

4.0 GRADING

4.1 Grading Permit Procedures

All work done under the permit shall be performed by a licensed grading contractor (Classification "A" or Classification C-12).

1. Contractor/Developer shall fill out the Grading Permit Application. (All items shall be completed.)
2. The Grading Plan and Erosion Control Plan shall be approved prior to issuance of a permit.
3. Contractor/Developer shall supply certificates of insurance for general liability (unless absolutely no grading work within public right-of-way is being done or shown on the grading plan) and worker's compensation before permit is issued. Both certificates of insurance shall list City of Highland as certificate holder and mailed to City of Highland, Engineering Department, 27215 Base Line, Highland, California 92346. General liability insurance shall be a minimum of \$1 million coverage. See Section 16 for exact verbiage of the required endorsement adding the City of Highland as additional insured.
4. Contractor/Developer shall obtain a City Business License from Highland City Hall and provide a copy prior to issuance of permit.
5. Grading Bond equal to 30% of developer's Engineer's Cost Estimate shall be submitted when quantities exceed 5,000 cubic yards.
6. Contractor/Developer shall pay Grading Inspection and Erosion Control Deposits.
7. Obtain coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance and submit a Storm Water Pollution Prevention Plan (applies when disturbed area is one or more acres). Submit a copy of the Waste Discharger Identification Number (WDID) issued by the State Water Resources Control Board confirming coverage under the Construction General Permit prior to issuance of a grading permit.
8. Original Rough Grade Certifications and Compaction Reports must be on file prior to the issuance of fine grade permits.
9. Submit a traffic control plan, if required by the City Engineer, for review and approval.
10. Comply with the requirements of the City's Construction and Demolition Diversion Program. (If Applicable).

ENGINEERED GRADING CERTIFICATION FOR THE CITY OF HIGHLAND

Owner _____

Index No. _____

Job Address _____

Permit No. _____

Tract No. _____

ROUGH GRADING CERTIFICATION

By Soils Engineer

I certify that fills were installed upon properly prepared base material and compacted in compliance with the current City adopted edition of the C.B.C., and where the report of an engineering geologist has recommended the installation of buttress fills or other measures, such work has been completed in accordance with the approved design. I further certify that the rough grading work incorporates all recommendations contained in the report(s) for which I am responsible and all recommendations that I have made based on field inspection of the work and testing during grading.

Lot Nos. _____

See attached report for compaction test data, recommended allowable soils bearing values and other special recommendations.

EXPANSIVE SOILS Yes No Lot Nos. _____

Remarks: _____

Engineer _____ Reg. No. _____ Phone No. _____ Date: _____
Stamp, Signature & Expiration Date

By Grading Engineer

I certify that the rough grading has been completed in accordance with the approved plans including: grading to approximate final elevations; property lines staked; any swales and terraces complete per plans; berms installed; and any cut and fill slopes correctly graded and located in accordance with the approved plans.

Lot Nos. _____

Remarks: _____

Engineer _____ Reg. No. _____ Phone No. _____ Date: _____
Stamp, Signature & Expiration Date

FINAL GRADING CERTIFICATION

I certify that the grading has been satisfactorily completed in accordance with the approved plans. All required drainage devices have been installed and adequate provisions have been made for drainage of surface waters from each building site.

Lot Nos _____

Remarks: _____

Engineer _____ Reg. No. _____ Phone No. _____ Date: _____
Stamp, Signature & Expiration Date

STRUCTURES WITHIN FLOOD PLAIN REVIEW AREAS:

Lot Nos./Buildings, and Elevations of habitable floor (including basement, if any): _____

Engineer or Surveyor _____ Reg No. _____ Phone No. _____ Date: _____
Stamp, Signature & Expiration Date

I verify that the above lots/buildings' lowest habitable floors are properly above the floodplain elevation in accordance with Ordinance No. 79.

Building Official: _____ Date: _____

CITY OF HIGHLAND - APPLICATION FOR GRADING PERMIT

FOR APPLICANT TO FILL IN (PRINT OR TYPE)			Use Zone	Map No.			
Building Address	Construction Lender			Special Conditions			
City	Zip	Name and Branch					
Size of Lot	Address	City	Surety Bond \$				
Tract	Lot No.	Proposed Use of Graded Site(s)	Bond No.				
Owner	Tel. No.		Surety Company				
Address			Date Filed:				
City	Zip		Time Certificate \$				
Engineer	Tel. No.		Certificate No.				
Address	Check if Regular Grading	<input type="checkbox"/>	Date Filed:				
Contractor	Tel. No.	Check if Engineered Grading	<input type="checkbox"/>				
Address	Time Limit:	Bond Amount shall be 30% of Grading Contract Amount					
City	Zip	Extended To:	Bond <input type="checkbox"/> Yes <input type="checkbox"/> No				
License No.	License Class	Extended To:	Final Approval	Date	Inspector's Signature		
<p>I certify that I have read this application and state that the above information is correct. I agree to comply with all state laws relating to building construction, and hereby authorize representatives of this City to enter upon the above mentioned property for inspection purposes.</p> <p>Signature of Applicant or Agent _____ Date _____</p> <p>LICENSED CONTRACTOR'S DECLARATION I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.</p> <p>License Class _____ License Number _____ Date _____ Contractor _____</p> <p>OWNER-BUILDER DECLARATION I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code):</p> <p><input type="checkbox"/> I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code).</p> <p><input type="checkbox"/> I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code).</p> <p><input type="checkbox"/> I am exempt under Sec. _____, B. & P.C. for this reason</p> <p>Date _____ Owner _____</p> <p>WORKERS' COMPENSATION DECLARATION I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C.).</p> <p><input type="checkbox"/> Certified copy is hereby furnished Policy No. _____ Company _____</p> <p>Date _____ Applicant _____</p> <p>CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.</p> <p>Date _____ Applicant _____</p>			<p>MAIL ALL CORRESPONDENCE TO:</p> <p>CITY OF HIGHLAND ENGINEERING DEPARTMENT 27215 BASE LINE HIGHLAND, CA 92346</p>				
			Cubic Yards (Larger of Cut or Fill)				
			Inspection Deposit				
			Permit Approval: Number _____ Issued By: _____ Date: _____ City Engineer: _____ Date: _____ Paid \$ _____ Check No. _____ Job No. _____ START DATE: _____ EXPIRATION DATE: _____				

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4.2 Grading Plan Checklist and General Notes

Project: _____

Checked By: _____ Date: _____

Prepared By: _____ Date: _____

Items Required To Be Submitted:

- Complete Grading Plan (* see below)
- Preliminary Soils Report from Soils Engineer
- Plan Check and Inspection Fee
- Approved Water Quality Management Plan (Required prior to Grading Plan Approval)
- Grading bond, when required, equal to 30% of the grading contract and an erosion control deposit equal to 100% of the cost to implement erosion control measures shall be submitted prior to grading permit issuance.
- Drawings submitted for signature approvals must be either one of the following; plotted with indelible ink on 24"x36" double matte, three-mil thick mylar, or 24"x36" double matte, three mil thick Duplicate Photo Mylar of the original.

* All applicable provisions of current City adopted edition of the California Building Code shall be met prior to submitting the plan for review, including, but not limited to the following:

(Check When Completed For All Sheets)

- 1. Grading plan shall be signed and stamped by a registered civil engineer, or if less than 5,000 cubic yards and designated regular grading, a registered architect or registered landscape architect may sign, with prior approval from the City Engineer. Grading plans on parks and other projects that are in excess of 5,000 cubic yards may be signed by a registered landscape architect if the graded fills do not support structures and fills do not exceed 10 feet. Engineer, architect or landscape architect shall have current City Business License.
- 2. Printed name address, registration number and phone number of engineer or architect shall be shown on plans.
- 3. City Title Block on plan showing address, related case number, if any, and/or location of project. City Standard Title Block available at www.cityofhighland.org
- 4. The estimated volumes, in cubic yards, of cut and/or fill shall be shown on plan. Ultimate disposition of any excess dirt shall be stated on plan. Excess dirt removed outside the city limits shall comply with the applicable standards of the area it is moved to. Any location within the city limits used for disposal of excess dirt will require separate Grading Plan Review and issuance of a separate grading permit for that site.
- 5. City standard signature block on plan. On grading plans, provide signature lines for the City Engineer, Building and Safety, and Planning Departments to approve. On erosion

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control plans, provide signature lines for the City Engineer only. AutoCAD file drawings of the title blocks can be obtained from the Engineering department.

- 6. North arrow pointing up or to the right, engineering scale, and benchmark reference shall be shown on each plan. Benchmark shall be per City datum. Refer to Section 3 for Benchmark Datum.
- 7. Existing contours (maximum interval 2 feet) shall be shown and designated on plan and extend a minimum of 25 feet beyond the perimeter of the property. Also all topo on-site and adjacent topo within 15 feet of the perimeter of the property shall be shown and designated on plan. The effect the proposed grading will have on adjacent properties (cuts, fills, drainage, etc.) shall be shown on plans. Also any grading performed on adjacent private property will require a signed release from the adjacent legal owner.
- 8. Proposed final grades shall be clearly shown and designated on plans along with all cut and fill slopes (max. 2:1 slope). Slopes shall be clearly designated on plans with degree of slope being shown. Top of slope shall be located at property line with a 1' bench.
- 9. Details of any on-site drainage structures, walls, cribbing, surface protection, etc., shall be shown on plans.
- 10. Drainage shall not flow over retaining walls greater than 30" in height or from any tributary drainage area greater than 10', measured horizontally, from the wall regardless of wall height. When drainage is not allowed to flow over retaining walls, concrete v-ditches shall be installed at the back of wall to carry drainage to an approved drainage course. Apply waterproof coating or approved equal to all portions of walls retaining soil.
- 11. Slopes, max. 2:1, unless approved by the soils engineer (with accompanying data) and the Planning Department.
- 12. Do not drain over 2:1 slopes. Conform to the C.B.C. guidelines for terracing and interceptor drains.
- 13. Recommendations and conclusions in the Preliminary Soils Report shall be incorporated in the design of the grading plan.
- 14. Structural calculations shall be required for all non-standard walls.
- 15. Commercial/Industrial grading plans shall show location of roof drain outlets.
- 16. Graded drainage swales around building pads shall have a minimum grade of 1% and shall be located 10 feet from the pad in rear yards.
- 17. The building pad shall have a minimum slope of 2% toward the drainage swale. In addition, the high point of the swale shall be 0.3 feet minimum below the pad.
- 18. Rear yards shall have a minimum slope of 2% and a maximum of 8% toward the drainage swale.
- 19. Side yards shall have a minimum slope of 2% and a maximum of 20% from the building pad to the drainage swale. The flow line of the drainage swales shall be a minimum of 6" below the elevation at the adjacent property line.
- 20. A one foot bench shall be provided at the top of 2:1 slopes between lots.

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- 21. If extended footings are proposed, the additional depth and limits must be shown on the plan.
- 22. All Precise Grading Plans for commercial shall be drawn to 1" = 20' scale.
- 23. Show Air Conditioning Condensing Unit on each lot.
- 24. All yard drains shall be provided with an inlet fixture and shall outlet through the curb face.
- 25. Show Existing and Proposed Storm Drains and Easements within and adjacent to project boundaries.
- 26. Show Street Dimensions.
- 27. Show Public Utility Easements.
- 28. Maintain Minimum 1 foot between Property Line and top of "x" on drive approach.
- 29. Design Contours are required on all Commercial and Industrial Projects.
- 30. Driveway grades shall not exceed 12% at any location.
- 31. Show stoop at garage man door. Include a detail of deepened footing or step down to stoop when required to maintain maximum grades and flow line. (12" maximum grade difference or step is required).
- 32. Provide details for all non-standard handicap ramps.
- 33. Provide truncated domes where required.
- 34. Provide handrails where required.
- 35. Avoid zero curb face adjacent to vehicular travel ways.
- 36. Align cross walks with handicap ramps where applicable.
- 37. Pavement grades shall not exceed 2% in any direction within handicap parking areas.
- 38. Provide handicap accessible trash bin enclosure.
- 39. Show and specify handicap path of travel.
- 40. Provide minimum 8" cover over top of wall footings. Design retaining wall footings under retained area where possible.
- 41. Show minimum building setback dimensions from property lines on all sides per Planning Department requirements.
- 42. Comply with corner sight distance triangle requirements.
- 43. Minimum text height shall be 0.08".

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- 44. Combination retaining/garden walls require City Engineer and City Planner approval. Maximum overall height of walls is 6 feet, unless otherwise approved.
- 45. Comply with recommendations of the Water Quality Management Plan.
- 46. Minimum 6"x6", 10 ga. wwm reinforcing required in v-gutters, all locations.
- 47. Check Engineer's registration expiration date.
- 48. Walls and Fences are not permitted within Public Utility Easements.
- 49. Gates required for easement access.
- 50. The signature of the Soils Engineer with a statement that he or she has reviewed the plans and that the plans are in compliance with his or her recommendations shall be shown on the first sheet of the plans. See the following sample:

SOILS ENGINEER'S STATEMENT:

I, the undersigned Soils Engineer, have reviewed these plans and am satisfied that they are in compliance with the recommendations contained in the soils report prepared for this site, dated _____, 20 _____, and any amendments thereof.

By: _____

Registration No.: _____

Print Name: _____

Phone: _____ (Stamp)

- 51. The signature of the Geologist with a statement that he or she has reviewed the plans and that the plans are in compliance with his or her recommendations may be required to be shown on the first sheet of the plans. See the following sample:

GEOLOGIST'S STATEMENT:

I, the undersigned Geologist, have reviewed these plans and am satisfied that they are in compliance with the recommendations contained in the geology report prepared for this site, dated _____, 20 _____, and any amendments thereof.

By: _____

Registration No.: _____

Print Name: _____

Phone: _____ (Stamp)

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52. The Following Notes Are Required On Grading Plans:

GENERAL NOTES:

1. All grading shall conform to the current City adopted edition of the California Building Code and these provisions.
2. All provisions of the preliminary soils report prepared by _____, dated _____, 20____, shall be complied with during grading operations.
3. This plan is for grading purposes only. Approval of this plan does not constitute approval of driveway locations or sizes, parking lot layout, building locations, off-site drainage facilities or other items not related directly to the basic grading operation.
4. Certification (form provided by City) from the registered civil engineer and soils/geological engineer stating that the rough grading has been completed per the approved plan, and a compaction report from the soils engineer on any fill areas that are required shall be provided prior to building permits being issued.
5. Certification (form provided by City) from the registered civil engineer stating that the fine grading has been completed per the approved plan is required prior to occupancy permits being issued.
6. Contractor is responsible for erosion, dust, mud, silt, debris, and temporary drainage control during grading operations.
7. Any on-site retaining walls will require approval as part of these plans. Any necessary retaining walls on the perimeter of this site may be required to be in place and approved by the City Engineer prior to the start of grading. Approved sequenced grading with 1-1/2:1 maximum slopes to within 2 feet of the adjacent property line may be acceptable to allow for start of grading prior to completion of any necessary perimeter retaining walls. (If no retaining walls are shown on the plan, do not put this note on plan.)
8. Any improvement constructed in the public right of way will require separate plan approval and inspection from the City Engineer.
9. Any walls, fences, structures and/or appurtenances adjacent to this project shall be protected in place. If grading operations damage or adversely affect said items in any way, the contractor and/or developer is responsible for working out an acceptable solution to the satisfaction of the affected property owner(s).
10. The contractor/developer is responsible for ensuring that retaining walls do not interfere with provision of utilities.
11. It is the Contractor's responsibility to ensure that compaction has been attained on the entire grading site, including fill areas outside the building pads and on all fill slopes, to the satisfaction of the Soil's Engineer.
12. City approval of plans does not relieve the developer from the responsibility for correction or error or omission discovered during construction. Upon request, the required plan revisions shall be promptly submitted to the City Engineer for approval.

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13. It shall be the Contractor's responsibility to call the City Engineer's Office at (909) 864-8732, ext. 240, for inspection 24 hours prior to performing any work. Work performed without calling for inspection may be rejected and, if rejected, shall be removed solely at the Contractor's expense.
14. No grading shall commence without obtaining a Grading Permit and notifying the Grading Inspector to schedule a pre-grading meeting two working days prior to the start of work.
15. All active irrigation lines encountered during construction shall be replaced with 12-gauge dipped and wrapped welded steel pipe.
16. Prior to the start of grading all existing vegetation and debris, including existing structures, footings, foundations, rubble, trees and root systems shall be removed from the site to the satisfaction of the Soils Engineer.
17. After removal of debris, any existing fill or disturbed natural soils shall be excavated to the satisfaction of the Soils Engineer.
18. The exposed soils shall then be inspected by the Soils Engineer, and any additional over-excavation shall then be made in accordance with the Soils Engineer's recommendations and as contained in the Soils report.
19. The exposed soils shall then be scarified to provide a bond with new fill, brought to proper moisture content and compacted to at least 90% of the maximum density, as determined by ASTM D1557-78 or equivalent compaction shall be obtained by methods specified by the Soils Engineer.
20. If any unforeseen sub-surface structures are encountered during construction, they shall be immediately brought to the attention of the Soils Engineer before proceeding further.
21. The Soils Engineer shall also be responsible to verify and report that proper compaction has been obtained by subcontractors and agencies concerning utility line backfill including, but not limited to sewers, water lines, electrical, gas and landscape irrigation lines.
22. An as-graded grading plan and the certification of compliance forms for said grading plan with the proper stamps and signatures are to be submitted to the City Engineer prior to release of grading bond and prior to final grading inspection.
23. Any drive approaches shown on these plans shall conform to City of Highland standards. Note that 4' of sidewalk at a 2% slope shall be maintained behind drive approaches per Title 24 and ADA requirements.
24. The Contractor shall call in a location request to Underground Service Alert (USA), phone number 811, two working days before digging. No inspection will be provided by the City Engineer's office, and no construction permit issued involving excavation for underground facilities will be valid unless the applicant has been provided an inquiry identification number by USA.
25. For grading of areas of 1 acre or more, a Storm Water Pollution Prevention Plan (SWPPP) shall be kept on-site and made available upon request of a representative of the Regional Water Quality Control Board (RWQCB) - Santa Ana Region and/or the City of Highland. Prior to permit issuance, submittal of correspondence from the RWQCB stating the WDID number is required.

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26. For inspection purposes, the normal work day shall be considered as 7:00 a.m. to 3:30 p.m., Monday through Friday, excluding legal holidays recognized by the City. Neither the Subdivider, his contractors, nor his subcontractors shall perform any work outside the above enumerated working hours without the prior approval of the City Engineer, and the posting of a deposit in an amount determined by the City Engineer to be used as payment for overtime inspection services.
27. If the Developer is to install front yard landscaping, then said landscaping shall be installed prior to issuance of Certificates of Occupancy.