

March 12, 2013

Ms. Kim Shore
UCLA Real Estate
10920 Wilshire Boulevard, Suite 810
Los Angeles, California 90024-6502

Subject: 424 Kelton Avenue, Los Angeles
Seismic Screening Report
JLA Job no. 13110-08

Dear Ms. Shore,

Per your request, we have performed a seismic screening of the building located at 424 Kelton Avenue in Los Angeles, California. Our services included a site visit performed on March 12, 2013 to observe the existing conditions of the exposed structural systems, and an evaluation of the existing structural systems of the building.

Building Description

The existing building consists of four stories of wood-framed apartments above a concrete-framed parking garage. At the West Elevation, the parking garage is two levels with one level partially subterranean. At the East Elevation, the parking garage is one level at grade. The apartment building was constructed in the 1980's. No drawings were available for our review.

Construction

Gravity Construction:

Wood-Framed Apartments: The roof and floor framing for the upper four residential levels are constructed of plywood sheathing, supported by wood joists and wood-framed bearing walls. The gravity loads from the four-levels of wood-framed apartments are supported by the concrete parking garage.

Concrete Parking Garage: The parking garage framing consists of reinforced concrete flat slabs, supported by reinforced concrete columns and 8"-thick reinforced masonry walls.

Foundation System: The foundation system most probably consists of a concrete slab on grade and continuous concrete footings supporting the perimeter walls and concrete pad footings supporting the concrete columns.

Lateral-Load-Resisting-System:

Wood-Framed Apartments: The existing lateral-load-resisting system consists of plywood roof and floor diaphragms that transfer seismic inertial loads to the wood stud shear walls. Based on our review of similar buildings in Westwood village from the same era of construction, the shear walls are expected to be sheathed with plywood and plaster at the exterior walls and gypsum boards at the interior walls.

Concrete Parking Garage: The existing lateral-load-resisting system consists of reinforced concrete slab diaphragms that transfer seismic inertial loads to the 8”-thick reinforced masonry shear walls. The seismic inertial loads from the top four levels of wood-framed apartments are transferred through the upper concrete slab diaphragm to the reinforced masonry shear walls.

Observations

The exposed structural elements appeared to be in fair condition considering the age of the building.

Seismic Evaluation Criteria

General: The property was evaluated based on the University of California Seismic Safety Policy dated August 25, 2011. The seismic policy provides 7 seismic performance ratings: I thru VII. Please refer to Appendix for more info on Seismic Safety Policy & rating.

Seismic Evaluation

- The layout of the building provides a redundant system of walls to resist earthquake forces.
- The structure has a complete load path to transfer seismic inertial forces to the foundations.
- The lateral-force-resisting system has no vertical discontinuities. The wood shear walls are typically continuous to the concrete parking garage, and the masonry shear walls are typically continuous to the foundations.
- There are no significant strength or stiffness discontinuities in the vertical elements of the lateral-force-resisting system.

- The roof and floor diaphragms are continuous with no major openings.
- It appears that adequate length of shear walls have been provided for the size, configuration, and age of the building.
- At the wood-framed levels, the existing wood-framed shear walls are sheathed with plywood or plaster at exterior walls and with gypsum boards at interior walls. Current codes have significantly reduced the capacity of plaster and gypsum shear walls based on past performance in recent earthquakes. Based on the large number of shear walls, a major seismic disturbance is anticipated to result in structural damage that would represent low life hazards.
- At the parking garages, the existing masonry shear walls are expected to perform well during seismic events. Structural damage is expected to be limited to cracks in the masonry shear walls.

Seismic Rating

IV

Limitations

This limited seismic screening was based on our limited site observations of the exposed structural members and a 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 structural observations and recommendations 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.
President



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 Table 1604A.5, depending on which applies, and performance criteria in CBC Table 3417.5 ²	Rating Level ¹	
	No Peer Review ⁵	Peer Review ⁵
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 ^b
A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category I-III performance criteria.	IV	III ^b
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 ^b
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

Rating Level ^{1,5}	Historic Risk Ratings of ^{6,7}		Implied Risk to Life ³	Implied Seismic Damageability ⁴
	DSA/SSC ⁷	UC ⁶		
I	I		Negligible	0% to 10%
II	II		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.