

Chapter 11.02
CLEARING AND GRADING REQUIREMENTS

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GENERAL PROVISIONS

11.02.010 Purpose

The purpose of this chapter shall be to regulate clearing and grading on property to safeguard life, limb, property, and the general welfare. The objectives of this chapter are as follows:

- A. To promote sound, practical, and economical development practices and construction procedures which minimize impacts to the county's water resources and adjoining properties;
- B. To minimize degradation of water quality and to prevent erosion and sedimentation of streams, creeks, lakes, wetlands, and other surface water;
- C. To control soil movement originating on developing land;
- D. To preserve and protect archeological sites;
- E. To maintain stable earth foundations for structures or site grading operations using benches, keys, and compaction of soils or other suitable engineering methods;
- F. To maintain the quality of the county's water resources;
- G. To minimize adverse effects caused by alterations in surface water or ground water quality, quantities, locations, and flow patterns;
- H. To promote site planning and construction practices that are consistent with natural topographical, vegetational, and hydrological conditions;
- I. To maintain the safety of county roads and right-of-ways; and
- J. To protect public safety by reducing slope instability and potential for landslides.

11.02.020 Applicability

This chapter applies to all clearing and grading except as exempted herein. Prior to beginning regulated grading activity on a site, the owner of the project or agent shall be required to comply with the terms and conditions of this chapter. Failure to comply is subject to the enforcement and penalty provisions stated herein.

11.02.030 Definitions

Unless the context clearly requires otherwise, the definitions in this chapter apply to all clearing and grading in unincorporated Island County. Clearing and grading within proposed or existing public right-of-ways shall follow the standards of the 1998 Standard Specifications for Road Bridge and Municipal Construction, or most recent addition.

- A. **Applicant** means a property owner, or any person or entity designated or named in writing by the property owner to be the applicant, in an application for a development proposal, permit, or approval.
- B. **Approval** means that the proposed work or completed work conforms to this chapter in the opinion of the Building Official or Director.
- C. **As-graded** means the extent of surface conditions on completion of grading.
- D. **Bank** means the rising ground bordering the sea, river, or lake. (Also see Bluff)
- E. **Bluff** means a high bank composed largely of unconsolidated deposits with near-vertical face overlooking a body of water.
- F. **Bedrock** means in-place solid rock.
- G. **Bench** means a relatively level step excavated into earth material on which fill is to be placed.
- H. **Best management practices (BMPs)** or "BMPs" means physical, structural, or managerial practices which have gained general acceptance for their ability to prevent or reduce public safety impacts and other environmental impacts and which are adopted in the Island County Drainage Manual or approved by the Director.
- I. **Bond.** "Bond" shall mean a surety bond, assignment of funds, or irrevocable bank letter of credit."
- J. **Civil engineer** means a professional engineer licensed by the State of Washington to practice civil engineering.
- K. **Civil engineering** means the application of the knowledge of the forces of nature, principles of mechanics, and the properties of materials to the evaluation, design, and construction of civil works.
- L. **Clearing** means the cutting and removal of vegetation by mechanical or chemical methods.

- M. **Compaction** means the densification of a fill by mechanical means.
- N. **Critical areas**, as used in this chapter, means fish and wildlife habitat conservation areas, wetlands, flood hazard areas, geologically hazardous areas, and their buffers, as applicable.
- O. **Development activity** means any proposal which will result in construction, development, earth movement, clearing, or other site disturbance and requires a permit, approval, or authorization from the county or is proposed by a public agency.
- P. **Director** means, unless otherwise specified, the Director of the Public Works Department or his or her designee.
- Q. **Earth material** means any rock, natural soil, or fill or any combination thereof.
- R. **Engineering geologist** means a professional engineering geologist licensed by the State of Washington with appropriate training and experienced and knowledgeable in engineering geology related to slope processes.
- S. **Engineering geology** means the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.
- T. **Erosion** means the removal and loss of soil by the action of water, ice, or wind.
- U. **Excavation** means the mechanical removal of earth material.
- V. **Fill** means a deposit of earth material placed by artificial means.
- W. **Forest practices** means any activity conducted on or directly pertaining to forest land and related to growing, harvesting, or processing timber as described in WAC 222-16.
- X. **General Design and Construction Standards.** “General Design and Construction Standards” means “The Standard Specifications for Municipal Public Works Construction”, latest edition, as prepared by the Washington State Chapter of the American Public Works Association, except as amended herein or by variance granted in writing by the Director.
- Y. **Geologically hazardous area** means those areas that because of their susceptibility to erosion, sliding, or other geologic events, are generally not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns, including but not limited to those lands designated in the Department of Ecology Coastal Zone Atlas dated April 1979, as it may be amended or revised, as land which has had recent or historical slide activity and/or has unstable slope conditions, including those lands within one-hundred (100) feet (either top or base) thereof.

Z. **Geologist** means a professional geologist licensed by the State of Washington with appropriate training and experience related to slope processes. ~~person who has earned a degree in geology from an accredited college or university or who has equivalent educational training and has at least five (5) years of experience as a practicing geologist or four (4) years of experience and at least two (2) years post graduate study, research, or teaching. The practical experience shall include at least three (3) years work in applied geology and landslide evaluation, in close association with qualified practicing geologists or geotechnical professional/civil engineers.~~

AA. **Geotechnical engineer** means a civil engineer licensed by the State of Washington with training and experience in the practice of soil mechanics (geotechnical engineering) with appropriate expertise related to steep slopes and development. ~~means a professional engineer licensed by the State of Washington to practice in the field of civil engineering and experienced and knowledgeable in the theory of soil mechanics, geology, soils testing, and geotechnical engineering.~~

BB. **Geotechnical professional** means a licensed civil engineer with training and experience in the practice of soil mechanics (geotechnical engineer), engineering geologist or geologist licensed in the State of Washington.

BB.CC. **Grade** means the vertical location of the ground surface.

1. Existing grade means the grade prior to grading.
2. Finish grade means the final grade of the site that conforms to the approved plan.
3. Rough grade means the stage at which the grade approximately conforms to the approved plan.

CC.DD. **Grading** means any excavating or filling or combination thereof.

DD.EE. **Key** means a designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

EE.FF. **Land disturbing activity** means any activity that results in a change in the existing soil cover (both vegetative and nonvegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to, demolition, construction, clearing, grading, filling, and excavation. Land disturbing activities also include Class IV General Forest Practices Permits, Class IV Platted Forest Practices Permits, and Conversion Option Harvest Plans and their associated forest practices permit submitted pursuant to RCW 76.09.060(3)(b)(I)(F).

FF.GG. **Landslide hazard areas** ~~means areas are~~ potentially subject to landslides based on risk of mass movement due to a combination of geologic, topographic, and hydrologic

factors. Landslide areas include any areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors.

~~GG-HH.~~ **Professional inspection** means the inspection required by this code to be performed by the civil engineer, geotechnical engineer, soils engineer~~geologist~~, or engineering geologist licensed by the State of Washington with appropriate training and experience. Such inspections include that performed by persons supervised by such engineers or geologists and shall be sufficient to form an opinion relating to the conduct of the work.

~~HH-II.~~ **Scarp** means a line of a cliff(s) produced by faulting, landslides, or erosion.

~~H-JJ.~~ **Site** means any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

~~J-KK.~~ **Site review** means the inspection by an Island County employee of a site at which development activity has been proposed, including examination of proposed plans, and may include critical area site plan review per ICC 17.02, erosion control, site conditions, and applicable Island County codes, standards, and written policies.

~~KK-LL.~~ **Slope** means the gradient in vertical feet per horizontal feet or percent. Side slopes of drainage facilities are usually referred to with the horizontal dimension first as in 3H:1V.

~~LL-MM.~~ **Slope - Steep.** “Steep slope” as used in this chapter means those areas in Island County on slopes forty percent (40%) or steeper within a vertical elevation change of at least ten (10) feet. A slope is delineated by establishing its toe and top and is measured by averaging the inclination over at least ten (10) feet of vertical relief. For the purpose of this definition:

1. The toe of a slope is a distinct topographic break in slope which separates slopes inclined at less than forty percent (40%) from slopes forty percent (40%) or steeper. Where no distinct break exists, the toe of a steep slope is the lowermost limit of the area where the ground surface drops ten (10) feet or more vertically within a horizontal distance of twenty-five (25) feet; and
2. The top of a slope is a distinct, topographic break in slope which separates slopes inclined at less than forty percent (40%) from slopes forty percent (40%) or steeper. Where no distinct break exists, the top of a steep slope is the uppermost limit of the area where the ground surface drops ten (10) feet or more vertically within a horizontal distance of twenty-five (25) feet.

~~MM-NN.~~ **Soil** means naturally-occurring superficial deposits overlying bedrock.

~~NN.~~ **Soils engineer (geotechnical engineer)** ~~means an engineer or geologist experienced and knowledgeable in the practice of soils engineering (geotechnical engineering).~~

~~OO.~~ **Soils engineering (geotechnical engineering)** means the application of the principles of soils mechanics in the investigation, evaluation, and testing of soils on site.

~~PP.~~ **OO.** **Specifications** mean requirements for the proposed work. It may include, but is not limited to, the current and subsequent amendment to Washington State Department of Transportation and American Public Works Association standards and specifications for Road, Bridge and Municipal Construction.

~~QQ.~~ **PP.** **Temporary Erosion and Sedimentation Control** means any temporary measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave the site.

~~RR.~~ **QQ.** **Terrace** means a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

11.02.040 Public Works Director/County Engineer Authority

- A. **Administration of grading.** The Public Works Director/County Engineer shall administer and enforce compliance with all grading requirements of this chapter for all grading except for grading administered by the Public Works Director/County Engineer as provided in this chapter, or otherwise noted herein.
- B. **Policies and procedures.** The Public Works Director/County Engineer may adopt and amend administrative policies and procedures for the purpose of implementing and enforcing the provisions of this chapter. All administrative policies and procedures and any amendments thereto will be approved by the Board of County Commissioners and shall be available to the public at the Public Works Department.

11.02.050 Compliance with Other Laws

Approvals and permits granted under this chapter and any policies and procedures promulgated hereunder do not constitute waivers of the requirements of any other laws or regulations nor do they indicate compliance with any other laws or regulations. Compliance is still required with all applicable federal, state, or other local laws and regulations.

11.02.060 Relationship to Chapter 16.14C ICC Environmental Impacts

- A. The grading requirements of this chapter, together with the comprehensive plan adopted pursuant to RCW 36.70A, the critical areas regulations of ICC 17.02, and the drainage regulations of ICC 11.03, constitute the policy of the county under the county's police power authority, the Growth Management Act (GMA), and the State Environmental Policy Act (SEPA) for the review of development and the determination of significant adverse environmental impacts and imposition of mitigation requirements due to the impacts on-site and off-site from grading.

- B. For the purposes of ICC 16.14C, measures required by this chapter and other applicable development regulations shall constitute adequate mitigation of adverse or significant adverse environmental impacts, on-site and off-site, from grading.

11.02.070 Liability

- A. Administration of this chapter shall not be construed to impose or create a basis for any liability on the part of the county, its appointed and elected officials, officers, agents, or employees, nor shall this chapter be construed to create any special relationship with or otherwise protect any specific person or class of persons.
- B. Island County is not responsible for the accuracy of grading plans submitted for approval. The county expressly disclaims any responsibility for the design or implementation of a grading plan. The design or implementation of a suitable grading plan is the responsibility of the person submitting the application.

PERMIT ADMINISTRATION

11.02.080 Grading Permit Required

A grading permit shall be required for all land disturbing activities, unless exempted by this chapter. Examples of regulated land disturbing activities include, but are not limited to:

- A. Accumulative filling and/or excavation exceeding five hundred (500) cubic yards.
- B. Clearing, filling, or excavation, in any quantities, within two hundred (200) feet of a **regulated** shoreline area, on steep slopes as defined herein, or within a geologically hazardous area, as herein defined, in wetlands or their associated buffers, or into or next to any body of water, including streams or their associated buffers, or any other critical areas, **as herein defined**.
- C. Class IV Forest Practice Permits, Class IV Platted Forest Practice Permits, and Conversion Option Harvest Plans **and their associated forest practices permit**.
- D. Clearing to bare earth if greater than two (2) acres in size.

11.02.090 Exemptions

The following land disturbing activities outside a critical area and its associated buffer, which are at least five (5) feet from the property boundary line, are exempt from the requirements of this chapter, except for land disturbing activities located partially or entirely within a geologically hazardous area or steep slope as herein defined:

- A. Operation of a solid waste disposal site controlled by other regulations. This exemption shall not apply to expansion, relocation, or closure of a solid waste disposal site;
- B. Commercial operations involving mining, quarrying, excavating, processing, or stockpiling of rock, sand, gravel, aggregate, or clay if such operations are authorized by a valid Island County permit as required by ICC 17.03. This exemption does not apply to:
 - 1. Reclamation pursuant to this chapter;
 - 2. An operation which destabilizes or undermines any adjacent or contiguous property; or
 - 3. An operation which results in adverse downstream drainage impacts;
- C. Agricultural activities as follows:
 - 1. Tilling, soil preparation, and maintenance;
 - 2. Fallow rotation, planting, and harvesting; or
 - 3. Application of fertilizer and chemicals approved by the Environmental Protection Agency, the Washington State Department of Ecology, or the United States Department of Agriculture in accordance with applicable regulation and best management practices;
- D. Site investigative work necessary for land use application submittals such as surveys, soil borings and test pits, soil logs and other related activities, provided the land-disturbing activity is no greater than is necessary to accomplish the work;
- E. Excavation of a well for a single family dwelling;
- F. Excavation or filling of cemetery graves;
- G. Grading pursuant to an approved public road access permit when the provisions of this chapter have been considered and addressed in the terms and conditions of the access permit;
- H. Grading which is regulated by this chapter, but for which review has occurred and conditions specified in compliance with this chapter, as a requirement of the approval of the development activity, including but not limited to the issuance of a building permit;
- I. Accumulated filling and/or excavation less than five hundred (500) cubic yards, except that as a condition of this exemption those land disturbing activities specified below must comply with the minimum erosion and sedimentation control requirements of ICC 11.03:

1. Grading which does not obstruct or **significantly** alter an existing drainage course or pattern, and/or which creates five thousand (5,000) square feet or less of new impervious surface;
 2. Grading which is greater than two hundred fifty (250) cubic yards but less than five hundred (500) cubic yards in a Rural Area of Intense Development; or
 3. Grading on a site for a single-family dwelling and accessory structures, provided that excess excavated material must be disposed of at a permitted site approved by the Director (if not retained on site), and that the excavations shall not commence until the building permit is secured by the applicant, unless otherwise authorized by the Director; or
- J. Grading of five thousand (5,000) cubic yards or less in a isolated, self-contained area not in a UGA/RAID, if there is no danger of environmental degradation to critical areas **as herein defined**, on or off site, and no threat that sediment will be transported off site to adjoining properties.
- K. Routine maintenance or repair of the following agricultural activities:
1. Drainage facilities;
 2. Animal waste management facilities;
 3. Buildings, fences, roads, and bridges;
 4. Ponds, drains, and waterways.
- L. A grading permit is not required for county Public Works Department construction or maintenance projects. The Public Works Director/County Engineer shall administer and enforce compliance with all grading requirements of this chapter for county Public Works Department construction projects. The Public Works Director/County Engineer shall include a requirement for all applicable grading, drainage, and erosion and sedimentation control plans in any contract documents prepared for such projects.
- M. Development that is undertaken by the Washington State Department of Transportation in state highway rights-of-way and is regulated by Chapter 173-270 WAC, the Puget Sound Highway Runoff Program, shall be exempt from the provisions of this chapter.

11.02.100 Grading in Accordance with Approved Permit and Plans - Person Responsible

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When a grading permit is required, all land disturbing activities shall be done in accordance with the approved plans, specifications, and permit requirements. Any person performing land disturbing activities subject to a grading permit shall have a copy of a valid grading permit and plans on the work site at all times and shall be responsible for compliance with the plans, specifications, and permit requirements.

11.02.110 Grading Permit Application Submittal Requirements

- A. The purpose of the grading permit application is to require sufficient engineering and design information to determine compliance with the requirements of this chapter and Chapter 11.03 and Titles 16 and 17 ICC, as applicable.
- B. The Director shall establish and may revise submittal requirements for a complete grading permit application. The list of submittal requirements shall be available at the Public Works Department. The submittal requirements may include at least the following:
 - 1. The applicant's name, address, and legal description;
 - 2. Vicinity map;
 - 3. Grading plans drawn to scale which include all proposed grading showing cross-sections or an equivalent method;
 - 4. Grading quantities (amount of cut or fill to be moved);
 - 5. If excess material excavated, the location of the disposal site;
 - 6. Temporary erosion and sedimentation control plans which meet the requirements of ICC 11.03;
 - 7. Existing grade and proposed finish grade contours shall be shown on each grading plan sheet;
 - 8. A preliminary drainage plan/drainage narrative pursuant to ICC 11.03, if applicable;
 - 9. Location of property boundary, easements, critical areas, and structures within fifteen (15) feet of said boundary, on-site sewage facilities, and location of domestic water supply; and/or
 - 10. Applicable grading permit application fees pursuant to this chapter, if any.
- C. A civil engineer shall prepare and stamp the grading plans if they are engineered grading pursuant to this chapter.

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- D. After a site review of the proposed grading, the Building Official or Director may require additional information be submitted to determine compliance with the requirements of this chapter. The request for additional information is subject to the procedures and time frames established in ICC 16.19.

11.02.120 Submittals for Engineered Grading

- A. All grading in excess of five thousand (5,000) cubic yards requires submittal and approval of a grading plan and drainage plan, as specified in ICC 11.03, prepared and stamped by a civil engineer.
- B. All grading within a geologically hazardous area, as herein defined, requires submittal and approval of a geotechnical engineering report, an engineered grading plan and full drainage plan, as specified in ICC 11.03, prepared and stamped by a civil engineer.
- C. All grading, except for utility installations, within public road right-of-ways shall follow the grading requirements and specifications of the 1998 WSDOT Standard Specifications, or current edition, and the grading plans shall be prepared and stamped by a civil engineer.
- D. When required by this chapter, all grading plans that are presented for record as part of a public hearing associated with the approval of the development activity, except appeal hearings, shall be prepared and stamped by a civil engineer.

11.02.130 Notice of Application--Grading in Excess of Five Hundred (500) Cubic Yards

- A. Within five (5) working days of filing an application for a grading permit for grading in excess of five hundred (500) cubic yards of material, an applicant shall post one or more signs which meet county standards in conspicuous locations on the property's frontage abutting a public right-of-way. If no public right-of-way exists, the signs shall be placed at the point of access to the property. If the grading is subject to SEPA review, the posting shall occur at the same time and in the same manner as the posting/notice requirements of ICC 16.19.
- B. The signs shall contain at least the following information in a form prescribed by the Director: type of permit requested, assigned county file number, project description, and the county contact person. The signs shall remain posted throughout the review process and until all appeal periods have expired.
- C. Posting is not required if the grading was anticipated and described in a prior approved land use action.
- D. The applicant shall submit a declaration verifying the date and location of posting in a form prescribed by the Director.

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- E. If a declaration of posting is not returned to the Director within fifteen (15) days of application, the Director shall discontinue processing of the permit request until the declaration is received.

11.02.140 ~~Reports on~~ General Geotechnical Reports, Geotechnical Engineering Reports, Soils Engineering, Engineering Geology, and Mitigation Plans and Peer Review

If the Director or their designee determines that geologic, hydrologic, or ~~soilsite~~ conditions may present special grading or drainage problems, he or she may require the applicant to submit a geotechnical engineering report ~~which includes a soils engineering report and/or an engineering geology report~~ per this chapter. ~~In the case of land-disturbing activities proposed on a steep slope, not in a geological hazardous area, a soils engineering report shall be required. In the case of land-disturbing activities proposed to be entirely within or proposed to be within one hundred (100) feet, as measured horizontally from the line of the uppermost scarp or scarp base of a geological hazardous area, a geotechnical engineering report shall be required. When a geotechnical engineering report is required, the applicant's geotechnical engineer shall inspect and comment on the suitability of the prepared ground to receive fills and the stability of cut slopes with respect to soil, hydrologic, and geologic conditions. The Director or their designee may waive all or some of the elements of the general geotechnical report, geotechnical engineering report, and/or mitigation plans.~~

A. **General Geotechnical Report.** In the case of land-disturbing activities proposed on a steep slope, not in a geological hazardous area, the Director or their designee may require a general geotechnical report prepared by a licensed geotechnical professional. A general geotechnical report shall include:

1. An adequate description of the geology of the site; data regarding the nature, distribution, and strength of existing soils; and
2. An opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geotechnical factors, including stability of slopes and potential impacts; and
3. Conclusions and recommendations for grading procedures including cuts and placement of structural fills, when necessary; and
4. Appropriate mitigation measures.
5. The Director or their designee may require the information outlined the Geotechnical Engineering Report (B) and/or Mitigation Plans (C) if site conditions and/or proposed land disturbance are determined to warrant a detailed site evaluation.

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A.B. Geotechnical **engineering** report for geologically hazardous areas. In the case of land-disturbing activities proposed to be within setbacks established for a geological hazardous area, a geotechnical engineering report prepared and sealed by a geotechnical engineer shall be submitted. If appropriate, a geologist may contribute to the geologic aspects of the project.

1. The minimum setbacks that will generally not require a geotechnical report are as follows:

- a) Fifty (50) foot setback or greater from a slope that is between ten (10) feet and thirty (30) feet in height; or
- b) Seventy-five (75) foot setback or greater from a slope that is between thirty-one (31) feet and fifty (50) feet in height; or
- c) One hundred (100) foot setback or greater from a slope that is greater than fifty (50) feet in height.

2. The scope of a geotechnical report shall include the following where applicable:

- 1-a) An assessment of the geologic **and hydrogeologic conditions characteristics in the vicinity of the site.** ~~and Description of types and engineering properties of the soils, sediments, and/or rock of the subject property and potentially affected adjacent properties must be included;- Soils analysis shall be accomplished in accordance with the Unified Soil Classification System;~~
- 2-b) Description of existing site topography including ~~D~~determination of height of slope, ~~and~~ slope gradient, and preparation of a generalized including slope cross sections;
- c) Description of any areas mapped as unstable (e.g. by Coastal Zone Atlas), landslides, erosion activity or other areas of unstable soils identified visually at the site;
- d) Description of any watercourses, including drainage channels, ditches, springs and intermittent streams;
- 3-A description of load intensity including surface and groundwater conditions; public and private sewage disposal systems, fills and excavations and all structural development;
- 4-e) An estimate of slope stability and the effect construction and placement of structures will have on the stability of slopes over the estimated life of the structure. The minimum setbacks described above shall be used. The geotechnical engineer must concur with this setback or may establish an

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alternative setback based on the geology, bluff retreat rates, seismic activity and other considerations;

~~5. An estimate of the bluff retreat rate which recognizes and reflects potential catastrophic events such as seismic activity or one hundred (100) year storm event;~~

~~6.f) An assessment describing~~ Description of the extent and type of vegetative cover to include tree attitude;

~~g) A detailed description of the project including any structural development, its relationship to geologic hazard(s) and its potential impact upon the hazard area, the subject property, and affected adjacent properties;~~

~~h) A description of type of construction including any unusual load intensities, public and private sewage disposal systems, fills and excavations including proposed angles of cuts and fills;~~

~~i) Specific recommendations and/or mitigation actions must be provided regarding proposed vegetation removal and replacement, erosion control, and locations and methods of surface and subsurface drainage. If anchor blocks within 50 feet of the bluff are required for storm drains over bluffs, specific recommendations regarding setbacks and design criteria shall be included;~~

~~j) The drainage recommendations shall be site specific to mitigate impacts and prevent erosion. Surface drainage shall not be directed across the face of geologically hazardous or landslide hazard area (including marine bluffs or ravines). If drainage must be discharges from the area into adjacent waters, it shall be collected above the hazard, secured, and directed to the water by tight line drain and provided with an energy dissipating device at the point of discharge. Installations within two hundred (200) feet of the shoreline must be authorized by the County Shoreline Administrator and must be consistent with the shoreline management act. If the drainage recommendations in the Geotechnical engineering report are determined by the Director to not be sufficient, a specific drainage plan prepared by a licensed engineer may be prepared (see Mitigation Plans).~~

~~k) The Director or their designee may require a representative of the geotechnical engineer to perform special inspections in accordance with ICC 11.02.210 to confirm that conditions encountered during construction are consistent with the assumptions of the geotechnical engineering report and construction conforms with the design and mitigation plans.~~

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~~7. A detailed description of the project, its relationship to geologic hazard(s), and its potential impact upon the hazard area, the subject property, and affected adjacent properties.~~

~~B.C. **Mitigation plans.** If the Director or their designee determines that the site conditions and/or proposed development require additional mitigation details not provided in the geotechnical engineering report or general geotechnical report, mitigation plans or other submittals including but not limited to any of the following may be required:—A mitigation plan shall accompany a geotechnical report and shall be prepared by a professional engineer or geologist under supervision of a professional engineer and include a discussion on how the project has been designed to avoid and minimize the impacts of the project. The plan shall include:~~

~~1. A recommendation for the minimum building setback from any bluff edge/base and/or other geologic hazard based upon the geotechnical analysis;~~

~~2.1. Mitigation proposals shall include~~including:

- ~~a) Subsurface exploration and logs prepared under the supervision of the geotechnical engineer. Subsurface exploration may be required for proposed development within 25 feet of the top or base of a bluff greater than 10 feet in height; for proposed infiltration of stormwater; unusual load intensities as determined by the geotechnical engineer; stormwater anchor blocks; or other design considerations that the Director determines represent a risk from the geohazard;~~the location and methods of drainage;
- ~~b) locations and methods of erosion control;~~
- ~~e)b) a vegetation management and/or restoration plan and/or other means for maintaining long term stability of slopes, prepared by an individual or firm with appropriate training and experience;~~
- ~~d) the potential impact of mitigation on the hazard area, the subject property, and affected adjacent properties;~~
- ~~e)c) a temporary erosion and sedimentation control plan (TESCP) prepared by a qualified professional in accordance with the requirements of ICC 11.03;~~
- ~~f)d) a drainage plan prepared by a licensed civil engineer showing for the collection, transport, treatment, discharge, and/or recycle of water in accordance with the requirements of ICC 11.03. The drainage plan must include at least the considerations presented in ICC 11.02.140.B.10 Surface drainage shall not be directed across the face of a geologically hazardous or landslide hazard area (including marine bluffs or ravines). If drainage~~

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~~must be discharged from the area into adjacent waters, it shall be collected above the hazard, secured, and directed to the water by tight line drain and provided with an energy dissipating device at the point of discharge. Installations within two hundred (200) feet of the shoreline must be authorized by the County Shoreline Administrator and must be consistent with the Shoreline Management Act;~~

~~g)e) _____~~ all infiltration systems, such as stormwater detention and retention facilities, and curtain drains ~~utilizing buried pipe~~ or french drain are prohibited in geologically hazardous areas and their buffers unless a geotechnical report indicates such facilities or systems will not adversely affect slope stability and the systems are designed by a licensed civil engineer. Such systems will require subsurface exploration to confirm the suitability of subsurface conditions. Special inspection in accordance with ICC 11.02.210 will be required during construction~~The applicant's engineer shall also state that the system and/or facilities are installed as designed;~~

~~3-2. _____~~ The mitigation plan must be approved by the Director or their designee and be implemented as a condition of project approval;

~~4-3. _____~~ Projects found to be in non-compliance with the mitigation conditions issued as part of the development approval are subject to enforcement actions necessary to bring the development into compliance with this chapter;

~~5-4. _____~~ Mitigation plans which do not fulfill the performance required based on the site assessment/geotechnical report findings or otherwise fail to meet the intent of this chapter shall be revised and the subject development brought into compliance with the revised mitigation plan.

~~5. _____~~ The Director or their designee may require project specific professional inspections in accordance with ICC 11.02.210 to confirm that conditions encountered during construction are consistent with the design assumptions and construction conforms to the design and mitigation plans.

~~C.D. _____~~ Peer review. The Director may require third party review of geotechnical reports and/or mitigation plans if the Director or their designee determines that additional professional interpretation is needed to evaluate/address site conditions or the applicant's proposed development. The review will be accomplished by an experienced geotechnical professional selected by Island County Public Works. The applicant shall pay 50% of the cost of for the review. The applicant's maximum cost for the third party review will be limited to \$X,XXX unless otherwise agreed to by the applicant and the Director. **Soils engineering report.** The soils engineering report shall include data regarding the nature, distribution, and strength of existing soils; conclusions and recommendations for grading procedures; and design criteria for corrective measures, including structural fills, when

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~~necessary, and an opinion on adequacy for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes.~~

~~**D. Engineering geology report.** The engineering geology report shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and an opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors.~~

11.02.150 Bonds

- A. The Director may require bonds in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions.
- B. For drainage facilities required by a grading permit, the Director may require security and/or insurance in accordance with ICC 11.03.

11.02.160 Issuance of Grading Permits. Grading in Shorelines of the State, Geologically Hazardous Areas, Steep Slopes, and/or Critical Areas

- A. A grading permit shall not be issued for grading in a shoreline/geologically hazardous area, steep slope or critical areas or their buffers or grading that is associated with a project in a shoreline/geologically hazardous, steep slope or critical area until all required permits and approvals have been granted.
- B. A grading permit will be issued after all other necessary permits and plan approvals required for site development have been obtained or review indicates that approvals are assured by other affected agencies, all fees have been paid, the grading plans and specifications have been approved, and environmental review under ICC 16.14C has been completed, if applicable.

11.02.170 Covenant

The Public Works Director/County Engineer may require a covenant between the owner(s) of the property and Island County. The covenant shall be signed by the owner(s) of the site and notarized prior to issuance of any permit or approval in a potential geologically hazardous area or other area of potentially hazardous soils or drainage or erosion conditions. The covenant shall not be required where the permit or approval is for work done by Island County. The covenant shall include:

- A. A legal description of the property;
- B. A description of the property condition making this subsection applicable;

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- C. A statement that the owner(s) of the property understands and accepts the responsibility for the risks associated with development on the property given the described condition, and agrees to inform future purchasers and other successors and assignees of the risks;
- D. The application date, type, and number of the permit or approval for which the covenant is required;
- E. A statement waiving the right of the owner(s), the owner's heirs, successors and assigns to assert any claim against Island County by reason of or arising out of issuance of the permit or approval by Island County for the development on the property, except only for such losses that may directly result from the negligence of Island County.

The covenant shall be filed for record by the owner with the Island County Auditor, at the expense of the owner, so as to become part of the Island County real property records.

11.02.180 Disclosure Statement

Pursuant to the requirements of this chapter, no person shall sell, lease, or offer for sale or lease any property within a geologically hazardous area that has been the subject of a geotechnical report required by this chapter, unless the prospective buyer or lessee has been given notice substantially as follows:

To: _____

The Property at _____ is located within geologically hazardous area. Geologically hazardous areas include areas susceptible to the effects of erosion, sliding, earthquake, or other geologic events. They pose a threat to the health and safety of citizens when incompatible residential, commercial, industrial, or infrastructure development are sited in areas of a hazard. Geologic hazards pose a risk to life, property, and resources when steep slopes are destabilized by inappropriate activities and development or when structures or facilities are sited in areas susceptible to natural or human-caused geologic events.

Some geologic hazards can be reduced or mitigated, but not eliminated by engineering, design, or modified construction practices so that risks to health and safety are acceptable. Island County has placed certain restrictions on development and use of geologically hazardous areas.

Before purchasing or leasing the above property, you should consult the Island County Zoning Ordinance ICC 17.03, [the Island County Critical Area Ordinance ICC 17.02](#), the Island County Grading Ordinance ICC 11.02, and any previously issued permits/geotechnical reports to determine restrictions, if any, which have been placed on the subject property.

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11.02.190 Grading Permit Expiration and Renewal

- A. Grading permits shall expire twenty four (24) months from the date of issuance, provided that the Director may set an earlier expiration date for a permit, or issue a permit that is non-renewable, or both, if the Director determines that soil, hydrologic, or geologic conditions on the project site necessitate that grading and drainage improvements and site stabilization be completed within less time.
- B. If a permit has expired, the applicant must obtain a renewed permit before starting work authorized under the expired permit.
- C. A permit may be renewed only once for up to twenty four (24) additional months ~~and must be renewed no later than thirty (30) days after the date of expiration of the original permit~~. Additional extensions may be granted following a site inspection verifying that conditions have not changed, and work in progress, if any, is in compliance with the conditions of the permit.
- D. Requirements under this chapter that are not expressly temporary during the grading operations, including but not limited to, requirements for erosion control, drainage, and slope management do not terminate with the expiration of the grading permit.

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11.02.200 Modifications of Permit Conditions

After issuance of a grading permit, the Director may require modifications of grading plans and operations if grading delays or weather-generated problems occur which were not considered at the time the permit was issued.

11.02.210 Grading Inspection

- A. Land-disturbing activities for which a permit is required shall be subject to inspection by the Director/Building Official. Professional inspection of grading operations shall be provided, at the expense of the applicant, by the civil engineer, soils engineer, and the engineering geologist retained to provide such services in accordance with E below for engineered grading and as required by the Building Official for other grading.
- B. The civil engineer shall provide professional observation within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade, surface drainage, and erosion control of the development area. If revised plans are required during the course of the work they shall be prepared by the civil engineer, at the expense of the applicant.
- C. The soils engineer shall provide professional observation within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The soils engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, the Building Official, and the civil engineer.
- D. The engineering geologist/geotechnical engineer shall provide professional observation within such engineer's area of technical specialty to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.
- E. The applicant or owner shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this code and shall engage consultants, when required, to provide professional inspections on a timely basis. The applicant or owner shall act as a coordinator between the consultant, the contractor, and the Director/Building Official. In the event of changed conditions, the applicant or owner shall be responsible for informing the Director/Building Official of such change and shall provide revised plans for approval.

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- F. The Director shall require grading observation of subdivisions to assure that future public or private roadways and slopes are graded in accordance with the approved plans and specifications and in conformance with provisions of this chapter.
- G. If, in the course of fulfilling their respective duties under this chapter, the civil engineer, the soils engineer, geotechnical engineer, or the engineering geologist finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies shall be reported immediately in writing to the applicant or owner and to the Building Official.
- H. If the civil engineer, the soils engineer, geotechnical engineer, or the engineering geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the applicant or owner to notify the Building Official in writing of such change prior to the recommencement of such grading.
- I. The types of soils inspections and standards recognized as acceptable soils tests are:
 - 1. ASTM D 1557, moisture-density relations of soils and soil aggregate mixtures;
 - 2. ASTM D 1556, in-place density of soils by the sand-cone method; ASTM D 2167, the rubber-balloon method; or ASTM D 2937, the drive-cylinder method; and
 - 3. ASTM D 2922 and D 3017, in-place moisture content and density of soils by nuclear methods.

11.02.220 Completion of Work

Upon final completion of the work, the following final reports and drawings and supplements thereto are required for engineered grading or when professional inspection is performed for grading, as applicable.

- A. Civil engineers shall state that to the best of their knowledge the work within their area of responsibility was done in accordance with the final approved grading plan, or the civil engineer shall show any significant deviations from the approved plans. The locations, elevations, and details of subsurface drains shall show any significant deviations from the approved plan as reported by the design engineer.
- B. A report prepared by the soils engineer retained to provide such services in accordance with this chapter, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report. Soils engineers shall submit a statement that, to the best

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of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions of this chapter.

- C. A report prepared by the engineering geologist retained to provide such services in accordance with this chapter, including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. Engineering geologists shall submit a statement that, to the best of their knowledge, the work within their area of responsibility is in accordance with the approved engineering geologist report and applicable provisions of this chapter.
- D. The applicant's engineer shall submit, in a form prescribed by the Director/Building Official, a statement of conformance to said as-built plan and the specifications. The applicant or owner shall notify the Director/Building Official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading and drainage plans, and the required reports have been submitted.

11.02.230 Hazards

- A. Whenever the Director/Building Official determines that any existing cut or excavation, fill, or embankment on private property adversely affects the safety, use, or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located or other person or agency in control of said property, upon receipt of notice in writing from the Building Official, shall within the period specified therein repair or eliminate such cut or excavation, fill, or embankment to eliminate the hazard to conform with the requirements of this chapter. Failure to comply shall be considered a violation subject to the penalty and enforcement provisions of this chapter.
- B. Where the Director determines that hazardous conditions exist, warning signs shall be affixed at locations as required by the Director, and the site must be enclosed by fencing with lockable gates that must be closed and locked when personnel are not present at the site. The fence must be no less than five (5) feet in height and the fence material shall have no horizontal opening larger than two (2) inches.

11.02.240 Grading Permit Fees

Refer to Island County Fee Schedule available at the Island County Public Works Department.

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11.02.250 Appeals

- A. Any aggrieved person may appeal any final decision or determination of the Director under this chapter to the Hearing Examiner as a Type II appeal, except that the appeal of decisions and determinations of the Director that are included as a condition of another permit, pursuant to the exemption provisions of this chapter, do not change the appeal procedures established for issued permit. Appeals shall be filed and processed pursuant to the provisions of ICC 16.19.
- B. At the hearing, the appellant shall have the burden of proof.
- C. The decision of the Hearing Examiner shall be final and conclusive with the right of reconsideration and may then be reviewable by an action for writ of review filed in Island County Superior Court as provided in ICC 16.19.

11.02.260 Violations and Enforcement

- A. All violations of this chapter are subject to the provisions of ICC 11.01.140-160. Whenever the Director determines that a condition exists in violation of this chapter, or in violation of any condition or requirement of a permit or approval imposed pursuant to this chapter, the Director is authorized to take enforcement action under ICC 11.01.140-160.
- B. The department may inspect any development activity for which a grading permit is required and grading for which plan approval is required to enforce the provisions of this chapter. By submitting an application for a grading permit, the applicant consents to entry upon the site by the county for the purpose of making reasonable inspections to verify information provided by the applicant and to verify that work is being performed in accordance with the approved plans, permits, and the requirements of this chapter.
- C. Whenever the Director determines that work is being done in violation of a provision of this chapter, the Director may order work at the site stopped, in coordination with the Building Official for projects requiring a building permit, if the Director determines that is necessary in order to obtain compliance with a provision of this chapter. The stop-work order shall contain a description of the violation and an order that work be stopped until the violation has been corrected and the correction has been approved by the Director.
- D. The stop-work order shall be posted conspicuously on the premises or personally served on any person engaged in or causing such work to be done. Any person served with a stop-work order shall immediately stop all work or cause all work to be stopped, except work necessary to correct the violation, until authorized by the Director to proceed. A stop-work order that has been posted may not be removed, obscured, or mutilated. The penalty for violation of a stop-work order shall be imposed pursuant to ICC 11.01.140.

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REQUIREMENTS AND REVIEW STANDARDS

11.02.270 Standards for Class IV General Forest Practices Permits, Class IV Platted Forest Practices Permits, and Conversion Option Harvest Plans, and for Any Lands Harvested Without a Forest Practices Permit When a Permit was Required

- A. Grading permit requirements shall be established on a case-by-case basis, following a field inspection/evaluation of slopes and their relative stability, of topography and existing natural, constructed, or planned drainage ways/systems, of soils and their susceptibility to erosion, of forest and vegetative cover as exists and planned, and of critical areas, as defined in this chapter, and regulated shoreline areas. Prior to establishing the requirements of the grading permit a determination shall be made by the Director as to:
1. the presence of documented critical drainage/flooding/erosion/stability problems downstream of the development activity that may be exacerbated by the development activity if appropriate conditions are not established; and
 2. the quality and use of receiving waters which may be degraded if appropriate conditions are not established.
- B. Grading permit requirements may include the preparation and implementation of drainage plans pursuant to the requirements of ICC 11.03.
- C. If the proposal is within an urban growth area, the city/town shall be consulted to ensure conformance with the requirements for similar development activities within the incorporated area of the UGA.

11.02.280 Cuts or Excavations

- A. Unless otherwise recommended in the approved soils engineering or engineering geology report, cuts shall conform to the provisions of this section. These provisions may be waived for minor cuts which are less than four (4) feet in height.
- B. **Slopes.** Maximum slopes allowable are specified in Section 11.02.300.
- C. Slopes after being cut shall be stabilized. The soils engineering or an engineering geology report, or both, shall verify that the slopes shall not be subject to on-going erosion that would adversely impact public or private property.
- D. Cuts or excavations within critical areas or their buffers shall not occur unless consistent with requirements of ICC 17.02.

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11.02.290 Fills or Embankments

- A. **General.** Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this section. In the absence of an approved soils engineering report, these provisions may be waived for minor fills not intended to support structures, and which are less than four (4) feet in height.
- B. **Slopes.** Maximum allowable slopes are specified in Section 11.02.300.
- C. **Fill material.**
1. Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by the Director, no rock or similar irreducible material with a maximum dimension greater than twelve (12) inches shall be buried or placed in fills.
 2. **Exception.** The Director may permit placement of larger rock when the soils engineer properly devises a method of placement, and continuously inspects its placement and approves the fill stability. The following conditions shall also apply:
 - a) Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan;
 - b) Rock sizes greater than twelve (12) inches in maximum dimension shall be ten (10) feet or more below grade, measured vertically; and
 - c) Rocks shall be placed so as to assure filling of all voids with well-graded soil.
 3. **Compaction.** All fills intended to support structures or private roads shall be compacted to a minimum of ninety percent (90%) of maximum dry density (MDD) as determined by the modified Proctor (ASTM D1557).
 4. **Slope.** Maximum allowable slopes are specified in Section 11.02.300.
 5. **Fills.** Fills shall not be placed in critical areas unless in compliance with the requirements of ICC 17.02.

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11.02.300 Slope Requirements

Slopes shall be constructed to ensure the stability of embankments and adjacent properties and shall be constructed consistent with accepted design standards, but shall not be steeper than those maximum slopes specified below without an analysis and recommendation from the soils engineer:

A. Cut slope:

1. 1H:1V requires stepped construction method, as specified in design standards or as approved by the Director **or with review and recommendation of a civil engineer**; or
2. 1.75H:1V

B. Fill slope:

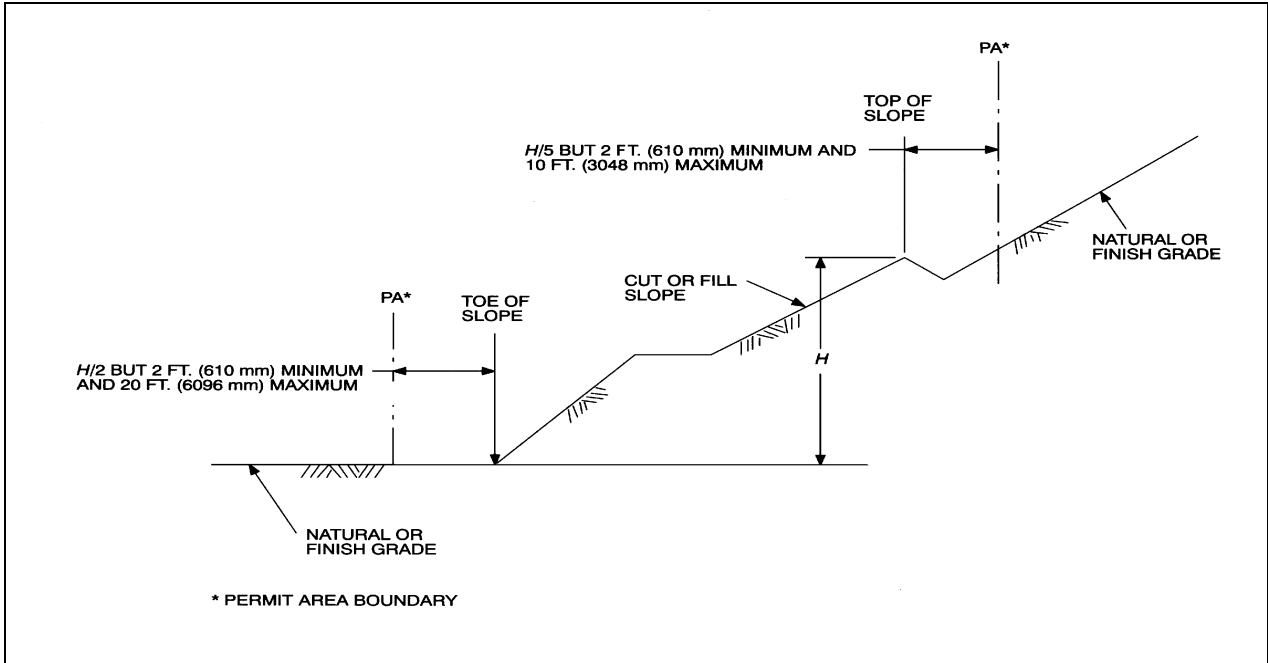
1. 1.5H:1V with review and recommendations of a **civil engineer** or **as approved by the Director**; or
2. 1.75H:1V

11.02.310 Setbacks for Cuts or Fills (See Figure 1)

- A. Cut and fill slopes shall be set back from site boundaries in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary. The top of cut slopes shall not be made nearer to a site boundary line than one fifth of the vertical height of cut with a minimum of two (2) feet and a maximum of ten (10) feet. The setback must be increased as necessary for stability for any required subsurface drainage or surcharge.
- B. The toe of fill slope shall be made not nearer to the site boundary line than one half the height of the slope with a minimum of two (2) feet and a maximum of twenty (20) feet.

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FIGURE 1--SETBACK DIMENSIONS



11.02.320 Drainage and Terracing

- A. Unless otherwise indicated on the approved grading plan, drainage facilities and terracing shall conform to the provisions of this section for cut or fill slopes steeper than three (3) units horizontal in one (1) unit vertical (3H:1V - 33.3% slope).
- B. Terraces at least sixteen (16) feet in width shall be established at not more than thirty foot (30') vertical intervals on all cut or fill slopes to control surface drainage and debris, except that where only one terrace is required, it shall be at midheight. For cut or fill slopes greater than sixty (60) feet and up to one hundred and twenty (120) feet in vertical height, one terrace at approximately mid height shall be twelve (12) feet in width. Terrace widths and spacing for cut and fill slopes greater than one hundred and twenty (120) feet in height shall be designed by the civil engineer and approved by the Building Official. Suitable access shall be provided to permit proper cleaning and maintenance.
- C. Swales or ditches on terraces shall have a minimum gradient of one-half percent (0.5%).
- D. Cut or fill slopes shall be provided with subsurface drainage as necessary for stability and proper conveyance of groundwater.
- E. All drainage facilities shall be designed to carry waters to the nearest practicable drainage way in a safe manner approved by the Building Official or Director and shall comply with

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provisions of ICC 11.03, if applicable. Outfalls or points of discharge shall be designed using best management practices and construction procedures which minimize erosion.

- F. Building pads shall have a drainage gradient of two percent (2%) toward approved drainage facilities, unless waived by the Building Official. Exception: the gradient from the building pad may be one percent (1%) if all of the following conditions exist throughout the permit area:
1. No proposed fills are greater than ten (10) feet in maximum depth;
 2. No proposed finish cut or fill slope faces have a vertical height in excess of ten (10) feet; and.
 3. No existing slope faces steeper than one (1) unit vertical in ten (10) units horizontal, ten percent (10%) slope have a vertical height in excess of ten (10) feet.
- G. Paved interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes toward the cut and has a drainage path greater than forty (40) feet measured horizontally. Interceptor drains shall be paved with a minimum of three (3) inches of concrete or granite and reinforced. They shall have a minimum depth of twelve (12) inches and a minimum paved width of thirty (30) inches measured horizontally across the drain. The slope of drain shall be approved by the Building Official or Director.

11.02.330 Erosion Control

- A. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting, hydroseeding, or mulching. The protection for the slopes shall be installed as soon as practicable and prior to calling for/or requesting final project approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.
- B. Where necessary, check dams, cribbing, riprap, silt fences, or other devices/methods shall be employed to provide safety to adjoining properties or to minimize impacts.
- C. Small residential development and other small development activity, as defined in ICC 11.03, that creates less than five thousand (5,000) square feet of new impervious surface must comply with erosion control and best management practices requirements of ICC 11.03.
- D. Major development and redevelopment, as defined in ICC 11.03, must comply with erosion control and best management practices requirements of ICC 11.03.

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- E. All **other** regulated grading shall comply with drainage and erosion control requirements of ICC 11.03.

11.02.340 Reclamation of Quarry or Mining Sites

Upon completion or abandonment of quarrying or mining operations, the owner or operator of sites not regulated by Washington State Department of Natural Resources pursuant to Chapter 78.44 RCW, must obtain a grading permit under this chapter for reclamation and an approved full drainage plan under ICC 11.03, and comply with the following reclamation standards:

- A. Grading or backfilling shall be done with clean earth material (i.e., non-noxious, nonflammable, noncombustible, and nonputrescible solids);
- B. Such graded or backfilled areas, except for roads, shall be sodded or surfaced with soil of a quality at least equal to the topsoil of the immediately surrounding land areas, and to a depth equal to that of the topsoil of immediately surrounding land areas, provided that all sod and soil shall be at least four (4) inches in depth;
- C. Final grading shall be such as to encourage the uses permitted within the underlying zone classification;
- D. Bare topsoil shall be planted with trees, shrubs, and grasses which are indigenous to the region and compatible with the surrounding area;
- E. Graded or backfilled areas shall be reclaimed in a manner which will not allow water to collect nor permit stagnant water to remain unless specifically authorized in the grading permit; and
- F. Non-harmful tailings consisting of earth material and soil piles shall be level. The leveled and graded area must be sodded or surfaced and planted as required in paragraphs B and D of this section. Burying of material other than earth materials as part of the mining reclamation must have prior approval from the Director.

SEVERABILITY AND EFFECTIVE DATE

11.02.350 Severability

If any provision of this ordinance or its application to any person or circumstance is held invalid, the remainder of this ordinance or its application to other persons or circumstances is not affected.

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11.02.360 Effective Date

The amendments to this Chapter shall take effect on December 1, 1998 and shall apply to new applications submitted on or after that date and to incomplete applications filed prior to that date.

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