

AN ORDINANCE REGULATING THE EXCAVATION AND GRADING OF LAND; REPEALING ORDINANCE NO. 574; AND DECLARING AN EMERGENCY.

The City of Oakridge ordains as follows:

Section 1. Purpose. The purpose of this ordinance is to safeguard life, limb, property, and the public welfare by regulating grading on private property.

Section 2. Scope. This ordinance sets forth rules and regulations to control excavation, grading, and earth work construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction.

Section 3. Definitions. For the purpose of this ordinance, the following mean:

As-graded. The surface conditions existing when grading is completed.

Bedrock. In-place solid rock.

Bench. A relatively level step excavated into earth material on which fill is to be placed.

Borrow. Earth material acquired from an off-site location for use in grading on a site.

Certification. A written engineering or geological opinion concerning the progress and completion of the work.

Civil engineer. A professional engineer registered in the state to practice in the field of civil works.

Civil engineering. The application of knowlege of the forces of nature, principles of mechanics, and the properties of materials to the evaluation, design, and construction of civil works for the beneficial uses of mankind.

Compaction. The densificaton of a fill by mechanical means.

Earth material. Any rock, natural soil, or fill, and/or any combination thereof.

Engineering geologist. A geologist experienced and knowledgeable in engineering geology.

Engineering geology. 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.

Erosion. The wearing away of the ground surface as a result of movement of wind, water, and/or ice.

Excavation. The mechanical removal of earth material.

Fill. A deposit of earth material placed by artificial means.

Grade. The vertical location of the ground surface.

(1) **Existing grade.** The grade prior to grading.

(2) **Rough grade.** The stage at which the grade approximately conforms to the approved plan.

Grading. Any excavating or filling or combination thereof.

Key. A designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

Site. Any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

Slope. An inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

Soil. Naturally occurring surface deposits overlying bedrock.

Soil engineer. A civil engineer experienced and knowledgeable in the practice of soil engineering.

Soil engineering. The application of the principles of soil mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection and testing of the construction thereof.

Terrace. A relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

Section 4. Grading in Public Right-of-Way Prohibited. The grading or excavation of a public right-of-way without the approval of the public works director is prohibited.

Section 5. Coordination of Permit Requirements With Contractor. The permits obtained and plans submitted for the particular grading or excavation permit shall be reviewed by the owner with the person or contractor performing the grading operation. The permit and its requirements shall be posted on the site of proposed grading or excavation activity.

Section 6. Permits Required. No person shall do any grading without first having obtained a grading permit from the public works director except for the following:

(1) Grading in an isolated, self-contained area if there is no apparent danger to private or public property.

(2) An excavation below finished grade for basements and footings of a building, retaining wall, or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation, nor exempt any excavation having an unsupported height greater than five feet after the completion of such structure.

(3) Cemetery graves.

(4) Refuse disposal sites controlled by other regulations.

(5) Excavations for wells, tunnels, or utilities.

(6) Mining, quarrying, excavating, processing, stockpiling of rocks, sand, gravel, aggregate, or clay where established and provided for by law; provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.

(7) Exploratory excavations under the direction of soil engineers or engineering geologists.

(8) An excavation which (a) is less than two feet in depth; or (b) which does not create a cut slope greater than five feet in height and steeper than one and one-half horizontal to one vertical.

(9) A fill less than one foot in depth, and placed on natural terrain with a slope flatter than five horizontal to one vertical, or less than three feet in depth, not intended to support structures, which does not exceed 50 cubic yards on any one lot and does not obstruct a drainage course.

Section 7. Hazards.

(1) Whenever the public works director determines that any existing excavation, embankment, or fill on private property has become a hazard to life and limb; or endangers property; or 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 agent in control of said property, upon receipt of notice in writing from the public works director, shall, within the period specified therein, repair or eliminate such excavation or embankment so as to eliminate the hazard and be in conformance with the requirements of this ordinance.

(2) Subsection (1) shall not apply to conditions whose existence predates the effective date of Ordinance No. 574 (March 15, 1979).

Grading Permit Requirements

Section 8. Separate Permits.

(1) Except as exempted in section 6 of this ordinance, no person shall do any grading without first obtaining a grading permit from the public works director. A separate permit shall be required for each site and may cover both excavations and fills.

(2) Applications for cuts or fills exceeding 30 feet in vertical height shall be presented by the public works director to the planning commission for their review and judgment on the suitability of the site for the intended land use. The commission shall analyze the proposal for stability of the soil, design of intended land use, and general knowledge of the area for which permit application is made.

Section 9. Applications. To obtain a permit, the applicant shall first file an application therefor in writing on a form furnished for that purpose. Every such application shall:

(1) Identify and describe the work to be covered by the permit for which application is made.

(2) Describe the land on which the proposed work is to be done, by lot, block, tract, and house and street address, or similar description that will readily identify and definitely locate the proposed building or work.

(3) Indicate the use or occupancy for which the proposed work is intended.

(4) Be accompanied by plans and specifications as required in section 10 of this ordinance.

(5) State the valuation of the proposed work.

(6) Be signed by the permittee or his authorized agent, who may be required to submit evidence to indicate such authority.

(7) Give such other information as reasonably may be required by the public works director.

Section 10. Plans and Specifications. When required by the public works director, each application for a grading permit shall be accompanied by two sets of plans and specifications, and supporting data consisting of a soil engineer-

ing report and an engineering geology report. The plans and specifications shall be prepared and signed by a civil engineer when required by the public works director.

Section 11. Information on Plans and Specifications.

Plans shall be drawn to scale upon substantial tracing paper or reproducible transparency and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this ordinance and all relevant laws, ordinances, rules, and regulations. The first sheet of each set of plans shall give the location of the work, and the name and address of the owner, and the person by whom they were prepared. The plans shall include the following information:

- (1) General vicinity of the proposed site.
 - (2) Property limits and accurate contours of existing ground and details of terrain and area drainage.
 - (3) Limiting dimensions, elevations, or finish contours to be achieved by the grading, and proposed drainage channels and related construction.
 - (4) Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, and other protective devices to be constructed with or as a part of the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains.
 - (5) Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners that are within 50 feet of the property or that may be affected by the proposed grading operations.
- Specifications shall contain information covering construction and material requirements.

Section 12. Soil Engineering Report.

(1) The soil engineering report required by section 10 shall include data regarding the nature, distribution, and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary; and opinions and recommendations covering adequacy of sites to be developed by the proposed grading.

(2) Recommendations included in the report and approved by the public works director shall be incorporated in the grading plans or specifications.

Section 13. Engineering Geology Report.

(1) The engineering geology report required by section 10 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 opinions and recommendations covering the adequacy of sites to be developed by the proposed grading.

(2) Recommendations included in the report and approved by the public works director shall be incorporated in the grading plans or specifications.

Section 14. Issuance. The public works director may require that grading operations and project designs be modified if delays occur that incur weather-generated problems not considered at the time the permit was issued.

Fees and Bonds

Section 15. Plan-Checking and Grading Permit Fees.

(1) For excavation and fill on the same site, the fees shall be based on the volume of the excavation or fill, whichever is greater. Before accepting a set of plans and specifications for checking, the public works director shall collect a plan-checking fee. Separate permits and fees shall apply to retaining walls or major drainage structures as indicated elsewhere in this ordinance and as required by the building code. There shall be no separate charge for standard terrace drains and similar facilities. The amount of the plan-checking fee for grading plans and the grading permit fee shall be set by council resolution.

(2) The plan-checking fee for a grading permit authorizing additional work to that under a valid permit shall be the difference between such fee paid for the original permit and the fee shown for the entire project.

(3) The plan-checking and grading permit fee schedules shall be based upon the applicant's estimated number of cubic yards of materials involved in the project, prior to commencing work.

Section 16. Bonds.

(1) The public works director may require bonds in such form and amounts as may be considered necessary to assure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions.

(2) In lieu of a surety bond, the applicant may file a cash bond or instrument of credit with the public works

director in an amount equal to that which would be required in the surety bond.

Cuts and Fills

Section 17. General. Unless otherwise recommended in an approved soil engineering report, fills shall conform to the provisions of sections 18 to 23. In the absence of an approved soil engineering report, these provisions may be waived for minor fills not intended to support structures.

Section 18. Fill Location. Fill slopes shall not be constructed on natural slopes steeper than two to one.

Section 19. Preparation of Ground. The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil, and other unsuitable materials, and by scarifying to provide a bond with the new fill. Where slopes are steeper than five to one, and the height is greater than five feet, benching shall be made into sound bedrock or other competent material as determined by the soils engineer. The bench under the toe of a fill on a slope shall be at least ten feet wide, and the cut must be made and approved by the soils engineer and engineering geologist as suitable foundation for fill before placing the fill. Unsuitable soil is soil which, in the opinion of the public works director, a civil engineer, a soils engineer, or a geologist, is not competent to support other soil or fill, to support structures, or to satisfactorily perform other functions for which the soil is intended.

Section 20. Fill Material. Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by the public works director, no rock or similar irreducible material with a maximum dimension greater than 12 inches shall be buried or placed in fills.

Exception: The public works director may permit placement of larger rock when the soils engineer properly devises a method of placement, continuously inspects its placement, and approves the fill stability. The following conditions shall also apply:

- (1) Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.
- (2) Rock sizes greater than 12 inches in maximum dimension shall be 3 feet or more below grade, measured vertically.

(3) Rocks shall be placed so as to assure filling of all voids.

Section 21. Compaction. All fills shall be compacted to a minimum of 90 percent of maximum density as determined by the Uniform Building Code Standards. Field density shall be determined in accordance with the Uniform Building Code Standards or an equivalent method approved by the public works director.

Section 22. Slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than two horizontal to one vertical.

Section 23. Drainage and Terracing. Drainage and terracing shall be provided, and the area above fill slopes, and the surfaces of terraces shall be graded and improved as required by sections 27 to 31.

Setbacks

Section 24. General. The setbacks and other restrictions specified by sections 25 and 26 are minimum and may be increased by the public works director upon the recommendation of a civil engineer, soils engineer, or engineering geologist, if necessary for safety and stability or to prevent damage of adjacent properties from deposition or erosion or to provide access for slope maintenance and drainage. Retaining walls may be used to reduce the required setbacks when approved by the building inspector.

Section 25. Setbacks From Property Lines. The tops of cuts and toes of fill slopes shall be set back from the outer boundaries of the permit area, including slope right areas and easements, in accordance with figure 1 and table 1.

Section 26. Design Standards for Setbacks. Setbacks between graded slopes (cut or fill), structures, or roads shall be provided in accordance with figure 2.

Table 1

**Required Setbacks From Permit Area (PA) Boundary
(in feet)**

H	a	Setbacks
		b
Under 5	0	1
5 - 30	H/2	H/4
Over 30	15	8

Additional width may be required for interceptor drain.

Drainage and Terracing

Section 27. General. Unless otherwise indicated on the approved grading plan, drainage facilities and terracing shall conform to the provisions of sections 28 to 31.

Section 28. Terraces.

(1) Terraces at least 6 feet in width shall be established at not more than 30-foot 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 mid-height.

(2) Suitable access shall be provided to permit proper cleaning and maintenance.

(3) Swales or ditches on terraces shall have a minimum gradient of 5 percent and must be improved. They shall have a minimum depth at the deepest point of 1 foot and a minimum improved width of 5 feet.

(4) A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (projected) without discharging into a down drain.

Section 29. Subsurface Drainage. Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

Section 30. Disposal.

(1) All drainage facilities shall be designed to carry waters to the nearest practicable drainage way approved by the public works director and/or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of nonerosive down drains or other devices.

(2) Building pads shall have a drainage gradient of 2 percent toward approved drainage facilities, unless waived by the public works director.

Exception: The gradient from the building pad may be 1 percent if all the following conditions exist throughout the permit area:

(1) No proposed fills are greater than 10 feet in maximum depth.

(2) No proposed finish cut or fill slope faces have a vertical height in excess of 10 feet.

(3) No existing slope faces that have a slope face steeper than 10 horizontally to 1 vertically have a vertical height in excess of 10 feet.

Section 31. Interceptor Drains. Interceptor drains shall be installed along the top of all cut slopes. The slope and construction of drains shall be approved by the public works director.

Erosion Control

Section 32. Slopes. The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.

Section 33. Other Devices. Where necessary, check dams, cribbing, riprap, or other devices or methods shall be employed to control erosion and provide safety. These devices shall be engineer-designed and approved by the public works director.

Grading Inspection

Section 34. General. All grading operations for which a permit is required shall be subject to inspection by the public works director. When required by the public works director, special inspection of grading operations and special testing shall be performed in accordance with the provisions of section 36.

Section 35. Grading Designation. All grading in excess of 2,000 cubic yards shall be performed in accordance with the approved grading plan prepared by a civil engineer and shall be designed as "engineered grading." Grading involving less than 2,000 cubic yards shall be designated "regular grading" unless the permittee, with the approval of the public works director, chooses to have the grading performed as "engineered grading."

Section 36. Engineered Grading Requirements.

(1) For engineered grading, it shall be the responsibility of the civil engineer who prepares the approved grading plan to incorporate all recommendations from the soil engineering and engineering geology reports into the grading plan. He shall also be responsible for the professional inspection and approval of the grading within his area of technical specialty. This responsibility shall include, but need not be limited to, inspection and approval as the establishment of line, grade, and drainage of the development area. The civil engineer shall act as the coordinating agent in the event that the need arises for liaison between the other professionals, the contractor, and the public works director. The civil engineer shall also be responsible for the preparation of revised plans and the submission of as-graded grading plans upon completion of the work. The grading contractor shall submit in a form prescribed by the public works director a statement of compliance with the as-built plan.

(2) Soil engineering and engineering geology reports shall be required as specified in section 8 to 14. Prior to grading, all necessary reports, compaction data, and soil engineering and engineering geology recommendations shall be submitted to the civil engineer and the public works director by the soil engineer and the engineering geologist.

(3) The soil engineer's area of responsibility shall include, but need not be limited to, the professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction, stability of all finish slopes, and the design of buttress fills, where

required, incorporating data supplied by the engineering geologist.

(4) The engineering geologist's area of responsibility shall include, but not be limited to, professional inspection and approval of the adequacy of natural ground for receiving fills and the stability of cut slopes with respect to geological matters, and the need for subdrains or other ground water drainage devices. He shall report his findings to the soil engineer and the civil engineer for engineering analysis.

(5) The public works director shall inspect the project at the various stages of the work requiring approval and at any more frequent intervals necessary to determine that adequate control is being exercised by the professional consultants.

Section 37. Regular Grading Requirements.

(1) The public works director may require inspection and testing by an approved testing agency.

(2) The testing agency's responsibility shall include, but need not be limited to, approval concerning the inspection of cleared areas and benches to receive fill, and the compaction of fills.

(3) When the public works director has cause to believe that geologic factors may be involved, the grading operation will be required to conform to "engineered grading" requirements.

Section 38. Notification of Noncompliance.

(1) If, in the course of fulfilling their responsibility under this ordinance, the civil engineer, the soil engineer, the engineering geologist, or the testing agency finds that the work is not being done in conformance with this ordinance or the approved grading plans, the discrepancies shall be reported immediately in writing to the person in charge of the grading work and to the public works director. Recommendations for corrective measures, if necessary, shall also be submitted.

(2) The public works director may issue a stop-work order if corrective actions are not completed in a timely manner.

Section 39. Transfer of Responsibility for Approval. If the civil engineer, the soil engineer, the engineering geologist, or the testing agency of record are changed during the course of the work, the work shall be stopped until the replacement has agreed to accept the responsibility within

the area of their technical competence for approval upon completion of the work.

Completion of Work

Section 40. Final Reports. Upon completion of the rough grading work and at the final completion of the work, the public works director may require the following reports and drawings and supplements thereto:

(1) An as-graded grading plan prepared by the civil engineer, including original ground surface elevations, as-graded ground surface elevation, lot drainage patterns, and locations and elevations of all surface and subsurface drainage facilities. He shall provide approval that the work was done in accordance with the final approved grading plan.

(2) A soil grading report prepared by the soil engineer, including locations and elevations of field density tests, summaries of field and laboratory tests, and other substantiating data and comments on any changes made during grading, and their effect on the recommendations made in the soil engineering investigation report. He shall provide approval as to the adequacy of the site for the intended use as affected by geologic factors.

Section 41. Notification of Completion. The permittee or his agent shall notify the public works director 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 plan and the required reports have been submitted.

Section 42. Penalties.

(1) Failure to secure the necessary permits and approvals required by this ordinance shall result in the payment of fees double the amount normally required for similar work as stated in section 15.

(2) Violation of a provision of this ordinance is punishable by a fine not to exceed \$ 500.

(3) Each day a violation continues constitutes a separate offense.

Section 43. Severability. The sections and subsections of this ordinance are severable. The invalidity of any one

section or subsection shall not affect the validity of the remaining sections or subsections.

Section 44. Repeal. Ordinance No. 574, enacted March 15, 1979, is repealed.

Section 45. Emergency. Whereas, an emergency exists and it is necessary for the protection of public improvements and private property that this ordinance be immediately effective, this ordinance shall be in full force and effect upon its passage by the council and approval by the mayor.


PASSED BY THE COUNCIL of the City of Oakridge this
20th day of February, 1986 .

APPROVED AND SIGNED BY THE MAYOR of the City of Oakridge
this 20th day of February, 1986.



Arion Redmond, Mayor

ATTEST:

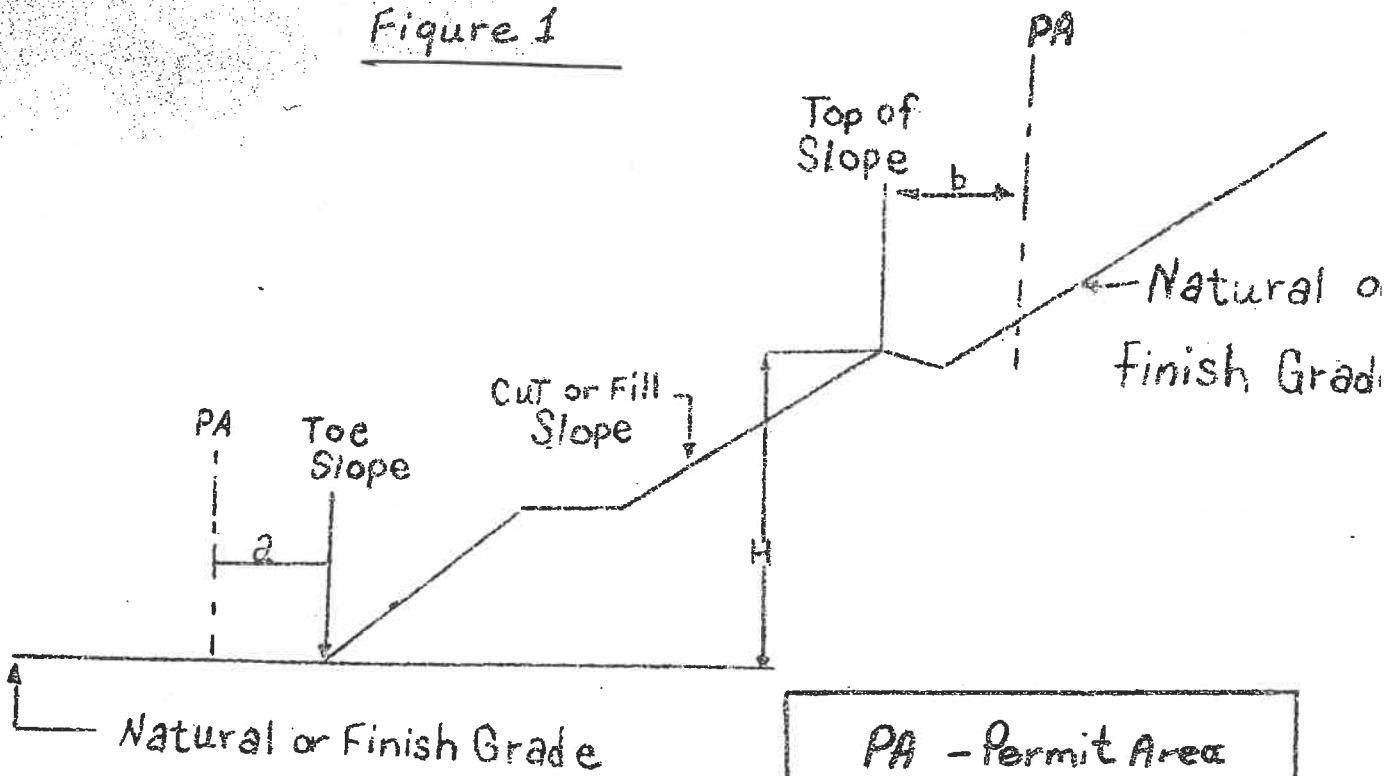


Laura J. Stalcup, City Recorder

AYES: 6

NAYS: 0

Figure 1



PA - Permit Area
 a - width
 H - Height
 b - Setback
 See Table

Figure 2

