

The following standard "Grading Notes" (as applicable) shall be placed on the plans:

### **GRADING NOTES**

1. All work shall be done in accordance with the City of Lake Elsinore Municipal Code, Chapter 15.72 and applicable standards and specifications and the latest edition of the Uniform Building Code (U.B.C.), Chapter 33.
2. A permit shall be obtained from the Engineering Department, City of Lake Elsinore, prior to any operations.
3. The developer and/or the contractor shall notify all utility companies and U.S.A. ALERT (1-800-422-4133) forty-eight (48) hours prior to grading.
4. The contractor shall notify the City Engineering Department at least twenty-four (24) hours in advance of beginning grading operations.
5. Dust shall be controlled by watering or other methods approved by the City Engineer.
6. Cut slopes shall be no steeper than 2 horizontal to 1 vertical, unless otherwise approved, and shall be shown on the plan.
7. Fill slopes shall be no steeper than 2 horizontal to 1 vertical, unless otherwise approved, shall be shown on plan, and shall not have less than 90% relative compaction out to the finished surface.
8. Fills shall be compacted throughout to 90% density as determined by the modified three (3) layer A.S.T.M. D-1557-70 test method.
9. Fill areas shall be cleaned of all vegetation and debris, scarified, and inspected by the grading inspector and approved soils testing agency prior to the placing of fill.
10. All fill material shall be clean earth. No fill shall be placed until preparation of ground is approved by the soils engineer.
11. Finish grade shall be sloped away from all exterior walls at not less than  $\frac{1}{2}$ " per foot for a minimum of three (3) feet, then 1% (minimum) to flow line of earth swale.
12. Minimum building pad and drainage swale slope shall be 1% if cut or fill slope is less than ten feet (10'), and 2% if cut or fill is greater than ten feet (10'). Drainage swales shall be a minimum of 0.5' deep and constructed a minimum of two feet (2') from the top of cut or fill slopes.
13. Provide 5' wide by 1' high berm or equivalent along the top of all fill slopes over 5' high
14. Provide a brow ditch, designed to handle one hundred (100) year storm flows along the top of cut slopes.
15. No obstruction of flood plains or natural water courses shall be permitted.
16. A soils engineer shall be retained by the developer, to supervise grading and provide a final soils report which includes foundation requirements (subdivisions) and expansive characteristics of the soil.

17. Grading certification by the developer's civil engineer and a final compaction report by a soils engineer shall be submitted to the building and engineering departments prior to issuance of building permits.

18. The soils engineering investigation dated \_\_\_\_\_ prepared by (engineer consultant) dated \_\_\_\_\_ and the engineering geologic investigation dated \_\_\_\_\_ prepared by (geologic consultant), shall be considered a part of this grading plan and shall be in compliance.

19. A registered civil engineer or licensed land surveyor shall submit certification of building pad elevation. Where specific elevations are required, the elevation (with respect to mean sea level) shall be given. If an elevation with respect to adjacent ground surface is required, the actual distance above the adjacent ground shall be given.

20. All property corners shall be clearly delineated in the field prior to commencement of any construction/grading.

21. Stability calculations with a safety factor of at least 1.5 shall be submitted by a soils engineer to the Building and Engineering Departments for cut and fill slopes over thirty feet (30') in vertical height.

22. A final compaction report will be required for all fills greater than one (1) foot.

23. If steep sloping terrain occurs upon which fill is to be placed, it must be cleared, keyed and benched into firm natural soil for full support. Preparation shall be approved by a registered soils engineer prior to placement of fill material. Slopes greater than 5:1 are required to be keyed and benched.

24. The soils engineer should inspect the construction in the following stages:

- a. Upon completion of clearing and during excavation and before backfill of alluvial, colluvial and terraced areas and any substructures.
- b. During all rough grading and operations including pre-compaction, benching and filling operations.
- c. During installation of buttress and canyon sub-drains and filter material.
- d. When any unusual grading conditions are encountered during construction.

25. Erosion Control: All graded slopes shall be planted with rosea ice plant or another approved ground cover, at twelve inches (12") on center. Slopes over fifteen feet (15') in vertical height, in addition to ground cover, shall be planted with approved trees, shrubs or combination thereof. Shrubs shall be planted at ten feet (10') on center; trees at twenty feet (20') on center; combinations fifteen feet (15') on center. Slopes over three feet (3') in vertical height shall have permanent irrigation systems with backflow prevention devices per U.B.C.

26. Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during the grading project.

27. Approved erosion preventive devices shall be provided and maintained during the rainy season and shall be in place at the end of each day's work.

28. All work shall conform to the City and State construction safety orders.

29. The location and protection of all utilities is the responsibility of the permittee.

30. An approved set of grading plans shall be on the job site at all time.
31. Sanitary facilities shall be maintained on the site from beginning to completion of grading operation.
32. All slopes shall be planted and irrigation facilities shall be provided for all slopes in excess of three (3) feet vertical height within ninety (90) days after completion of rough grading and shall be in accordance with City of Lake Elsinore Grading Ordinance No. 882 prior to the approval of final inspection.
33. Any contractor performing work on this project shall familiarize himself with the site and be solely responsible for any damage to existing facilities resulting directly or indirectly from his operations, whether or not such facilities are shown on these plans.
34. The design engineer shall provide a minimum of one (1) blue top per finished pad, prior to rough grade approval.
35. Approximate date of:  
Beginning operation: \_\_\_\_\_  
Completion: \_\_\_\_\_
36. No rock or other irreducible material with a maximum dimension greater than three inches (3") will be placed in fills within roadbed areas or three feet (3') of finish grades, unless the location, materials, and disposal methods are specifically approved by the soils engineer.
37. The engineer must set grade stakes for all drainage devices and obtain inspection before approval.
38. Grading plans will not be approved until all retaining walls are approved by the Building Department.
39. This site has obtained a National Pollution Prevention Elimination System (NPDES) permit to regulate municipal and industrial storm water discharges.  
NPDES WDID # \_\_\_\_\_ DATE PERMIT ISSUED: \_\_\_\_\_
40. Drainage easements will be kept clear of all obstructions. No buildings or walls shall be placed within easement limits. Temporary improvements are subject to removal at owner's expense