

October 15, 2018

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

Subject: 1400 S Grand, Los Angeles, CA 90015

Seismic Screening Report JLA Job no. 18128-08

Dear Mr. Park,

Per your request, John Labib + Associates Structural Engineers (JLA) performed a seismic screening of the subject existing building structure. Our services included a review of the available reports and drawings on which they're based and a general evaluation of the structural systems of the building.

# **Building Description**

The existing office building is an 8-story 153,560 square foot steel structure located at 1400 S. Grand Ave., Los Angeles, CA 90015. See Figure 1 below for a photo of the subject existing building.

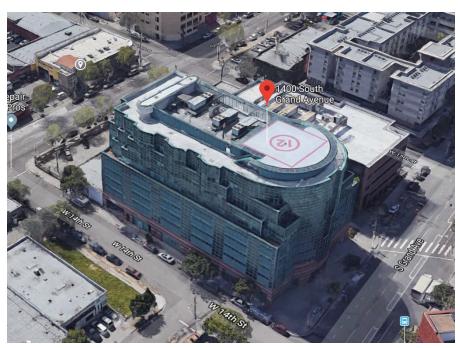


Figure 1 – Overall Building View



The building is located on a relatively level site and was constructed in 1990, as such it is considered as modern construction designed per the 1985 Uniform Building Code and the corresponding Los Angeles Building Code. It has a helipad on the roof along with a mechanical yard that is circumscribed by a mechanical screen wall. The building is clad in conventional curtain wall and stucco.

The building is generally rectangular in shape with a rounded tower at one end. The building has very minor setbacks starting at the 4th floor. The structure is eight levels above grade and basement composed of four stories of tenant space, and one story of underground parking. The building perimeter below grade consists of load bearing reinforced concrete masonry unit (CMU) retaining walls, and above grade consists of load bearing reinforced concrete masonry walls at the east & west sides, and non-load bearing steel stud walls with windows on the north & south sides.

### **Building Structure**

According to the available structural drawings, the building was designed in the late 1980's and construction completion is likely 1990. Below is a description of the structure.

### **Ground Floor Slab**

The ground level consists of a formed concrete slab on concrete beams. This slab transfers the seismic load from the upper levels to the perimeter basement walls.

# Upper Levels and Roof

The upper levels of the structure are of conventional modern steel construction consisting of concrete filled metal decking supported by steel wide flange beams. The beams are supported by either interior steel wide flange columns. The roof construction is similar and supports mechanical areas as well as a helipad.

### Foundations and Below Grade Basement Floors:

The structure is founded on a combination of conventional shallow isolated pad footings and piles at the perimeter basement walls. The basement is grounded on a slab on grade. The lower level basement levels consist of reinforced concrete slab on metal deck.

### Lateral Load Resisting Systems

The main lateral load resisting system of the structure is a steel moment frame located on the perimeter of the building on all four sides. This makes for a regular and redundant system that should be expected to perform well in an earthquake. Inertial forces are transferred horizontally by 'rigid' concrete filled metal decks. The roof diaphragm is also concrete on metal deck. The diaphragms transfer the seismic forces to the vertical lateral load resisting system. The base of the moment frame is supported by reinforced concrete foundations. The building was built prior to the 1994 Northridge Earthquake as such its connection do not conform with today's standards. Given that the site has seen a less than 20%g peak ground acceleration during Northridge we expect there not to be any significant seismic damage and that the structure would meet life safety objectives in future ground motions.



### 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 seismic forces to the foundations.
- The roof and floor diaphragms are continuous without major openings.
- Based on our review of the existing report and our evaluation of the lateral-load-resisting system,
  the structure and its lateral force resisting system is appropriate for the size, configuration, and age
  of the building. A major seismic disturbance is likely to result in structural and non-structural
  damage that would represent low life hazards.

### Seismic Rating

IV

#### Limitations

This limited seismic screening was based on the review of the plans. 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.

Yours truly,

John Labib & Associates

John Labib, S.E. Principal



### **APPENDIX A**

# **Earthquake Performance Levels For Existing Buildings**

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 Based on Structural Compliance with the 2010 Edition, California Code of Regulations, Part 2, California Building Code (CBC)

Definitions based upon California Building Code (CBC) requirements for seismic evaluation of buildings using Occupancy Categories of CBC	Rating Level <sup>1</sup>	
Table 1604A.5, depending on which applies, and performance criteria in CBC Table 3417.5 <sup>2</sup>	No Peer Review <sup>5</sup>	Peer Review <sup>5</sup>
A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category IV performance criteria with BSE-1 and BSE-2 hazard levels replacing BSE-R and BSE-C as given in Chapter 34.	I	I
A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category IV performance criteria.	II	II
A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category I-III performance criteria with BSE-1 and BSE-2 hazard levels replacing BSE-R and BSE-C respectively as given in Chapter 34; alternatively, a building meeting CBC requirements for a new building.	III	II <sup>5</sup>
A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category I-III performance criteria.	IV	III <sub>2</sub>
A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy 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	IV°
A building evaluated as not meeting the minimum requirements for Level V designation and not requiring a Level VII designation.	VI	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	VII

For Notes, see page 14

Table A.2. Indications of Implied Risk to Life and Implied Seismic Damageability

	Historic Risk Ratings of <sup>6,7</sup>			
Rating Level 1,5	DSA/SSC <sup>7</sup>	UC <sup>6</sup>	Implied Risk to Life 3	Implied Seismic Damageability <sup>4</sup>
I	1		Negligible	0% to 10%
II	11		Insignificant	0% to 15%
III	III	Good	Slight	5% to 20%
IV	IV	Fair	Small	10% to 30%
V	V	Poor	Serious	20% to 50%
VI	VI	Very Poor	Severe	40% to 100%
VII	VII	Very Poor	Dangerous	100%

#### Notes:

- 1. Earthquake damageability 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 the 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 ratings apply to structural and non-structural elements of the building as contained in Chapter 34, CBC requirements. These definitions replace those previously used by these agencies.
- 2. Chapter 34 of the California Building Code, current edition, regulates existing buildings. It uses and references the American Society of Civil Engineers Standard Seismic Rehabilitation of Existing Buildings, ASCE-41. 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:

BSE-2, 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-1, two-thirds of the BSE-2, nominally, the 475-year return period earthquake ground motion.

BSE-R, the 225-year return period earthquake ground motion.

Occupancy Category is defined in the CBC Table 1604A.5. The occupancy category sets the level of required seismic building performance under the CBC. Occupancy 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. Occupancy categories I-III includes all other building uses that include most state owned buildings.

- 3. 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.
- 4. Implied Damageability is the level of damage expected to the average building in each rank following the indicated technical requirements when a BSE-1 level earthquake occurs. The damage includes both the structural and non-structural systems, but does not consider furnishing and tenant contents. Damage is measured as the ratio of the cost to repair the building divided by the current cost to reconstruct the building from scratch. Such assessments are to be completed to the requirements of ASTM E-2026 at ASTM Level 1 or higher in order to be considered appropriate, where the damage ratio is the Scenario Expected Loss (SEL) in the BSE-1 earthquake ground motion evaluated. ASTM E2026 is the standard for evaluating the seismic damageability of buildings for financial transactions.
- 5. In those cases where the engineer making the assessment using the requirements for a given Rating Level concludes that the expected seismic performance is consistent with a one-level higher or lower rating, this alternative Rating Level may be assigned if and only if an independent technical peer reviewer concurs in the evaluation. The peer review must be completed consistent with the requirements of Chapter 34 of the CBC. It is

anticipated that most projects that are independently peer reviewed from the initiation of the evaluation and/or design process will qualify for a higher Rating than those buildings, which have not been so reviewed at all. The second column under Peer Review the Ratings have been assigned when this occurs. Note that peer review is unlikely to improve buildings rated as VI or VII because they have fundamental seismic system flaws. The ratings for I and II are not changed because the performance increment between levels is so large.

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.

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.

7. For reference, the historically used Division of the State Architect and Seismic Safety Commission levels corresponds approximately to the new Performance Level numerical values in this table.