

SECTION 4.040 GEOLOGIC HAZARDS OVERLAY DISTRICT (/GHO)

Section 4.041 Purpose

The intent of the geologic hazards overlay is to minimize building hazards and threats to life and property that may be created by landslides, ocean flooding and erosion, weak foundation soils, and other hazards as identified and mapped by the County. This purpose is achieved by basing County decisions on accurate geologic and soils information prepared by qualified professionals.

Section 4.042 Applicability

This section applies to all development in the following potentially hazardous areas:

- (1) Areas subject to mass wasting including:
 - (A) Active landslides, inactive landslides, landslide topography and mass movement topography identified in the Oregon Department of Geology and Mineral Industries (DOGAMI) Bulletins 74 and 79;
 - (B) Faults including definite, indefinite, inferred and concealed in the Oregon Department of Geology and Mineral Industries (DOGAMI) Bulletins 74 and 79;
 - (C) All areas identified in the report, "*A Field Inventory of Geologic Hazards from Silver Point to Cove Beach, Clatsop County, Oregon*", prepared by Martin Ross in 1978, as needing site specific investigations;
- (2) Areas subject to wave attack, including:
 - (A) All oceanfront lots; and
 - (B) The beach and dune hazard area as defined in Section 4.052.
- (3) Areas with compressible soils identified in the Soil Survey of Clatsop County (SCS) and referenced in Clatsop County's Comprehensive Plan Background Report, Natural Hazards.
- (4) The determination of whether a property is located in one of the above referenced potentially hazardous areas shall be made at the sole discretion of the Director. The mapping that forms the basis for the identification of the above areas may be generalized in nature. A specific site may not include the characteristics for which it is mapped. In these circumstances, the Director may grant a waiver from the requirements of Section 4.040. The waiver shall be in the form of a written finding. The finding shall be based on a report, from a professional specified in Section 4.044, detailing the basis for the determination that the site does not contain the identified potentially hazardous geologic condition.

Section 4.043 Geologic Hazard Permit Requirements.

All persons proposing any activity requiring a development permit on property located in potentially hazardous areas identified in Section 4.042 shall obtain a geologic hazard permit.

- (1) Application for a geologic hazard permit shall be on forms provided by the County and shall include a geotechnical report prepared in conformance with the requirements of Section 4.044.

- (2) Before a development permit can be issued, the geotechnical report must be approved as part of the development permit approval process.
 - (A) Where a geotechnical report recommends that additional site investigations, such as borings or test pits, are undertaken, application for geologic hazard permit will be deemed incomplete until the results of those investigations have been provided to the County.
 - (B) Where an application is made for a conditional use permit, a variance, a subdivision, a partition, or a planned development located in an area identified in Section 4.042, a geotechnical report in conformance with Section 4.044 shall be prepared. The Director may also require a geotechnical report in conjunction with a proposed zone change.
- (3) Application for a geologic hazard permit may be made concurrently with an application for a development permit.
- (4) The approved site investigation report shall be referred to in deed and other documents of sale and shall be recorded with the record of deeds.

Section 4.044 Geotechnical Report Requirements

For areas identified in Section 4.042 (1) and 4.042 (2), the geotechnical report shall be prepared by a certified engineering geologist or a registered professional geologist. If a geotechnical report is prepared by a geologist and structural recommendations are incorporated into that report, those recommendations, must be made in consultation with an engineering geologist, structural engineer, or civil engineer.

- (1) For areas identified in Section 4.042 (1), the geotechnical report shall:
 - (A) Identify the hazards to life, public and private property which may be caused by mass movement (landsliding and sloughing), soil erosion or deposition, and earthquakes;
 - (B) Identify the hazards to life, public and private property, and the natural environment which may be caused by the proposed use and other human activities;
 - (C) Describe how the proposed development or use will be adequately protected from geologic hazards, including landsliding and sloughing, soil erosion or deposition, and earthquakes; and
 - (D) Describe how the proposed development is designed to minimize the adverse effects it might have on the site and adjacent areas.
- (2) For areas identified in Section 4.042 (2), and in addition to the standards identified in Section 4.044 (2), the geotechnical report shall identify the hazards to life, public and private property which may be caused by wind erosion or accretion, wave undercutting (erosion), and ocean overtopping (flooding, including tsunami),
- (3) For areas identified in Section 4.042 (1) and 4.042 (2), the geotechnical report shall describe how the proposed development provides for temporary and permanent stabilization and the planned maintenance of new and existing vegetation. Existing stabilizing vegetation, particularly trees, shall not be removed on slopes of 20% or greater.

- (4) For areas identified in Section 4.042 (1) and 4.042 (2), the geotechnical report shall be prepared in conformance with the document “ Clatsop County – Geotechnical Report Content Standards”.
- (5) For areas identified in Section 4.042 (3), the geotechnical report shall be prepared by a certified engineering geologist, soils engineer, or civil engineer. Geotechnical reports prepared for areas identified in Section 4.042 (3) shall incorporate specific construction and structural recommendations to address the soil characteristics of the site. Where pertinent, the discussion of specific construction and structural recommendations shall include: site preparation such as compaction or replacement of existing soils, bearing loads and the corresponding amount of settlement, steps to be taken with respect to ground and surface water, special foundation requirements, and foundation recommendations based on bearing capacity, design criteria, and the effect of adjacent loads.
- (6) For all areas identified in Section 4.042, the geotechnical report shall be prepared in conformance with the document “Clatsop County – Geotechnical Report Content Standards”.

Section 4.045 Geologic Hazard Permit Review.

An application for a geologic permit shall be reviewed under a Type I procedure.

- (1) A geologic hazard permit shall be approved by the Director if:
 - (A) The conclusions of the geotechnical report supports a finding that there are no adverse effects of the site’s geologic characteristics on the proposed development and the proposed site modifications will not adversely affect geologic conditions and processes in the immediate area; or
 - (B) The conclusions of the geotechnical report supports a finding that if specified actions are taken to address an identified potential hazard then the effects of the site’s geologic characteristics on the proposed development will be at an acceptable level and the effects of the proposed site modifications on the geologic conditions and processes in the immediate area are at an acceptable level.
- (2) Specific recommendations contained in the geologic report shall be incorporated into the approved geologic hazard permit. Based on content, recommendations and conclusions of the geotechnical report, the Director may apply other conditions to the issuance of a geologic hazard permit.
- (3) The specific recommendations contained in the geotechnical report, and conditions applied to the geologic hazard permit shall be incorporated into the plans and specifications of the development which is the subject of the development permit.
- (4) Where there is not a concurrent application for a geologic hazard permit and a development permit for a specified development, the person(s) who prepared the geotechnical report shall submit a letter to the Director verifying that the proposed plans, details, and specifications of the proposed development have been reviewed and are in keeping with the recommendations contained in the geotechnical report that formed the basis for the issuance of the geologic hazard permit, or they shall make recommendations or changes that are needed in the proposed development in order to bring it into conformance with the recommendations contained in the geotechnical report.

- (5) When a geotechnical report submitted in conjunction with a development permit that is more than two years old, a letter shall be submitted to the Director from the person(s) who prepared the report. The letter shall provide verification that the geotechnical report is still valid for the proposed project.

Section 4.046 Independent Review

The Director, at his discretion and at the applicant's expense, may require an evaluation of a geotechnical report by another expert of his choosing. As part of its review of a land use application located in an area subject to Section 4.042, the Hearings Officer, Planning Commission, or Board of Commissioners may also require, at the applicant's expense, an evaluation of a geotechnical report that was prepared in conjunction with the land use application. The results of that evaluation shall be used in making the final decision on the effected land use permit.

Section 4.047 Standards

The review and approval of development permits in the geologic hazard overlay district shall be based on the conformance of the proposed development plans with the following grading standards. Conditions of approval may be imposed on the development permit to assure that the development plan meets the standards of this section and to prevent the creation of a hazard to public or private property.

- (1) **Site Plan Information Required.** In addition to the information required for a development permit, the site plan shall show where clearing, grading, excavation or filling is to occur, the area where existing vegetative cover will be retained, the location of any streams and wetland areas on immediately adjacent to the property, and the general direction of slopes. A statement shall be provided summarizing the extent of land clearing and grading and the quantity of cut and/or fill material involved.
- (2) **Preparation of Grading Plan Based on the findings and conclusions of the geotechnical report, or the nature of the proposed development,** The Planning Director, at his sole discretion, may require that a grading plan prepared by a registered engineer be submitted with the application for a development permit. The Planning Director may require that such a grading plan, in addition to information required by Section 4.047(1) include the following additional information:
 - (A) Existing and proposed contours of the property, at two-foot contour intervals;
 - (B) The location of the existing structures and building, including those within twenty-five feet of the property;
 - (C) The location of all surface and subsurface drainage devices to be constructed; and
 - (D) Design details of proposed retaining walls.
- (3) **General Standards.** The proposed development plans shall meet the following general standards:
 - (A) Natural vegetation will be protected and retained wherever possible;
 - (B) To the extent possible, roads and driveways shall follow the natural contours of the site; and
 - (C) An erosion control plan shall be prepared and implemented in conformance with the requirements of Section S2.500.
- (4) **Cuts.** Proposed cuts shall meet the following standards:
 - (A) The site development shall be design to minimize the need for cuts.

- (B) The slope of cut surfaces shall not be steeper than is safe for the intended use and shall not be steeper than two horizontal to one vertical unless an engineering report finds that a cut at a steeper slope will be stable and not create a hazard to public or private property;
 - (C) Cuts shall not remove the toe of any slope where a potential for landslide exists;
 - (D) Cuts shall be setback from property lines so as not to endanger or disturb adjoining property; and
 - (E) Retaining walls shall be constructed in accordance with the Oregon State Structural Specialty Code.
- (5) Fills. Proposed fills shall meet the following standards:
- (A) The site development shall be designed to minimize the need for fill.
 - (B) The slope of fill surfaces shall not be steeper than is safe for the intended uses and shall not be steeper than two horizontal to one vertical unless an engineering report finds that a steeper slope will be stable and not create a hazard to public or private property. Fill slopes shall not be constructed on natural slopes steeper than two horizontal to one vertical.
 - (C) Fill shall be setback from property lines so as not to endanger or disturb adjoining property.
 - (D) The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials, and scarifying to provide a bond with the new fill.
 - (E) Structural fill shall be designed by a registered civil engineer in accordance with standard engineering practices.
- (6) Drainage. The following standards shall be met:
- (A) Proposed grading shall not alter drainage patterns so that additional storm water is directed onto adjoining property.
 - (B) Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.
 - (C) The site grading and drainage improvements shall be designed to carry both concentrated water and surface sheet flow water to the nearest practical drainage way, as specified by the Planning Director.