

UNIVERSITY OF CALIFORNIA

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

# **BUILDING REPORT**

- 1) UC Campus: Los Angeles
- 2) Building Name: Lake Arrowhead Briar Creek
- 3) Building CAAN ID: 42018
- 4) Auxiliary Building ID:

- 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

A PERMIT

9) Exterior Elevation Photo



8) Plan Image or Aerial Photo

- 10) Site Location
  - (a) Latitude Decimal Coordinates: 34.264811
  - (b) Longitude Decimal Coordinates: -117.187962
- 11) ASCE 41-17 Model Building Type and Description
  - (a) Longitudinal Direction: W1 and W2: Wood frame, wood shear panels
  - (b) Transverse Direction: W1 and W2: Wood frame, wood shear panels
- 12) Number of Stories
  - (a) Above grade: 2
  - (b) Below grade: 0
- 13) Original Building Design Code & Year:
- 14) Retrofit Building Design Code & Year (if applicable):
- 15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High):

**Comments:** No drawings provided, but most likely pre-1985. Possibly acquired by UCLA from private party. No CGS maps for north shore of Lake Arrowhead. Field visit shows plywood braced crawl space perimeter and structural hardware between framing in crawl space, which suggests an engineering design.. Rating IV assigned but a Tier 2 or 3 recommended to confirm rating.





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#### **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: Unknown, None
- (b) Liquefaction (Yes, No or Unknown) and Basis of Assessment: Unknown, None
- (c) Landslide (Yes, No or Unknown) and Basis of Assessment: Unknown, None

18) Site-specific Ground Motion	Study? (Yes or No) No
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Seismic design acceleration parameters of interest:	
For BSE-1N	1.249 and 0.805
For BSE-1E	0.919 and 0.545

19) Estimated Fundamental Period (seconds)

- (a) Longitudinal: 0.19
- (b) Transverse: 0.19

20) Falling Hazards Assessment Summary: Tall wall glazing.

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: No deficiency noted
- (d) Weak Story: No deficiency noted
- (e) Soft Story: No deficiency noted
- (f) Geometry (vertical irregularities): No deficiency noted
- (g) Torsion: Not Applicable
- (h) Mass Vertical Irregularity: No deficiency noted
- (i) Cripple Walls: No deficiency noted
- (j) Wood Sills (bolting): No deficiency noted
- (k) Diaphragm Continuity: No deficiency noted
- (I) Openings at Shear Walls (concrete or masonry): Not Applicable
- (m) Liquefaction: Unknown
- (n) Slope Failure: Unknown



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- (o) Surface Fault Rupture: Unknown
- (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

Perimeter foundation walls minimize impact of slope. Failure of shear wall panels and nailing, hold-downs and/or compression posts. Excessive deck lateral drift.

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse) None recommended.

### **Building Report Appendices**

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

B) Quick Check Calculations