CHAPTER 12-A

HILLSIDE PRESERVATION

(Amended 6/14/11)

Section 12-A.010. Hillside Preservation Purpose and Intent.
Section 12-A.020. Hillside Preservation General Provisions.
Section 12-A.030. Hillside Preservation Development Standards and Provisions.
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Section 12-A.010 Hillside Preservation Purpose and Intent.

To ensure that proposed development in hillside areas reflects the best interests of the City, its residents, and private property owners, all grading, excavation, filling or erection of any structure on land in any hillside area shall conform to the standards, guidelines, and criteria of this chapter. The purpose and intent of the Hillside Preservation ordinance is to:

A. Preserve hillside, mountain, and/or slope areas.

B. Encourage minimal grading, where possible, to maintain the natural contour of the land.

C. Promote quality development of hillside, mountain, and/or slope areas.

D. Promote grading which considers drainage, stability, safety, and sound engineering and construction practices.

E. Encourage responsible erosion control practices.

F. Protect natural drainage channels, except where otherwise approved by the City.

G. Preserve natural landmarks and prominent natural features including ridgelines, wildlife habitat and open space.

H. Minimize public exposure to geological and natural hazards, including but not limited to snow avalanche, rock slides, rock falls, debris flow, debris floods, land-sliding, surface fault rupturing, and hazards relating to ground water.

I. Prohibit activities and uses which would result in the degradation of fragile soils and steep slopes.

J. Encourage preservation of open space and natural terrain.

Section 12-A.020 Hillside Preservation General Provisions.

A. The hillside preservation standards contained in this Chapter shall be applied to all properties containing slopes of ten percent (10%) or greater. Any land or parcel having a slope of greater than ten (10%) percent shall be deemed to be land having a "steep slope" within the meaning of this Chapter.

B. In the event that any provisions of this chapter conflict with other sections of the Lehi City Development Code, the most restrictive provision shall apply.

C. Unless specifically stated by this chapter, the underlying zone shall determine density, minimum lot sizes, widths, frontages, etc.; except in the case of slopes exceeding thirty percent (30%) no density will be given. When determining density calculations, areas with slopes above thirty percent (30%) must be subtracted from the overall project area.

D. The City encourages the use of Planned Residential Developments, Planned Unit Developments, and Planned Communities in areas with steep slopes in order to preserve the natural terrain, and to maintain the steep slopes as open space.

E. Lands preserved as open space due to the presence of steep slopes may be offered to Lehi City, a private land trust, or to a non-profit agency in order to preserve and maintain the area in its natural state.

F. All buildings on steep slopes shall comply with the applicable sections of the International Building Code and International Residential Code, except where the recommendations of the soils report and/or the geologic report are more restrictive.

Section 12-A.030 Hillside Preservation Development Standards. *(Amended 11/12/13; 10/08/24)*

These provisions are intended to minimize floods, erosion, and other environmental hazards relating to development in slope areas, to protect the natural scenic character of hillside areas, and to ensure that the development of hillside and slope areas reflects the best interests of Lehi City, its residents and private property owners. To ensure the safe development of hillsides and slopes within Lehi City, the following

standards shall apply to all development within Hillside Preservation areas:

A. No person shall be permitted to grade, excavate, fill, erect any structure, or otherwise disturb any slope over thirty percent (30%) unless appropriate engineering measures are taken to address any associated hazards, as recommended by an engineering analysis and accepted by the Lehi City Engineer or City Council, depending on the applicable approval process identified in this Code. As part of the proposed engineering measures, the applicant shall provide a grading plan and drainage plan. The City Engineer may also require the applicant to provide a geotechnical report or a comprehensive retaining wall plan depending on the scale of the disturbance.

B. Any person proposing to grade, excavate, fill or erect any structure on any slope or hillside with a slope greater than ten percent (10%) shall be required to submit the following documents to the City for review and approval. These documents shall be submitted for review in addition to the development requirements for site plan and/or subdivision (whichever is applicable):

1. Soils report. The soils report shall be prepared and stamped by a geotechnical engineer, licensed by the State of Utah and qualified to prepare such report, and must contain the following information:

(a) Stability analysis for "steep slopes";
(b) Unified soil classification for the major horizons or layers of soil profile, or of the zone of the footing foundation;
(c) Soils engineering tests to determine bearing capacity, settlement potential, and shrink/swell potential of the site soils;
(d) Analysis of the soil suitabilities, constraints, and proposed methods of mitigating such constraints in implementing the proposed development;
(e) Groundwater levels and flows that may affect the development and estimated elevation of groundwater levels;
(f) Frost depth and potential frost action based upon material type and groundwater levels;
(g) Irrigation, runoff, and surface flows that may affect the development;
(h) Seismic considerations, including estimated peak ground accelerations, spectral accelerations and the appropriate Site Class in accordance with the International Building Code (for projects involving structures), and other potential seismic hazards relating to the proposed development. The report should address the potential impacts of seismic ground motions on slope stability;
(i) Bearing capacities, compaction, and other applicable factors deemed relevant by the geotechnical engineer.; and
(j) Recommended means to minimize any hazards and/or adverse impacts to the natural environment. Recommendations should address concerns identified in the soils report as well as the geologic report.

2. Geologic report. A geologic report and map shall be prepared and stamped by geologist, licensed by the State of Utah and qualified to prepare such report. Mapping shall reflect careful attention to the rock composition, structural elements, and distribution of earth materials, and shall be drawn at a scale of 1"=100'. The report should include the following:

(a) Location and size of subject area and its general setting with respect to major geologic features;
(b) Location and probability of landslide potential;
(c) Discussion of other potential geologic hazards, including but not limited to avalanche, rock fall, debris flow, flooding, groundwater-related hazards, fault rupture, and other seismic hazards;
(d) Topography and drainage in the subject area;
(e) Estimated depth to bedrock and geologic characteristics of bedrock layers;
(f) Reference to any State, Federal, and County reports covering the area (responding to issues/concerns identified in the reports); and
(g) Conclusions and recommendations regarding the effect of geological conditions on the proposed development, and recommendations covering the adequacy of sites to be developed.

3. Grading and drainage plan. A grading and drainage plan shall be prepared by an engineer, licensed by the State of Utah and qualified to prepare such report. The plan must be sufficient to determine erosion control measures necessary to prevent soil loss during construction. The plan shall also include the following information:

(a) A map of the entire site showing existing details and contours of the property as well as proposed modifications. Map shall be prepared using a scale of one inch equals one hundred feet (1"= 100');

(b) Map of areas to be graded, showing existing details and contours at five-foot (5') intervals where terrain is to be modified;
(c) A drainage report, including a narrative and calculations. The report shall include an investigation of the effects of a 100-storm and an evaluation of how the proposed drainage system will handle predicted flows for the areas within development and for areas outside of the development but drain through the subject area. This report shall address the effects on downstream development;
(d) The history, including frequency and duration of flooding; any additional permits required for floodplain and/or wetland areas; as well as any mitigation efforts proposed as a part of the plan; and
(e) A plan for the prevention and control of erosion and sedimentation during construction and during the period before the landscaping is established.

4. Vegetation Plan. A vegetation plan and report shall be prepared by a person or firm qualified by training and experience to have expert knowledge of the subject, including any applicable State licensing. The Vegetation Plan shall include the following:
(a) A survey of the existing vegetation and ground cover;
(b) A plan of the proposed re-vegetation of the site, including existing vegetation to be preserved and/or modified. This plan should disturb as little native vegetation as possible;
(c) A maintenance program for existing vegetation and new plantings; and
(d) A written statement by the person or firm preparing the vegetation plan and report, identifying any vegetation problems and stating the ability of the proposed plan to eliminate any potential problems, to prevent hazards or adverse effects.

C. Any development of property deemed to be a "steep slope" shall also conform to the following provisions:

1. Grading. No grading, filling, or excavation of any kind shall be accomplished without first obtaining a grading permit as required by the Grading Permit requirements of Chapter 12-B of this Code.

2. Drainage:
(a) Required storm water runoff collection facilities shall be designed to retain storm water runoff and landscape irrigation flows on development sites for a sufficient length of time so as to prevent flooding and/or erosion.
(b) Required storm water collection facilities shall be designed to divert surface and irrigation water away from cut faces or sloping surfaces of a fill. French drains are not acceptable.
(c) Curb, gutter, and pavement designs shall be such that water on roadways is prevented from flowing off the roadways.
(d) Natural drainage, open channel drainage and culvert discharge points, shall be rip-rapped for a distance sufficient to convey the discharge without channel erosion.
(e) Sediment catchment ponds shall be constructed downstream from each development, unless sediment retention facilities are otherwise provided.

3. Vegetation and Re-vegetation:
(a) Conserve topsoil removed during construction for later use on disturbed areas as needed, and as approved by the City.
(b) All disturbed soil surfaces shall be stabilized before final acceptance of the development by the City. Stabilization shall include, at a minimum, six (6) inches of topsoil and native seed mix.
(c) In all areas under ownership and control of the Developer, the Developer shall be fully responsible for any destruction of native vegetation required to be retained, and shall be responsible for replacing destroyed vegetation.

4. Fire Protection:
(a) Lot size and potential placement of buildings thereon shall be such that adequate clearance of hazardous, flammable vegetative cover may be accomplished to comply with the Urban Wildlife Interface Code.
(b) Recorded easements for firebreaks shall be required with all developments.

5. Incorporation of Geotechnical and Geologic Recommendations. A written review of the development plans shall be performed by the person or firm preparing the soils and geologic reports to determine if the recommendations from the reports have been incorporated and to recommend changes to the development plans if needed.

Section 12-A.040 Hillside Preservation Building Standards

The following standards shall apply to all construction within the Hillside Preservation Overlay Zone.

A. No dwelling or other structure used for human habitation shall be constructed on fill material, unless such material shall have been compacted as directed by a geotechnical engineer licensed in the State of Utah.

B. No building permit shall be issued until all of the items required by this ordinance have been reviewed and approved by the appropriate body within the City.

C. A building permit issued from the Lehi City Building Department is required for all retaining walls, as defined by the International Building Code or International Residential Code.

~~D.~~ The final building inspection on any structure cannot be scheduled by the Lehi City Building Department until all landscaping (required during the development process), including landscaping on private lots and any retaining walls, are installed. In the case where landscaping cannot be installed because of seasonal and/or weather constraints, the bond for the landscaping shall not be released until the landscaping is installed in a manner acceptable to the City.

E. In the event that the International Building Code or International Residential Code has differing requirements, the more restrictive provisions shall apply.

Section 12-A.050 Dispute Resolution

To insure sound engineering practices and analysis are implemented, any disputes between the city and developers engineering consultants shall be resolved per the requirements in Title 10 Chapter 9a of the Utah State Code.