

**CITY OF RANCHO PALOS VERDES  
GRADING PLANS CHECK  
GRADING DRAINAGE AND SHORING PLAN CHECK LIST  
310 265-7800**

<http://palosverdes.com/rpv/planning/building-safety>

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Address: \_\_\_\_\_ Plan Check # \_\_\_\_\_

Plan Check By: \_\_\_\_\_ Date: \_\_\_\_\_

**Circled Items Require Correction and/or Clarification**

Note: In space provided, please indicate where the correction appears on the plans.

**GRADING**

1. \_\_\_\_\_ Indicate the name, address and telephone number of the Architect and/or Engineer on plans. Architect and/or Engineer shall sign and wet stamp 2 sets on final plans.
2. \_\_\_\_\_ Show the North Arrow with plans drawn to scale and include numbering on each page.
3. \_\_\_\_\_ Show the legal description and street address on the plans.
4. \_\_\_\_\_ Add note on plans that all work is to comply with the 2013 California Building Code, Appendix J, and the requirements of the RPV Municipal Code available online at
5. \_\_\_\_\_ Clearly show all property lines, dimensions and bearings.
6. \_\_\_\_\_ Locate all existing and proposed structures.
7. \_\_\_\_\_ All slopes 2:1 (cut/fill) or greater specifically called out on plans.
8. \_\_\_\_\_ Please provide a cut/fill index which includes all grading quantities.
9. \_\_\_\_\_ Provide a Haul Route to be approved by the Public Works Department.
10. \_\_\_\_\_ Topographical survey of entire lot shall depict the natural grade, the grade as it currently exists, and the proposed finished grade. Survey must be signed by a land surveyor and must extend thirty (30) feet beyond the property lines except where the lot fronts on a street or unimproved street right-of-way, in which case the survey must extend to the centerline of same. Contours must be at one foot intervals.
11. \_\_\_\_\_ Show elevations of all improvements on the plot plan including the following:
  - \_\_\_\_\_ grading
  - \_\_\_\_\_ finish roof ridge
  - \_\_\_\_\_ roof sheathing
  - \_\_\_\_\_ patio slabs, decks, walks and driveways
  - \_\_\_\_\_ tops of retaining walls, property line walls, garden walls, fences
  - \_\_\_\_\_ swales, catch basins and other drainage devices

- 12.\_\_\_\_\_ Incorporate geotechnical engineering/geology recommendations into the grading plan including:
- \_\_\_\_\_ benching of fills
  - \_\_\_\_\_ subdrains
  - \_\_\_\_\_ terrace swales
  - \_\_\_\_\_ planting
  - \_\_\_\_\_ show a section through fills
  - \_\_\_\_\_ show cut/fill transitions and relation to proposed improvements
- 13.\_\_\_\_\_ Where slopes are steeper than five to one and the height is greater than 5 feet, benching into sound bedrock or other competent material is required as determined by soils engineer. Bench shall be 10 feet minimum in width. (NOTE ON PLANS).
- 14.\_\_\_\_\_ Provide details for any retaining walls that are required to complete the grading operation. Include french drains, top-of-wall swales and wall backfill material. Cross reference all detached yard retaining walls to appropriate details.
- 15.\_\_\_\_\_ Obtain geotechnical engineering report approval from the city soils consultant.
- 16.\_\_\_\_\_ Provide an engineering geotechnical and geology report signed by a registered engineering geologist. A review fee will be required by the City.
- 17.\_\_\_\_\_ Provide an erosion control and Sediment Retention Plan.
18. \_\_\_\_\_ Show Best Management Practices. Provide a storm water pollution prevention plan (**SWPP**) for sites of 1 acre or more.
- 19.\_\_\_\_\_ Show all on and off-site utilities, proposed tie-ins which affect or are affected by this project. Note on plans that contractor must contact utilities for tie-ins and contact public works for excavation in City property.
20. \_\_\_\_\_ Show closet fire hydrant, water meter and other sources of water. Give size and GPM on Fire Flow Availability Form (see attached).
- 21.\_\_\_\_\_ Detail dust control measures and specify that measures are to continue throughout the grading operation.
- 22.\_\_\_\_\_ Provide a bond or other security in accordance with RPVMC, Appendix 1 and J of the CBC.
- 23.\_\_\_\_\_ Please provide a note on plans: A pre-grading meeting shall be held prior to commencement of grading. This meeting shall be attended by the grading contractor, soils or geologic engineer, city inspector and the general /grading contractor and/or owner's representative and shall be held at the site prior to any grading.
- 24.\_\_\_\_\_ Incorporate final planning conditions of approval onto the plans. Print the Planning conditions onto the plans so they are made a part of the plan set.
- 25.\_\_\_\_\_ Incorporate the following notes on the plans:
- \_\_\_\_\_ All grading inspections must be made by the consulting geologist and geotechnical engineer.
  - \_\_\_\_\_ An as graded soils and geology report must be submitted and approved prior to building permit issuance.
  - \_\_\_\_\_ Foundation and/or retaining wall excavations must be inspected and approved by the consulting geologist and geotechnical engineer prior to placing of steel and concrete.

- 26.\_\_\_\_\_ Provide a note on plans that certification of grading and drainage shall be provided on city form which is available on the Building and Safety website at [www.palosverdes.com/rpv/planning/building-safety](http://www.palosverdes.com/rpv/planning/building-safety)
- 27.\_\_\_\_\_ Permits or approvals must be obtained or fees paid to the following agencies prior to permit issuance: ( ) geology and soils section approval of initial reports, ( ) Planning Department Stamp & Approval of Final Plans ( ) Geology Review Fee ( ) Cal-OSHA permit ( ) Public Works Department approval.  
( )Other \_\_\_\_\_
- 28.\_\_\_\_\_ Add note on plans that a final as-graded report shall include the following information:
- \_\_\_\_\_ Fill compaction and shear test data
  - \_\_\_\_\_ Location of the compaction and shear test data plotted on a copy of the grading plan.
  - \_\_\_\_\_ Amount of natural or existing fill removal if unsatisfactory materials have been encountered.
  - \_\_\_\_\_ Verification by the geotechnical engineer that the fill material shear values met or exceeded design values utilized in the geotechnical report.
  - \_\_\_\_\_ Items required as part of the conditions of grading plan approval.
  - \_\_\_\_\_ Any changed subsurface conditions requiring design changes.
  - \_\_\_\_\_ Analyses demonstrating that, based on any changed design, the site will be safe for the intended use and will be in conformance with state and county codes.
- 29.\_\_\_\_\_ Provide note on Plans “Certification of Waste Disposal shall be received on City form prior to Final.”

### **DRAINAGE**

- A)\_\_\_\_\_ Drainage plan check comments are not included since this is under separate review by outside consultant.
- 1.\_\_\_\_\_ Provide a plot plan and section showing lot drainage.
  - 2.\_\_\_\_\_ All drainage to be conveyed in a minimum 6 inch diameter rigid pipe. (Exception: 4 inch diameter rigid pipe allowed for downspout inlets.
  - 3.\_\_\_\_\_ Show size and locations of drains for planters and planter walls.
  - 4.\_\_\_\_\_ When collection basins are used, the plans shall note that basin grates shall be a minimum of 10” x 10” with 50% openings.
  - 5.\_\_\_\_\_ Interceptor drains are required at the top of manufactured slopes with details included.
  - 6.\_\_\_\_\_ Show roof drain downspouts, including flow line of outlets.
  - 7.\_\_\_\_\_ Drainage over a manufactured slope is not permitted except in approved devices.
  - 8.\_\_\_\_\_ All elevations adjacent to building must reflect 2% minimum, 21% maximum grade away from a building pad.
  - 9.\_\_\_\_\_ Energy dissipaters are required where drains discharge onto natural ground. If a rip-rap is to be used, specify class and size and provide detail.
  - 10.\_\_\_\_\_ All concentrated drainage exceeding 4% gradient requires non-erosive device.

- 11.\_\_\_\_\_ Show flow lines, show all elevations, show all swales and other drainage devices,
  - a) Show all drainage patterns on the plans, Show all drain dispersal to an approved location.
  - b) Show all elevations and drainage collection devices, pipe size, pipe material, and pipe thickness.
  - c) Show if any water from offsite enters the property.
  - d) Provide a legend on plans for any symbols or abbreviations shown on the plans.
- 12.\_\_\_\_\_ The maximum gradient for sheet flow is 10%.
- 13.\_\_\_\_\_ Specify planting of graded slopes.

**SHORING**

- 1.\_\_\_\_\_ No grading is approved within 3 feet of a property line.
- 2.\_\_\_\_\_ Show how neighboring properties will be supported during grading. Submit construction summary with timetable.
- 3.\_\_\_\_\_ Shoring and/or other means of support to be approved by project geotechnical and structural consultant.
- 4.\_\_\_\_\_ Note on plans: All required shoring shall be inspected and approved by the design professionals prior to commencement of project construction.
- 5.\_\_\_\_\_ Note on plans: Submittal of copy of valid Cal-OSHA permit is required prior to permit issuance.

**AdditionalComments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Responding to the above statement does not guarantee that the plans will be approved.  
 Responses to the above may raise further questions and require further changes of the plans.

**Corrections are complete when signed and dated by the plan checker.**

\_\_\_\_\_ Date  
 Plan Checker