

APPENDIX C
Soil and Geology Assessment



Geotechnologies, Inc.
Consulting Geotechnical Engineers

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November 5, 2014
File Number 20883

CIM
6822 Hollywood Boulevard
Los Angeles, California 90028

Attention: Kathleen Kim

Subject: Soil and Geology Issues
Proposed Montclair Plaza Expansion
5060 East Montclair Plaza Lane, Montclair, California

Dear Kathleen Kim:

1.0 INTRODUCTION

This letter has been prepared subsequent to site observations and a review of available files and published geotechnical information. In part, it is intended to discuss potential soil and geological issues required by the California Environmental Quality Act (C.E.Q.A.), Section VI.

Information of the proposed development was provided by the client. A subsurface investigation has not been performed on the site to date. Once the project proceeds to the design and development stages, a comprehensive geotechnical engineering report based on subsurface exploration and testing could be prepared to present recommendations for the design of the future development.

2.0 PROJECT SCOPE

The proposed project consists of expansion around the Montclair Plaza Shopping Center. The expansion is expected to include construction of miscellaneous retail stores, multi-family residential structures, a hotel, parking structures, and surface parking. Other miscellaneous hardscape and landscape improvements would also be anticipated.

3.0 SITE CONDITIONS

The subject site is located at 5060 East Montclair Plaza Lane, in the City of Montclair, California. It is bounded to the north by Moreno Street, to the south by the San Bernardino Freeway (i.e. 10 Freeway), to the east by Central Avenue, and to the west by Monte Vista Avenue. The site is currently developed with a retail shopping center, which is surrounded by paved surface parking. A separate parking structure is situated on the north of the site.

The surrounding area and subject site gently descends to the south and west. Total topographic relief across the site is on the order of 40 feet. Topographic change in the area is relatively gentle with no pronounced topographic highs or lows. Vegetation on the site consists of bushes and trees, which are isolated in planter areas.

The site vicinity is shown on the enclosed Vicinity Map. The subject site, existing improvements, and proposed developments are shown relative to the property lines and city streets on the enclosed Plot Plan.

4.0 ANTICIPATED SUBSURFACE CONDITIONS

Based on published geologic maps, the subject site is underlain by Quaternary aged young alluvial fan deposits (USGS, 2003)¹. This office has performed multiple subsurface explorations in the Cities of Montclair, Ontario, Claremont, and Pomona for other geotechnical engineering investigations. In general, the soils in the vicinity of the site consist of mixtures of medium dense to dense alluvial sands and silty sands.

Explorations in the vicinity of the site did not encounter groundwater to maximum depths of approximately 50 feet below the ground surface. According to the Cooperative Well Measuring Program – Spring 2008 Report, by the Western Municipal Water District (WMWD, 2008)², multiple groundwater wells are located in the vicinity of the subject site. Readings from the wells date back to spring of 1993. The readings indicate groundwater levels in excess of 400 feet below the ground surface.

5.0 SEISMIC HAZARDS

The site is not located within an “Earthquake Fault Zone” as indicated on the Alquist-Priolo Earthquake Fault Zones maps prepared by California Division of Mines and Geology. In addition, the San Bernardino County Land Use Plan - Geologic Hazard Overlays³ indicates the site is not in an “Earthquake Fault Zone.” If a site lies within an Earthquake Fault Zone, a geologic fault rupture investigation must be performed that demonstrates that the proposed building site is not threatened by surface displacement from the fault before development permits may be issued.

The site is not located in an area designated as susceptible to “Liquefaction” or “Earthquake Induced Landslides” as indicated on the San Bernardino County Land Use Plan - Geologic Hazard Overlays³.

¹ U.S. Geological Survey, 2003, Preliminary Geologic Map of the San Bernardino 30' x 60' Quadrangle, California.

² Western Municipal Water District, 2008, Cooperative Well Measuring Program, Covering the upper Santa Ana River Watershed, San Jacinto Watershed, Santa Margarita Watershed, Spring 2008.

³ San Bernardino County Land Use Plan, General Plan, Geologic Hazard Overlays, Map FH27C, Ontario.



Review of the San Bernardino County Land Use Plan - Hazard Overlays⁴ indicates the site lies within the potential inundation boundaries of the San Antonio Dam. Due to the distance of the site from the ocean, it would not be considered subject to inundation by tsunami.

6.0 C.E.Q.A. SECTION VI - SOIL AND GEOLOGY ISSUES

- a) The subject site is not located within an Alquist-Priolo Earthquake Fault Zone, and no other known active surface fault traces cross the site. Therefore, the likelihood of surface fault rupture affecting the subject site should be considered remote.

As with all of Southern California, the site is subject to potential strong ground motion should a moderate to strong earthquake occur on a local or regional fault. The proposed project will be completed in accordance with the provisions of the 2013 California Building Code (or most applicable building code) and requirements of the local building official. Any new structures on the site, and any seismic upgrades (if required by the 2013 CBC or local building official), would be designed in accordance with current building code provisions, which will mitigate the potential effects of strong ground shaking.

The site is not subject to inundation by tsunami. The site is located downslope of the San Antonio Dam. The site may be affected in the event of a seismically-induced seiche or potential failure of the dam.

- b) The project would not result in substantial soil erosion or the loss of topsoil.
- c) The project would not result in the loss of any unique geologic feature, since the site is located in an area underlain by Quaternary-age alluvium.
- d) The project is not located on a geologically unstable material or material that would become unstable as a result of the project. Therefore, the project would not result in any on - or off-site landslides.

Subsurface exploration on the site has yet to be performed by this firm. After laboratory testing and engineering analysis, conclusions regarding seismic related ground failure, including liquefaction, landslides, lateral spreading, subsidence, or collapse will be presented. Based on information currently available to this firm, the proposed construction will not cause, or increase the potential for any seismic related ground failure on the subject site or adjacent sites.

- e) The soils underlying the site are not known to have any significant expansion potential. If any are encountered during the subsurface exploration, recommendations will be provided in the geotechnical report to mitigate their effect.
- f) Sewers are available for wastewater disposal.

⁴ San Bernardino County Land Use Plan, General Plan, Hazard Overlays, Map FH27B, Ontario.



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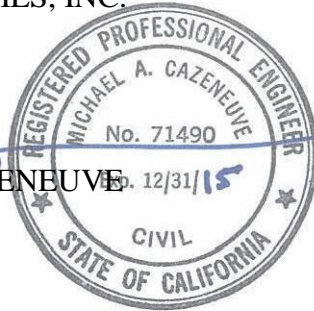
File No. 20883

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Geotechnologies, Inc. appreciates the opportunity to provide our services on this project. Should you have any questions please contact this office.

Respectfully submitted,
GEOTECHNOLOGIES, INC.


MICHAEL A. CAZENEUVE
R.C.E. 71490



MAC:sa

Enclosures: Vicinity Map
Plot Plan

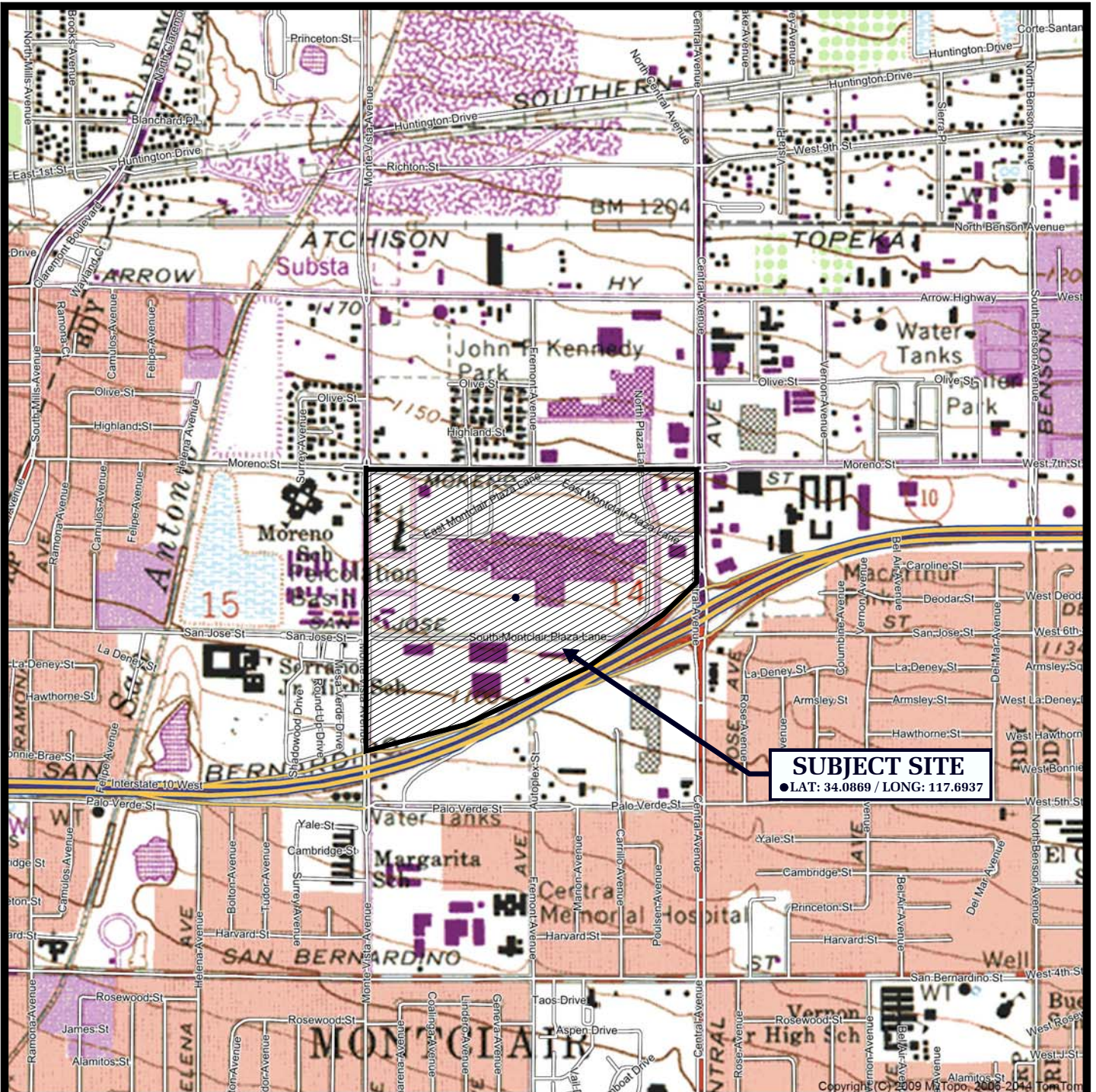
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Geotechnologies, Inc.

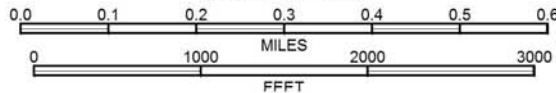
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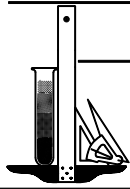
SUBJECT SITE
 ●LAT: 34.0869 / LONG: 117.6937

SCALE 1:12000



REFERENCE: U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES,
 ONTARIO, CA QUADRANGLE

VICINITY MAP



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