



Grading Notes

1. All work shall be in accordance with the Excavation and Grading requirements of the City of Redondo Beach and any special requirements of the permit. Any violation will result in the stopping of all work until the violation is corrected.
2. No work whatsoever shall be started without first notifying the Grading Inspector or Soil Engineer.
3. Cut slopes shall be no steeper than 2 horizontal to 1 vertical.
4. Fill slopes shall be no steeper than 2 horizontal to 1 vertical and shall have not less than 90% compaction at the finished surface, unless supported by a soil study performed by a Soils Engineer.
5. Fills shall be compacted throughout to 90% density as determined by the ASTM: D-1557-78, and certified by the Soil Engineer.
6. Cut and Fill slopes shall be planted with an approved ground cover for erosion control.
7. Planted slopes shall be watered and maintained.
8. Fill areas shall be cleaned of all vegetation and debris, scarified and inspected by Grading Inspector or Soil Engineer and approved soil-testing agency prior to placing of fill.
9. Prior to placing fills, the basins left by pulling trees shall be inspected and approved by the Grading Inspector or Soil Engineer.
10. As fills are placed, slope benching shall be provided if natural grade is over 5 horizontal to 1 vertical. Benching shall be a minimum of 5' width, 15' in width at the toe with 5' exposed.
11. All existing fills shall be approved by the Grading Inspector or Soil Engineer or removed before any additional fills are added.
12. The existing irrigation lines and cisterns shall be removed, or crushed in place and backfilled, and approved by the Grading Inspector or Soil Engineer.
13. Approved erosion protection devices shall be provided and maintained during the rainy season and shall be in place at the end of each day's work.
14. Sanitary facilities shall be maintained on the site from beginning to completion of grading operations per City of Redondo Beach regulation on construction Sanitation Facility.
15. The location and protection of all utilities is the responsibility of the permittee.
16. The permittee shall notify the Engineering and Building Services when the grading operation is ready for rough grading inspection. When all work including installation of all drainage structures and protective devices has been completed and required reports have been submitted.
17. Grading inspection during installation is required for all drain devices. Fill terrace benches and fill slopes must be approved by the Soil Engineer and Design Engineer prior to terrace paving.
18. Drainage pipe that will underlay structures must be reinforced concrete or cast iron and the structure foundations must be engineered by a foundation engineer. The design engineer shall be responsible for deputy inspection during construction of the pipe and will certify to the stability and that the work was done to his satisfaction.
19. Submission of professional opinion that the subsoils have sufficient stability to hold the additional weight of the proposed fills without settlement that will cause damage to proposed improvements must be submitted to the Building Officials prior to placement of fill.
20. Approved erosion protection devices shall be provided and maintained for construction during the rainy season between November 1st and April 15th and shall be in place at the end of each day's work.

21. All trench backfills in slopes or level areas of private property shall be tested and certified by the site soil-testing firm. The soil certification shall include the stability of the backfill and that the compaction is 90% of the maximum dry density using the ASTM: D-1557-78.
22. All trench backfills in public property where private property structures or slopes bear on them for support shall be certified by the site soil-testing firm.
23. The Engineering Geologist shall maintain periodic inspections and submit a complete report and map upon completion of the rough grading.
24. All cut slopes shall be investigated both during and after grading by an Engineering Geologist to determine if any slope stability problem exists. Should excavation disclose any geological hazards or potential geological hazards, the Engineering Geologist shall recommend necessary treatment to the Building Official for approval.
25. Where support or buttressing of cut and natural slope is determined to be necessary by the Engineering Geologist and Soil Engineer, the Soil Engineer will submit design, location and calculations to the Building Officials prior to constructions. The Engineering Geologist and Soil Engineer will inspect and control the construction of the buttressing and certify to the stability of the slope and adjacent structures upon completion.
26. The design engineer shall exercise sufficient supervisory control during grading and construction to insure compliance with the approved plans.
27. A grading permit is required when grading/excavation involves a cut or fill depth of 3'-0" or more and/or 200 cubic yards. Submit grading plans and soils report to the Building Division for review and approval. Dust shall be controlled continuously by watering or by other approved means if excavation. Contractor shall notify the UNDERGROUND SERVICE ALERT (USA- 1-800-422-4133) prior to any excavation.
28. A shoring permit is required for any vertical cut or fill that is 5'-0" in height or over. Engineered shoring plans and calculation must be submitted to the Building Division for review and approval. Per section 3301.2 of the CBC, the holder of a shoring permit shall notify in writing all the owners of adjoining properties not less than 10 days before such excavation is to commence. An OSHA permit is also required, a copy of which shall be submitted to the Building Division. Shoring contractor shall notify the UNDERGROUND SERVICE ALERT (1-800-422-4133) prior to any excavation.

Best Management Practices For Construction Activities

1. All persons working at the site should obtain, read and understand the Best Management Practices pamphlet for the type(s) of construction being done.
2. Stockpiles of soil, demolition debris, cement, sand, top soil, etc. must be covered with a waterproof material or bermed to prevent being washed off site.
3. Fuels, oils, paints, solvents, and other liquid materials must be kept inside bermed areas. Spills must not be washed to the street.
4. Waste concrete must not be washed into street, storm drain catch basins, or public right-of-way. All dust and slurry from concrete cutting must be removed using a wet-dry vacuum or equivalent.
5. Trash and other construction solid wastes must be placed in a covered trash receptacle.
6. Eroded soil from disturbed slopes must be contained using berms, silt fences, setting basins, or good erosion management practices such as reseeding.
7. Wash water from cleaning construction vehicles and equipment must be kept on-site within a containment area.