a report on assignment of Review Tiers of permits subject to the SSPA ordinance.



10/2/2018

Gary Ho, S.E., Senior Engineer
Manager, Permit Services
Department of Building Inspection

Date:



10/2/18

Daniel Lowrey
Deputy Director, Permit Services
Department of Building Inspection

Date:



10/2/18

Tom C. Hui, S.E., C.B.O.
Director
Department of Building Inspection

Date

Attachment A: Slope and Seismic Hazard Zone Protection Checklist

This Information Sheet is subject to modification at any time. For the most current version, visit our website at <http://www.sfdbi.org>



Attachment A

SLOPE AND SEISMIC HAZARD ZONE PROTECTION CHECKLIST

A COPY OF THIS DOCUMENT SHALL BE SUBMITTED WITH THE PERMIT APPLICATION

JOB ADDRESS _____ APPLICATION NO. _____ ADDENDUM NO. _____
 OWNER NAME _____ OWNER PHONE NO. () _____

1: PROPERTY LOCATION			3: PROPOSED CONSTRUCTION		
EARTHQUAKE INDUCED LANDSLIDE AREA ON THE STATE OF CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF MINES AND GEOLOGY (CDMG) SEISMIC HAZARD ZONES MAP FOR SAN FRANCISCO, RELEASED NOVEMBER 17, 2000.	YES <input type="checkbox"/>	NO <input type="checkbox"/>	CONSTRUCTION OF NEW BUILDING OR STRUCTURE HAVING OVER 1000 SQFT OF NEW PROJECTED ROOF AREA	YES <input type="checkbox"/>	NO <input type="checkbox"/>
			HORIZONTAL OR VERTICAL ADDITIONS HAVING OVER 500 SQFT OF NEW PROJECTED ROOF AREA	YES <input type="checkbox"/>	NO <input type="checkbox"/>
			SHORING	YES <input type="checkbox"/>	NO <input type="checkbox"/>
			UNDERPINNING	YES <input type="checkbox"/>	NO <input type="checkbox"/>
2: AVERAGE SLOPE OF PROPERTY			GRADING, INCLUDING EXCAVATION OR FILL, OF OVER 50 CUBIC YARDS OF EARTH MATERIAL		
PROPERTY EXCEEDING AN AVERAGE SLOPE OF 4H:1V (25%) GRADE <i>(APPLICANT WILL NEED TO INCLUDE PLANS ILLUSTRATING SLOPE OF THE PROPERTY AND/OR INCLUDE A SURVEY VERIFYING THE SLOPE OF THE PROPERTY)</i>	YES <input type="checkbox"/>	NO <input type="checkbox"/>	CONSTRUCTION ACTIVITY LISTED BELOW DETERMINED BY THE BUILDING OFFICIAL THAT MAY HAVE A SUBSTANTIAL IMPACT ON THE SLOPE STABILITY:		
			RETAINING WALL:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
		OTHERS: _____	YES <input type="checkbox"/>	NO <input type="checkbox"/>	

SECTION 4: LICENSED DESIGN PROFESSIONAL VERIFICATION AND SIGNATURES

Under penalty of perjury, I certify that the information provided on this form is based on my personal review of the building and its records, or review by others acting under my direct supervision, and is correct to the best of my knowledge.

Prepared by: _____
Engineer/Architect of Record

Telephone _____

Email _____

Signature _____

Date _____

[Architect/Engineer
Stamp Here]

FOR DBI USE ONLY

ASSIGNMENT OF REVIEW TIER

EXEMPTED: Reports per Section E and Third Party Peer Review Not Required

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If the DBI Plan Review Engineer (or the SSPA Review Committee, if established), in their discretion, determines from the submitted documents that the project has a substantial impact on the slope stability of the site or creates a potential for earthquake induced landslide hazards, DBI may require that the third party peer review be followed by the establishment of a Structural Advisory Committee (SAC) and re-assigned the project to Tier III.

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Tier assigned by: _____ Phone: (415) _____
 DBI Plan Review Engineer

Comment: _____

