

**Public Works Department** 

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Approved By:

Robert Yalda - Public Works Director/City Engineer

# "GUIDELINES FOR GRADING PLAN PREPARATION"

## All grading plans submitted to the City shall include:

- 1. Provide vicinity map on first sheet.
- 2. Reference the benchmark and corresponding vertical datum on the first sheet.
- 3. Provide north arrow and common Engineering drawing scale(s) graphically and with text on all sheets. Note: Architectural scales will not be accepted.
- 4. Provide project legal description on the first sheet. Provide 1' minor with 5' major contour lines for sites with slopes less than 4:1, and 2' minor with 10' major contour lines for sites with slopes steeper than 4:1. Extend topographic data at least 50' beyond project boundaries, additional topographic data may be required to illustrate drainage features, slopes, etc. per reviewer / city engineer's requirements.
- 5. Show all street names on the plans. Identify all easements. Provide sufficient street illustration including spot elevations, location of existing curbs, flow lines, sidewalks, drainage structures, HP/LP's, etc. that are relevant to the development of the proposed project.
- 6. Reference all existing and proposed easements including instrument numbers by note (legal description) and plot on the plans based on a title report produced within 6 months of grading plans submittal date.
- 7. Show typical and specify grading cross-sections when appropriate at common Engineering drawing scale(s) on all sheets. If vertical scales differ from horizontal, please provide both scales graphically and with text. Note: Architectural scales will not be accepted.
- 8. Indicate all retaining walls on plans with labels indicating wall height, top of wall elevation, finished grade or finished surface elevation, and where applicable existing grade elevation. Provide retaining wall details including wall height, top of wall elevation and finish grade elevation. Retaining wall heights shall not exceed 6' maximum height.

- 9. Indicate on plans all cut and fill slopes, including buttress fills. Cut/Fill slopes shall not exceed a surface gradient steeper than 2:1 per Section 15.11.020(B)(1) & 15.11.020(C)(8) of Calabasas Municipal Code.
- 10. Show limits of over excavation required by the Soils/Geologic Report on the plans.
- 11. Show all sub-drains, labeled with inlet or top of grate elevation, and invert elevations. Show all onsite drainage facilities and pipes. For all pipes, label slope as, s=0.XXXX, along each significant length of pipe. Provide invert elevation labels at all pipe junctions. Provide adequate contaminant filtration of on-site water per NPDES guidelines.
- 12. Show all pad elevations and finished floor elevation (where known).
- 13. Identify all top of slopes, daylight lines and cut/fill lines.
- 14. Original approved plans shall be produced on 2 sets of bonded copies with indigo ink or pen plotted.
- 15. Plans shall be 24" x 36" in size.
- 16. Add the Standard Grading Notes to the first sheet of the plan.
- 17. Provide total cut, fill, import, and export quantities on first sheet of the plan.
- 18. Standard City Title Sheet may be obtained from the city website as listed below:

## http://www.cityofcalabasas.com/departments/engineering.html

- 19. Provide grading cross-sections at property lines to clarify transitions between existing and proposed grades.
- 20. Show location of all existing utilities (water, sewer, storm drain, electrical, etc.), fire hydrants, street lighting, etc.
- 21. Provide surface drainage slopes and drainage paths around all structures (Label all surface drainage as XX.X %). Ensure 5% min. from structure along pervious surfaces and 2% min. from structure along impervious surfaces per CBC 1803.3 (within 10' of the structure).
- 22. Verify and Label all setbacks distances per Geotechnical Report.
- 23. Include original stamps and signature of Civil Engineer and Geologist/Geotechnical Engineer.

## **STANDARD GRADING NOTES:**

## **Preconstruction Meeting**

Prior to the start of work, the contractor shall conduct a preconstruction meeting with the City. The contractor shall be responsible for setting the meeting time, date and location and notifying City staff at

least one week in advance of the meeting. Please contact the City of Calabasas Public Works Department at (818) 224-1600.

#### **Storm Water/NPDES Notes**

- 1. During the term of this permit, the Contractor, their employees, and subcontractors shall implement appropriate best management practices (BMPs) to prevent pollution to local waterways. Sediment, construction debris, paint, trash, concrete truck wash water and other chemical waste from construction sites left on the ground and streets unprotected, or washed in storm drains, causes pollution in local waterways via the storm drain system. Discharging pollutants of any kind into the storm drain system is against City ordinance and State law. The BMPs implemented shall be consistent with Calabasas Municipal Code 8.28, the approved storm water pollution prevention plan/urban runoff mitigation plan, and the erosion control plan for the project, which shall be on site at all times. Failure to implement appropriate BMPs shall result in project delays through City-issued stop work notices and/or fines levied against the contractor. For information, please contact the City's Environmental Services Manager at (818) 224-1600.
- 2. Storm damage prevention measures or prevention devices required by the City shall be installed by October 1 or as grading progresses and maintained until April 15 of the succeeding year or unless early removal is agreed to by the Environmental Services Manager.

## **Required Permits**

- 1. A copy of the grading permit and the approved grading plans must be in the possession of a responsible person and available at the site at all times. Any modifications of or changes in approved grading plans must be approved by the City prior to the start of work.
- 2. A permit to operate in Fire Zone 4 must be obtained from the Fire Department prior to commencing work. Call (818) 880-0341 for more information.
- 3. A State Notice of Intent (NOI), corresponding WDID number, and Storm Water Pollution Prevention Plan (SWPPP) shall be in the possession of a responsible person and available at the site at all times during construction operations for sites one acre or greater.
- 4. Secure permission from the Army Corps of Engineers to perform work in the stream or river. Attach Form 404 from the Corps of Engineers.
- 5. Obtain a California State Fish and Game Permit to perform work in the stream or river. Attach a copy of the Fish and Game Permit (Form 1603).
- 6. The retaining wall details shown on the plans shall be constructed by separate building permit.
- 7. All construction and grading within any storm drain easements shall be done per storm drain plan under separate permit from the City and Los Angeles County.

## **GENERAL NOTES**

- 1. The permittee or his agent shall notify the Public Works Department at least one working day in advance of required inspections at the following stages of work:
  - A. <u>INITIAL</u>: When the site has been cleared or vegetation and unapproved fill and it has been sacrified, benched or otherwise prepared for fill. No fill shall have been placed prior to this inspection.
  - B. <u>ROUGH</u>: When approximate final elevations have been established; drainage terraces, swales and berms installed at the top of the slopes; and the statements required by the consultants have been submitted.
  - C. <u>FINAL</u>: When grading has been completed; all drainage devices installed; slope established; irrigation systems installed; and the as-built plans, required statements and reports have been submitted and approved.
- 2. All storm drain work is to be done under continuous inspection by the field engineer. Weekly status reports shall be submitted by the field engineer to the Public Works Department.
- 3. Final grading must be approved before occupancy of buildings will be allowed.
- 4. Separate plans for temporary drainage and erosion control measures to be used during the rainy season must be submitted prior to October 1. The erosion control devices shown on said plan must be installed by no later than October 1, and maintained in operable condition until April 15 of the following year.
- 5. A preventive program to protect the slopes from potential damage from burrowing rodents is required. Owner to inspect slopes periodically for evidence of burrowing rodents and at first evidence of their existence shall employ exterminator for their removal.
- 6. Roof drainage must be diverted from graded slopes.
- 7. Grading in future street right-of-way must be inspected by the City.

## **Required Submittal**

- 1. The location of all sub-drain outlets shall be surveyed for line and elevation and shown on an as-built grading plan, which shall be submitted to the City.
- 2. The grading contractor shall submit the statement required at the completion of rough grading.
- 3. Grading operations must be conducted under periodic geologic inspection with monthly inspection reports to be submitted to the Public Works Department.

## **Construction Notes**

- 1. The field engineer must set drainage stakes for all drainage devices.
- 2. All grading sites must have drainage swales, berms, and other drainage devices approved at the rough grading stage.

- 3. Fills shall be compacted throughout their full extent to a minimum of 90 percent of maximum dry density per Section 15.11.020(C)(7) as determined by A.S.T.M. Soil Compaction Test D1557, where applicable; where not applicable, a test acceptable to the City Engineer shall be used. Field Density shall be determined by a method acceptable to the City Engineer.
- 4. Sufficient tests of the fill soils shall be made to determine the density thereof. The minimum number of tests shall be as follows:
  - a. One test for each two-foot vertical lift.
  - b. One test for each 1,000 cubic yards of material placed.
  - c. One test at the location of the final fill slope for each building site (lot) in each four-foot vertical lift or portion thereof.
  - d. One test in the vicinity of each building pad for each four-foot vertical lift or portion thereof.

Sufficient tests of fill soils shall be made to verify compliance of the soil properties with the testing requirements including soil types and shear strengths. The results of such testing shall be included in the reports required by Section 15.10.090.

- 5. No fill shall be placed until stripping of vegetation, removal of unsuitable soils, and installation of sub-drains (if any) have been inspected and approved by the geotechnical engineer per 15.11.020(C)(2)
- 6. Continuous inspection by the geotechnical engineer or responsible representative shall be provided during all sub-drain installations. A detailed map and survey will be supplied to the City for location of all sub-drain per Section 15.11.020(C)(2).
- 7. Fill slopes in excess of 2:1 steepness ratio is not permitted without prior variance approval and / or approval from the City Engineer. If slopes steeper than 2:1 are approved, they are to be constructed by the placement of soil at sufficient distance beyond the proposed finish slope to allow compaction equipment to be operated at the outer limits of the final slope surface. The excess fill is to be removed prior to completion of rough grading. (Other construction procedures may be used when it is demonstrated to the satisfaction of the City Engineer that the angle for slope, construction method, and other factors will have equivalent effect.)
- 8. Continuous inspection by the geotechnical engineer or responsible representative shall be provided during the preparation of the natural ground and the placement and compaction of fill. The fill shall be placed to the satisfaction of the geotechnical engineer or responsible representative. The geotechnical engineer or responsible representative shall verify that the placement of said fill is being performed in accordance with the plan(s) and applicable code requirements per Section 15.11.080.
- 9. Note location of any uncompacted / unsuitable fills on plan. Fills are uncompacted and unsuitable for the support of structure. (This note also appears prominently on the plan near the uncompacted fill area.)