



Leighton and Associates, Inc.

A LEIGHTON GROUP COMPANY

April 30, 2004

Project Number 030381-002

To: Castle & Cooke California, Inc.,
c/o Bigelow Development Associates
6252 Cavalleri Road
Malibu, California 90265

Attention: Mr. Frans Bigelow

Subject: Canyon Grading Below Lot 22, Vesting Tentative Tract 53072, Mountaingate Project, City of Los Angeles, California.

Reference: Leighton and Associates, Inc., 2003, Geotechnical Investigation Report, 2nd Revised Detail Vesting Tentative Tract Map No. 53072, (Scale 1 inch = 100 feet), City of Los Angeles, California, dated March 18, 2003.

This letter confirms our discussions on April 27, 2004, with Mr. Frans Bigelow of Bigelow Development Associates, consultants to Castle & Cooke California, Inc. (Castle & Cooke), regarding grading in the upper reaches of the canyon below the proposed Lot 22 of Vesting Tentative Tract Map No. 53072.

Introduction

The subject area is the canyon to the west and below the existing residences at the southern end of Stoney Hill Road and the previously mentioned Lot 22. The east side of the canyon has been identified as having materials that are subject to creep/slump; the area is designated as Qs-(?)/Qls-(?) on Plate 1 included with the referenced report. A landslide complex designated Qls-8 and Qls-9 is mapped further south on the east side of the same canyon.

To allow development of proposed Lots 14 through 22, the Qls-8 and Qls-9 landslide complex requires remediation. The proposed remediation consists of removal of the slide debris and reconstruction of the canyon side. The proposed reconstruction will result in a 2 horizontal to 1 vertical compacted fill slope that will partially fill-in the bottom of the canyon. To provide drainage for the upper reach of the canyon above the reconstructed slope, the bottom of the canyon below the creep-prone zone will need to be raised.

Prior to raising the bottom of the canyon below the creep/slump zone, it was planned to over-excavate down to competent materials in the canyon bottom. There is some disagreement as to the actual depth of overexcavation that would be required, whether 5 feet will be enough or will a 15-foot removal be appropriate. There is also some concern that removals at the toe of the creep-prone slope could result in movement of the slope.

We understand that because of the creep prone/slump materials (Qs (?)/Qls (?)), a formerly proposed lot north of Lot 22 was eliminated and caissons are planned at the top of the slope behind proposed Lot 22 to provide the requisite factor of safety for the stability of the lot. Caissons were also proposed along the top of the slope behind the four southernmost existing residences along the west side of Stoney Hill Road to increase the factor of safety for stability of the lots and to protect those lots if deep removals were necessary of the creep prone/slump materials in the canyon fill area below.

We also understand that Castle & Cooke has been asked what mitigative action they would take if the homeowners of the four existing residences refused to allow construction of the proposed caissons in their backyards. As discussed in the following sections, the project is not dependent on installation of the caissons.

Canyon Fill

On reviewing the proposed grading for the upper reaches of the canyon and the proposed construction, it becomes apparent that a structural fill within the canyon's upper reaches is not needed to support the proposed construction. All that is needed is a fill to raise the grade to promote drainage. The placement of additional fill at the toe of the creep-prone slope will at best improve the stability of the slope and at worst maintain its current factor of safety.

Therefore, preparation of the upper reaches of the canyon can be limited to brushing and grubbing, removal of loose deposits and debris, scarifying the upper 6 to 12 inches of the in-place materials, and compacting them to 90 percent relative compaction (ASTM D 1557-00). The required fill should be compacted to at least 90 percent of the maximum dry density obtainable at moisture content of between zero and 4 percent over optimum.

To decrease the potential for accumulation of water within the placed fill, the lower 2 to 3 feet of the fill should consist of a graded filter material. The graded filter material should be placed so as to be connected to the filter material surrounding the canyon drain that will need to be installed beneath the proposed downstream buttress fill slope. The required additional fill should consist of the on-site materials; a minimum of the 1 foot of the on-site materials should cover the graded filter material. Since the anticipated thickness of the fill is less than 15 feet, installation of the subdrain pipe is not recommended.

Since compressible materials would be left beneath the compacted fill, the surface of the compacted fill should be established so that positive drainage will be maintained regardless of the settlement that could reasonably be expected to occur. We expect that the on-site soils will settle/compress a total of no more than 4 percent and probably less than 2 percent. To mitigate



the anticipated settlement, this fill area should be overbuilt by a minimum of 1 foot higher than the proposed design grades and a settlement monument installed. Monitoring of the settlement monument should be performed and evaluated during the rough grading period of this project.

Caissons

Caissons are expected to be required to provide the regulatory minimum factor of safety for the stability of proposed Lot 22. These caissons will be installed.

The factor of safety of the slope below the existing residences is believed to be less than the currently required minimum City of Los Angeles Code. The proposed construction is expected to increase or at least not adversely affect the stability of the existing slope and lots. The purpose of the proposed caissons at existing lots is to bring the factor of safety up to the currently required value. If the caissons are not installed, the condition of the existing lots would not be adversely affected. However, the owner's of the existing properties may be required to mitigate the stability of slope they desire to add pools or other additions.

Conclusions


The proposed development is expected to increase or at least not adversely affect the stability of the existing slope and lots. Construction of the project could therefore proceed even if the existing homeowners do not allow Castle & Cooke to provide caissons along the backs of their lots.

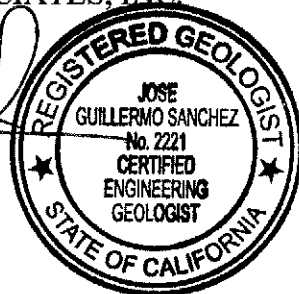
Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this submittal.

We appreciate this opportunity to be of service. If you have any questions regarding the information presented, please contact the undersigned.

Respectfully submitted,


LEIGHTON AND ASSOCIATES, INC.


Jose Sanchez, CEG
Senior Project Geologist



Exp. 07/31/05

JGS/BOK/kse


Boris Korin, GE 2025
Senior Project Engineer

