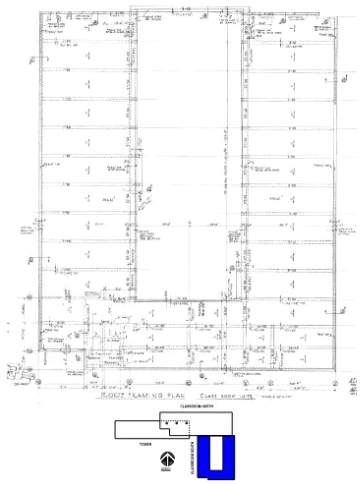
UNIVERSITY OF CALIFORNIA

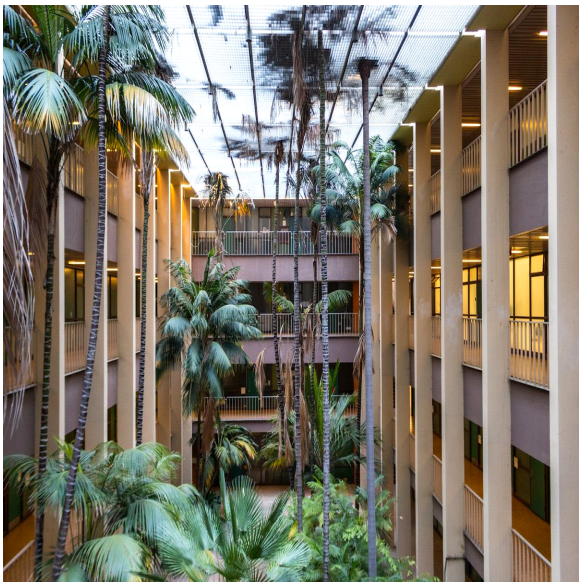
BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS

BUILDING REPORT

1) UC Campus: Los Angeles
2) Building Name: Bunche Hall - Classrooms (South Building)
3) Building CAAN ID:
4) Auxiliary Building ID: 4580.2
5) Date of Evaluation: 10/28/2020
6) Evaluation by: Englekirk, AB
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: 34.0742539
   (b) Longitude Decimal Coordinates: -118.4401283
11) ASCE 41-17 Model Building Type and Description
   (a) Longitudinal Direction: RM1: Reinforced masonry
   (b) Transverse Direction: RM1: Reinforced masonry
12) Number of Stories
   (a) Above grade: 4
   (b) Below grade: 0
13) Original Building Design Code & Year: UBC-1961
14) Retrofit Building Design Code & Year (if applicable): UBC-1991
15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): Medium

Comments: Building Lateral system composed of Reinforced Masonry Walls and added Concrete Shear Walls (1992 Retrofit) above 1st Floor, and perimeter concrete shear walls between Ground Floor and 1st Floor. Per ASCE 41-17, given that lateral system is composed of multiple common building types RM1 and C2, Tier 3 evaluation recommended for adequacy of results of building seismic behavior and accuracy to

improve or confirm building Performance Rating. A separate evaluation of the sunscreen found significant deterioration of connections supporting the sunscreen framing from the cables spanning the court.

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) None

Seismic design acceleration parameters of interest:	
For BSE-1N	1.624 and 0.824
For BSE-1E	0.896 and 0.516

19) Estimated Fundamental Period (seconds)
- (a) Longitudinal: 0.386
- (b) Transverse: 0.386

20) Falling Hazards Assessment Summary: Sunshade over the courtyard is a falling hazard.

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): Yes, wall shear stress deficiency noted
- (b) Load Path: No deficiency noted
- (c) Adjacent Buildings: Yes, deficiency noted. All floor levels align with adjacent classroom building (North) floors, pounding of floors not considered critical.
- (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: No deficiency noted

(l) Openings at Shear Walls (concrete or masonry): Not Applicable
(m) Liquefaction: No
(n) Slope Failure: No
(o) Surface Fault Rupture: No
(p) Masonry or Concrete Wall Anchorage at Flexible Diaphragm: No deficiency noted
(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: No deficiency noted
(u) Appendages: No deficiency noted

22) Brief Description of Anticipated Failure Mechanism
Shear failure of lightly confined concrete gravity columns due to deformation compatibility. Shear cracking and flexural compression failure of lightly reinforced masonry shear walls.

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse)
Increase confinement of concrete columns via FRP overlay, added masonry shear walls strength using thickened cross-section or FRP overlay or energy dissipation to reduce drift.

Building Report Appendices

A) ASCE 41-17 Tier 1 Checklists (Structural only)

B) Quick Check Calculations