# ADMINISTRATIVE MANUAL COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS GEOTECHNICAL AND MATERIALS ENGINEERING DIVISION

#### SUBDIVISIONS IMPACTED BY EXISTING LANDSLIDES

The following guidelines and requirements are for the geotechnical review of subdivisions impacted by landslides, with regards to proposed subdivisions of land and safe building areas. Landslides are considered a geologic hazard unless it is demonstrated to have factors of safety for gross static stability at least 1.5 and pseudostatic stability at least 1.1. Stability analyses shall be supported with onsite subsurface exploration and appropriate laboratory testing.

Unmitigated landslide hazards that, if activated, could adversely impact offsite property (outside of the subdivision) do not have to be mitigated when the following conditions are met:

- Existing landslide hazard already crosses an existing property boundary.
- Existing conditions will not be changed, worsened, or otherwise be affected by the proposed development.
- Hazard does not pose a threat to on-site building areas in the subdivision.
- Proposed development <u>will not</u> increase the potential for failure of the hazard.
- Each landslide hazard is contained entirely on one lot.

An unmitigated landslide hazard and the surrounding affected area inside the proposed subdivision will have to be designated as a Restricted Use Area. The surrounding affected area (e.g. areas upslope of the landslide that may lose lateral earth resistance) determination shall be addressed by the geotechnical consultant(s) and supported with data and analyses.

Cases designated below refer to the Plate (see attached):

### Case A

Problem: Proposed lot line crosses landslide.

Solution: Adjust lot line to constrain the landslide on one lot or provide remediation of the landslide. The landslide hazard cannot be subdivided. Designate unmitigated landslide hazard and surrounding

affected area as a Restricted Use Area.

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#### Case B

Problem: Designated building area is at the toe of a landslide, which is contained within a single lot of the subdivision.

Solution: Relative to the building area, the landslide must be mitigated (e.g., buttressed or removed) or be demonstrated to be stable and not a threat to the safety of the proposed structure. Alternatively, a safe building area may be found on the lot not affected by geotechnical or geologic hazards. Designate unmitigated landslide hazards and the surrounding affected area as a Restricted Use Area.

# Cases C and G

Problem: Landslides are outside of the subdivision boundary where remediation is not possible.

Solution: Unless the building pad can be shown to have an adequate setback from landslide hazard-affected areas or the landslide will be stabilized, an alternate building area is required.

#### Cases D and E

Problem: A landslide transects the subdivision boundary.

Solution: No mitigation is required because the landslide transects an existing property boundary. However, it must be clearly demonstrated that the proposed development will not adversely affect or contribute to the instability of the landslide in the future. Otherwise, the landslide must be mitigated. If it is determined that the landslide hazard will not be required to be mitigated, designate that portion of the unmitigated landslide hazards and surrounding affected area within the subdivision as a Restricted Use Area.

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# Cases F and G

Problem: The landslides are either entirely inside or outside of the subdivision perimeter boundary and do not affect the safety of the building area.

Solution: It must be clearly established that the proposed development will not adversely affect or contribute to the instability of the landslide, resulting in adverse effects on adjacent property and relative stability. Otherwise, the landslide must be mitigated. If it is determined that the landslide hazard will not be required to be mitigated, designate unmitigated landslide hazards and surrounding affected area within the subdivision as a Restricted Use Area.

# Case H

Problem: An existing landslide has been determined to be hazard and affected

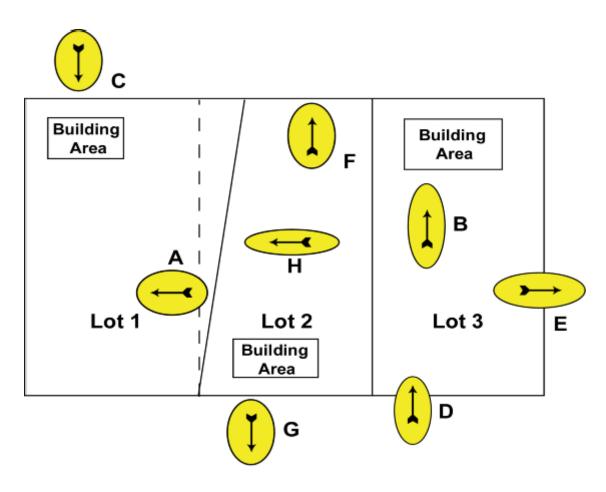
area could cross to an adjacent lot in the same subdivision.

Solution: Landslide must be removed or mitigated.

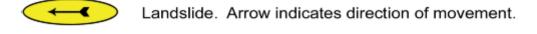
Approved By:

Michael A. Montgomery Assistant Division Head

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# **EXPLANATION**



\_\_\_\_\_ Lot boundary. Short dashes indicate movement of boundary required for Case "A".

Boundary of tentative subdivision.

# A - H Case designation.

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