

14.37.100 Hillside Development

A. Intent and Purpose. The intent and purpose of the provisions of this section are as follows. Unless otherwise provided, the hillside area regulations are in addition to generally applicable standards provided elsewhere in this code.

1. To implement the landslide hazard prevention goals in the City of Cottage Grove Natural Hazard Mitigation Plan;
2. To implement the “Hillside Development” element of the City of Cottage Grove Comprehensive Plan;
3. To provide for the review of hillside development applications and evaluate properties for potential slope related hazards;
4. To assess the risk that a proposed use or activity may adversely affect the stability and slide susceptibility of an area; and thus promote the public health, safety, and welfare;
5. To establish standards and requirements for the development of lands in a hillside area; and
6. To mitigate risk within a hillside area, not to act as a guarantee that the hazard risk will be eliminated, nor as a guarantee that there is a higher risk of hazard at any location.

B. Definitions. As used in this chapter, except where the context otherwise clearly requires:

1. Certified Engineering Geologist means any Geologist who is certified in the specialty of Engineering Geology under provisions of ORS 672.505 to 672.705 and registered in the State of Oregon.
2. Civil Engineer means a Professional Engineer, registered with the State of Oregon, who by training, education and experience is qualified in the practice of geotechnical or soils engineering practices.
3. Contiguous Slope means a slope bounded by a summit, benches or plateaus (including basal plains) of sufficient width that a profile line constructed from the lower toe of the slope to the furthest point of the plateau or bench will have a slope of less than that specified by the particular Hillside Area Level detailed in Exhibit 1 to this ordinance.
4. Emergency Action means an action that must be undertaken immediately to prevent an imminent threat to public health or safety, or prevent imminent danger to public or private property.

5. Erosion means the wearing away of the earth's surface as a result of the movement of wind, water, or ice.
6. Excavation means any act by which earth, sand, gravel, rock or any similar material is dug into, cut, quarried, uncovered, removed, displaced, relocated or bulldozed, including the conditions resulting there from.
7. Fill or Backfill means a deposit of earth or other natural or manmade material placed by artificial means. This includes approved waste materials and the re-deposit of previously removed material.
8. Geological Assessment means an assessment prepared and stamped by a Certified Engineering Geologist, detailing the surface and subsurface conditions of the site and delineating the areas of a property that might be subject to geological hazards, and furnish professional analysis of information to assess the suitability of the site for development. Geological assessment must be prepared in accordance with the report requirements identified in this chapter. The geological assessment may be incorporated into or included as an appendix to the geotechnical report.
9. Geotechnical Assessment means a written assessment prepared and stamped by a geotechnical engineer or professional licensed in the State of Oregon to perform such work stating whether or not a significant risk of landslide hazard exists due to seismic or water induced forces, or if significant landslide hazard risk from any cause may become present after development, based on the planned use of the property. The contiguous slope shall be considered in the assessment. The assessment shall detail the surface and subsurface conditions of the site and delineate the areas of the property that might be subject to geotechnical hazards.
10. Geotechnical Engineer means a Professional Engineer, registered with the State of Oregon as provided by ORS 672.002 to 672.325, who by training, education and experience is qualified in the practice of geotechnical or soils engineering practices.
11. Geotechnical Evaluation means a written letter or evaluation prepared and stamped by a geotechnical or civil engineer identifying whether a landslide hazard exists due to seismic or water induced forces or soil conditions; and whether a significant landslide hazard risk may become present after development, based on the planned use of the property. The contiguous slope shall be considered in the evaluation.
12. Geotechnical Report means a report prepared and stamped by a Geotechnical Engineer, evaluating the site conditions and recommending design and mitigation measures necessary to reduce the risk associated with development and to facilitate a safe and stable development. A geotechnical report must be prepared in accordance with the report

requirements identified in this Chapter.

13. Grading means the act of excavating or filling, which results in the changing of the elevation or drainage pattern of the surface of the land.
14. Ground Disturbance means any excavation of 50 cubic yards or more.
15. Hazardous Vegetation means as defined by Section 8.12.045 of the Municipal Code.
16. Hillside Area means any property with slopes of 15% or more.
17. Landslide means the downslope movement of soil, rocks, or other surface matter on a site. Landslides may include, but are not limited to, slumps, mudflows, earthflows, debris flows, and rockfalls.
18. Mitigation Measure means an action designed to reduce project-induced geologically hazardous area impacts.
19. Slope means an inclined earth surface, the inclination of which is expressed denoting a given rise in elevation over a given run in distance. A fifteen percent slope, for example, refers to a fifteen foot rise in elevation over a distance of one hundred feet. Slopes are measured across a horizontal rise and run calculation within any horizontal twenty-five foot distance.
20. Tree means any living, standing, woody plant, having a trunk eight inches or more in diameter or 25 inches in circumference, measured at a point of four feet above grade at the base of the trunk.
21. Tree Removal means to cut down a tree or remove all or 50% or more of the crown, trunk, or root system of a tree; or to damage a tree so as to cause the tree to decline or die. "Removal" includes but is not limited to topping, damage inflicted upon a root system by application of toxic substances, operation of equipment and vehicles, storage of materials, change of natural grade due to unapproved excavation or filling, or unapproved alteration of natural physical conditions. "Removal" does not include normal trimming or pruning of trees.
22. Vegetative Removal means the disturbance or removal of more than 2,500 square feet of existing vegetative ground cover including but not limited to trees, brush, grass and low growing ground cover plants.

C. Regulated Activities; Permit and Approval Requirements; Applicability. Except as provided under subsection E of this section, no person shall engage in any of the following regulated activities in hillside areas of 15 percent or greater, without first obtaining a Hillside Development Permit as required by this chapter:

1. Tentative or final platting of partitions, subdivisions, manufactured home parks, planned

- unit developments, or mixed use master plans;
2. Proposed planned unit developments, or mixed use master plans;
 3. Construction of new commercial building;
 4. Construction of new residential building;
 5. Construction of roads and/or utilities;
 6. Excavation/fill/grading;
 7. Expansion of footprint of more than 500 square feet of any existing structure, building, road or utility; or
 8. Tree removal on slopes greater than 60%;
 9. Vegetation removal that exceeds 2,500 square feet;
 10. Any property where a geotechnical evaluation, assessment or geotechnical report has not been conducted in the last 10 years, subject to review by the City Engineer;
 11. At the request of the City Engineer.

D. Application Process. The application may be processed simultaneously with other land use applications, but approval of the other land use applications shall be subject to the Hillside Development Permit being issued and the appeal period having expired.

The requirements of this chapter are in addition to other provisions of this code. Where the provisions of this chapter conflict with other provisions of this code, the provisions that are more restrictive of regulated development activity shall govern.

E. Exemptions. The following activities, and persons engaging in same, are EXEMPT from the provisions of this chapter:

1. Construction/modifications of utilities and streets within existing footprint of street;
2. Interior remodels;
3. Exterior alterations and/or additions under 500 square feet in area;
4. Construction of accessory structures under 200 square feet in area;
5. Construction/renovation of retaining walls less than 4' in height (measured from bottom of footing to top of wall); or
6. Excavation or fill under 50 cubic yards.

F. Hillside Area Levels & Mapping. Hillside Area Levels for the purpose of this Chapter are:

1. Level 1 hillside area is any area with a slope of 15 to 20 percent;
2. Level 2 hillside area is any area with a slope of 20 to 25 percent; and
3. Level 3 hillside area is any area with a slope of greater than 25 percent.
4. Hillside area levels 1-3 are mapped on the "Slopes In Cottage Grove", as prepared by Lane Council of Governments, dated April 19, 2006, which is on file in the Community Development Department. This map provides guidance only. Final determination of slopes should be determined by a professional licensed in the State of Oregon to perform such surveys. This map provides guidance only. Slopes should be determined on a site-specific basis by a registered surveyor.

G. Geotechnical Evaluation, Assessments & Reports.

1. Geotechnical Evaluations-Level 1.

- a. Geotechnical Evaluations shall be based on site visits(s) and literature review and shall state the planned property use for which the evaluation was performed.
- b. Geotechnical Evaluations shall be performed by a Geotechnical Engineer registered in the State of Oregon, or Civil Engineer registered in the State of Oregon, or a combination thereof.
- c. The author of the evaluation shall state whether or not, in their professional opinion, a significant landslide hazard exists due to seismic or water induced forces; soil conditions; and if significant landslide hazard risk from any cause may become present after development, based on the planned use of the property. The contiguous slope shall be considered in the evaluation.
- d. The evaluation shall contain recommendations to be followed during construction of the proposed work, unless the author(s) finds it probable that a significant risk may exist, at which point the author(s) shall recommend either a Geotechnical Assessment or a Geotechnical Report.
- f. The Geotechnical Evaluation shall be stamped by the author(s).
- f. The Geotechnical Evaluation is required at the time of Hillside Development Permit application submittal.

2. Geotechnical Assessment – Level 2.

- a. Geotechnical Assessments shall be based on site visit(s), literature review and shallow borings of sufficient depth, frequency and distribution to identify the soil or rock zones apt to mobilize under seismic or water induced forces;
 - b. Geotechnical Assessment shall be performed by a Geotechnical Engineer registered in the State of Oregon;
 - c. The author of the assessment shall state whether or not, in their professional opinion, a significant risk of landslide hazard exist due to seismic or water induced forces, or if significant landslide hazard risk from any cause may become present after development, based on the planned use of the property. The contiguous slope shall be considered in the assessment;
 - d. The assessment shall detail the surface and subsurface conditions of the site and delineating the areas of a property that might be subject to geotechnical hazards;
 - e. The assessment shall contain recommendations to be followed during construction of the proposed work, unless the author(s) finds that a significant risk may exist, at which point they shall recommend a Geotechnical Report be performed;
 - f. The Geotechnical Assessment shall be stamped by the author; and
 - g. The Geotechnical Assessment is required at the time of Hillside Development Permit application submittal.
3. Geotechnical Report-Level 3.
- a. A Geotechnical Report shall be required:
 1. For slopes greater than 25%; or
 2. Where a geological evaluation or assessment recommends preparation of a Geotechnical Report; or
 3. Where a landslide risk has been identified by the Oregon Department of Geology and Mineral industries; or
 4. Where unusual and site specific circumstances including, but not limited to, importance of facility, land form mobilization history or potential impacts to surrounding existing structures, exist and the City Engineer makes a written finding that such hazard may exist based on the evidence available and that a detailed examination of the site's geotechnical characteristics is warranted.
 - b. The Geotechnical Report shall include at minimum the following:

- 1) A report shall evaluate the site conditions and recommend design and mitigation measures necessary to reduce the risk associated with development and to facilitate a safe and stable development;
- 2) The author of the geotechnical report shall state that, in their opinion, a geological assessment is not required. If a Geological Assessment is required, it shall be performed by a Certified Engineering Geologist registered in the State of Oregon. Assessments shall be prepared in accordance with the Guidelines for Preparing Engineering Geologic Reports in Oregon as adopted by the Oregon State Board of Geologist Examiners. The report shall detail the conditions of the surface and subsurface conditions of the site and delineating the areas of the property that might be subject to specified geologic hazards. The report shall be stamped by the author;
- 3) Comprehensive description of the site topography; including the characterization of each type of native and imported soil likely to be impacted by the planned activities including: Atterburg Limits, Specific Gravity, Natural Moisture Content, Cohesion, Internal Angle of Friction;
- 4) An estimate of the safety factor against slope instability before and after development considering gravity forces, seismic forces, hydraulic impacts under varied ground water or vadose zone conditions, and vegetation removal;
- 5) Sections through the hillside illustrating pre and post development configurations for structures, piping and roads;
- 6) Estimate of the allowable bearing strength of the soil for foundations and identification of areas requiring further detailed work;
- 7) Assessment of the safety of and recommendations for cut and fill operations, including specific requirements for plan modification, corrective grading and special techniques and systems to facilitate a safe and stable development;
- 8) Assessment of and recommendations for mitigation of potential adverse impacts on structures, roads, and piping systems;
- 9) Recommendations for transport and collection of surface and subsurface (if present) water;
- 10) Recommendations on vegetation removal and replacement;
- 11) Description of the field investigation and findings;
- 12) Other recommendations as necessary, commensurate with the project grading

and development;

13) Geotechnical Reports shall be in accordance with recommendations of the Geotechnical Institute of the American Society of Civil Engineers; The Geotechnical Report shall be prepared and stamped by the author; and

14) The Geotechnical Report is required at the time of Hillside Development Permit application submittal.

H. Review Procedure and Approvals.

1. No regulated activity may be initiated until the City Engineer has reviewed the Geotechnical Evaluation, Assessment or Report, and/or the Geological Assessment; has made a recommendation to the Community Development Director, and the Community Development Director has made a decision and issued a Hillside Development Permit (Type I or II).

2. Level 1 Hillside Development Permits shall be processed as Type I applications. Level 2 & Level 3 Hillside Development Permits shall be processed as Type II applications. Upon review of the application, the Community Development Director and/or City Engineer may choose to process a Level 3 Permit as a Type III application.

3. A Geotechnical Evaluation, Assessment or Report and/or a Geological Assessment must be submitted concurrently with the Hillside Development Permit application.

4. Review of submittals shall include examination to ensure that the following criteria are met:

- a. Required elements are completed;
- b. Geotechnical or Geological Report procedures and assumptions are generally accepted; and
- c. All conclusions and recommendations are supported and reasonable.

5. Conclusions and recommendations stated in an approved Geotechnical Evaluation, Assessment or Report; and/or Geological Assessment shall then be directly incorporated as permit conditions or provide the basis for conditions of approval of the regulated activity.

6. An excavation and fill permit may be required pursuant to Section 15.20 "Erosion Prevention and Construction Site Management Practices" of the Cottage Grove Municipal Code.

I. **Independent Review.** Where the City Engineer determines that a Geotechnical Evaluation,

Assessment or Report and/or the Geological Assessment fails to meet one or more of the review criteria, or the City Engineer determines that it lacks the qualifications or expertise to fully review the above noted items, the Community Development Director on the recommendation of the City Engineer, may elect to have an independent Certified Engineering Geologist and/or Geotechnical Engineer undertake the review, at City expense.

J. Certification of Compliance. No regulated activity requiring a Geotechnical Evaluation, Assessment, or Report shall receive initial inspection on a valid permit for properties located in a hillside area until the City receives a written statement by a civil or geotechnical engineer or other licensed professional that all performance, mitigation, or monitoring measures contained in an approved Geotechnical Report are completed, in place, and operable.

K. Disclosure. As a condition of City permits or approvals of regulated activities located in hillside areas, the owner:

1. Shall record a declaratory statement against the property stating the property contains slopes of fifteen percent or more and that all approved Geotechnical Evaluations, Assessment, or Reports and/or Geological Assessments for such property are on file with the City; and
2. Shall provide evidence of such recording to the Community Development Department.

L. Emergency Actions. The person undertaking an emergency action as defined by this chapter shall notify the Community Development Director or City Engineer upon the immediately following the commencement of the emergency activity. If the Community Development Director after review by the City Engineer determines that the action or part of the action taken is beyond the scope of an allowed emergency action, enforcement action may be taken. (Ord. 3087 §4(G), 2017; Ord. 2959 §5(Exh. A (part)), 2007. Formerly 3.7.100)