

## Chapter 15.28 - GRADING AND EXCAVATION

### Sections:

15.28.010 - Chapter 18, Chapter 33, Chapter 35 and Appendix J of the 2013 California Building Code and California Residential Code adopted.

Chapter 18, Chapter 33 and Appendix J of the 2019 California Building Code and Section R300 of the California Residential Code are adopted by reference and except as herein otherwise provided are applicable to and shall cover all grading and excavation within the unincorporated area of the County of Fresno.

(Ord. No. 19-025, § 1(Exh. B), 12-10-2019; Ord. No. 13-024, § 1(Exh. B), 11-12-2013; Ord. No. 11-005, § 1, 5-24-2011; Ord. 07-049, Exh. A)

15.28.020 - Exceptions and superseding provisions.

The following sections, or portions thereof, of Chapters 18 and 33 of the 2019 California Building Code (CBC) and the California Residential Code (CRC) are deleted, amended or superseded by other provisions as in this section hereinafter indicated.

- A. CBC Section 1808.7 and CRC Section R403.1.7 Foundations On or Adjacent to Slopes, shall be amended as follows:

Fills to be used to support the foundations of any building or structure shall be placed in accordance with accepted engineering practice. A Soil Investigation Report and a report of satisfactory placement of fill, both acceptable to the Grading Official, shall be submitted.

Where applicable see CBC Section 1804 Excavation, Grading and Fill for excavation and grading.

- B. CBC Appendix J, Grading, is amended in its entirety to read as follows:

1. Section J101.1, Scope.

This Appendix sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction.

The Grading Official, as defined in Chapter 1, Section 103.3, Deputies, is authorized and directed to enforce all provisions of Chapters 18, 33 and Appendix J of the 2013 California Building Code with powers and duties equal to those of the building official as found in Section 104 - Organization and Enforcement thereof, but only as such powers and duties relate to enforcement of said Chapters 18, 33 and Appendix J.

- C. Appendix J, Section J103.2, Exemptions, is amended by adding Exception Nos. 8, 9 and 10 to read as follows:

8. A fill that is either less than one-foot (1') (305 mm) in depth, placed on natural terrain with a slope flatter than one (1) unit vertical in five (5) units horizontal (twenty percent [20%] slope), or less than three feet (3') (914 mm) in depth placed on flat terrain, is not intended to support structures, does not exceed fifty (50) cubic yards (39.3 m<sup>3</sup>) on any one (1) lot, and does not obstruct or encroach upon a drainage course.
9. Agricultural grading, except that the provisions of this section shall apply to a graded or excavated area influenced by a structure to be constructed thereon and intended primarily for human occupancy or where a definable drainage course is obstructed.

10. Grading which is under the supervision of a government agency.

D. Appendix J, Section J103.2, Exemptions, is amended by adding the following paragraph:

In those cases where a Grading Permit is not required, but where there may be an impact on surrounding properties or on present or future structures, a Grading Voucher may be required by the Grading Official.

E. Appendix J, Section J101, General, is amended by adding:

1. Hazards

a) Existing Hazards.

Whenever the Grading Official determines that any existing excavation, or embankment of 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/permittee 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 Grading Official shall within the period specified therein repair or eliminate the hazard and be in conformance with the requirements of this Code.

In the event such hazard is not corrected as required within the time specified, the Grading Official may deem such hazard a public nuisance consistent with Subsections 15.32.010 A. and 15.32.030 D. of this title and shall pursue abatement of such hazard as would the building official abate a public nuisance pursuant to the provisions of Section 15.32.035 et seq. of this Title. For the purposes of pursuing said provisions, the Grading Official shall be vested with equal powers and duties as the building official for the purposes of abating such hazard but shall do so in the name of the Director of the Department of Public Works rather than that of the Grading Official. Required noticing and posting as specified shall issue forth in accordance with this provision.

b) Hazardous Grading.

The Grading Official shall not issue a permit where he finds that the work as proposed by the applicant is liable to endanger private property or interfere with an existing drainage course. If it can be shown to the satisfaction of the Grading Official that the hazard can be essentially eliminated by the construction of retaining structures, buttress fills, drainage devices, or other means, the Grading Official may issue the permit with the condition that such protective work be performed.

c) Geological or Flood Hazard

If, in the opinion of the Grading Official, the land area for which grading is proposed is subject to geological or flood hazard to the extent that no reasonable amount of corrective work can eliminate or sufficiently reduce the hazard to human life or property, the Grading Permit and Building Permit for habitable structures shall be denied.

F. Appendix J, Section J102, is amended by adding the following definitions thereto:

1. "Agricultural Grading" shall mean the leveling of land to be used for the growing of food or fiber on parcels containing five (5) acres or more in area for the purpose of making the land more suitable for irrigation.
2. "Buildable Area" is that area which meets setback requirements as set forth in section 15.28.020. "General Requirements for Standard Grading."

3. "Grading Official" means the Director of the Department of Public Works and Planning as used within the provisions of this chapter and any assistant or employee in his/her office designated as deputies in accordance with Chapter 1, Section 103.3 of the 2013 California Building Code and California Residential Code Section R103.3.
  4. "Grading Voucher" is a document which acknowledges compliance with the Fresno County Grading Ordinance for those projects which are exempt from Grading Permits.
  5. "Approval" shall mean that the proposed work or completed work conforms to this chapter in the opinion of the Grading Official.
- G. Appendix J, Section J103.1, Permits required, is amended by adding:
- Except as exempted in Section J103.2, a separate permit shall be required for each site, and may cover both excavations and fills. Subdivisions on which all grading is performed as a unit shall be considered as a single site.
- H. Appendix J, Section J104, Permit Application and Submittals, is amended to read in its entirety as follows:
1. The provisions of Chapter 1, Section 105.3 are applicable to grading and excavation and in addition to the requirements set forth therein the application shall state the estimated quantities of work involved and the estimated starting and completion dates.
  2. All grading in excess of one thousand (1,000) cubic yards shall be performed in accordance with the approved Grading Plan prepared by a Civil Engineer, and shall be designated as "engineered grading." Grading involving less than one thousand (1,000) cubic yards shall be designated "regular grading" unless the permittee, with the approval of the Grading Official, chooses to have the grading performed as "engineered grading." The Grading Official may designate grading in excess of one thousand (1,000) cubic yards as "regular grading" if he determines such designation will be in the public welfare.
  3. Application for a Grading Permit shall be accompanied by two (2) sets of plans and specifications, a Grading and Drainage plan checklist, and supporting data consisting of a Soils Engineering Report and Engineering Geology Report. The plans and specifications shall be prepared and signed by an individual licensed by the State to prepare such plans or specifications when required by the Grading Official.
  4. Recommendations included in the Soils Engineering Report and the Engineering Geology Report shall be incorporated in the Grading Plans or specifications. When approved by the Grading Official, specific recommendations contained in the Soils Engineering Report and Engineering Geology Report, which are applicable to grading, may be included by reference.
  5. Owner/Contractor Agreement.  
  
When an owner hires a contractor to do only a portion of the work proposed, a description of the work to be performed by both the owner and the contractor will be required with the Grading Permit. This description shall be acknowledged by both parties.
- I. Appendix J, Section J104.4, Liquefaction study, is amended as follows:
- The Grading Official may require a Geotechnical Investigation in accordance with Sections 1804.3 and 1804.6 when, during the course of an investigation, all of the following conditions are discovered, the Report shall address the potential for liquefaction:
1. Shallow ground water, fifty feet (50') (15240mm) or less.
  2. Unconsolidated sandy alluvium.
  3. Earthquake loads.
- J. Appendix J, Section J105 Inspections is amended by adding:

Issuance.

Subsections 15.04.030 through 15.04.080 of the Fresno County Ordinance Code, relating to the administration and enforcement of permits, and 2019 California Building Code Subsection 110, relating to inspections, are incorporated by reference and made applicable to the administration and enforcement of the provisions of the Chapter with the duties and authorities ascribed to the building official being ascribed to the Grading Official while acting within the scope of this Chapter. The Grading Official may require that grading operations and project designs be modified if delays occur which incur weather-generated problems not considered at the time the permit was issued.

The Grading Official may require professional inspection and testing by the Soil Engineer. When the Grading Official has cause to believe that geologic factors may be involved, the grading will be required to conform to engineered grading.

- K. Appendix J, Section J101, J104 Permit Application and Submittals, is amended as follows:

Fees shall be assessed in accordance with the provisions as set forth in the Master Schedule of Fees.

1. Charges and Recovered Costs adopted by separate Ordinance.
2. Plan Review Fees.

When a plan or other data are required to be submitted, a Plan Review Fee shall be paid at the time of submitting plans and specifications for review. Said Plan Review Fee shall be as referred to in the Master Schedule of Fees. Separate Plan Review Fees shall apply to retaining walls or major drainage structures as required elsewhere in this Code. For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater.

3. Grading Permit Fees.

A fee for each Grading Permit shall be paid to the Grading Official as referred to in the Master Schedule of Fees. Separate permits and fees shall apply to retaining walls or major drainage structures as required elsewhere in this Code. There shall be no separate charge for standard terrace drains and similar facilities. The fee for a Grading Permit authorizing additional work to that under a valid permit shall be the difference between the fee paid for the original permit and the fee shown for the entire project.

4. Bonds.

The Grading Official may require a cash deposit per Title 15 Ordinance Code, Section 15.04.090 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.

In lieu of a Surety Bond the applicant may file a Cash Bond or Instrument of Credit with the Grading Official in an amount equal to that which would be required in the Surety Bond.

- L. Appendix J, Section J106, Excavations, is amended to read as follows:

Unless otherwise recommended in the approved Soils Engineering and/or Engineering Geology Report, cuts shall conform to the provisions of this Section. In the absence of an approved Soils Engineering Report, these provisions may be waived for minor cuts not intended to support structures.

- M. Appendix J, Section J107, Fills, is amended as follows:

Unless otherwise recommended in the approved Soils Engineering and/or Engineering Geology Report fills shall conform to the provisions of this Section.

N. Appendix J, Section J107.4, Fill material, shall be amended in its entirety to read as follows:

Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by the Grading Official, no rock or similar irreducible material with a maximum dimension greater than twelve inches (12") (305 mm) shall be buried or placed in fills.

Exception: The Grading Official 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:

1. Prior to issuance of the Grading Permit, potential rock disposal areas shall be delineated on the Grading Plan.
2. Rock sizes greater than twelve inches (12") (305 mm) in maximum dimension shall be ten feet (10') (3048 mm) or more below grade, measured vertically.
3. Rocks shall be placed so as to assure filling of all voids with well-graded soil.

O. Appendix J, Section J107.5, Compaction, shall be amended as follows:

All fills shall be compacted to a minimum of ninety percent (90%) of relative maximum density, except that in areas designated by Chapter 15.48 Flood Hazards of this title as Areas of Special Flood Hazard, all fills in such areas shall be compacted to a minimum of ninety-five percent (95%) of relative maximum density.

P. Appendix J, Section J108 Setbacks, Subsection 108.3, Slope Protection, is amended as follows:

The toe of fill slope shall be made not nearer to the site boundary line than one half (1/2) the height of the slope with a minimum of two feet (2') (610 mm) and a maximum of twenty feet (20') (6096 mm). Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the Grading Official deems necessary to protect the adjoining property from damage as a result of such grading. See reference drawing for any reference referred to in California Building Code Appendix J, Section 108. These precautions may include but are not limited to:

1. Additional setbacks.
2. Provision for retaining or slough walls.
3. Mechanical or chemical treatment of the fill slope surface to minimize erosion.
4. Provisions for the control of surface waters.

Q. Appendix J, Subsection J108.3, is amended to add:

1. Modification of Slope Location.

The Grading Official may approve alternate setbacks. The Grading Official may require an investigation and recommendation by a qualified Engineer or Engineering Geologist to demonstrate that the intent of this section has been satisfied.

R. Appendix J, Section J109, Drainage and Terracing, Subsection 109.2, Terraces, is amended by adding the following:

Terrace widths and spacing for cut and fill slopes greater than one hundred-twenty feet (120') (36576 mm) in height shall be designed by the Civil Engineer and approved by the Grading Official. Suitable access shall be provided to permit proper cleaning and maintenance.

S. Appendix J, Section J109, Drainage and Terracing, Subsection J109.4, Drainage across property lines, is amended by adding the following:

1. Building Drainage

Building pads shall have a drainage gradient of a minimum of two percent (2%) for a minimum of five (5) feet toward approved drainage facilities, unless waived by the Grading Official.

T. Appendix J, Section J109, Drainage and Terracing, Subsection J109.3, Interceptor Drains, is amended to read as follows:

Paved interceptor drains shall be installed along the top of all cut slopes where tributary drainage area above slopes toward the cut and has a drainage path greater than forty feet (40') (12192 mm) measured horizontally.

Interceptor drains shall be paved with a minimum of three inches (3") (76mm) of concrete or gunite and reinforced. They shall have a minimum depth of twelve inches (12") (305 mm) and a minimum paved width of thirty inches (30") (762 mm) measured horizontally across the drain. The slope of drain shall be approved by the Grading Official.

U. Appendix J, Section 101, General is amended to read in its entirety as follows:

1. Grading operations for which a permit is required shall be subject to inspection by the Grading Official.

2. Professional inspection of grading operations shall be provided by the Civil Engineer, Soils Engineer, and the Engineering Geologist retained to provide such services in accordance with Appendix J, Section 105, Inspections for engineered grading and as required by the Grading Official for regular grading.

3. Soils Engineer.

The Soils Engineer shall provide professional inspection 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 Grading Official, and the Civil Engineer.

4. Permittee.

The permittee 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

the permittee shall 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 the Grading Official. In the event of changed conditions, the permittee shall be responsible for informing the Grading Official of such change and shall provide revised plans for approval.

5. Notification of Noncompliance.

If, in the course of fulfilling their respective duties under this Chapter, the Civil Engineer, the Soils 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 permittee and to the Grading Official.

6. Transfer of Responsibility.

If the Civil Engineer, the Soils 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 permittee to notify the Grading Official in writing of such change prior to the re-commencement of such grading.

7. The Grading Contractor shall submit in a form prescribed by the Grading Official a statement of conformance to said As-Built Plan and the specifications.

V. Appendix J, Section J111 and Chapter 35 Referenced Standards is amended to add the following referenced standards:

ASTM D 1556, In Place Density of Soils by the Sand-Cone

ASTM D 2167, In Place Density of Soils by the Rubber-Balloon Method

ASTM D 2922 In Place Density of Soil by Nuclear Methods (Shallow Depth)

ASTM D 2937, In Place Density of Soils by the Drive-Cylinder Method.

ASTM D 2922 and D 3017, In Place Moisture Content and Density of Soils by Nuclear Methods.

ASTM D 3017, In Place Water Content of Soil by Nuclear Methods (Shallow Depth).

8. Notice of Completion.

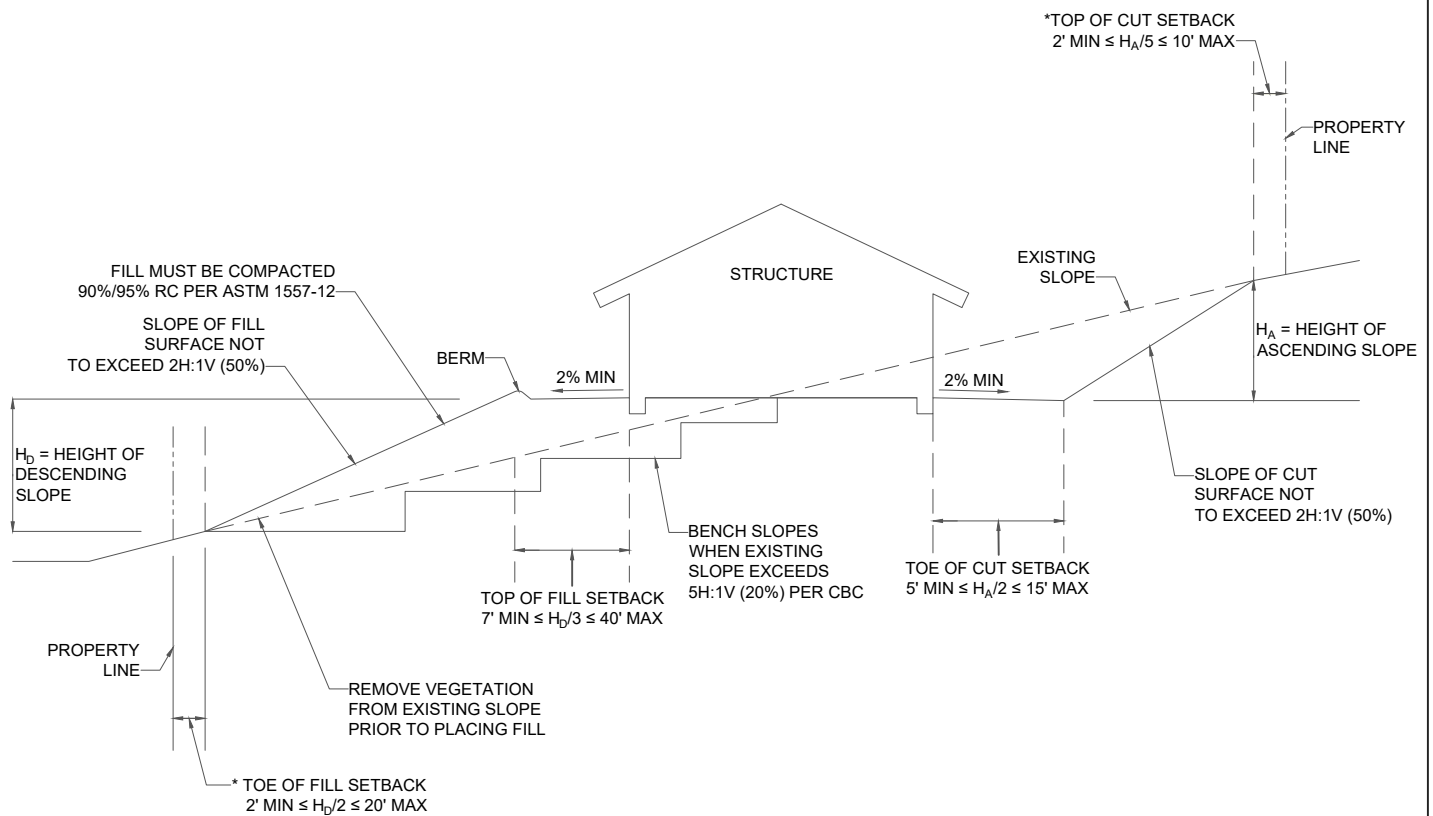
The permittee shall notify the Grading Official when the grading operation is ready for Final Inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved Grading Plan, and the required reports have been submitted.

If an owner or contractor completes his portion of the work described when the Grading Permit was issued, he may request a Completion Notice for this portion of work prior to the Final Completion Notice or the expiration of the Grading Permit.

9. Concurrent Permits.

Any grading work which is done in preparation for a structure, must obtain final approval of the Grading Permit prior to final approval of the corresponding Building Permit unless other provisions have been made.

# FIGURE 15.28.020.F GENERAL REQUIREMENTS FOR STANDARD GRADING



\* SPECIAL SETBACKS DO NOT APPLY WHEN CUT, FILL, OR EXISTING SLOPE FACES ARE 3H:1V (33%) OR FLATTER