BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS

BUILDING REPORT

1) UC Campus: Los Angeles
2) Building Name: Math Sci Bldg - Addition South Wing
3) Building CAAN ID:
4) Auxiliary Building ID: 4359.2
5) Date of Evaluation: 8/27/2020
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: 34.0695771
   (b) Longitude Decimal Coordinates: -118.4427578

11) ASCE 41-17 Model Building Type and Description
    (a) Longitudinal Direction: S1 and S1a: Steel moment-resisting frame
    (b) Transverse Direction: S1 and S1a: Steel moment-resisting frame

12) Number of Stories
    (a) Above grade: 4
    (b) Below grade: 0

13) Original Building Design Code & Year: UBC-1964

14) Retrofit Building Design Code & Year (if applicable):

15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): Medium

Comments: Deficient moment frame connections. The building is supported by the Boelter Hall Annex.
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:

<table>
<thead>
<tr>
<th>Seismic Design Parameters</th>
<th>For BSE-1N</th>
<th>For BSE-1E</th>
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<tbody>
<tr>
<td>Acceleration</td>
<td>1.631 and 0.827</td>
<td>0.897 and 0.517</td>
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19) Estimated Fundamental Period (seconds)
   (a) Longitudinal: 0.99
   (b) Transverse: 0.99

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, frame beam/column connection deficiency noted
(b) Load Path: No deficiency noted
(c) Adjacent Buildings: Yes, deficiency noted. The gap provided between the main structure of Addition and South Wing is 6" while the gap required per Tier 1 checklist is around 12".
(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: 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
Moment frame connection failure due to deficient detailing. Potential uplift or sliding off at the base.

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse)
Strengthen the moment frame connections. Provide more anchors at the base of the frames to the existing concrete structure below.

**Building Report Appendices**
A) ASCE 41-17 Tier 1 Checklists (Structural only)

B) Quick Check Calculations