

ASCE 41-17 Tier 1 Seismic Evaluation

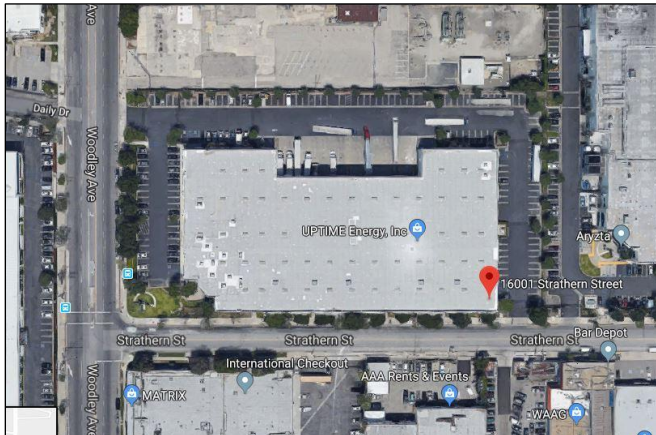
Date: 04/22/2019
UC Campus: UCLA – off campus
Building Name: Building D
Building Address: 16001 Strathern St., Van Nuys, CA 91406
CAAN ID: N/A
Auxiliary Building ID: N/A

Summary of information provided by Evaluator:

Nabih Youssef Associates Structural Engineers, OH/GT

UCOP Seismic Performance Level (or “Rating”) based on Tier 1 evaluation findings: IV

Plan Image or Aerial Photo



Exterior Elevation Photo



Site location coordinates (decimal):

Latitude: 34.2158727
Longitude: -118.4818037

Is this a “Partial” Building (i.e., a single structure in a complex building?) (Y or N): N

ASCE 41-17 Model Building Type:

Longitudinal Direction: PC1 - Precast or Tilt-Up Concrete Shear Walls w/ flexible diaphragm(s)
Transverse Direction: PC1 - Precast or Tilt-Up Concrete Shear Walls w/ flexible diaphragm(s)

Number of stories:

Above grade: 1
Below grade: 0

Original Building Design Code and Year: 1997 UBC

Retrofit Building Design Code and Year: N/A

Cost Range to Retrofit (if applicable): N/A

Building information used in this evaluation:

Structural drawings by Ajit Randhava & Associates, “Building D, Lewis Business Center”, dated 10/05/98 (13 sheets)

Scope for completing this form:

Reviewed structural drawings for original construction and performed ASCE 41-17 Tier 1 evaluation. Made one site visit to view both the exterior and interior of the property.

Brief description of structure:

The building has an area of approximately 93,240 square feet and was designed in the late 1990s by Hill Pinckert Architects, Inc. and Ajit Randhava & Associates Structural Engineers. Construction was completed in 1999. The concrete tilt-up structure is one story above-grade. The floor layout is generally rectangular with a chamfered southwest corner entry and an inset loading bay on the north face.

Foundation System: Spread footings support the interior steel post columns while continuous wall footings support the perimeter tilt-up walls. The interior space is concrete slab-on-grade.

Structural System for Vertical (gravity) loads: Interior steel posts and the perimeter concrete walls support the roof that is composed of open-web steel girders in the longitudinal direction and open-web steel joists in the transverse direction. Wood purlins frame between the steel joists. Structural plywood sheathing covers the entire roof extent.

Structural System for Lateral (seismic/wind) loads: Pre-cast concrete tilt-up walls encompass the entire perimeter of the structure. Walls are typically 8½” thick with #5s @ 13” O.C., E.F., vertical and #4s @ 18” O.C., E.F., horizontal. The roof diaphragm is tied to the walls at every perimeter roof joist and purlin. The roof joists are welded to a channel ledger that is attached to the interior face of the concrete wall with cast-in headed studs. The wood purlins are attached via a steel strap and angle ledger.

BACKGROUND INFORMATION**Site Information:**

Site Class (A-F): D

Geologic Hazards (Y or N):

- Fault Rupture: N
- Liquefaction: N
- Landslide: N

Site-specific Ground Motion Study? N

Site-modified Spectral Response (0.2s), Hazard Level BSE-1E, S_{XS} : 0.982

Site-modified Spectral Response (1.0s), Hazard Level BSE-1E, S_{XL} : 0.557

Estimated Fundamental Period (seconds):

- Longitudinal Direction: 0.278
- Transverse Direction: 0.278

Summary of Tier 1 Seismic Evaluation Structural Non-compliances/Findings Significantly Affecting Rating Determination:

Significant Structural Deficiencies, Potentially Affecting *Seismic Performance Level* Designation:

- Lateral System Stress Check (wall shear, column shear or flexure, or brace axial as applicable)
- Load Path
- Adjacent Buildings
- Weak Story
- Soft Story
- Geometry (vertical irregularities)
- Torsion
- Mass – Vertical Irregularity
- Cripple Walls
- Wood Sills (bolting)
- Diaphragm Continuity
- Openings at Shear Walls (concrete or masonry)
- Liquefaction
- Slope Failure
- Surface Fault Rupture
- Masonry or Concrete Wall Anchorage at Flexible Diaphragm
- URM wall height to thickness ratio
- URM Parapets or Cornices
- URM Chimney
- Heavy Partitions Braced by Ceilings
- Appendages

Brief Description of Anticipated Failure Mechanism:

N/A

Comments and Additional Deficiencies:

N/A

Seismic Retrofit Concept Sketches/Description (only if above-listed rating is V or greater):

N/A

Appendices:

- A. ASCE 41-17 Tier 1 Checklists (Structural and Non-structural)
- B. Quick Check Calculations