



CITY OF LOS ANGELES GRADING PLAN CHECK LIST

Plan Check No. _____ Plan Check Expiration Date 18 months from submittal date

PCIS# (s): _____

Job Address: _____

Applicant _____ Phone _____ E-Mail _____

Plan Check Engineer _____ Date _____ Telephone _____

Your application for a permit, together with plans and specifications, have been examined and the issuance of a permit is withheld for the reasons set forth. The approval of plans and specifications does not permit the violation of any section of the Building Code, or other local ordinance or state law. The symbol * indicates that the item is uniformly used by many local jurisdictions in the Los Angeles County region as part of the Los Angeles Regional Uniform Code Program (LARUCP).

The symbol ** is used to indicate when a note is required on the plans.

INSTRUCTIONS:

- Show in the space adjacent to each correction marked . -- the detail number or note and plan or calculations page number showing where and how the correction has been addressed.
- Return the checked set of plans and calculations along with this correction sheet to the verification appointment. Do not schedule a verification until all corrections have been addressed. Call the plan check engineer if clarification is needed.
- In the left hand margin of the checked corrections, please indicate the sheet number and detail or note number on the plans where the corrections are made. Additionally, Incorporate all comments as marked on the checked set of plans and calculations.

A. APPLICATION~

- 9 1 Complete and / or correct the information on permit application. Revise and modify as necessary.~
- 9 2 Provide complete legal description for entire site from City Clerk Land Records section room 730, 201 N Figueroa St. Must be approved by Carthography at 3rd floor, #20.~
- 9 3 Obtain computer clearances as shown on the

attached clearance sheet. Early attention is suggested because of potential delays.~

- 9 4 Provide a reduced plot plan [7"x9"] for the attached plot plan sheet to show proposed work. Must agree with plans.~
- 9 5 A grading bond is required to be posted for projects involving over 250 CY in "Hillside Grading Area". See the attached Bond Instructions and Bond Forms. Sec. 7006.5~
- 9 6 Permit application to be signed by property owner, licensed contractor, or authorized agent at

the time of issuance:~

B. GENERAL~

- 9 -FOR OWNER-BUILDER PERMITS: Owner's signature must be notarized or verified by personal identification. Grading involving over 100 CY and over 5 feet in vertical depth must be done by a licensed contractor . Sec. 106.1.2~
- 9 -FOR CONTRACTOR PERMITS provide the following:
 - 1) Certificate of Worker Compensation Insurance,
 - 2) City tax registration certificate,
 - 3) Contractors license or pocket ID,
 - 4) Notarized letter of authorization for agents.~
- 9 7 Affidavit required for [lot-tie][Maintenance of building] [_____]. Complete, sign and notarized. Two copies of each affidavit must be approved by the Department prior to recording. Return certified recorded copy.~
- 9 8 Comply with Notification requirements for grading over 1000 cu.yd. in the "Hillside Grading Area". Notices must be mailed 10 days prior to permit issuance. 106.4.6~
- 9 9 Obtain a separate permit for [shoring] [demolition][block walls][use of land] [building alterations].~
- 9 10 Comply with the following *Storm Water Pollution Prevention Plan [SWPPP]*, see attachments:
 - a. For General Construction Permit Projects [disturbed soil of 5 acres or more], the owner to file a Notice Of Intent with the Division of Water Quality of State Water Resources Control Board and prepare a SWPPP. PCIS- State SWPPP.
 - b. For Construction Priority Projects [project over 2 acres but less than 5acres or located within *environmental sensitive areas* or *designated hillside areas*] complete local SWPPP and certification per attachment B. Attach to final field set of plans. PCIS -Local SWPPP
 - c. For Construction Projects [project 2 acres or less] comply with minimum standards, complete attachment A and attach to final field set of plans.~
- 9 1 File [3] copies of soils engineering and geologist reports with the Metro Grading Division for review. Sec 7006.2 [over 5000c.y.]~
- 9 2 For retaining walls and/or shoring, provide engineering calculations and complete construction details on plans.~
- 9 3 Show compliance with the corrections noted on the Grading Pre-Inspection report dated (). Sec. 91.107.3.2~
- 9 4 A 30-day notification is required for removal of lateral support of adjoining properties [See enclosed letter].~
- 9 5 Complete *Haul Route memo* for export/import over 200 CY.~
- 9 6 A Public hearing is required for import or export of earth material in excess of 1000 CY in "Hillside Grading Area". Processing time is a minimum of six weeks. Sec. 7006.7~
- 9 7 Projects with cut or fill over 20,000 CY on a site steeper than 10% require a CEQA clearance from City Planning.~
- 9 8 Site is located within a "Special [fault] Studies Zone" designated by the State which requires a geological-seismic report to address potential surface fault rupture. RGA 1-77~
- 9 9 Provide copy of permit from California Division of Industrial Safety for excavations or trenches over 5 feet vertical cuts or work that may jeopardize workers.~
- 9 10 Property is located within a "Flood Hazard Zone". Grading for project must comply with Flood Hazard Management Specific Plan Guidelines. MGD #63~
- 9 11 Note on plan [GOH]: "Registered Deputy Grading Inspector is required on grading and foundation earthwork where (site exceeds 60,000 s.f.) (cut or fill slopes exceeds 2:1) (cuts exceed 40 ft. in height and within 20 ft. of a property line) (foundation excavation below a 1:1 plane from property line) (projects involve unusual hazards)."

Sec.91.1701.5~

- 9 12 Note on plans: "A Registered deputy Grading Inspector is required on all shoring work including slot-cuts Sec. 1701.5"~
- 9 13 ** "Continuous inspection by the soils engineer/ geologist is required for _____."~
- 9 14 Provide a copy of approved soil/geology report(s). Comply with the report recommendations and conditions of approval from department letter.~

C. PLANS~

- 9 1 Provide 2 / 3 complete final sets of plans.~
- 9 2 Provide vicinity map of scale 1" equals 400' and grading plan 1" equals 40'. For tentative tracts and parcel maps show all proposed lots and future property lines.~
- 9 3 Provide a complete plot plan, SHOW: tract and lot numbers, lot dimensions, street names, north arrow, scale of plans and tract/property boundaries, existing and proposed contours, top and toe of slopes, daylight lines, slope angles and designation, dimensions of drainage terraces and location of retaining walls. Sec. 91.7006.1~
- 9 4 The following information must be provided on final plans:~
 - 9 a. Name and address of property owner.~
 - 9 b. Name and phone number of responsible owner's agent.~
 - 9 c. Civil engineer responsible for grading plan.
 - 9 d. Soils engineer and/or Geologist responsible for approved reports.~
 - 9 f. Earthwork quantities in cubic yards for cut, fill, import or export. ~
 - 9 g. Job address for each site including off-site areas.~
 - 9 h. Complete legal description for all lots involved.~
- 9 5 Add the following general Grading notes to the final plans **:~
 - 9 a. "General Specifications For All Grading Plans"

- Department Building and Safety form B-164 is a part of the plans.~

- 9 b. All grading slopes shall be planted and sprinklered. Sec. 91.7012.1~
- 9 c. Standard 12 inch high berm is required at top of all graded slopes. Sec. 91.7013.3~
- 9 d. No fill to be placed, until the city grading inspector has inspected and approved the bottom excavation.~
- 9 e. Man-made fill shall be compacted to a minimum relative compaction of 90%. Cohesionless soils with less than 15% finer than .005 mm require 95% compaction. Sec. 91.7011.3~
- 9 f. *Temporary erosion control* to be installed between November 1 and April 15." Obtain Grading Inspector's and Department of Public Works approval of proposed procedures. [>200 CY] Sec. 91.7007.1~
- 9 6 Add copy of approval letters from *Building and Safety* and *City Planning* as notes to the final plans.~
- 9 7 Final plans and calculations must be signed by a registered Civil Engineer. Sec. 91.7006.1~
- 9 8 The following statement signed by both the soils engineer and geologist, shall be on the final plans: "*This plan has been reviewed and conforms to recommendations of soils engineering/geologic reports dated _____.*" Signature and date _____ .~
- 9 9 Provide cross-sections at slopes showing existing grades, proposed slopes, areas of cut or fill, retaining walls, structures and property boundaries. ~
- 9 10 Detail on plans the method of temporary excavations. Dimension max vertical cuts and show trim slope.~
- 9 11 Provide benching details for fill placed on slopes steeper than 5:1 as per an approved soils report. Sec. 91.7011.8~
- 9 12 Graded slopes are limited to a maximum slope of 2:1 [horizontal to vertical], unless it is specifically allowed in an approved Geo/Soil report. Sec. 91.7010.2/ 91.7011.2~
- 9 13 Toe of fill slopes not to be nearer to other *private properties* than one-half the height of the fill, with a minimum of 2 feet and a maximum of 20 feet. Sec. 91.7011.5~
- 9 14 Top of cut slopes not to be made nearer to *project boundary* than one-fifth the height of the slope, with a minimum of 2 feet and a maximum of 10 feet. Sec. 91.7010.3~
- 9 15 Buildings to be clear of ascending slopes exceeding 3:1 [H:V] a minimum of H/2 but need not exceed 15 ft. Sec. 1806.5.2~

- 9 16 Footings to be setback from descending slopes exceeding 3:1 [H:V] a minimum of H/3 but need not exceed 40 ft. Sec. 1806.5.3~
- 9 17 For fill slopes in excess of 100 feet [measured vertically from the toe to top of the fill].~
 - 9 a. Identify on plans all areas having such slopes.~
 - 9 b. Note on plans, "All fill slopes in excess of 100' in height must comply with the settlement control requirements of Sec.7011.3 before a building permit is issued. ~
- 9 18 Detail on plans driveway center line profile. Maximum grade is 20% for center line and 10% for cross fall. Transition zones required. (10% for the first & last 8')~
- 9 19 Show sections of fill with details of bottom keys and subdrain. Compacted fill to be placed on top of competent bearing material. Maximum variation between the shallowest and deepest area of fill under footing shall not be more than 15%~
- 9 20 No grading permit can be issued prior to the issuance of any building permits when site is located within area designated as *Grading Ordinance Hillside* and the adjoining street is substandard as determined by the Bureau of Engineering. Obtain approval from the Zoning Administrator. Zoning code sec.12.21A17(e)~
- 9 21 Note on plans: Retaining walls located closer to the property line than the height of the wall shall be backfilled not later than 10 days after construction of the wall and necessary structural supporting members unless recommended otherwise by responsible engineer.~
- 9 22 Locate the basement walls/retaining walls a minimum 12" away from the property line to accommodate the placement of the subdrain device.~
- 9 23 Obtain the modification approval from the Grading section for the following:~
 - 9 a use sump pump for site drainage in grading areas~
 - 9 b use sump pump in the basement to collect the surface runoff from the driveway ramp.~
 - 9 c use sump pump to reduce the hydrostatic

pressure behind basement walls when the groundwater is higher than the slab elevation.~

- 9 d Use of dispersal wall to convert site drainage to sheet flow per MGD 102.~

D. DRAINAGE~

- 9 1. Provide hydrology calculations to justify drainage design. Calculations shall be based on the proper 50-year isohyetal and the latest method adopted by the L.A. City Bureau of Engineering. Sec. 91.7013.6~
- 9 2 Detail pad elevations to provide minimum of 2% drainage to street. Sec. 91.7013.10~
- 9 3 Detail on plan methods proposed to intercept and carry off subsurface water.~
- 9 4 Show on plans: subdrains required for fill placed in natural water courses. Sec. 91.7013.8~
- 9 5 Provide 8' paved interceptor terrace drains at 25' vertical intervals. Drain gradients may vary from 5 to 12 percent, but changes in gradient must increase in the direction of flow. Sec. 91.7013.1~
- 9 6 Provide a 30' wide bench every 100' of slope height (cut or fill). Retaining walls are not allowed to reduce this height. Sec. 91.7010.1 / 91.7011.1~
- 9 7 Provide 6' paved diverter terraces along top of cut slope. Sec. 91.7013.2~
- 9 8 Single run of slope interceptor terraces are not to exceed 150' to a down drain. Sec. 91.7013.1~
- 9 9 Open channel down drains shall be designed by a Civil Engineer for a minimum capacity equal to four times the required pipe size. Sec. 91.7013..5.2~
- 9 10 Show existing drainage devices on adjacent tracts.~
- 9 11 Provide an approved outlet structure for all down drains. Structures to have velocity reducers, diversion walls, rip-rap, and concrete aprons. Sec. 91.7013.5.3 ~
- 9 12 Concentrated drainage to be discharged into an approved location. (Drainage required into street, natural watercourse, drainage easement or other

approved location.) Sec. 91.7013.9/.10/.11~

- 9 13 The use of dispersal wall to discharge water to unacceptable areas other than street or natural watercourse is not allowed.~
- 9 14 Drainage across interior lot lines creating *cross-lot drainage* is not permitted nor changes in the drainage pattern which alter or increase quantity which discharges to adjoining properties. MGD 102.~

E. BUTTRESS FILL~

- 9 1. Outline and distinguish all areas of buttress or stabilization fills on the plans.~
- 9 2. Provide cross-section and detail buttress fills on plans that conform with the approved recommendations of the Soils Engineer and Geologist, and/or Code Section 91.7015~
- 9 3. Detail on plans: the subdrains required to prevent hydrostatic pressure, as per an approved soils report.~
- 9 4. Provide blanket seals of relatively impervious material on cut pads above buttress fills where grading exposes the strata to infiltration of water. The blanket thickness shall be as specified by the soil engineer, 2 feet min. Sec. 91.7015.6~

F. OFF-SITE GRADING~

- 9 1. If off-site grading is under separate ownership, provide two copies of a notarized letter of permission from the adjacent owner. Letter shall include:
 - a. Legal description of parcel involved. (Cont'd)
 - b. A statement that owner has reviewed the grading plan prepared by _____ and dated ____.
 - c. Permission for the contractor and his successor to have added to the premises and permission to do the work as shown on plans.
 - d. Permission for the City to have access to the premises.
 - e. Agreement to maintain slope planting and irrigation systems.~

- 9 2. If off-site area is under same ownership, indicate on plans same ownership. Include on tract grading application legal description of off-site area.~
- 9 3. Show off-site areas on application plot plan.~
- 9 4. Separate grading permits are required for each lot within the limits of grading. Sec. 91.7006.6~

G. RETAINING WALLS~

- 9 A separate plancheck and/or permit is required for retaining walls. Submit structural details and design calculations. ~
- 9 2. Provide retaining wall details on plans, show: surface drains, subsurface drains, slope of backfill, tie at change in wall thickness and reinforcement.~
- 9 3 Provide a minimum Safety Factor of 1.5 against sliding and overturning. Sec. 91.1611.6~
- 9 4 A minimum of ____ ft. of freeboard is required.~
- 9 5 Basement walls and slab shall be waterproofed with an L.A. City approved waterproofing material.~
- 9 6 Provide material specifications for masonry, grout, mortar and concrete. Also specify any required continuous inspections per section 1701.5.~
- 9 7 Retaining walls located within required yards may not exceed the height permitted in the Zoning code.~
- 9 8 Provide a guardrail on top of walls for yard areas which drop more than 30 inches. Sec 509.~

H. SHORING~

- 9 1 Calculate the deflection of soldier piles and compare with the maximum allowable as specified in the approved soil or foundation report.~
- 9 2 Comply with requirements for shotcrete in section 1924.~
- 9 3 Comply with the Soil report recommendations

for permanent and temporary dewatering procedures.~

- 9 4 Design and detail required lagging.~
- 9 5 If tie-back anchors extend across the property line, a notarized letter is required from the adjacent property owner allowing the anchors to extend into their property. Approval from Public Works is required for encroachment of anchors into the public way.~
- 9 6 Obtain a separate permit for underpinning of adjacent structures where the lateral support is being removed.~
- 9 7 Shoring system is not allowed to support surcharge from adjacent structures without the recommendations of an approved report and evidence that the adjoining property owner has been notified in advance.~
- 9 8 Record a "Maintenance of Building Support" affidavit by the owner of the subject property which will inform future owners of the subject site that the lateral support of a portion of the building foundation on the adjoining property is provided by the subterranean walls of the building on the subject site. Affidavit must be approved prior to recording.~
- 9 9 Specify the Research Report number for tie-back system. Comply with approval conditions and attach a copy to the field set of plans.~
- 9 10 Provide material specifications for:~

- 9 a. Concrete/ gunite: strength and type~
- 9 b. Steel: structural, reinforcing, prestress rods or strands~
- 9 c. Wood: species, grade and decay resistance ~
- 9 d. Welding Rods~
- 9 11 Specify on plans continuous inspections for:~
 - 9 a. Concrete over 2500 psi~
 - 9 b. Installation of Tie-back anchors~
 - 9 c. Field welding~
 - 9 d. Excavation [by Soils Engineer]~
- 9 12 Specify & Detail on plans excavation, shoring installation and sequence of construction procedures~
- 9 13 The design criteria for shoring/building does not agree with the recommendations in the approved report and/or the Department approval letter.~

I. ADDITIONAL CORRECTIONS:~
