

## Grading Notes

*Circled notes must be shown as worded, on the full-sized sheet of the grading plan.*

1. All work shall be in accordance with the Grading Code of the County of Orange, and any special requirements of the permit. A copy of the OC Grading Code and OC Grading Manual shall be retained on the job site while work is in progress. When referenced on the grading plans, a copy of OC Public Works Standard Plans shall also be retained on the site.
2. Grading shall not be started without first notifying the assigned OC Grading Inspector. A pre-grading meeting on the site is required before start of grading with the following people present: Owner, Grading Contractor, Design Civil Engineer, Soil Engineer, Engineering Geologist, OC Grading Inspector, and when required, the Archaeologist, Paleontologist, and Surveyor. The required inspections for grading will be explained at the meeting.
3. Issuance of a grading permit does not eliminate the need for permits from other agencies with regulatory responsibilities for construction activities associated with the work authorized on this plan.
4. The Grading Permit and an approved copy of the approved Grading Plan shall be on the permitted site while grading work is in progress.
5. Preliminary soil and geology reports, and all subsequent reports as approved by OC Development Services, are considered a part of the approved grading plan.
6. The Soil Engineer and Engineering Geologist shall perform sufficient inspections and be available during grading and construction to verify compliance with the plans, specifications and the OC Grading Code within their purview.
7. The Civil Engineer shall be available during grading to verify compliance with the plans, specifications, OC Grading Code, and any special conditions of the permit within their purview.
8. The Soil Engineer and Engineering Geologist shall, after clearing and prior to placement of fill in canyons, inspect each canyon for areas of adverse stability, and to determine the presence or absence of subsurface water or spring flow. If needed, subdrains will be designed and constructed prior to the placement of fill in each respective canyon.
9. Subdrain outlets shall be completed at the beginning of the subdrain construction.

## Grading Notes

10. The exact location of the subdrains shall be surveyed in the field for line/grade and shown on as-graded or revised plans.
11. Areas to receive fill shall be properly prepared and approved in writing by the Soil Engineer and the OC Building Official prior to placing fill.
12. Fills shall be benched into competent material per OC Public Works Standard Plan No 1322.
13. All existing fills shall be approved by the OC Building Official or removed prior to placing additional fills.
14. Fills shall be compacted throughout to a minimum of 90% relative compaction. Aggregate base for asphaltic areas shall be compacted to a minimum of 95% relative compaction. Maximum density shall be determined by ASTM D1557 or approved equivalent and filed density by ASTM D1556 (Sand-Cone) and ASTM D6938 (Nuclear Gauge Method) or an approved equivalent.
15. Cut and fill slopes shall be no steeper than 2-feet horizontal to 1-foot vertical (2:1) except where specifically approved by the OC Building Official.
16. All cut slopes shall be investigated both during and after grading by the Engineering Geologist to determine if any slope stability problems exist. Should excavation disclose any geological hazards or potential geological hazards, the Engineering Geologist shall submit recommended treatment to the OC Building Official for approval.
17. Where support or buttressing of cut and natural slopes is determined necessary by the Engineering Geologist and Soil Engineer, the Soil Engineer shall submit design, locations and calculations to the OC Building Official prior to construction. The Engineering Geologist and Soil Engineer shall inspect and control the construction of the buttressing and certify to the stability of the slope and adjacent structures upon completion.
18. When cut pads are brought to near grade, the Engineering Geologist shall determine if the bedrock is extensively fractured or faulted, and will readily transmit water. If considered necessary by the Engineering Geologist and Soil Engineer, a compacted fill blanket will be placed.
19. All trench backfill shall be tested and approved by the Soil Engineer per the OC Grading Code.

## Grading Notes

20. Any existing irrigation lines and cisterns shall be removed or crushed in place and approved by the OC Building Official and the Soil Engineer.
21. Any existing water wells shall be abandoned in compliance with the specifications approved by Orange County Health Care Agency and Division of Environmental Health.
22. Any existing cesspools and septic tanks shall be abandoned in compliance with the California Plumbing Code to the approval of OC Building Official.
23. The stockpiling of excess material shall be approved by the OC Building Official prior to excavation.
24. Export soil must be transported to a legal dump or to a permitted site approved by the OC Building Official or his/ her designee.
25. The permittee shall comply with the OC Grading Code requirements for haul routes when an excess of 5,000 cubic yards of earth is transported to or from a permitted site on public roadways.
26. The permittee is responsible for dust control measures.
27. The permittee shall give reasonable notice to the owner of adjoining lands and building prior to beginning excavations which may affect the lateral and subjacent support of the adjoining property. The notice shall state the intended depth of the excavation and when the excavation will commence. The adjoining owner shall be allowed at least 30 days and reasonable access on the permitted property to protect his structure, if he so desires, unless otherwise protected by law.
28. All concrete structures that are exposed to the on-site soils shall be constructed with Type V cement, unless deemed unnecessary by soluble sulfate-content tests conducted by the Soil Engineer.
29. Slopes exceeding 5 feet in height shall be planted with an approved plant material. In addition, slopes exceeding 15 feet in height shall be provided with an approved irrigation system, unless otherwise approved by the OC Building Official.
30. All existing drainage courses through this site shall remain open until facilities to handle storm water are approved and functional, however, in any case, the permittee shall be held liable for any damage due to obstructing natural drainage patterns.
31. Sanitary facilities shall be maintained on site.

## Grading Notes

32. The location and protection of all utilities is the responsibility of the permittee.
33. Approved protective measures and temporary drainage provisions shall be used to protect adjoining properties during grading.
34. Grading operations including maintenance of equipment within one-mile of a human occupancy shall not be conducted between the hours of 8:00 p.m. and 7:00 a.m. daily, on Sundays, or on a Federal Holiday.
  - a) All construction vehicles or equipment, fixed or mobile, operated within 1000 feet of a dwelling shall be equipped with properly operational and maintained mufflers.
  - b) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).
  - c) Stockpiling and/or vehicle staging areas shall be located as far as practical from dwellings and within the limits of the grading permit.
35. Grading and excavation shall be halted during periods of high winds. According to AQMD Rule 403, high wind conditions means instantaneous wind speeds exceed 25 MPH. This level occurs only under extreme conditions such as Santa Ana Wind conditions.
36. Asphalt sections must be per OC Grading Code: Parking stall – 3” A/C over 6” A/B, Drives 3” A/C over 10” (Commercial), and 12” (Industrial). Or: Prior to rough grade release for Building Permits by the assigned Grading Inspector; the Soil Engineer shall submit for approval pavement section recommendations, based on “R” value analysis of the sub-grade soils, and expected traffic indices.
37. Asphalt concrete shall be constructed per the requirements of OC Public Works Standard Plan No.1805.
38. Aggregate base section shall be constructed per the requirements of OC Public Works Standard Plan No. 1804.
39. Roof gutters shall be installed to prevent roof drainage from falling on manufactured slopes, with appropriate down spouts and outlets.
40. The Civil Engineer, as a condition of rough grade approval, shall provide a blue top with accompanying witness stake, set at the center of each pad reflecting the pad elevation for precise

## Grading Notes

permits, and a blue top with witness stake set at the drainage swale high-point reflecting the high point elevation for Preliminary Permits.

41. Prior to final approval, the Civil Engineer shall certify to the OC Building Official the amount of earth moved during the grading operation.
42. The Engineering Geologist shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.
43. The Grading Contractor shall submit a statement of compliance to the assigned Grading Inspector that the grading is in accordance with the approved Grading Plan prior to final approval.
44. The compaction report and approval from the Soil Engineer shall indicate the type of field testing performed. The method of obtaining the in-place density shall be identified whether sand cone, drive ring or nuclear, and shall be noted for each test. Sufficient maximum density determinations shall be performed to verify accuracy of the maximum density curves used by the Field Technician.
45. In the event that soil contamination is discovered during excavation and removal of an existing tank, work shall be stopped until a site assessment and mitigation plan has been prepared, submitted and approved by the OC Health Care Agency/Environmental Health and OC Development Services.

### **EROSION CONTROL**

46. In the case of emergency (24-Hour/Day), call \_\_\_\_\_ at  
Work Telephone #. \_\_\_\_\_ or Home Telephone # \_\_\_\_\_
47. Equipment and workers for emergency work shall be made available at all times during the rainy season. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of temporary devices when rain is imminent.
48. Erosion, sediment and chemical control devices shall not be moved or modified without the approval of the OC Building Official.
49. All removable erosion protective devices shall be in place at the end of each working day when the 5-Day Rain Probability Forecast exceeds 40%,
50. After a rainstorm, all silt and debris shall be removed from streets, check berms and basins.

## Grading Notes

51. Graded areas of the permitted area perimeter must drain away from the face of slopes at the conclusion of each working day. Drainage is to be directed towards desilting facilities.
52. The permittee and contractor shall be responsible and shall take necessary precautions to prevent public trespass onto areas where impounded water creates a hazardous condition.
53. The permittee and contractor shall inspect the erosion control work and insure that the work is in accordance with the approved plan.

### ENVIRONMENTAL NOTES

54. The permittee shall notify all general contractors, subcontractors, material suppliers, lessees and property owners that dumping of chemicals into the storm drain system or the watershed is prohibited.
55. Permittee shall maintain construction site in a condition that an anticipated storm does not carry wastes or pollutants off the site. Potential pollutants include but are not limited to: solid or liquid chemical spills, wastes from paint, stains, sealants, glues, limes, pesticides herbicides, wood preservatives and solvents; asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; fertilizers, vehicle/equipment wash water and concrete wash water; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical degreasing and super chlorinated potable water line flushing.

During construction, permittee shall dispose of such materials in a specified and controlled temporary area on-site, physically separated from potential storm water runoff, with ultimate disposal in accordance with local, state and federal requirements.

56. Permittee may discharge material other than storm water only when necessary for performance and completion of construction practices and where they do not: cause or contribute to a violation of any water quality standard; cause or threaten to cause pollution, contamination or nuisance; or contain a hazardous substance in a quantity reportable under Federal Regulation 40 CFR, Parts 117 and 302.
57. Dewatering of contaminated groundwater or discharging contaminated soils via surface erosion is prohibited. Dewatering of non-contaminated groundwater requires a National Pollutant Discharge Elimination System Permit from the respective State Regional Water Quality Control Board.

**58. SPECIAL NOTE:**



## Grading Notes

“Survey monuments shall be preserved and referenced before construction and replaced after construction pursuant to Section 8771 of the Business and Professional Code.”