

SHASTA COUNTY GRADING HANDOUT

Shasta County Codes (Chapter 12.12-Grading, Excavating, and Filling) regulates grading within Shasta County. The purpose of this chapter is to promote and protect the public safety, convenience, comfort, prosperity, general welfare and the County's natural resource by establishing minimum requirements for grading, excavating, and filling in order to:

- A. Control erosion and sedimentation and prevent damage to off-site property and streams, watercourses, and aquatic habitat;
- B. Avoid creation of unstable slopes or filled areas;
- C. Prevent impairment or destruction of potential leach fields for sewage disposal systems;
- D. Regulate de facto development caused by uncontrolled grading.

Grading means the movement of any earth materials:

- 1. In excess of two hundred fifty (250) cubic yards; or
- 2. Which damages or has the potential to significantly damage directly, or indirectly through erosion, any natural or manmade watercourse, whether year-round or intermittent, including drainage channels; or
- 3. To make a road, temporary access road, building pad, mobile home pad or a new sewage disposal system when the installation of the sewage disposal system requires changes in the natural contour of the land; or
- 4. Which disturbs ten thousand (10,000) square feet or more of surface area.

It is illegal to conduct grading, as defined above, without a valid permit. Grading permits are identified as major project or minor project permits. Major project permits shall be required for any grading which will involve (1) the movement of more than two thousand cubic yards of earth; (2) the disturbance of more than five acres of earth material; and/or (3) is defined as a discretionary permit (excludes grading permits for a detached single-family dwelling located on one parcel).

The issuance of major project grading permits and some minor projects may be subject to review under the California Environmental Quality Act (CEQA). Our Permit Counter staff can assist you with questions you may have regarding CEQA review.

Exemptions from Permit Requirements

- A. The County Code contains a number of exemptions from permit requirements. These include:
 - 1. Cultivation and production of agricultural products; including but not limited to gardening, forestry regulated by the California Department of Forestry and Fire Protection under an approved Timber Harvest Plan, and the rearing and management of livestock, except as provided in subsection B of this section;
 - 2. Brush clearing in accordance with the provisions of Public Resources Code Section 4291 et seq. or at the direction of the Fire Warden for fire prevention and safety purposes;
 - 3. Mining, quarrying, excavating, processing, or stockpiling of rock, sand, gravel, aggregate or

clay, as authorized in the zone plan and for which a use permit and reclamation plan have been granted, except as provided in subsection B of this section;

4. Operation of refuse disposal sites for which a valid permit has been issued pursuant to Chapter 8.32;
 5. Temporary excavation for installation or abandonment of underground storage tanks and associated piping when no permanent change is made in the existing terrain and the excavation is refilled;
 6. Temporary trench or pit excavation for the purpose of installing underground or overhead utilities, except as provided in subsection B of this section;
 7. Subsurface geologic exploration under the supervision of a licensed civil engineer, registered environmental health specialist, engineering geologist or archeologist, except as provided in subsection B of this section;
 8. The construction of pits for the containment of drilling fluids; when well drilling is performed pursuant to Chapter 8.56;
 9. Grading conducted during a civil or hazardous material emergency or natural disaster to relieve or correct conditions caused by such emergency or disaster or to make emergency firebreaks;
 10. The removal and spreading of contaminated earth materials from underground tank excavations performed in compliance with Chapter 8.24;
 11. Grading performed on public works projects by a governmental agency.
- B. No exemption provided in 1, 3, 6 or 7 above shall apply to any grading that will adversely affect any off-site drainage or aquatic habitat, or that will adversely affect the lateral or subjacent support of any property not owned by the owner of the land upon which such grading is performed.

Compliance with Applicable Standards

In addition to the requirements of the grading standards, the requirement of all laws, regulations, and ordinances of the County, State, and Federal government must be met.

Permit Contents

A grading permit application must contain enough information for us to determine if applicable grading standards can be met and a permit issued. An application with incomplete or vague information will take longer to process than a complete application. At a minimum you need to provide:

1. A completed application form. Counter staff will provide you with an appropriate blank form and assist in its completion as needed. You will need to identify the number of acres of area to be disturbed, cubic yards to be moved, and the dates work is to begin and end.

2. A grading plan. You should submit an overall site plan, a plan showing proposed grading, and either a profile drawing showing grading, cuts, and fills, or a detailed written description of work to be done. See example drawings attached.
3. An erosion control plan. This identifies how you will control erosion from the area to be disturbed and may be shown on your grading plan. Common measures include, but are not limited to, using straw bales/berms, riprap, seeding or landscaping disturbed area, mulching with straw or other materials, paving or graveling of roads, and the use of mat covers.
4. The plan must identify that the erosion control system is going to be maintained for at least three years after completion and must identify who is going to be responsible for erosion control maintenance during the project and for the following three years. It may be necessary to irrigate or replace vegetation, replace mulching materials, dewater the soil, regrade areas where earth movement has occurred, or replace berms to prevent erosion and sedimentation. This is an ongoing process and erosion control measures rarely make it through a winter without some damage. Not repairing damaged erosion and sedimentation control measures may result in landslides, flooding, or other serious problems.

Special Plans and Posting of Security

For some projects, because of the large area to be disturbed, the time of year grading is to occur, or because the project may adversely impact a watercourse, we may require that an erosion plan be submitted by a registered civil engineer experienced in erosion control, a certified professional soil erosion and sediment control specialist, or a soil scientist certified by the American Registry of Certified Professionals in Agronomy, Crops, and Soils.

The permit may require the posting of security in an amount sufficient to cover all corrective action or site restoration work and/or the cost of permanent erosion control measures for a period of up to three years from the date of completion of the permanent erosion control measures.

Fee

A fee is charged for grading permits based on the type of project or the volume of materials to be disturbed.

EROSION CONTROL MEASURES

Before Construction

First of all, examine the site carefully during project design to identify potential problems posed by slope, drainage patterns, and soil types. Proper site design can help avoid expensive erosion control measures and stabilization work.

During Construction

Preserve existing vegetation as much as possible and limit the area to be disturbed to the area under current construction. Use temporary or permanent fencing to protect plants from grading activities and traffic. Preserve natural contours of the site. Minimize the length and steepness of graded slopes by trenching, terracing, or constructing diversion structures such as berms of earth or rock.

After Construction

Landscape sloped areas to stabilize them and improve their appearance. You may need seeding with grass seed mixtures blended for your site which can be an inexpensive but quick and effective short-term erosion control method. Mulching disturbed areas will help hold soil moisture in landscape or seeded areas to provide a favorable environment for them to grow. Mulch provides ground protection from damage by water droplets and runoff. Easy to obtain mulches include grass clippings, leaves, sawdust, bark, chips, and straw for larger areas. Straw mulch is most effective when held in place by organic glues or wood fiber tackifiers, when punched into soil by shovel or roller, or when held in place by netting.

Hydro seeding of small and large areas generally combines a seed mix, fertilizer, and a mulch in a spray application. Straw can also be blown over a site. Plastic sheeting can be an effective short-term erosion control method. Nets or fabrics of materials, such as jute, break down over time but hold down mulch materials long enough to allow vegetation to become established at a site. Roof drainage can be routed to lawns, gardens, planter boxes, rocked areas, or splash blocks and needs to be directed away from foundations by a slope of two percent (2%).

Even with proper design, timing of work performed, planting, or due to the magnitude of the project, you may need to provide temporary or permanent structured erosion control measures. These measures generally are needed to transport water across your property so that it does not cause erosion resulting in soil being carried from your site and discharged onto your neighbor's property, streets, or streams. Some examples of structural controls are:

- **riprap** - rock lining of channels or banks to protect against erosive water flow or seepage.
- **grass lined waterways, swales, and dikes** - grass or other vegetation can be used to line a channel instead of riprap where flows are slow.
- **sediment basins or traps** - a pond or basin, which collects and holds runoff, long enough to allow suspended sediment to settle out.

- **energy dissipators and storm drain outlet protection** - cobbles or other similar materials used to reduce the speed of water flowing from a culvert or pipe onto open ground or into channel.
- **diversion dike or perimeter dike** - divert or intercept water flow before it reaches a disturbed area and diverts it to an acceptable outlet area.
- **perimeter swale** - divert sediment laden runoff to sediment basin or treatment area or used to collect water before it reaches a disturbed area.
- **straw bale dike** - a temporary barrier constructed of straw to detain sediment eroding from disturbed areas. Generally useful for small areas and for short term (6 months).
- **slope drain** - used to carry runoff down the face of a cut or fill slope. Usually a flexible tube or pipe running from a diversion dike or a swale.
- **water bars and rolling dips** - these are channels or ridge and channel structures placed diagonally across roads with rock or other flow dissipators at the outlet end.
- **rock, log, and straw bale check dams** - small temporary structures used to reduce flow velocities in drainage channels to trap and store larger sediment particles.
- **silt fence** - a temporary sediment barrier intended to pond water allowing sediment to settle out.