



**BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS**

BUILDING REPORT

- 1) UC Campus: [Los Angeles](#)
- 2) Building Name: [Boyer Hall](#)
- 3) Building CAAN ID:
- 4) Auxiliary Building ID: [4403.1](#)
- 5) Date of Evaluation: [9/3/2020](#)
- 6) Evaluation by: [Englekirk, TAS / TN](#)
- 7) Seismic Performance Rating and Basis of Rating: [V, ASCE 41-17 Tier 1](#)



8) Plan Image or Aerial Photo



9) Exterior Elevation Photo

- 10) Site Location
 - (a) Latitude Decimal Coordinates: [34.0681876](#)
 - (b) Longitude Decimal Coordinates: [-118.4417607](#)
- 11) ASCE 41-17 Model Building Type and Description
 - (a) Longitudinal Direction: [C2 and C2a: Reinforced concrete shear walls](#)
 - (b) Transverse Direction: [C2 and C2a: Reinforced concrete shear walls](#)
- 12) Number of Stories
 - (a) Above grade: [7](#)
 - (b) Below grade: [1](#)
- 13) Original Building Design Code & Year: [UBC-1970](#)
- 14) Retrofit Building Design Code & Year (if applicable):
- 15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): [Low](#)



Comments: Although there is a large diaphragm opening in the middle of the floor plate for the elevators, the perimeter of the opening is comprised of concrete shearwalls and pseudo drag beams tie the diaphragm to the corners of the elevator shaft opening. There is no coupling beam detailing but there is added vertical and horizontal reinforcing around all openings. All walls over openings have a min. (2) #7



horiz. about 27" below top of slab to emulate a gravity beam. Shear stresses in the shearwalls satisfy the Tier 1 check for a Life Safety level.

BACKGROUND INFORMATION

Site Information

16) Site Class (A – F) and Basis of Assessment

- (a) Site Class: **D**
- (b) Site Class Basis: **Unknown (Default)**
- (c) Site Class Company: **None**
- (d) Site Class Report Date: **None**
- (e) Site Class Ref Page No.: **None**

17) Geologic Hazards

- (a) Fault Rupture (Yes, No or Unknown) and Basis of Assessment: **No, CGS Maps**
- (b) Liquefaction (Yes, No or Unknown) and Basis of Assessment: **No, CGS Maps**
- (c) Landslide (Yes, No or Unknown) and Basis of Assessment: **No, CGS Maps**

18) Site-specific Ground Motion Study? (Yes or No) **No**

Seismic design acceleration parameters of interest:	
For BSE-1N	1.632 and 0.828
For BSE-1E	0.897 and 0.517

19) Estimated Fundamental Period (seconds)

- (a) Longitudinal: **0.65**
- (b) Transverse: **0.65**

20) Falling Hazards Assessment Summary: **None noted.**

21) Structural Non-Compliances/Findings Significantly Affecting Rating Determination Summary
Significant Structural Deficiencies, Potentially Affecting *Seismic Performance Rating* Designation:

- (a) Lateral System Stress Check (wall shear, column shear or flexure, or brace axial as applicable): **No deficiency noted**
- (b) Load Path: **No deficiency noted**
- (c) Adjacent Buildings: **Yes, deficiency noted**
- (d) Weak Story: **No deficiency noted**
- (e) Soft Story: **No deficiency noted**
- (f) Geometry (vertical irregularities): **No deficiency noted**
- (g) Torsion: **No deficiency noted**
- (h) Mass – Vertical Irregularity: **No deficiency noted**
- (i) Cripple Walls: **Not Applicable**
- (j) Wood Sills (bolting): **Not Applicable**
- (k) Diaphragm Continuity: **Yes, deficiency noted**
- (l) Openings at Shear Walls (concrete or masonry): **No deficiency noted**



- (m) Liquefaction: **No**
- (n) Slope Failure: **No**
- (o) Surface Fault Rupture: **No**
- (p) Masonry or Concrete Wall Anchorage at Flexible Diaphragm: **Not Applicable**
- (q) URM wall height to thickness ratio: **Not Applicable**
- (r) URM Parapets or Cornices: **Not Applicable**
- (s) URM Chimney: **Not Applicable**
- (t) Heavy Partitions Braced by Ceilings: **Not Applicable**
- (u) Appendages: **No deficiency noted**

22) Brief Description of Anticipated Failure Mechanism

Drag force transfer into elevator shaft shearwalls.

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse)

Strengthen drag elements around elevator shaft

Building Report Appendices

- A) ASCE 41-17 Tier 1 Checklists (Structural only)
- B) Quick Check Calculations