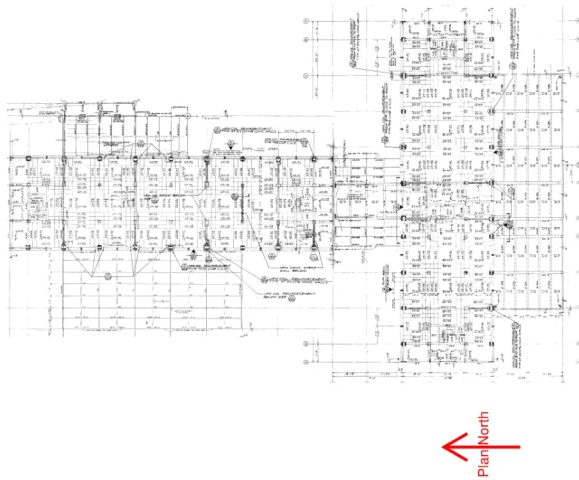




BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS

BUILDING REPORT

- 1) UC Campus: Los Angeles
2) Building Name: Sproul Hall - North B
3) Building CAAN ID:
4) Auxiliary Building ID: 4247.1
5) Date of Evaluation: 6/30/2020
6) Evaluation by: Englekirk, TAS
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: 34.072171
(b) Longitude Decimal Coordinates: -118.450713
11) ASCE 41-17 Model Building Type and Description
(a) Longitudinal Direction: C1: Reinforced concrete moment-resisting frame
(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-1955
14) Retrofit Building Design Code & Year (if applicable):
15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): Medium



Comments: 1989 retrofit addressed longitudinal frame issues. Added column confinement beneath (E) discontinuous shear walls. No strengthening in transverse direction.



**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	<b>1.62</b> and <b>0.822</b>
For BSE-1E	<b>0.896</b> and <b>0.516</b>

19) Estimated Fundamental Period (seconds)

- (a) Longitudinal: **0.868**
- (b) Transverse: **0.557**

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):  
**Yes, other deficiency noted**
- (b) Load Path: **Yes, deficiency noted**
- (c) Adjacent Buildings: **Yes, deficiency noted**
- (d) Weak Story: **Yes, deficiency noted**
- (e) Soft Story: **Yes, deficiency noted**
- (f) Geometry (vertical irregularities): **Yes, vertical irregularity 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): **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: **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 drift. Shear cracking and flexural compression failure of concrete shear walls.

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

Increase confinement of concrete columns, added shear walls or energy dissipation to reduce drift

**Building Report Appendices**

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