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CLARK COUNTY
WASHINGTON

GEOLOGIC HAZARD APPLICATION PACKET

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GEOLOGIC HAZARD AREA (GEO) SUMMARY

PUBLIC WORKS
DEVELOPMENT ENGINEERING PROGRAM

This summary will provide you some knowledge of what Geologic Hazard means. To have a complete understanding of what is required; please see Clark County Code (CCC) Chapter 40.430. <http://www.codepublishing.com/wa/clarkcounty.html>; click on Title 40.

A. **What exactly are Geologic Hazard areas?**

"Geologic hazard areas" are areas having steep slopes; potential, active or previous landslides; or, extreme seismic hazards.

Clark County has adopted regulations to safeguard public health by placing limitations on:

- a. Steep Slope Hazard Areas – areas where there is not a mapped or designated landslide hazard, development on four types of hazardous areas: but are steep slopes equal to or greater than 40% slope. The presence of steep slopes suggests that slope stability problems are possible.
- b. Landslide Hazard Areas – areas susceptible to land sliding due to a combination of slope inclination, soil type, and presence of water.
- c. Seismic Hazard Areas – areas subject to severe risk of damage as a result of an earthquake, slope failure, settlement, or surface faulting. This area is defined by a map published by the Washington State Department of Natural Resources.
- d. Volcanic Hazard Areas – areas subject to possible low and high density volcanic flows as shown on the Volcanic Hazard Map of Clark County.

B. **Can I do anything in an area that has identified Geologic Hazards?**

Yes. Activity can take place with a permit and some can take place without one. Any development, earth movement, clearing, or other site disturbance activities within or adjacent to a geo-hazard area requires permit approvals from the county. Activities that can take place without permit review include:

- a. Emergency activities which require immediate action to prevent an imminent threat to health, safety or property. As soon as practical, the responsible party shall provide written notification to the county and obtain all applicable permits;
- b. The expansion, remodel, reconstruction or replacement of any structures which will be set back from the geologic hazard area a distance which is greater than or equal to the setback of the original structure and which will not increase the building footprint by more than 1,000 square feet inside a steep slope hazard area, landslide hazard area or their buffers;
- c. Any replacement, operation, repair, modification, installation or construction by a state or locally franchised utility company in an improved right-of-way or utility corridor;

- d. Normal and routine maintenance and repair of existing utility facilities, equipment and appurtenances;
- e. Any development activity on or within 100 feet of steep slopes that have been created through previous, legal grading activities is exempt from steep slope hazard regulations;
- f. Applications for short plats in the rural area that are certified by a registered geologist or professional engineer in the state of Washington are exempt from some requirements of the geologic hazard areas code even though a mapped geohazard exists on the plat or within 100 feet of the boundaries of the plat. A certification shall be provided with the preliminary plat application by means of one of the following:
 - (1) A development envelope is designated on the plat which is certified to be over 100 feet from any regulated geologic hazard area. A stamped letter which documents how the designated envelope is exempt from the requirements of the code shall accompany the development envelope diagram; or
 - (2) A stamped letter which documents there are no areas within the boundaries of the plat that are within 100 feet of any regulated geologic hazard area.
- g. All forest practices other than Class IV G (conversions).

C. My property is on your Geologic Hazard area maps. Can I still build a home?

Yes. Before construction can start, the location of the home needs to be reviewed for consistency with the Geologic Hazard Area regulations to ensure a safe and stable building site.

D. How do I know I have chosen a safe and stable location for my home?

The primary purpose of Geologic Hazard regulation is to ensure safe development. As the property owner, you will need to hire a qualified professional engineer or a licensed geologist to do a Geologic Hazard Area Study of your property.

The “Geologic Hazard Area Study”, usually called a Geologic Technical (Geo-tech) report, must be prepared, stamped, and signed by a geotechnical engineer or geologist who meets the requirements set forth in Clark County Code Section 40.100.070.

This study will include a review of topography, soils information, a site history, slope stability study, soil compaction data, a discussion of study methods, and recommended measures to ensure the suitability of the Geologic Hazard Area for your proposed project. The study will determine the viability of any proposal.

E. For a residence, what permits do I apply for?

If you have a house plan chosen, you may apply for both your building permit and the Geologic Hazard study review at the same time.

F. What if I want to develop the property in some other manner than a residence?

To begin the process, you will need to apply for a “Pre-Application Conference”. This conference is a preliminary process to familiarize you with the county regulations.

At the conference, staff will discuss other potential development regulations that will affect you. This conference will help you best accommodate Geo-Hazard constraints within the framework of your proposed development.

After the Pre-Application Conference is complete, the next step is to submit the completed Application Forms and fees to the Permit Center.

G. How does the application review process work?

Once a complete application is accepted, your packet will be routed to county staff who will review your study's findings and methodology to ensure that the technical data has been properly collected and analyzed.

Staff will review the study's findings and recommendations and compare these recommendations to the Clark County Geologic Hazard Areas regulations, will be issued on how to proceed.

If you have any questions, please contact:

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This handout is not a substitute for county code. For more detailed information, please refer to Clark County Code (CCC), Chapter 40.430 Geologic Hazard Areas.



GEOLOGICAL HAZARD (GEO) SUBMITTAL REQUIREMENTS

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NOTE: The following checklist identifies information to be included. ALL items checks MUST be submitted before the submittal can be accepted. All submittals not determined to be complete will be RETURNED to the applicant for corrections.

GEOLOGICAL HAZARD REVIEW
<input type="checkbox"/> Cover Sheet / Letter of Transmittal
<input type="checkbox"/> Application Form
<input type="checkbox"/> Application Fee
<input type="checkbox"/> Narrative. A written narrative shall be submitted that addresses the following: how the application meets or exceeds each of the applicable approval criteria, standards set form in the Geological Hazard regulations; and, how the application meets or exceeds each of the applicable approval criteria, and standards set forth in the Geo-Technical Report.
<input type="checkbox"/> Proposed Site Plan: The proposed site plan shall be drawn to a minimum engineer's scale of 1" = 100' on a sheet no larger than 24" x 36". The proposed plan shall include the following information: (a) site boundary lines; (b) topography at contour intervals of no greater than five (5) feet; the location and size; (c) location and size of all existing and proposed site improvements including structures, wells, drain fields, drain fields reverse areas, public and private right-of-ways easements and utilities; (d) locations of all drainage-flows characteristics, streams, groundwater seeps, springs and evidence of seasonal surface water runoff or groundwater; location and extent of all existing and proposed grading activities and existing natural or artificial drainage control facilities and systems; (e) location and description of all geological hazard located on the site and observed on properties within one hundred (100) feet of site boundaries; (f) general location of all vegetation and general location, number and description of all trees over six (6) inch diameter measured three (3) feet above the ground; (h) and location of proposed buffers and setbacks.
<input type="checkbox"/> Geotechnical Report.: (a) Slope stability study and opinion on the subject property and adjacent properties; (b) grading plan; structural foundation requirement and estimated foundation settlement; (c) soil-compaction criteria; (d) allowable soil-bearing pressure for foundations, minimum footing width, piling recommendations for foundations and design pressure for retaining walls;(e) laboratory data and soil index properties for soil samples; (f) suitability for fill; lateral earth pressures; (h) description of erosion vulnerability and an erosion control plan as required in CCC Chapter 40.385; (i) an evaluation of proposed surface and subsurface drainage in a stormwater control plan as required in CCC Chapter 40.85; (j) building limitations; (k) and a vegetation management and restoration plan or other means for maintaining long-term stability of slope.
<input type="checkbox"/> Geology Information: (a)Topographic contours at two (2) foot intervals or as specified by the Responsible Official; (b)subsurface data that includes the exploration method, location of soil borings, borings, soil and rock stratigraphy and groundwater levels including seasonal changes; (c)location of landslides, or down-slopes soil movement, faults, and geological contacts on the subject property and adjacent properties; (d)site history that describes any prior grading, soil inability or slope failure; (e)and description of the site vulnerability to seismic events.
<input type="checkbox"/> State Environmental Review. A State Environmental Policy Act (SEPA) Environmental Checklist must be completed, signed in ink, and submitted. (Available at the Clark County Permit Services Center.)

Not all items required for a complete review are on this list. It is the responsibility of the engineer to provide plans that will satisfy all conditions of land use approval and all code requirements