

Docket No.	Project Name	Brief Description of Suggested Amendment	Who Suggested Amendment	Staff Lead	Staff Recommendation
14-02	New KCC Chapter 14.05 Grading and Clearing	KCC Chapter 14.05 Clearing and Grading, including review of forest practice conversions	Staff	CDS	Approve

Excavation of ground over the past few decades as a result of increased development has resulted in a number of jurisdictions adopting "Grade and Fill" ordinances which allow the continued development of private lands while avoiding the environmental impacts of such activity. Such ordinances are designed to limit erosion, protect ground and surface water resources, protect wildlife areas, and ensure proper restoration and replanting of graded areas, while allowing for development within the jurisdictions.

Kittitas County staff has drafted language similar to State and other jurisdictional grade and fill ordinances. The regulations proposed below will require those excavating or filling more than one hundred cubic yards to obtain a grade and fill permit. Concrete or cement materials will be considered fill material. The permit will require provision of site plans and plans for providing erosion control methods during any grading and/or filling activity upon a site. Any grade or fill activity involving more than five hundred (500) cubic yards of material or when conducted within a designated Critical Area would require and accompanying engineering plan for the grading operation. Grade and fill activity would also be subject to County SEPA regulations under the proposed Code amendment. The County Engineer or Public Works designee will have the authority to review the grade and fill plan, the erosion control design, and grant a "grade and fill" permit.

DRAFT – October 2014

*Kittitas County Code New Chapter 14.05 Clearing and Grading, is proposed as follows:*

## **Title 14 | BUILDINGS AND CONSTRUCTION**

### **Chapters**

14.04 Building Code

[14.05 Clearing and Grading](#)

14.08 Flood Damage Prevention

14.12 Fire Resistant/Retardant Standards for Roof Coverings

### **Chapter 14.05**

#### **CLEARING AND GRADING**

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**14.05.010 Title.**

This chapter shall be known and may be cited as the Kittitas County Grading Ordinance.

**14.05.020 Purpose.**

This chapter is intended to provide uniform procedures authorizing and regulating grading within the unincorporated area of Kittitas County. While not intended to duplicate other regulations, these regulations are designed to aid in controlling erosion incident to grading activity, and to protect public health, safety and welfare through the adoption and enforcement of provisions designed to:

1. Minimize adverse impacts associated with the excavation and grading of land;
2. Protect water quality from the adverse impacts associated with erosion and sedimentation;
3. Ensure prompt development, restoration, replanting, and effective erosion and sedimentation control of property during and after grading activities;
4. Establish administrative procedures for the issuance of permits, approval of plans, and inspection of grading operations; and
5. Allow for the reasonable development of land in Kittitas County.

**14.05.030 Authority and administration.**

The County Engineer or Public Works designee shall administer, interpret, and enforce this chapter. The County Engineer or Public Works designee shall have the authority to issue permits and to perform, or cause to be performed, inspections and take such actions as may be required to enforce the provisions of this chapter.

**14.05.040 Definitions.**

For the purpose of this chapter, the following definitions shall apply:

1. "Agricultural activities" means those activities conducted on lands defined in RCW 84.34.020(2) as agricultural lands and those activities involved in the production of crops or livestock, including but not limited to operation and maintenance of existing fields, farm and stock ponds or drainage systems, irrigation systems, changes between agricultural activities, and maintenance or repair of existing serviceable structures and facilities. Activities that would significantly impact a previously undisturbed area are not part of an ongoing activity. An activity ceases to be ongoing when the area on which it was conducted has been converted to a nonagricultural use.
2. "Applicant" means a property owner or any person or entity authorized or named in writing by the property owner to be the applicant, in an application for a development proposal permit.
3. "Approval" means that the proposed work or completed work conforms to this chapter in the opinion of the County Engineer or Public Works designee.
4. "Bench" means a cut into a deep soil or rock face to provide stability or control surface drainage.
5. "Berm" means a mound or raised area usually used for the purpose of screening a site or operation, or for containing or directing runoff.

6. "County Engineer or Public Works designee" is the officer, other designated authority or duly authorized representative charged with the administration of this code.
7. "Civil engineer" means a professional engineer registered in the State of Washington to practice in civil works.
8. "Compaction" means the densification of a fill by mechanical means or approved by an engineering geologist or civil engineer.
9. "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 defined in Chapter 17A of the Kittitas County Critical Areas Protection Ordinance.
10. "Department" means the Kittitas County Building Services.
11. "Director" means the Director of Community Development Services or authorized representative.
12. "Engineer" or "Civil Engineer" is an individual licensed in the State of Washington to practice engineering in the civil engineering branch.
13. "Engineered" or "engineering" means work conducted or prepared by a person licensed in the State of Washington to practice as a professional civil engineer. "Engineer" is further defined as a civil engineer or geotechnical engineer within this chapter.
14. "Engineered Grading" is any grading not exempt by this chapter.
15. "Engineering geologist" means an engineering geologist licensed by the State of Washington.
16. "Erosion" means the wearing away of the ground surface as the result of the movement of wind, water, and/or ice.
17. "Erosion and sedimentation control" means any measure taken to reduce erosion, control siltation and sedimentation, and ensure that sediment laden water does not leave the site.
18. "Excavation" means the removal of earth material.
19. "Existing grade" is the grade prior to grading.
20. "Fill" means a deposit of clean earth material or concrete pieces less than one cubic foot in volume.
21. "Finished grade" is the final grade of the site that conforms to an approved plan.
22. "Geotechnical engineer" means a professional engineer licensed by the State of Washington to practice in the field of civil engineering with experience and knowledge of the theory of geology, soils testing, and geotechnical engineering.
23. "Grade" means the elevation of the ground surface.
24. "Grading" is any excavation or filling activity or combination thereof.
25. "Grading permit" means the permit required by this chapter for grading activities.
26. "Horticulture activities" means the growing of fruits, vegetables, flowers, or ornamental plants for commercial purposes.
27. "Permit area boundary" means the defined boundary surrounding grading activity. The permit area boundary will usually be the property lines for the parcel; however, alternate boundaries may be defined on larger parcels with a limited grading area.
28. "Permittee" is the person, corporation or duly authorized agent of the property applying for the grade and fill permit.
29. "Rough grade" is the stage at which the grade approximately conforms to an approved plan.
30. "Shorelines" are those water bodies, adjacent lands, and associated wetlands defined as such by the Shoreline Management Act (RCW 90.58.030).
31. "Site" means any lot or parcel of land or contiguous combination thereof where activities regulated by this chapter are performed.
32. "Slope" is an inclined ground surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.
33. "Structure" is that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

#### **14.05.050 Permits required.**

Except as exempted in Section KCC 14.05.06, no grading or filling upon a site involving more than one hundred (100) cubic yards shall be performed without a grading permit from the County Engineer or Public Works designee. The following activities shall require a grading permit:

1. Private road(s), as defined by Kittitas County Code Title 12, Road and Bridge Standards serving more than two (2) dwelling units;
2. Public road construction prior to acceptance into the County road system;
3. Work within critical areas, shorelines, or sensitive areas as defined by local, state and federal law.
4. Work upon ground that has received preliminary plat approval and is being prepared for structural development and final plat approval.

#### **14.05.060 Exemptions.**

A grading permit shall not be required for the following:

1. Excavation for construction of a structure permitted under this code or lot created by a plat that has received approval for a "grade and fill" permit, provided the excavation for the structure does not exceed fifty (50) cubic yards.
2. Excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit as long as such excavation does not exceed fifty (50) cubic yards. This shall not exempt any fill made with the material from such excavation or exempt any excavation resulting in soil or rock having an exposed, 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, or trenches of utilities;
6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in soil on adjoining or contiguous properties;
7. Exploratory excavations performed under the direction of a registered design professional, County Engineer or Public Works designee.
8. An excavation that (a) is less than two (2) feet in depth, or (b) does not create a cut slope greater than 5 feet in height and steeper than one (1) unit vertical in two (2) units horizontal;
9. A cut and fill less than one foot in depth and placed on natural terrain with a slope flatter than one (1) unit vertical in five (5) units horizontal, **OR** less than three (3) feet in depth, not intended to support structures or roads serving more than two (2) dwelling units and do not exceed fifty (50) cubic yards total accumulation on any one lot;
10. Soil test holes and on-site sewage system installation done under the provisions of an on-site sewage disposal permit application;
11. Grading of County roads with Kittitas County Public Works oversight, including roads, bridges and municipal construction, which is designed to County, WSDOT, APWA or FHWA standards and specification where such grading is subject to review and approval of a local government agency or a State or Federal agency;
12. Routine road maintenance within the established footprint of an existing road.
13. Existing and on-going agricultural or horticultural activities where such activities are means those activities conducted on lands defined in RCW 84.34.020(2) as agricultural lands and those activities involved in the production of crops or livestock, including but not limited to operation and maintenance of existing fields, farm and stock ponds or drainage systems, irrigation systems, changes between agricultural activities, and maintenance or repair of existing serviceable structures and facilities. Activities that would significantly impact a previously undisturbed area are not part of an ongoing activity. An activity ceases to be ongoing when the area on which it was

conducted has been converted to a nonagricultural use. Farm access roads will be required to upgrade to private or public road standards prior to utilization within a land development. At that time, review under the conformance with this Chapter will be required;

Exception from the permit requirements of this Chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

#### **14.05.070 Application requirements.**

Unless exempted under KCC 14.05.06 Exemptions, all persons proposing to conduct grading activity within the jurisdictional boundaries of Kittitas County shall first apply for a grading permit. The applicant shall obtain a grading permit in conformance with this chapter prior to any grading activity.

1. The permit application shall at a minimum include the following:
  - a. A completed master application, signed by the applicant, a vicinity map, environmental checklist, and any relevant supplemental information required by the County Engineer or Public Works designee.
  - b. A site plan drawn to a reasonable scale (e.g., one inch equals 20 feet). The site plan should clearly show the following:
    - i. North arrow.
    - ii. Property lines and dimensions.
    - iii. Location and dimensions of all existing and proposed development, including structures, roads, sewer and water lines, wells, utilities, easements, water bodies, drainage facilities, and on-site sewage disposal and drainfield areas, within the permit area boundary.
  - c. Grading plans when required in KCC 14.05.08.
  - d. A full identification and description of the work to be covered by the permit for which the application is made.
2. Granting of Permits.
  - a. After an application has been filed and reviewed, the County Engineer or Public Works designee shall ascertain whether such proposed grading work complies with the provisions of this chapter. If the application and plans so comply, or if they are corrected or amended so as to comply, and the proposal is consistent with all other relevant county codes, the County Engineer or Public Works designee shall issue a grading permit.
  - b. The applicant/property owner shall maintain the approved grading plans and permit available on the site, and provide an individual copy to any grading contractor who will be working at the site.
  - c. A grading permit shall be valid for a period of two (2) years from the date of permit issuance. The County Engineer or Public Works designee is authorized to grant one or more extensions not exceeding three hundred sixty-five (365) days each. The extension shall be requested in writing prior to permit expiration. Justifiable cause shall be demonstrated prior to issuance of such extensions. Renewal of permits may be accomplished with existing plans and reports, if no changes are being made to the proposal, and no new significant issues are raised during the review.

#### **14.05.080 Grading plan.**

An application for grading in excess of five hundred (500) cubic yards or in a critical area shall be accompanied by an engineered grading plan. Applications for projects involving engineered grading, as defined in KCC 14.05.04, shall be accompanied by an engineered grading plan based on an engineering report or an engineering geology report. Engineered grading plans shall be prepared and stamped by an engineering geologist, geotechnical engineer and/or civil engineer licensed to work in the State of

Washington. Grading within a geological hazard critical area may require a geotechnical assessment in compliance with the KCC 17A, the Critical Areas Ordinance. Materials excavated for building foundations and basements need not be considered in the above quantities. A grading plan, or an engineered grading plan, shall include:

1. An easily reproducible scale on the plan of appropriate size depicting location and details of all cuts and all fills including depth and finished slopes of all cuts and all fills.
2. A general vicinity map of the area.
3. North arrow.
4. Subject property boundary lines, existing and proposed roads or driveways, easements, natural or manmade bodies of water and drainages, critical areas, shorelines and any existing or proposed structures, wells or septic systems on the site, and the distance between such features.
5. Bodies of water, critical areas, structures, wells and septic systems on adjacent property and lying within 50 feet of the subject grading activity boundary that could be affected by the proposed grading operations.
6. Maps drawn with contour intervals that adequately depict existing and proposed slopes for the proposal.
7. Total quantities, in cubic yards, and type of cut and fill material, including on-site grading material, and imported material.
8. Cross section drawings that include:
  - a. Maximum depth of fill and maximum height of cuts.
  - b. Existing and proposed buildings and their setbacks from cut or fill slopes.
  - c. Existing grades extending a minimum of twenty (20) feet beyond the scope of work.
  - d. Finished grades of cuts and fills extending a minimum of 20 feet beyond the scope of work.
  - e. Retaining walls and the adjacent grade at least twenty (20) feet on either side of the wall(s).
  - f. Grades of all existing cut and fill areas expressed as a ratio of horizontal to vertical slope.
9. The disposal site for excavated material. Offsite disposal may require a separate grading permit.
10. The location of proposed erosion and sedimentation control measures showing compliance with the requirements of WDOE Stormwater Management Manual for Eastern Washington.
11. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, berms, settling ponds, or other water or erosion control devices to be utilized as a part of the proposed work.
12. Any recommendations included in an engineering geology or geotechnical assessment or report for grading or developing the property. If required, assessment and reports shall be completed in compliance with KCC 17A Critical Areas.

#### **14.05.090 Permit Application and submittal.**

1. In addition to KCC 14.05.07 and 14.05.08(application requirements and grading plans) provisions, the applicant shall state the estimated quantities of excavation and compact fill. Roadway surfacing and aggregate shall be included in this estimate. Grading in excess of five hundred (500) cubic yards total per site, road, subdivision or other project shall be performed in accordance with the approved grading plan prepared by a civil engineer or engineering geologist licensed to practice in the State of Washington which shall be designated as "engineered grading." Contiguous projects owned by the same person(s), corporation(s) or other legal entity shall be considered one project. Grading involving less than five hundred (500) cubic yards shall be designated "regular grading" unless the permittee chooses to have the grading performed as engineered grading, or the County Engineer or Public Works designee determines that special conditions or unusual hazards exist, in which case grading shall conform to the requirements for engineered grading. The County Engineer or Public Works designee may determine, at any time, the circumstances under which engineered grading is required.
2. The County Engineer or Public Works designee may require surety bonds in such form and amount 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. In lieu of a surety bond, the applicant may file a cash bond or instrument of credit with the County Engineer or Public Works designee in an amount equal to that which would be required in the surety bond. The surety bond(s) shall be valued at one hundred percent of the total cost of the proposed work and shall be tied to a standard inflation rate that will be determined by the County Engineer or Public Works designee in consultation with financial institutions and other agencies.

#### **14.05.100 Special inspections.**

Grading projects for which a permit is required shall be subject to inspection. A licensed engineer shall provide professional inspections of grading operations if engineering is required elsewhere in this chapter. An inspection schedule shall be established for each project prior to permit issuance based on the following:

1. A civil engineer, geotechnical engineer, or engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. These inspections shall also include observation and review as to the establishment of line, grade and surface drainage of the development area. Soil testing shall comply with Washington State Department of Transportation, Standard Specifications for Road, Bridge and Municipal Construction 2-03.3(14)D. The 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. The engineer or engineering geologist shall also provide professional inspection of any excavation to determine if conditions encountered are in conformance with the approved report or plan. If revised plans are required during the course of the work, they shall be prepared by the civil engineer. Revised recommendations relating to conditions differing from the approved engineering geology or geotechnical reports shall be submitted to the permittee, Public Works and the civil engineer.
2. The permittee shall be responsible for the work being performed in accordance with the approved plans and specifications and in conformance with the provisions of this chapter. When approved by the County Engineer or Public Works designee, the permittee may engage consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the consultants, the contractor and Building Services. In the event of changing conditions, the permittee shall be responsible for informing Building Services of such change and shall provide revised plans for approval.
3. Building Services or Public Works may inspect the project in various stages of work.
4. If, in the course of fulfilling their respective duties under this chapter, the civil engineer, geotechnical engineer, or 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 in writing within three working days to the permittee and to Kittitas County Public Works.
5. If the civil engineer, geotechnical engineer, or engineering geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept the responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify Public Works in writing of such change prior to recommencing of such grading.

#### **14.05.110 Excavations.**

Unless otherwise recommended in an approved soils engineering or engineering geology report, grading shall conform to the following standards:

Erosion control measures shall be installed as outlined in the WDOE Stormwater Management Manual for Eastern Washington.

1. Appropriate erosion control structures shall be installed prior to any grading activity. All erosion control measures shall be maintained in place until vegetation is established for suitable erosion and sedimentation control. No sediment from grading operations shall be permitted to leave the site or enter any surface waters or wetlands.
2. Sites shall have a finished grade that drains away from structural foundations for a minimum of 10 feet.
3. All sites shall be cleaned upon project completion, including installation of permanent organic erosion control measures such as grass seeding, landscaping, or other organic means of erosion control.
4. Cuts of five feet in depth or greater shall be set back from property lines by a minimum of twenty-five (25) feet. This can be decreased with appropriate engineering. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary.
5. The top of cut slopes shall not be made nearer to a permit area 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 needs to be increased for any required interceptor drains.
6. The County Engineer or Public Works designee may approve alternate setbacks at the request of the applicant. In approving these alternate setbacks, the County Engineer or Public Works designee may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.
7. The slope of cut surfaces shall be no steeper than two (2) units horizontal in one unit vertical (50 percent slope) unless the permittee furnishes a geotechnical engineering or an engineering geology report or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property. At the request of the applicant, the County Engineer or Public Works designee may approve the use of alternate grading standards. These approvals shall be based on sound engineering practices and require the submittal of additional documentation, reports, and testing.
8. Excavations shall not constrict or alter the existing flow of storm water, streams or other historical flow.

**14.05.120 Fill.**

Unless otherwise recommended in an approved soils engineering or engineering geology report, grading shall conform to the following standards:

Erosion control measures shall be installed as outlined in the WDOE Stormwater Management Manual for Eastern Washington.

1. Appropriate erosion control structures shall be installed prior to any grading activity. All erosion control measures shall be maintained in place until vegetation is established for suitable erosion and sedimentation control. No sediment from grading operations shall be permitted to leave the site or enter any surface waters or wetlands.
2. Sites shall have a finished grade that drains away from structural foundations for a minimum of ten (10) feet.
3. All sites shall be cleaned upon project completion, including installation of permanent organic erosion control measures such as grass seeding, landscaping, or other organic means of erosion control.
4. The County Engineer or Public Works designee may approve alternate setbacks at the request of the applicant. In approving these alternate setbacks, the County Engineer or Public Works designee may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.
5. Any proposed finished slope that is steeper than two horizontal to one vertical shall be engineered.
6. The ground surface shall be prepared to receive fill by removing all organic material, non-complying fill, and scarifying topsoil.

7. Solid waste as defined by Washington State law and amounts of organic material shall not be used as fill material.
8. Fill slopes shall not be constructed on natural or cut slopes steeper than two (2) units horizontal in one unit vertical (50 percent slope) unless engineered. The ground surface shall be prepared to receive fill by scarifying to provide a bond with the new fill and, where slopes are steeper than five units horizontal in one unit vertical (20 percent slope) and the height is greater than five feet, by benching into sound bedrock or other competent material as determined by the engineer.
9. The slope of fill surfaces shall be no steeper than two units horizontal in one unit vertical (50 percent slope) unless the permittee furnishes a geotechnical engineering or an engineering geology report or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property. At the request of the applicant, the County Engineer or Public Works designee may approve the use of alternate grading standards. These approvals shall be based on sound engineering practices and require the submittal of additional documentation, reports, and testing.
10. Fill shall not constrict or alter the existing flow of storm water, streams or other historical flow.

**14.05.130 Compaction.**

Minimum compaction requirements shall comply with those standards specified by the Washington State Department of Transportation, Standard Specifications for Road, Bridge and Municipal Construction, Division 2.

**14.05.140 Air quality.**

Dust shall be prevented from becoming airborne. The finished exposed surfaces shall be treated with vegetation or other means to control dust.

**14.05.150 Appeals.**

Any decision by the County Engineer or Public Works designee shall be final unless appealed to the Board of County Commissioners as provided in KCC 15A.07.

**14.05.160 Conflicts with other regulations.**

Where other Kittitas County ordinances, resolutions, or regulations, or other state or local regulations are in conflict with this chapter, the more restrictive regulation shall apply and such application shall extend to those specific provisions which are more restrictive.

**14.05.170 Fees.**

Fees shall be adopted by separate resolution.

**14.05.180 Severability.**

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

**14.05.190 Liability for damages.**

This chapter shall not be construed to hold Kittitas County, its officers, employees or agents responsible for any injury or damage resulting from the failure of any person subject to this chapter to comply with this chapter, or by reason or in consequence of any act or omission in connection with the implementation or enforcement of this chapter on the part of Kittitas County, its officers, employees or agents.