

## **IV. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

### **A. EARTH**

An evaluation of geologic and soils conditions for the project site was prepared for the Draft Environmental Impact Report by LeRoy Crandall and Associates on December 5, 1984. An updated evaluation of the project site was prepared by LAW/Crandall on September 9, 1998. This report is attached in full in *Appendix B* (under separate cover), and is on file with the Department of City Planning, Environmental Review Section, Room 1500, 221 N. Figueroa St., Los Angeles. The findings of these two studies have been utilized in the preparation of this section.

#### **1. Grading**

##### **Environmental Setting**

The subject property is located at the southwestern edge of the San Fernando Valley and lies in a small valley at the northerly base of the Santa Monica Mountains. The site is within a geomorphic province known as the Transverse Ranges of Southern California.

The northern two-thirds of the site is relatively level. Elevations in this area range from approximately 925 feet above sea level in the north to approximately 950 towards the south. The southern one-third of the site contains two topographic features, a small man-made mound and a large knoll, located adjacent to each other. The large knoll is over 20 feet high, covering 1.8 acres, with sloped sides at 2:1. This knoll is linear in form, and runs parallel and adjacent to the nearby stream. The south face supports a large grove of oak trees that extend down to the stream edge. This knoll is primarily natural. However, it appears that as much as the top 5 feet of this knoll is uncompacted material from off-site. This fill material appeared to have been placed on the site more than twenty years ago. The small mound, located to the north of the large knoll, is 15 feet high and covers over 0.6 acres. This mound appears to be completely man-made. Between the mound and the knoll is a large oak tree.

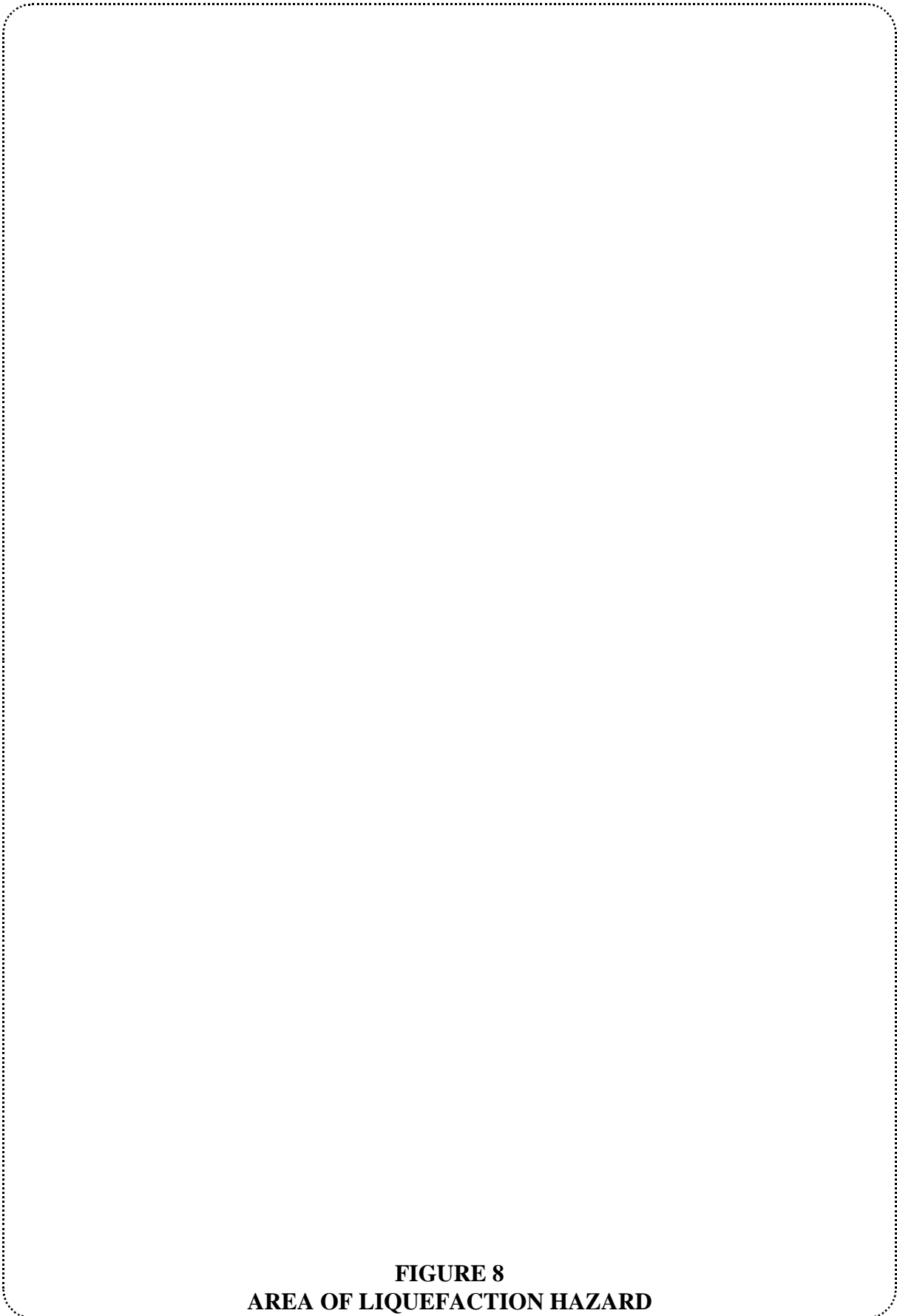
The northern portion of the property is occupied by the existing MPTF hospital and hospital related buildings, and is paved and landscaped. The remainder of the site consists of agricultural fields on the central portion, and undeveloped terrain at the south.

Artificial fill exists primarily on two portions of the site. The largest of the areas containing fill is the entire northern third of the site, which is currently developed. The second area is an approximately 3.8 acre pocket of fill located near the center of the site. The fill soils consist of silty clay, clayey silt, and silty sand with minor amounts of sand and construction debris. Areas of dumped fill, including the small mound and the top five feet of the knoll, were also observed.

Natural soils underlie the fill and occur at the surface over most of the central third and approximately half of the southern third of the site. These natural soils consist of Holocene age alluvial deposits of very soft to medium stiff sandy silt, clayey silt, and silty clay, with lesser amounts of very loose to medium dense silty sand and sand. The clayey soils are moderately expansive and would shrink or swell with changes in moisture content.

Underlying this alluvium is clayey siltstone from the Miocene age Modelo Formation. While this Formation is present at the surface in the southeast corner of the site, it occurs at variable depth across the entire site. The Modelo Formation lines part of the Cry Canyon Creek and forms the primary portion of the large knoll. Where the Modelo Formation is not present at the surface, it is encountered at depths ranging from 9.5 to 54.5 feet. Variations in depths to the Formation are most likely due to the erosion of its surface prior to deposition of the overlying alluvium. The Modelo Formation consists of approximately 4,550 feet of shale, siltstone and sandstone. Beneath the Modelo Formation are Miocene age Topanga and Vaqueros Formations, other Tertiary rocks, Cretaceous sandstone and conglomerates, and a basement of Jurassic Plutonic and Triassic metamorphic rocks.

The property does not contain any indications of slope instability, although a potential for failure was noted for the northerly and easterly facing slopes on the mound and the knoll due to the five and ten percent dip in underlying shale and siltstone beds. The site is not located in an area of known ground subsidence, nor is it on or in the path of any existing or potential landslides. As is shown on **Figure 8, Area of Liquefaction Hazard**, page 31, no portion of the site is designated as a “Zone of Required Investigation” for landslides on *The State of California Seismic Hazard Zones Map* (Calabasas Quadrangle).



## **Significance Criteria**

The project would have a significant impact if the proposed grading would constitute geologic or structural hazards to other properties by causing or accelerating geologic instability from erosion; or accelerate natural processes of wind and water erosion and sedimentation, resulting in off-site sediment runoff, including into storm drains, from grading or clearing which would not be contained or controlled on the project site. A landform alteration impact would be considered significant if distinct and prominent geologic or topographic features would be destroyed, or permanently covered or modified.

## **Environmental Impacts**

The proposed Master Plan calls for a net increase of 139,500 square feet of medical use, 252,070 square feet of residential use, 45,040 square feet of service/administration use, and 21,000 square feet of activity/recreational use on the project site. The medical use would all be located in the northern 18 acres of the MPTF site, which is fully developed. The residential use would primarily be located in the southern 21.8 acres of the site.

Development of the project would include grading and excavation of earth material to improve sub-soil conditions, provide mat foundations, and establish the desired grades for a central walkway and building entrances which meet ADA requirements and are accessible to seniors. Construction of the Proposed Project would involve the excavation of approximately 80,000 cubic yards of earth and exportation of approximately 60,000 cubic yards of earth material from the site. For worst-case assessment purpose, it is assumed that all but approximately 4.0 acres (approximately 2.2 acres of the streambed, and approximately 1.8 acres around the existing native oak trees and knoll) of the southern 21.8 acres of the project site would be graded. Thus, approximately 17.8 acres of land would be graded in order to straighten the contours of the site. All proposed buildings would be constructed at grade.

It is anticipated that excavated material would be hauled from the site traveling north on Mulholland Drive to the Ventura (U.S. 101) Freeway. This material would either be sold for use at another project site, or it would be taken to a landfill and used for daily fill.

Implementation of the Proposed Project would result in the complete removal of the small man-made mound. This mound consists of fill material that was placed on the site relatively recently. Therefore, this mound is not considered a significant topographic feature, and its removal would not cause erosion. All grading activity would be outside of the area of the oak tree located between the small mound and large knoll. Thus, the grading of the small mound under the Proposed Project would not create a significant impact.

The large, primarily bedrock knoll would be graded only minimally. The northeasterly half of the large knoll would not be graded, in order not to affect the native oaks located there. However, the top approximately 5 feet of fill would be removed or recompacted. The southern side of this knoll would be graded to help provide physical access to the stream's open space, and to provide for more building area. These cuts would expose geologic structures, requiring stabilization measures. However, the prominent character of the large knoll is not anticipated to be permanently modified, and the off-site view of the knoll would not be changed. As a result, grading impacts would be less than significant.

Temporary dust impacts would result from the use of heavy equipment to grade the project site. Dust raised during grading would have a temporary significant impact on local and regional air quality (see *Section IV.B.1, Air Quality (Construction)*, page 46). Aesthetic impacts associated with the project are discussed in *Section IV.Q, Aesthetics/View*, page 213.

### **Cumulative Impacts**

Excavation of earth material is anticipated to be required by most of the related projects, although not all related projects would require extensive excavation or export of graded materials. Earth material exported to local landfills could be utilized to cover wastes collected each day. These exported soils would contribute to the ultimate exhaustion of permitted landfill capacities. Related Project No. 11, which would result in the grading of 5 acres of the MPTF campus, is the only Related Project located within the immediate project vicinity. The grading required for Related Project No. 11 would not contribute to geologic instability, erosion, or the alteration of any landforms in the project vicinity. Therefore, no cumulative grading impacts are anticipated.

## **Mitigation Measures**

- ! All grading shall conform to all applicable provisions of the Los Angeles Municipal Code.
- ! Prior to the issuance of any grading permits, grading plans need to be submitted and approved by the Department of Building and Safety.
- ! All grading activities shall be in compliance with specific requirements provided in a comprehensive geotechnical report prepared specifically for the Proposed Project, including provisions for excavation and the correction of potential geological hazards, approved by the Department of Building and Safety, City Engineer, and other responsible agencies.
- ! Prior to issuance of any grading permits, the building and foundation design shall be subject to approval from the Department of Building and Safety for slope correction and stabilization.
- ! Prior to commencement of grading, a qualified geotechnical engineer and engineering geologist shall be employed for the purpose of observing earthwork procedures and testing the fills for conformance to the requirements of the City Engineer, approved grading plans, applicable provisions of the Los Angeles Municipal Code, and the geotechnical report approved by the Department of Building and Safety. If, in the opinion of the engineering geologist, unsatisfactory conditions (i.e., questionable weather, excessive oversize rock, or deleterious material, etc.) result in a quality of work substandard to that required under specifications of the geotechnical reports and Los Angeles Municipal Code, the engineering geologist shall be empowered to stop construction until conditions are rectified.
- ! Prior to the issuance of any permits an erosion and sediment control plan will be approved by the Department of Building and Safety.
- ! All waters should be clearly marked and identified to all construction personnel.
- ! Any dirt or other material deposited on public roadways from construction operations will be removed by the applicant in a timely manner.
- ! Haul routes shall be approved by the Department of Building and Safety.

- ! Fencing should be placed around the dripline of existing oak trees that are not scheduled for removal in order to protect them from damage to limbs or from compaction of soil around the root ball.

### **Impacts After Mitigation**

The proposed grading activities, including the amount of material that is to be imported, would not result in significant impacts to the topography of the site.

## **2. Geologic Hazards (Seismicity)**

### **Environmental Setting**

The site is located within the Transverse Range Province of Southern California, at the southwestern edge of the San Fernando Valley. The site lies in a small valley at the northerly base of the Santa Monica Mountains. The Santa Monica Mountain in the vicinity of the site are complexly folded and faulted sedimentary and volcanic rocks of marine origin varying from late Cretaceous through Tertiary age.

Geologic hazards at the site are primarily limited to those caused by earthquakes. Damage due to actual displacement or fault movement beneath a structure is infrequent. More frequently, damage from earthquakes is the result of violent ground shaking from seismic waves. Ground shaking occurs not only immediately adjacent to the earthquake epicenter, but in areas for many miles in all directions. The possible secondary effects of seismic activity include liquefaction, seismic settlement, lateral spreading, slope stability, and flooding, tsunamis and seiches.

### **Fault Rupture**

Faults are classified as active, potentially active, or inactive. Active faults are defined as those which have had surface displacement within Holocene time (the past 11,000 years). Potentially active faults are those which show evidence of surface displacement during Quaternary time (the past 1.6 million years) without showing evidence of displacement during the past 11,000 years. Inactive faults are defined as those faults without recognized Quaternary displacement.