

June 26, 2017

Mr. Geno St. John III  
Senior Leasing Specialist  
UCLA Real Estate  
10920 Wilshire Boulevard, Suite 810  
Los Angeles, CA 90024

**Re: *University of California Seismic Rating for 1100 Glendon Avenue, Los Angeles***

Dear Geno:

Nabih Youssef Associates (NYA) have performed an Independent Review of the 18-story office building located at 1100 Glendon Avenue in Los Angeles. The review consisted of an ASCE 41-13 Tier 1 and Tier 2 evaluation.

**Description:**

The building is located on the northeast corner of the intersection of Lindbrook Drive and Glendon Avenue in Los Angeles. The property consists of the office tower and a 5-level parking structure. The office tower has 18 floors above-grade, a mezzanine and a basement level. A 2" joint separates the parking structure from the tower. The tower and parking structure were originally constructed in 1964, and tower was seismically retrofitted in 1998 as part of a building expansion.

The tower is generally rectangular-shaped in-plan with overall dimensions of approximately 330 feet by 60 feet. A triangular floor extension was added to the southwest corner of floors 9 through 17. The roof and floors are constructed of one-way reinforced concrete slabs spanning to wide flange steel beams and girders. Steel wide flange columns provide vertical support and are typically continuous to the concrete mat foundation system.

The lateral-force-resisting system consists of the reinforced concrete slab roof and floors acting as structural diaphragms to transfer seismic inertial forces to moment frames that are continuous to the ground floor. In the transverse direction of the building, distributed welded steel moment frames resist seismic forces. The flanges and web of the wide flange beam section are full penetration welded to the columns.

In the longitudinal direction of the building, perimeter moment frames consisting of reinforced concrete beams with longitudinal reinforcement welded to steel wide flange columns above the 5<sup>th</sup> floor and steel wide beams with flanges and web full penetration welded to the columns below the 5<sup>th</sup> floor. Seismic resistance was originally provided by steel truss frames in the longitudinal direction, these frames were modified as part of the 1998 seismic retrofit.

**Evaluation:**

The building is located on a gently sloping site and is not susceptible to landslide. The site is not located within an Alquist-Priolo Earthquake fault zone – a geologic zone where surface rupture may occur. The site is not located in an area recognized by the State of California where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacement. USGS maps indicate that the liquefaction hazard at the site is low.

An ASCE 41-13 Tier 1 and Tier 2 assessment was performed assuming a site soil classification D, and design spectral acceleration at short period and one second period for BSE-1E, 0.927g and 0.516g, respectively.

A three-dimensional computer model of the building was developed using the structural analysis software ETABS, developed by Computers & Structures, Inc. The model included all elements that significantly contribute to the lateral force resistance of the building, roof and floor diaphragms, and moment frames. The building was analyzed using the linear dynamic procedure.

The results indicate that some of the beams (less than 10%) in the transverse direction are the slightly overstressed. However, the average demand-to-capacity ratios of the beams in the transverse direction are approximately 0.6. Given that every frame bay in the transverse direction of the tower participates in resisting lateral forces, there is adequate reserve capacity and redundancy to provide acceptable performance.

The building has a very regular configuration with a complete load path to transfer seismic forces to the foundations. In addition, the results of the analysis indicate that the building does not have a soft or weak story and the moment frames have adequate strength.

**Conclusion:**

Based on the results of the ASCE 41-13 Tier 1 and Tier 2 assessment, the expected earthquake performance of the building corresponds to the University of California seismic rating of "IV" ("Fair").

Sincerely,

**NABIH YOUSSEF & ASSOCIATES**



Nabih Youssef, S.E.  
Principal

Enclosure

**References:**

Structural drawing for the Wilshire Westwood, prepared by Robert Lee Hall & Associates (6206), dated June 11, 1962.

Structural drawings for 1100 Glendon, prepared by Robert Englekirk (98-005), January 22, 1999.

Seismic Hazard Zone Report for the Beverly Hills 7.5-Minute Quadrangle, Los Angeles County, CA, prepared by State of California, Department of Conservation Division of Mines and Geology, Report No. 23, 1998.

State of California Seismic Hazard Zone, Beverly Hills Quadrangle, March 25, 1999.

University of California Seismic Safety Policy, January 9, 2017.