

February 18, 2019

Gregory Park
UCLA Real Estate
Senior Leasing Specialist
10920 Wilshire Boulevard, Suite 810
Los Angeles, CA 90024

Subject: 2211 Michigan Ave, CA 90404

Seismic Screening Report JLA Job no. 19001-00

Dear Mr. Park,

Per your request, John Labib + Associates (JLA) performed a seismic screening of the subject existing building structure. Our services included a review of available as-builts, a site visit performed on February 13, 2019 to observe the existing conditions of the exposed structural systems, and a general evaluation of the existing structural systems of the building.

## **Building Description**

The existing building consists of one story "high-volume" above grade with a partial mezzanine. The mezzanine was added to the building in 2005. The occupancy type is storage & office. The building has a rectangular-shaped plan & measures approximately 150 feet by 240 feet. See Figure I below for a photo of the subject existing building site.

Structural Drawings for the mezzanine addition: S-I thru S-9, by David Taubman, dated II.07.2005.

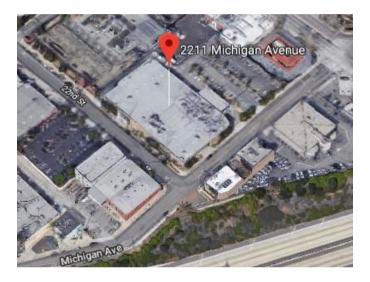


Figure I – Overall Building View



# **Building Structure**

### **Gravity Construction:**

The roof and floor framing are constructed of plywood sheathing, supported by wood joists, wood beams, glu-lam beams & steel beams, which are in turn supported by interior steel columns & the perimeter concrete tiltup walls. As part of the renovation, new masonry walls were also installed.

#### Foundation System:

The foundation system consists of a 4"-thick reinforced concrete slab on grade, continuous concrete footings supporting the perimeter & interior walls and concrete pad footings supporting the steel columns.

#### Lateral-Force-Resisting-System:

The existing lateral-load-resisting system consists of plywood roof and floor diaphragms that transfer seismic inertial loads to the concrete & masonry shear walls. The perimeter tiltup walls are positively anchored to the roof wood framing by metal plates & holdowns.

#### Observations

In general the exposed structural elements appeared to be in fair condition considering the age of the building. See Figures 2-5 below for photos from the site visit on February 13, 2019:



Figure 2 – Building Exterior (view from southern corner, intersection of Michigan Ave & 2nd St)





Figure 3 – Main girder to wall connection & anchorage



Figure 4 —Main girder continuity tie





Figure 5 – Purlin to girder connection & continuity ties

#### Seismic Evaluation Criteria

The structure was generally evaluated based on the University of California Seismic Safety Policy dated May 19, 2017. The seismic policy provides 7 seismic performance ratings: I thru VII. Please refer to attached Appendix A for info on Seismic Safety Policy & performance rating.

#### Seismic Evaluation

- The structure has a complete load path to transfer inertial forces to the foundations.
- There are no significant strength or stiffness discontinuities in the vertical elements of the lateral-load-resisting system.
- The roof diaphragm is continuous without major openings.
- Based on our review, it appears that the tilup shear walls & masonry shear walls are adequate for the size, configuration, and age of the building. A major seismic disturbance is anticipated to result in some structural and/or nonstructural damage that would represent low life hazards.
- Based on our review, out-of-plane anchors have been provided to positively anchor the exterior concrete tiltup walls to the roof wood framing. A major seismic disturbance is anticipated to result in some structural and/or nonstructural damage that would represent low life hazards.



## Seismic Rating

IV

#### Limitations

This limited seismic screening was based on the review of the available plans, and our limited site observations of the exposed structural members. Services were performed by JLA in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. The results of the structural evaluation represent our opinion and are not intended to preempt the responsibility of the original design consultants in any way. No other warranty, expressed or implied, is made.

If you have any questions, please do not hesitate to call us.

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Yours truly,

John Labib & Associates

John Labib, S.E. Principal



## Appendix A

## **Expected Seismic Performance Levels**

This series of definitions was developed by the California State University, the University of California, the California Department of General Services, and the Administrative Office of the Courts from 1995 through 2009.

Table A.1. Determination of Expected Seismic Performance Level<sup>1</sup> Based on the Edition, California Code of Regulations, Part 10, California Building Code (CBC) (current edition)

Definitions based upon California Building Code (CBC) requirements for seismic evaluation of buildings using Risk Categories of CBC Table 1604A.5, depending on which applies, and performance criteria in CBC Table 317.5 <sup>2</sup>	Expected Seismic Performance Level <sup>1</sup>
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category IV performance criteria with BSE-1N and BSE-2N hazard levels replacing BSE-R and BSE-C as given in Chapter 3.	I
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category IV performance criteria.	П
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category I-III performance criteria with BSE- 1N and BSE-2N hazard levels replacing BSE-R and BSE-C respectively as given in Chapter 3; alternatively, a building meeting CBC requirements for a new building.	III
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category I-III performance criteria.	IV
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category I-III performance criteria only if the BSE-R and BSE-C values are reduced to 2/3 of those specified for the site.	V
A building evaluated as not meeting the minimum requirements for Level V designation and not requiring a Level VII designation.	VI
A building evaluated as posing an immediate life-safety hazard to its occupants under gravity loads. The building should be evacuated and posted as dangerous until remedial actions are taken to assure the building can support CBC prescribed dead and live loads.	VII

Table A.2. Approximate Relationship Between UC's Historic Seismic Performance Ratings and Current Expected Seismic Performance Levels

Expected Seismic Performance Level <sup>1</sup>	UC's Historic Ratings⁵	Implied Risk to Life <sup>3</sup>	Implied Seismic Damageability <sup>4</sup>
I	Good	Negligible	0% to 10%
II	Good	Insignificant	0% to 15%
III	Good	Slight	5% to 20%
IV	Fair	Small	10% to 30%
V	Poor	Serious	20% to 50%
VI	Very Poor	Severe	40% to 100%
VII	Very Poor	Dangerous	100%

## University of California Policy Seismic Safety Policy

#### Notes:

- Expected seismic performance levels are indicated by Roman numerals I through VII. Assignments are to be made following a professional assessment of the building's expected seismic performance as measured by a CSE's experience or referenced technical standard and earthquake ground motions. Equivalent Arabic numerals, fractional values, or plus or minus values are not to be used. These assignments were prepared by a task force of state agency technical personnel, including the California State University, the University of California, the California Department of General Services, the Division of the State Architect, and the Administrative Office of the Courts. The levels apply to structural and non-structural elements of the building as contained in Chapter 3, CBC Part 10 requirements. These definitions replace those previously used by these agencies.
- 2. Chapter 3 of the California Building Code Part 10, current edition, regulates existing buildings. It uses and references the American Society of Civil Engineers Standard Seismic Rehabilitation of Existing Buildings, ASCE-41-13. All earthquake ground motion criteria are specific to the site of the evaluated building. The CBC definitions for earthquake ground motions to be assessed are paraphrased below for convenience:
- 3. BSE-2N, the 2,475-year return period earthquake ground motion, or 150% of the Maximum Considered Earthquake ground motion for the site.
  - BSE-C, the 975-year return period earthquake ground motion.
  - BSE-1N, two-thirds of the BSE-2N, nominally, the 475-year return period earthquake ground motion. BSE-R, the 225-year return period earthquake ground motion.
  - *Risk Category* is defined in the CBC Table 1604A.5. The risk category sets the level of required seismic building performance under the CBC. Risk Category IV includes acute care hospitals, fire, rescue and police stations and emergency vehicle garages, designated emergency shelters, emergency operations centers, and structures containing highly toxic materials where the quantities exceed the maximum allowed quantities, among others. Risk categories I-III includes all other building uses that include most state-owned buildings.
- 4. Implied Risk to Life is a subjective measure of the threat of a life threatening injury or death that is expected to occur in an average building in each rank following the indicated technical requirements. The terms negligible through dangerous are not specifically defined, but are linguistic indications of the relative degree of hazard posed to an individual occupant.
- 5. Implied Damageability is the level of damage expected to the average building in each rank following the indicated technical requirements when a BSE-11E level earthquake occurs. The damage includes both the structural and non-structural systems, but does not consider furnishing and tenant contents.
- 6. Historically the University of California has used the terms good, fair, poor and very poor to distinguish the relative seismic performance of buildings. The concordance of values in the table above is approximate. The former rating procedures did not provide specific performance levels as is done herein, but were sentence fragments for qualitative performance and are recalled below for historical purposes only:

A *Good* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in some structural and/or nonstructural damage and/or falling hazards that would not significantly jeopardize life. Buildings and other structures with a Good rating would have a level of seismic resistance such that funds need not be spent to improve their seismic resistance to gain greater life safety, and would represent an acceptable level of earthquake safety.

A *Fair* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in structural and nonstructural damage and/or falling hazards that would represent low life hazards. Buildings and other structures with a Fair seismic performance rating would be given a low priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified Good.

A *Poor* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in significant structural and nonstructural damage and/or falling hazards that would represent appreciable life hazards. Such buildings or structures either would be given a high priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified as Good, or would be considered for other abatement programs, such as reduction of occupancy.

# University of California Policy Seismic Safety Policy

A *Very Poor* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in extensive structural and nonstructural damage, potential structural collapse, and/or falling hazards that would represent high life hazards. Such buildings or structures either would be given the highest priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified Good, or would be considered for other abatement programs such as reduction of occupancy.