



County of Orange

Resources & Development Management Department
Building Permits Division

Main Office
300 N. Flower Street
Santa Ana, CA 92702-4048

Grading Plan Check Corrections

Corrections shall be made on the tracings and three(3) new sets of plans shall be submitted. If you make changes to the plan other than or in addition to what Plan Check has requested, yellow highlight the changes on one set of the re-submitted plans.

Return the original check print with corrected plans. Payment of a new plan check deposit may be required for all plans on which no action is taken by the applicant for a period of 180 days. Applications for which no permit is issued within 180 days following the date of submittal shall expire by limitation, and shall be discarded.

Project Number: [Grading Correction List Library](#)

Submittal Date:

CBC Edition: 2000

Plan Check Date:

Description: Grading Correction
List Library

Current - 1st Plan Check

Plan Checked By

Plan Checker name here

Firstname.lastname@rdmd.ocgov.com

714-667-8888

714-667-8885 FAX

GENERAL INFORMATION

Please provide 24-hour notice to your plan checker, prior to obtaining the grading Permit. **Return the original check print with corrected plans.** Payment of a new plan check deposit may be required for all plans on which the applicant takes no action for a period of 180 days. Applications for which no permit is issued within 180 days following date of submittal shall expire by limitation, and shall be discarded.

SUBMITTALS, FEES, BOND, INSURANCE AND ISSUANCE

- Provide three (3) complete sets of corrected plans. Provide minimum 40-scale plan for precise grading. The maximum size shall be 36" x 42". All sheets shall be uniform size. Plans will not be rechecked at the counter. Allow one week for recheck.
- Plan check and inspection deposit amounts will be calculated by the plan checker based on earthwork quantities or drainage improvements, whichever is greater. The engineer shall provide this information.
- Surety is required in the amount of \$ _____. Surety may be posted in one of the following forms:
 - Bond
 - Certificate of Deposit
 - Letter of Credit
 - Cash or Cashier's Check


Personal/Company checks cannot be accepted. County approved forms for the various types of surety are available upon request at the Grading Counter, Station 4, Room 122. Please note all signatures must be notarized.


- Provide verification of contractor's coverage for Workman's Compensation insurance. If owner is doing work and will not employ other workers, owner must sign exemption statement.
- Owner or authorized agent and/or contractor must sign the permit at the time of issuance.
- Authorized agent must have a notarized statement from the owner authorizing the agent to act on behalf of the owner.
- The permittee and the entity providing the surety must be the same i.e., owner, developer or contractor.


Grading Plan Check Corrections

Sheet Comments

General

 **1** Incomplete Plans. Please resubmit completed plans. Your recheck will have a 10 day turnaround time.

 **2** A) Show Assigned project address on title sheet of plan.

 **3** B) Show site acreage and earthwork quantities on plans:

3.1 Site Acreage XXXXXX Acres


3.2 cut XXXX yds.

3.3 overexcavation XXXX yds.


3.4 fill XXXX yds.


3.5 import XXXX yds / export XXXX yds.

3.6 remedial XXXX yds.

 **4** C) Each sheet of all plan sets must be stamped and signed by the Civil Engineer or Architect of Record for the project.

 **5** D) Show location of all existing and proposed structures, buried tanks, and wells.

 **6** E) Submit an itemized summary of the unit and total cost of all drainage devices, grading, paving, and erosion control.

 **7** F) Show on Plans:

7.1 North Arrow

7.2 Scale

7.3 Grading Legend

7.4 Vicinity Map

7.5 Bldg Numbers

7.6 Record Tract or Parcel Map Lot Numbers

Grading Plan Check Corrections

Sheet Comments


7.7 Tentative Tract or Parcel Map Lot Numbers


7.8 Grading Limits


7.9 Permit Limits

7.10 Property Lines


7.11 Tract Boundary

 **8 G)** A notarized letter of permission from adjacent property owner(s) is required for slope encroachment or other off-site grading or work . Include off-site legal description and Assessor's Parcel Number.

 **9 H)** Show location of retaining walls on grading plan plus top of wall elevations, adjacent finished surface elevations, top of footing elevations, provide a cross section detail showing subdrain design, indicate drainage outlet for all retaining walls. Retaining walls are not a part of the grading permit. Submit for separate building permits; show connection of subdrain to storm drain. Note on plans.

 **10 I)** Show all cut/fill transitions and daylight lines.

 **11 J)** Show existing and proposed elevations using contours and/or spot elevations.


 **12 K)** Indicate disposition of excess earth materials. A separate permit may be required. Traffic Studies, Room 210, must approve haul routes over public roadways.


 **13 L)** Add the following to the plans:


13.1 Grading and erosion control notes. See attached sheets.

13.2 Detail sheets for ...

 **14 M)** Show street width and centerline. Include cross-section detail.

 **15 N)** Show all easements, (i.e. drainage, utilities, etc.).


 **16 O)** Extend existing contours or spot elevations to reflect off-site areas and identify drainage patterns.


 **17 P)** Planning Commission/Subdivision Committee review of grading plan(s) is required prior to issuance of grading permit. Submit 20 sets of pre-folded final plans (suitable for mailing), color coded, showing approved concept vs. proposed deviations, and a letter of explanation and justification. Also submit 20 sets of pre-folded tentative


Grading Plan Check Corrections

Sheet	Comments
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tract maps highlighting areas of proposed deviations.

 **18 Q)** Approved erosion control measures are to be installed and functional during the rainy season from October 15 to April 15. Justify design with hydrology and hydraulic calculations. Submit three (3) copies of an erosion control plan and a cost summary of erosion control facilities. If proposed grading will take place after April 15, continue to show erosion control plans. Grading may extend into the next rainy season.

 **19 R)** Show detail on plan how finished grades meet adjoining property.

 **20 S)** Show on title sheet of plans name, address, and telephone number of:

20.1 Owner

20.2 Soil Engineer


20.3 Archaeologist


20.4 Engineering Geologist


20.5 Civil Engineer


20.6 Architect


20.7 Paleontologist


 **21 T)** Show benchmark and basis of bearing (reference based on Orange County Surveyor vertical datum and recorded map or survey, respectively).

 **22 U)** Show percent grade of all driveways.

 **23 Z)** Show location of septic tanks and leach lines on the grading plan. A plumbing permit must be obtained from the Building Permits Division.

 **24 W)** Additional comments may be made after field verification that the plans and soils report accurately reflects existing conditions.

 **25 X)** Attach pertaining sheets from the "preliminary" plans to each set of "precise" plans.

 **26 Y)** The grading concept proposed appears to require a separate Site Development Permit. Verify with Current Planning at Station 1, Room 122. If not required, please provide name of Planner at Station 1, who made the determination and date

Grading Plan Check Corrections

Sheet	Comments
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of determination.

27 Z) Show location of sump pump on the grading plan. (Provide Brochure). An electrical and plumbing permit must be obtained from the Building Permits Division.

28 AA) Show handicapped parking and access details.

Drainage Instructions

29 A) Submittal of an agreement for Drainage Encumbrance is required from adjacent property owner(s) for acceptance of unnatural drainage. Include legal description and Assessor's Parcel Number. Applicant must have this document recorded. (Form enclosed).

30 B) Submit a hydrology study and/or hydraulic calculations for...

31 C) Show limits of Flood Plain and finish floor elevations per FP-2 requirements. OCFCD Section will verify required minimum finish floor elevation at (714) 834-5060.

32 D) Show existing off-site terrace and drainage features that could significantly affect the project.

33 E) Show typical detail for the 12" high by 4' wide berm, which is required at top of slopes.

34 F) Provide one (1) copy of recorded CC&R's outlining drainage rights and maintenance responsibilities.

35 G) Show location and provide details for all subdrain systems:

35.1 as recommended in the soil/geology report by ...dated ...

35.2 approved standard.

36 H) Maximum gradient for sheet flow is 10%.

37 I) Minimum, acceptable gradients:

37.1 Earth 1.00%

37.2 Asphaltic Concrete 1.00%

37.3 Concrete in earth 0.50%


Grading Plan Check Corrections


Sheet	Comments
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37.4 Concrete in A.C. 0.28%


37.5 Lots sales & preliminary grading 2.00%


37.6 Terrace Drains 6.00%

 **38 J)** Show plan and section details of typical lot drainage. Minimum 2%, maximum 21% away from a building pad to a swale is required.


 **39 K)** Show drainage conducted to a street, natural watercourse, or other approved location.


 **40 L)** Drainage over a manufactured slope is not permitted except in approved devices.


 **41 M)** Show limits of roof gutters and location of downspouts (if discharged onto A.C. paving or onto a finished grade, a P.C.C. splash block is required).

 **42 N)** Show details for interceptor drains (brow ditches) at top of manufactured slopes to intercept surface drainage.

 **43 O)** Show detail of cut off walls at inlet of all paved drains.


 **44 P)** Show plan and detail of velocity reducers (i.e. energy dissipaters) where drains discharges onto natural ground. If riprap is to be used, specify class, size and dimensions of cut off wall.


 **45 Q)** Show the approved non-erosive device where concentrated drainage exceeds 4% gradient. Use concrete, gunite, or other approved materials.


 **46 R)** Revise plans to show complete details of all drainage structures, i.e. ...

 **47 S)** Show concrete device in asphalt section to carry concentrated water.

 **48 T)** Show detail and locations of extra depth footings.

 **49 U)** Show a 7' setback from top of slope to building to accommodate graded drainage swale or 5' setback when an approved drainage device is used; lots...


 **50 V)** Show flow line elevations of all swales and other drainage devices.

 **51 W)** Show retaining wall subdrain details with disposal points, flow line elevations

Grading Plan Check Corrections


Sheet	Comments
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and pipe material.


 **52 X)** Show typical section of driveway and pavement section. Include type of surfacing material.


 **53 Y)** Show typical section of hardscape. Include type of surfacing material.


Slopes


 **54 A)** Provide structure/slope setbacks as outlined in the grading manual. See check print for specific non-compliance.


 **55 B)** Show detail of typical slope benching preparatory to fill placement.

 **56 C)** Provide a minimum 6' wide a terrace maximum interval of 30 feet measured vertically. Maximum paved width to be 5' and minimum 18" depth (flow line to top of paved section).


 **57 D)** Provide a minimum 12' wide terrace if slope exceeds 60 feet in height. Lowest terrace should be 12' wide when only two terraces are required. Show section detail.

 **58 E)** For slopes steeper than 20% (5:1), elimination of terracing will require Building Official approval. Terraces are required in accordance with the Orange County Grading Code for any slope steeper than 10% unless the soils engineer can justify steeper slopes without terracing due to non-erosive character of soil.

 **59 F)** Show a downdrain for every single run of terrace drain that collects run-off from a slope watershed area of 13,500 sq. feet.

 **60 G)** Show the proposed location and fully dimensioned cross sectional details of all buttress fills recommended by the project soils engineer and/or engineering geologist.

 **61 H)** Show top and toe of cut and fill slopes.

 **62 I)** Incorporate the following hillside design criteria or justify in writing why it does not apply to your project:

62.1 Slope rounding.

62.2 Slope contouring at daylight line.

62.3 Undulating slopes with a minimum of long, flat, inclined planes and acute angles.

Grading Plan Check Corrections

Sheet	Comments
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62.4 Max slope height; Type B - 35 Feet. Type C - 20 Feet.

62.5 10 foot bench exclusive of drainage facilities.

62.6 Manufactured (cut and fill) slopes shall have a maximum slope ratio of 2:1.



63 J) Submit report/calculations for the proposed segmental retaining walls(s). See attached for details.

Geotechnical



64 A) Obtain approval of soils and geology report by County Geotechnical staff. Reports have been forwarded for their review.



65 B) Show rock disposal areas on the plans and provide details as recommended by the project soil engineer.



66 C) Show areas of overexcavation and recompaction as recommended by the soil engineer. Detail and show volume as separate item where depth exceeds 12 inches. Soil engineer shall verify recommended compaction in his final report.



67 D) Your soil report recommends two (2) or more options of site development. Show which option will be used on plan.

