Grading and Erosion Control Standards

Resolution No. 4537

6/11/2013
City Of Hemet
Engineering Department

CITY OF HEMET

GRADING AND EROSION CONTROL STANDARDS

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CITY OF HEMET

GRADING AND EROSION CONTROL STANDARDS

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1. GENERAL PROVISIONS

1.1 Authority

In accordance with Grading, Sediment, and Erosion Control Ordinance, and Appendix J of the California Building Code as adopted, review of grading plans, issuance of permits and inspection of site grading and appurtenances within the City limits of the City of Hemet are under the jurisdiction of the City Engineer.

1.2 Purpose

The purpose of these Grading Standards is to provide additional information to the Grading, Erosion and Sediment Control Ordinance which regulates such operations, on private properties, within the City limits. Should any portion of these standards conflicts with the provisions of the Code, the Code provision shall govern.

2. GLOSSARY OF TERMS

The words and terms used in these standards shall have the following meanings.

"As Graded": The configuration of the site after the grading operations are completed. Horizontal and vertical dimensions shall be in conformance with the grading plan approved by the City Engineer.

"Approval": The work was completed in compliance with this Ordinance, in the City Engineer's opinion.

"Base": A layer of specified material and thickness placed below the paved surface.

"Bedrock": A relatively consolidated, hard, or unweathered formation that underlies the soils.

"Bench": A relatively level step excavated into earth material on which fills will be placed.

"Borrow": The soil material brought from an off-site location to grade the project site.

"Buttress Fill": An engineered fill designed to mitigate an adverse geologic condition.

"Certification": A signed written statement, by a registered professional, indicating that inspections and/or tests have been performed for the project site, and that the works are in compliance with the requirements of the plans, permit and this Chapter.

"City Engineer": The Director of Engineering/City Engineer of the City of Hemet, or his/her duly delegated representative.

"Civil Engineer": A professional engineer, registered in the State of California to practice civil engineering.

"Compaction": The mechanical densification of fill materials.

"Cut/Excavation": The removal of earth material by artificial means.

"Down Drain": A device for collecting water from a swale or a ditch located on a slope, and safely delivering it to an approved drainage facility.

"Erosion": The loss of ground surface as a result of the movement of water, wind or ice.

"Earth Material": Any natural soil, rock, fill or combination thereof.

"Expansive Soils": Those with an expansion index greater than twenty (20), determined in accordance with ASTM D 4829 and other requirements by the current California Building Code.

"Fill": The deposition of earth material by artificial means.

"Grade": The vertical location of the ground surface.

"Hillside": A site where the existing grade is twenty percent (20 %) or greater.

"Key": A compacted fill placed in a trench excavated in earth material beneath the toe of the slope.

"Record Drawings": The plans prepared by a licensed professional, and approved by the City, subsequent to the completion of the work and showing approved changes during construction.

"Slope": An inclined surface of fill, cut, or natural terrain.

"Stop Work Order": An order issued by a City official who requires that a specific activity be stopped.

"Storm Water Pollution Prevention Plan (SWPPP)": A document that meets the requirements of the State General Construction Storm Water Permit. The SWPPP shall describe the BMPs implemented to comply with this Ordinance.

"Sub-Base ": A layer of specified material and thickness placed between the base and the sub-grade.

"Sub-grade": The soil prepared to support structures or road sections.

"Terrace": A relatively level step constructed in the face of a graded slope, for drainage and maintenance purposes.

3. PERMIT AND APPLICATION

3.1 Grading Permit Application

The following items shall be completed and submitted by the applicant or his/her representative, when a grading permit is requested.

a. Application form
b. Three (3) sets of grading plans
c. Two (2) sets of erosion control plans
d. Two (2) sets of preliminary hydrology study
e. Two (2) sets of preliminary Water Quality Management Plan (WQMP), if applicable
f. Two (2) sets of preliminary soils/geotechnical report
g. Proof of filing a Notice Of Intent (NOI)
h. Grading security, if applicable
i. Plan check fees

3.2 Additional Clearances

Depending on the location of the site to be graded, written clearances from other agencies shall be required. Clearances from the following agencies, but not limited to, may be required:

a. City's Fire Department (for fuel modification areas, and blasting)
b. Riverside County Flood Control & Water Conservation District
c. Regional Water Quality Control Board
d. California Department of Fish and Game
e. U.S. Army Corps of Engineers

The applicant shall be responsible for submitting copies of the proposed grading plan to the corresponding agency and obtaining the appropriate clearances/permits.

3.3 Permits Required

A grading permit will be required from the office of the City Engineer for any grading operations if any one of the following conditions exist or will be created:

a. Any fill or excavation that exceeds 50-cubic yards on any one lot.

b. An excavation, which is: (1) more than 2-feet in depth or (2) an excavation, which creates a cut slope greater than 5-feet in height and steeper than two horizontal to one vertical (2:1).

c. A fill, which is: (1) greater than 1-foot in depth and placed on terrain with a natural slope flatter than 5 horizontal to 1 vertical, or (2) greater than 3-feet in depth, regardless of the natural terrain on which it is placed, which is intended to support structures.

d. Any back fill of an excavation, the purpose of which is the removal of an existing underground structure, like an underground fuel storage tank, or basement.

e. Any over excavation and re-compaction of a building site, which exceeds 3-feet in depth in accordance with the recommendations of a soils engineering report.

In no case shall the above provisions apply to an excavation below finish grade for basements and footings of a building or other structure authorized by an active building permit, or trench excavations for the purpose of installing underground utilities. This shall not exempt any fill made with the material from such excavation nor exempt any excavation having an unsupported height greater than 5-feet after the completion of such structure.

3.4 Permit Exemption

The following activities shall not require a grading permit:

a. Cemetery graves
b. Refuse disposal sites controlled by other regulations
c. Excavation for wells or utility trenches
d. Exploratory excavations directed by a registered professional

3.5 Process

SITE PLAN: Upon applications for a building permit from the City's Building and Safety Division, or upon application for a formal review of plans in accordance with City ordinance; a site plan shall be submitted to the Community Development Department.

A grading permit will be required if, upon review of the submitted site plan, it is determined that one or more of the conditions set forth in Section 3.3, above, exists.

PARKING LOT PLAN: The City Engineer has authority over the construction of on-site parking and vehicular storage areas due to the impact that these facilities have on access and circulations in adjacent City streets.

If the submitted site plan denotes areas of on-site vehicle storage or parking beyond that required for a single-family residence, an additional permit for on-site improvements will

be required. The On-site Improvement Permit will provide for plan check and construction inspection of on-site construction pertaining to vehicle parking and circulation including, but not limited to the following: curbs, gutters, ribbon-gutters, drainage devices, asphalt concrete and portland cement concrete pavement, aggregate base, soils compaction and Best Management Practices (BMP) for the Storm Water Pollution Prevention Plan (SWPPP).

WALL PLANS: A separate permit, from the City's Building and Safety Division, shall be required for construction of on-site garden walls, refuse dumpster enclosures and retaining walls.

4. DESIGN CRITERIA

4.1 Grading Plan Requirements

To obtain a grading permit, as required by the City Engineer, three sets of plans shall be submitted. The plans shall be prepared in a 24" x 36" format, to a scale no smaller than 1" = 40' and signed by a registered civil engineer.

The plan shall include, but not limited to, the following:

1. General vicinity map of the project.
2. The applicable general notes as shown on the file located in the City's website.
3. Property limits and accurate contours of existing ground and details of terrain and area drainage.
4. Limiting dimensions, elevations or finish contours to be achieved by the grading, proposed drainage channels and related construction.
5. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as part of, the proposed work together with a map showing the drainage area and the estimated runoff of the area served by any drains.
6. Locations of any buildings or structures on the property where the work is to be performed and the locations of any buildings or structures on the land of adjacent owners, which are within 15-feet of the property or which may be affected by the proposed grading operations.
7. Sections of the property at all boundaries to show the means of matching the grade of adjacent property and the configuration of drainage swales, terraces and devices.
8. The applicable standard notes as shown on the file located in the City's website.
9. Any other information appropriate to the particular.

In addition to the grading plans, the following documents shall be required:

a. Soils Report: The City Engineer shall require a soils investigation and soils engineering report which includes data regarding the nature, distribution and strength of existing soils; conclusions and recommendations for grading procedures; and design criteria for corrective measures when necessary. It shall

also include recommendations covering suitability of the sites to be developed by the proposed grading.

Recommendations included in the report and approved by the City Engineer shall be incorporated in the grading plan and so noted by signature of the Soils Engineer on the plan.

b. Engineering Geology Report: The City Engineer may require an engineering geologic investigation and report, which includes an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the sites to be developed by the proposed grading.

If a grading site is in a special hazards zone due to seismic activity, these concerns will be addressed in the Engineering Geology Report.

Recommendations included in the report and approved by the City Engineer shall be incorporated into the grading plan and so noted by the signature of the Engineering Geologist on the plan.

c. Security: A permit shall not be issued for grading involved more than 5,000-cubic yards unless the applicant shall first post, with the Engineering Department, a bond, cash deposit, or letter of credit from a financial institution subject to regulations of the State and/or Federal government in the same amount as required for a bond. Where unusual conditions or special hazards exist, the City Engineer may require a bond for grading involving less than 5,000-cubic yards.

The bond required by this section may include incidental off-site grading on property contiguous with the site to be developed, provided written consent of the owner of such contiguous property is filed with the City Engineer.

The amount of the bond shall cover one hundred percent (100%) of the cost of the cut and fill volumes, whichever is greater, and one hundred percent (100%) of the cost erosion control facilities, and drainage improvements being constructed.

The term of the required security shall begin at the time of the issuance of the grading permit and shall remain in place until the completion of the work, to the satisfaction of the City Engineer.

d. Off-Site Grading Letter: Whenever the developer of a parcel of land is required to do work outside of the legal limits of his/her property, it will be necessary to obtain written permission from the adjoining property owner(s). The letter shall contain the following information:

1. Description of affected property.
2. A statement certifying that the signatory is the owner of the subject off-site property.
3. Acknowledgement that the affected owner has reviewed the grading plan and consents to the proposed work.
4. The affected owner holds the City of Hemet free and clear of any liability for damages resulting from the proposed work.

The signatures on the letter shall be acknowledged before a notary public. Copies of the letter shall be submitted for recordation with the County Recorder prior to the issuance of a grading permit.

5. CUTS/EXCAVATIONS

5.1 Cut Slopes

These slopes shall not be steeper than two horizontal to one vertical (2:1) unless the owner furnishes a soils engineering geology report, or both, certifying that the site has been investigated and that a cut at a steeper slope will be stable and not create a hazard to public or private property. The City Engineer may require the excavation to be made with a cut fact flatter in slope than 2:1 if he/she finds it necessary for stability and safety.

6. FILLS

6.1 Fill Slopes

The steepness of fill slopes shall be determined by a Soil Engineer who shall submit soil test data and engineering calculations to substantiate to the satisfaction of the City Engineer the stability of the fill slope and slope surface under conditions of saturation. In the absence of such determination, no fill slope shall exceed a steepness of 2:1.

6.2 Preparation of Ground

The existing ground surface shall be prepared to receive fill by removing vegetation, non-complying fill or other incompetent material. No compacted fill shall be placed unless the underlying soil or bedrock has been investigated by the Soils Engineer and/or geologist and found to be capable of safely supporting the additional weight. Where the slope of the existing ground surface is five horizontal to one vertical or steeper, and the height of the fill is greater than 5-feet, the fill shall be supported on level benches cut into competent material. The bench under the toe of a fill over a slope greater than 5:1 shall be at least 10-feet wide.

Except where recommended by the Soils Engineer or Geologist as not being necessary, subdrains shall be provided under all fills placed in natural drainage courses and in other locations where seepage is evident. Such sub-drainage systems shall be of a material and design approved by the soils engineer and acceptable to the City Engineer. The

locations of the subdrains shall be recorded in plan and elevation by the Soils Engineer and shown on an as-built plan.

6.3 Fill Material

Detrimental amounts of organic material shall not be allowed in fills. The placement of rock or similar irreducible material shall be as follows:

a. Rocks with a maximum dimension of twelve (12) inches shall be placed ten (10) feet or more below grade, measured vertically.

b. Rocks greater than twelve (12) inches shall be placed so as completely surrounded by soils. No nesting of roads shall be permitted.

c. Prior to approval of the grading plan, potential rock disposal areas shall be identified.

6.4 Compaction

All fills shall be compacted throughout their full extent to a minimum of 90 percent of maximum density as determined by ASTM Soil Compaction Test D1557 Modified Proctor. Field density shall be determined by a method acceptable to the City Engineer.

6.5 Slopes to Receive Fill

Where fill is to be placed above the top of an existing or proposed cut or natural slope steeper than three horizontal to one vertical, the toe of the fill shall be set back from the top edge of the slope a minimum distance of 6-feet measured horizontally or such other distance as may be specifically recommended by a Soils Engineer or Engineering Geologist and approved by the City Engineer. Fills shall not toe out on slopes steeper than 2:1.

6.6 Inspection and Testing

The Soils Engineer shall provide sufficient inspection during fill placement and compaction operations to determine that such work is being performed in accordance with the conditions of plan approval and the requirements of these guidelines. Continuous inspection shall be provided by the soil engineer or his responsible representative for all fills that will exceed a vertical height of 20-feet or will result in a slope surface steeper than two horizontal to one vertical (2:1).

7. DRAINAGE AND TERRACING

7.1 Terraces for Cut/Fill Slopes

Cut slopes more than 40-feet in height and fill slopes more than 40-feet in height shall have drainage terraces provided at vertical intervals not to exceed 25-feet. For cut or fill slopes over 100-feet in height, one drainage terraced near mid-height shall be not less than 20-feet in width, 8-feet of which shall be paved. To maintain self-cleaning

characteristics, no terrace drain shall have a longitudinal grade less than 5%. Maximum allowable grade shall be 12%.

7.2 Downdrains

Downdrains shall be located on all terraced slopes so that (a) no point on a terrace drain is more than 300-feet from a downdrain or (b) at no point will the terrace drain intercept the drainage from a slope which has a horizontally projected area in excess of 15,000-square feet.

7.3 Interceptor Drains

Swales, berms or other devices shall be provided at the top of cut or fill slopes to prevent surface waters from overflowing onto and damaging the face of the slope.

IN NO CASE SHALL DRAINAGE BE ALLOWED TO FLOW OVER THE FACE OF A MANUFACTURED SLOPE THAT HAS STEEPNESS GREATER THAN 5 HORIZONTAL TO 1 VERTICAL (5:1).

7.4 Drainage Disposal

All drainage facilities shall be designed to carry waters to the nearest practicable drainage way approved by the City Engineer and/or appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of rip-rap, energy dissipaters or other approved devices.

Finished grades shall conform to the following minimum longitudinal gradients:

Earth swale/ditch	1.0%
Natural ground (sheet flow)	1.0%
Asphalt pavement	1.0%
Concrete gutter	0.5%

8. SETBACKS

8.1 Slope Location and Setback

Cut and fill slopes shall be set back from site boundaries and buildings shall be set back from cut or fill slopes in accordance with Figure J108.1 of the California Building Code.

The setback and other restrictions imposed by Figure J108.1 of the California Building Code may be increased where unusual soil or geologic conditions make such modifications necessary for safety or stability. Likewise, they may be modified upon investigations and recommendation by a Soil Engineer or Geologist and upon approval by the City Engineer, where such modifications will provide equivalent safety, stability and protection.

8.2 Planting of Slopes

The surface of all cut slopes more than 5-feet in height and fill slopes greater than 3-feet in height shall be protected against erosion damage by the planting with grass or ground cover plants. Slopes exceeding 15-feet in vertical height shall also be planted with shrubs spaced at not greater than 10-feet on center, or a combination of shrubs (10-feet on center) and trees (20-feet on center), in addition to the grass or ground cover plantings. The plants selected and planting methods used shall be suitable for the soil, climatic conditions of the site, and be approved.

8.3 Irrigation

Slopes required to be planted shall be provided with an approved system of irrigation designed to cover all portions of the slope. Plans for the proposed irrigation system shall be submitted and approve prior to the system installation. A functional test of the system shall be required.

9. INSPECTION

9.1 Grading Inspection and Supervision

The City Engineer, or his agent, shall inspect the grading operation at the various stages of the work to verify that adequate supervision is exercised by the soils consultants.

Prior to any clearing, brushing or grading, a pre-grading meeting held at the Engineering Department, shall be scheduled by the Applicant/Contractor. Prior to the placement of pavement base material or pouring any concrete, a meeting held onsite, shall be scheduled with the City Inspector. The Applicant/Contractor shall notify the Engineering Department, at least 72 hours prior to the meeting.

9.2 Regular Grading Inspection

The following inspections shall be performed during grading operations:

Initial. When the site has been cleared of vegetation and unapproved fills and scarified, bench or otherwise prepared, and before any fill is placed.

Over-Excavation: After the area has been excavated and prior to the placement of any fill.

Rough. When rough grading has been completed and approximate final elevations have been established: Drainage terraces, swales and other drainage devices graded ready for paving; and berms installed at the top of slopes.

Final. When grading has been completed: All drainage devices installed; slope planting established and irrigation systems installed.

On-going. Throughout the duration of the project, inspections shall be conducted to verify compliance with dust control, material processing, SWPPP, and import/export operations.

9.3 Paving Inspection

a. Sub-grade: Inspection shall be performed once the sub-grade has been established, tested and approved by the soils engineer. The soils engineer shall provide a field memo with the results of the compaction tests.

b. Base: Inspection shall be performed once the base has been placed, tested and approved by the soils engineer. The soils engineer shall provide a field memo with the results of the compaction tests. Material invoices shall be required.

c. Asphalt Concrete: Material invoices shall be required.

d. Striping: Parking stalls shall be stripped in conformance with current City Standards No. P-400 and P-401, available at the City's website (www.cityofhemet.org).

9.4 Drainage Structures

a. Concrete curb and gutter/ribbon gutter: Inspection shall verify the preparation of sub-grade and the placement of any reinforcement, if so required. The engineer/surveyor shall provide a field memo indicating that line and grade are set in accordance with the approved plans.

b. Terrace drains, brow ditches and down drains: Inspection shall verify the preparation of sub-grade and the placement of any reinforcing steel or welded wire mesh. The engineer/surveyor shall provide a field memo indicating that line and grade are set in accordance with the approved plans.

c. Storm drain lines and inlets: Inspections are conducted during trenching, placement of the storm drains, and prior to placement of backfill material. For inlets, it will be after placement of forms but prior to pouring concrete. In both cases, the engineer/surveyor shall provide a field memo indicating that line and grade are set in accordance with the approved plans.

d. Sub-drains: Inspections are conducted after excavation but prior to installation of filter material and pipe. Additional inspection shall be required before backfilling.

10. EROSION CONTROL / S.W.P.P.P.

10.1 Erosion Control Plan Requirements

To obtain a grading permit, as required by the City Engineer, three sets of plans shall be submitted as part of the Grading Plans. The plans shall be prepared in a 24" x 36" format, to a scale no smaller than 1" = 40' and signed by a registered civil engineer.

The plan shall include, but not limited to, the following:

a. General vicinity map of the project.
b. The applicable general notes as shown on the file located in the City's website.
c. The name and 24-hour telephone number of the person responsible for conducting emergency erosion control work.
d. Show all proposed sediment control devices (gravel bags, straw/hay bales, rumble plates, desilting ponds, filter fabric fences, energy dissipaters, etc)
e. The plan shall show the location, alignment, spacing and quantities of the proposed erosion and sediment control measures.
f. The plan shall show the desilting and erosion devices necessary to protect adjacent properties from being impacted by the project construction.
g. Comply with City, State, and Federal erosion control regulations

h. Any other information appropriate to the particular site.

10.2 Slope Planting

The faces of cut and fill slopes shall be prepared and maintained to control erosion and to provide stability.

Exception: Erosion control measures need not be provided on cut slopes not subject to erosion due to erosion-resistant character of materials.

Unless otherwise recommended in the approved soil engineering or engineering geology report, cut and fill slopes shall be planted in accordance with this section. The protection for the slopes shall be installed as soon as practicable and prior to calling for final permit approval.

All slopes equal to or greater than three feet in vertical height shall be planted with drought-tolerant grass or ground cover in order to protect the slope from erosion and instability. Other slopes as deemed necessary by the City Engineer shall also be planted.

Slopes exceeding 15 feet in vertical height shall be planted with drought-tolerant shrubs, spaced at no more than ten feet on center; or trees, spaced not to exceed 20 feet on center; or a combination of such shrubs and trees at

equivalent spacing, in addition to a drought-tolerant grass or ground cover. Fifty percent of the total number of trees provided shall be of a drought-tolerant nature and a minimum 15-gallon size. The plants selected and planting methods used shall be suitable for the soil and climatic conditions found on the site. The landscape design shall consider and locate plants in zones, according to their water needs. Plant materials and planting patterns may be varied upon the recommendations of a landscape architect or a slope control specialist with approval of the City Engineer.

If a species other than those from the recommended plants list provided by the street and park supervisor is selected, a written statement shall be submitted by a landscape architect or slope control specialist certifying that the plant is drought-tolerant and suitable for erosion control and slope stabilization purposes. This statement must accompany the grading plan at the time of submittal. Plant material shall be allowed that is specifically identified as being drought-tolerant and suitable for erosion control, slope stabilization, and hardy in local climatic conditions, on an erosion control landscape plan signed by a registered landscape architect.

10.3 Erosion-control Landscape Plan Requirements

Landscape plans shall be submitted for all slopes that are equal or higher than fifteen (15) feet. The landscape plan may be incorporated as part of the grading plan unless, in the opinion of the City Engineer, the plan becomes too obscured to be effective. A landscape plan shall include:

a. A slope planting schedule that provides common and scientific names and specifications of all plants, including the names of all species, number and size of each tree and shrub, and the spacing of each tree.

b. The location of the planting.

c. Erosion-control landscape plans shall be prepared and signed by a registered landscape architect.

10.4 Irrigation Plan Requirements

Except where approved by the City Engineer, slopes required to be planted shall be provided with an approved system of irrigation designed to cover all portions of the slope and shall be of sufficient clarity to indicate the extent of work proposed. The irrigation system shall have zones which take into account the water requirements of the different types of plant species located in the zone and shall be adjusted to vary the water within the zone in accordance with the needs of the plant material. Care shall be taken to minimize runoff. Turf areas shall be irrigated separately from slope areas. The irrigation system provided shall make use of automatic timers, moisture sensors and low precipitation heads or emitters. The use of a drip type irrigation system is highly recommended wherever possible. Seasonal irrigation requirements of the plant species proposed shall be determined and recommendations provided as to the duration

and frequency of irrigation. Specifications for proposed devices, size and type of pipe, flow and precipitation rates are to be included on the erosion-control landscape plan.

An approved backflow prevention device shall be installed in each irrigation system, which conforms to Chapter 6 of the Uniform Plumbing Code. Projects with access to or of sufficient size to economically justify the use of reclaimed water through use of a dual distribution system are encouraged to do so. Prior to approval, reclaimed water irrigation systems are subject to the approval of the State Water Quality Control Board.

10.5 Planting Method

Planting shall commence as soon as slopes are completed on any portion of the site and shall provide for rapid short-term coverage of the slope as well as long-term permanent coverage. Minimum requirements shall include:

a. Planting holes: Planting holes shall be excavated twice as wide as the diameter and two inches less than the depth of the root ball of the plant. The planting holes shall be backfilled with a mixture of native soil, slowly decomposing organic matter and an appropriate fertilizer. The construction of a watering basin at the base of all trees and shrubs at a distance encompassing the drip line is recommended in order to encourage deep percolation of irrigation. The application of mulch to the surface area of the watering basin will help minimize the amount of irrigation lost to evaporation. Commercially prepared mulch, wood chips, grass clippings or a combination of vegetal matter may be used in this regard.

b. Staking: Each tree shall be double staked in order to anchor the root system and to support the trunk in an upright position. Stake material shall be of adequate dimension and length to support the tree. Ties used for tying the tree to the stake shall have a broad surface to minimize rubbing or girdling and have some elasticity. In lieu of stakes, a three-wire, tie-down system may be used.

c. Ground cover spacing: Ground covers are to be spaced (12-inches on center) in such a manner that 100 percent coverage of the planted slope will be achieved in as short a time as possible.

The finish grading and drainage, provided on the adjacent all-planted slopes, shall promote healthy plant growth and minimize erosion and runoff.

10.6 Planting Maintenance

All vegetation planted for erosion control shall be maintained in a healthy, vigorous condition. Maintenance of slopes shall include watering, weeding and restoration of any plant material that may die. Slopes that are affected by the

future installation of walls, fences, swimming pools or any other building must be properly replanted upon the completion of subsequent projects.

10.7 Final Planting Inspection

A final planting inspection shall be required for all building sites requiring planting. For building sites not requiring a performance bond, the final planting inspection shall be approved prior to the building permit final inspection. Any required irrigation system and all planting shall be installed at the time of the final planting inspection. A function test of the irrigation system may be required. For building sites requiring a performance bond, slope certification required by the next subsection shall be approved prior to the building permit final inspection. The final planting inspection shall be performed at the end of the one-year bond period.

10.8 Slope Verification

A site inspection shall be performed by the responsible landscape architect to assure compliance with the approved plans and to perform a functional test of the sprinkler system. Said landscape architect shall verify in writing to the City Engineer that the soils, additives, amendments, weed control, planting of the slopes and the installation of the irrigation system comply to the approved plans and to all the provisions of this section. The verification shall contain a statement as to grow stock vitality.

APPENDIX A

GRADING APPLICATION FORM

CITY OF HEMET
ENGINEERING DEPARTMENT
445 E. FLORIDA AVENUE
HEMET, CA 92545
(951) 765-2360

GRADING SUBMITTAL APPLICATION

Project Address/Zip	
Parcel No/APN	
Project Case #	
Project Name	
Tract/Parcel Map #	
Type of Grading	□Mass □Rough □Precise □Stockpile □Borrow
Yardage Amounts	Amount Cut Amount Fill
Amount Exported	Amount Imported
APN Number(s)	
Acreage	
Number of Lots	
Estimated Start Date	Estimated Completion
24 Hour Contact Info	

SUBMITTED DOCUMENTATION

Grading Plan-3 Sets	□Yes	□No
Erosion Control - 2 Sets	□Yes	□No
Hydrology/Hydraulics 2	□Yes	□No
Conditions of Approval	□Yes	□No
NOI/WDID #	□Yes	□No
WQMP	□Yes	□No
SWPPP (5+ Acres)	□Yes	□No

OWNER INFORMATION

NAME	
TITLE	
COMPANY	
STREET ADDRESS	State ZIP
CITY	
PHONE	
FAX	
E-MAIL ADDRESS	

ENGINEER INFORMATION	
NAME	
TITLE	
COMPANY	
STREET ADDRESS	State ZIP
CITY	
PHONE	
FAX	
E-MAIL ADDRESS	
CONTRACTOR INFORMATION	
NAME	
TITLE	
COMPANY	
STREET ADDRESS	State ZIP
CITY	
PHONE	( )
FAX	( )
E-MAIL ADDRESS	
CONTRACTOR LIC #	Expiration Date
CITY BUSINESS LIC #	Expiration Date
APPLICANT INFORMATION	
NAME	
TITLE	
COMPANY	
STREET ADDRESS	State ZIP
CITY	
PHONE	( )
FAX	( )
EMAIL ADDRESS	
DEPOSIT AMOUNT	$
PAYMENT TYPE	□ Check No. □ Credit Card □Cash
SIGNATURE	
TITLE	
DATE	
Revised 6/12/08	

APPENDIX B

SECURITY FORMS

Irrevocable Letter of Credit

Bond

[ISSUER'S LETTERHEAD]

IRREVOCABLE LETTER OF CREDIT

Issued by: **[*Name of Bank*]**
[*Name of Bank Contact*]

Address: _____
_____
_____

Tel: (____) _____ **Ext.** _____
Fax: (____) _____

Amount: $_____

Date of Issue _____

Initial Expiry Date: _____, _____ ***subject to extension**
Final Expiry Date: _____, _____

Assignor: [*Developer*]

Beneficiary: **City of Hemet**
Attn: City Engineer

Address: **510 E. Florida Avenue**
Hemet, California 92543

Tel: **(951) 765-2360**
Fax: **(951) 765-3878**

Re: **Irrevocable Letter of Credit**
as Improvement Security under Cal. Gov. Code § 66499 (a) (3)
[*name of project*].

This Letter of Credit in the amount of _____ Dollars ($_____.00) is issued pursuant to that _____[*type of agreement*]_____ (Improvement Agreement") dated _____, by and between _____[*developer*], ("Assignor") and the City of Hemet ("Beneficiary") relating to that certain project more commonly known as __[*name of project*]__. This Letter of Credit is issued by [*name of bank*] ("Bank"), a federally regulated

bank, savings and loan, or other financial institution, in favor of Beneficiary on the following terms:

1. This Letter of Credit is an irrevocable commitment of funds by Bank and is not subject to recall or offset by Bank.

2. Bank shall hold in a restricted account or in otherwise immediately available funds, pending appropriate demand being made hereon, the loan proceeds, cash deposits, or other funds securing this Letter of Credit.

3. This Letter of Credit shall remain valid for an initial period of [number] (__) years from the date of issue. Provided, however, the term of this Letter of Credit shall be automatically extended without amendment, at Assignor's sole expense, for an additional [*number*] (__) year period from the present and each future expiration date, unless Bank elects to not renew the Letter of Credit for such additional period. Bank shall deliver notice, if at all, in writing at least sixty (60) days prior to the expiration of the term, to Beneficiary by registered mail, return receipt requested, or hand delivery, at the address provided herein for City. Upon delivery of such notice of non renewal, Beneficiary may draw upon the entire remaining amount of this Letter of Credit at any time prior to the then current expiration date. However, in no event shall this Letter of Credit be extended beyond the Final Expiry Date of December 31, _____.

4. Upon Assignor's default of the Improvement Agreement and Assignor's failure to cure such default within the time provided in the Improvement Agreement, Beneficiary, or its designated agent for collection, shall be entitled to full or partial payment (as specified by Beneficiary) of the amount of this Letter of Credit with a draft for good and sufficient funds drawn on the issuing Bank named above by Beneficiary's presentation to bank of a certified copy of this Letter of Credit accompanied by a statement signed by Beneficiary or its designated agent that the funds are required for payment of said.

5. Beneficiary shall use amounts drawn under the Letter for the purpose of completing, constructing, reconstructing or redesigning the improvements, correcting or repairing defective or incomplete work on the improvements, or otherwise installing the improvements referred to in the Improvement Agreement.

6. Payment under this Letter of Credit is not restricted or conditioned in any way by any agreement between Assignor and Bank regarding additional security required by Bank or direct payments made by Assignor in lieu of draws under this Letter of Credit.

7. Beneficiary shall have no obligation to repay Bank or Assignor for funds disbursed or released in accordance with this Letter of Credit and the Improvement Agreement.

8. Funds advanced to Beneficiary under this Letter of Credit shall constitute funds advanced to Assignor by Bank and Assignor shall be liable and responsible for repayment of same to Bank.

9. This Letter of Credit sets forth in full the terms of Bank's undertaking and except for the Improvement Agreement between the Assignor and the Beneficiary, such undertaking shall not in any way be modified, amended or amplified by reference to any document, instrument or agreement referred to herein or in which this Letter of Credit is referred to, or to which this Letter of Credit relates; and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement.

10. Demand for payment under this Letter of Credit shall be made directly to:

_____[*bank*]_____	with a copy to:_____[*developer*]_____
Attn: _____	Attn: _____
_____	_____
_____	_____

11. This Letter of Credit is issued in accordance with the International Standby Practices 1998, International Chamber of Commerce, Publication 590.

IN WITNESS WHEREOF, the parties hereto have executed this Letter of credit as follows:

I, __[*Name of Bank Contact*]__, hereby certify that:

(1) I am an officer of the financial institution referred to in this Letter as Bank; and

(2) I am authorized by Bank to make this irrevocable commitment of funds as described above.

_____

Name: _____ Date: _____
Title: _____

We, the undersigned, are the managing members of the party referred to in this Letter as Assignor and we, on behalf of Assignor, agree to all the terms and conditions of this Letter of Credit.

ASSIGNOR

[*name*], a [*state*] [*type of company*]

By:

_____

[*name*], [*title*]

ACCEPTED ON BEHALF OF

CITY OF HEMET

By:_____

[*Name*], City Manager

APPROVED AS TO FORM AND LEGAL CONTENT:

By:_____

[*Name*], City Attorney

CITY OF HEMET

GRADING PERMIT SURETY BOND

KNOW ALL MEN BY THESE PRESENTS: That _____, as Principal, and _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact a surety business in the State of California, as Surety, are held and firmly bound unto the City of Hemet in the just and full sum of _____ DOLLARS, for the payment of which, well and truly to be made, said Principal and Surety bind themselves, their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT,

WHEREAS, the said Principal above names is applicant under Grading Permit No. _____ ,of the City of Hemet, California, for grading, on the following described property: _____

NOW, THEREFORE, IT IS AGREED that if the Principal shall:

a. Comply with all the provisions of the City Grading and Excavation Code and other applicable laws and ordinances; and

b. Comply with all the terms and conditions of the permit to the satisfaction of the City Engineer; and

c. Complete all of the work contemplated under the said permit within the time limit specified in the permit, and any extension or extensions thereof; and

d. Reimburse the City for any work required by the permit that the City Engineer deems necessary to complete, correct or otherwise undertake for the public safety, because of failure on the part of Principal, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or modification of the permit or of the work to be performed there under shall in any way affect its obligation on this bond and it does hereby waive notice of any such change, extension of time, alteration or modification of the permit or of work to be performed there under, and

PROVIDED FURTHER, that in case suit is brought upon the bond by the City or any other person who may bring an action on this bond, a reasonable attorney's fees, to be fixed by the court, shall be paid by the Principal or Surety.

IN WITNESS WHEREOF, the said Principal and said Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20___ .

_____ (*Attach acknowledgement*)
Principal

By_____ Surety (*Attach acknowledgement*)

By _____ (*Attach acknowledgement*)
Attorney-in-Fact
Address:

APPENDIX C

SETBACKS

Min. Setback From Adjacent Slope					
H (hgt) Feet	a	b	c	d	e
0 < 6	3'	7'	3'	5'	1'
6 - 14	5'	7'	H/2	H/2 5' min.	H/5
14 - 30	5'	H/2 10' max.	H/2	H/2 10' max.	H/5
+30	5'	10'	15'	10'	6'

TABLE A

H (hgt) Feet	Max Hw	Min Setback f
0 - 6	3'	3' min.
6 - 12	H/2	H/2
12 - 30	6'	H/2
+30	6'	15'

TABLE B

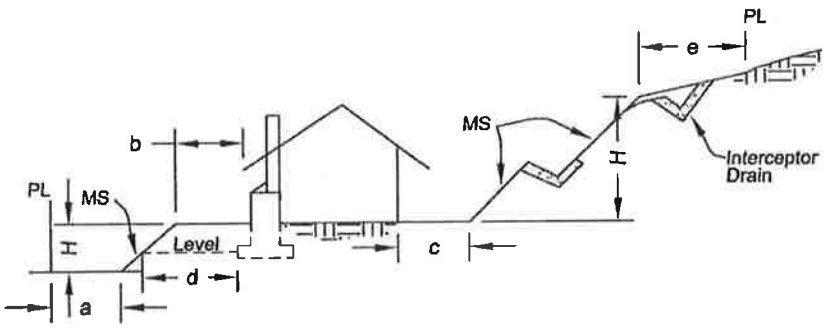

Fig. A

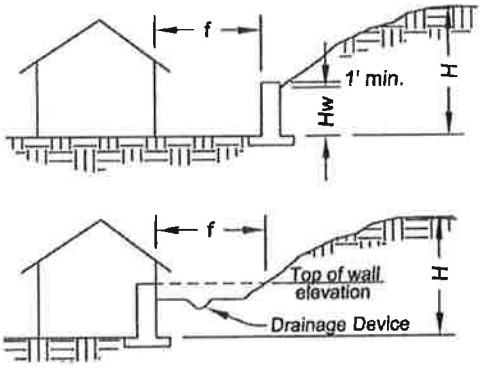

Fig. B

NOTES:

1. PL means property line. MS means manufactured slope.
2. Table A applies to MS, and 2:1 and steeper natural slopes. Setbacks from natural slopes flatter than 2:1 shall be approved by the City Engineer.
3. "b" : Distance from face of stucture to the top of slope.
4. "d" : Distance from the lower outside edge of the footing, along a horizontal line, to the face of the slope.
5. "b" may be reduced to 5ft (min.) if an approved drainage device is used. Roof gutter and downspots may be required.
6. If the slope between "a" and "b" levels is replaced by a retaining wall, "a" may be reduced to zero and "b" remains as shown on Table A.
7. "e" shall be increased for interceptor drains, as necessary.
8. "f" may be reduced if the slope is composed of sound rock and is recommended by the soils engineer/specialist and approved by the City Engineer.
9. The line of retaining walls to reduce setbacks shown in Fig. B shall be approved by the City Engineer.
10. Setbacks and retaining wall heights shall also comply with current zoning regulations.

City of Hemet
ENGINEERING DEPARTMENT
510 E. FLORIDA AVENUE
HEMET, CA 92543
(951) 765-2360

GRADING & EROSION CONTROL STANDARDS

APPENDIX C
SETBACKS