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
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