



375 Beale Street
Suite 500
San Francisco, CA 94105
p: 415.392.6952

www.degenkolb.com

November 19, 2019

Ms. Joanne Williams
Senior Leasing Specialist
UCLA Real Estate
10920 Wilshire Boulevard, #810
Los Angeles, California 90124

Reference: **Seismic Evaluation
Continuing Education of the Bar
745 – 85th Avenue, Building F
Oakland, California
[Degenkolb Job Number B9138016.00]**

Dear Joanne:

We have performed a Seismic Evaluation of the Continuing Education of the Bar's (CEB) Product Distribution Facility at 745 – 85th Avenue, Building F in Oakland, California. The CEB is a unit of the University of California which leases space in the referenced facility. This evaluation is in accordance with the UC Seismic Safety Policy for leased facilities.

We previously performed a seismic evaluation of this facility in 2006. We rated the building at that time to have a seismic performance rating of FAIR despite the front or south wall with all its openings being seismically overstressed about 70% following the UC policy.

Loring A. Wyllie, Jr. visited the site on November 6, 2019, to observe the building and met with Richard Smedley, the site manager. Structural drawings dated 1987 were prepared by William M. Simpson and Associates of Newport Beach, California. CEB occupies the second of four spaces from the west end, a space roughly 180 feet by 204 feet in plan.

The CEB's space is a portion of a larger building built from the drawings dated 1987. The building is a tilt-up warehouse building 840 feet by 204 feet in plan. The building has no expansion joints. The exterior walls are reinforced concrete tilt-up panels and three interior walls are also tilt-up concrete dividing the building into four spaces. The interior walls are solid walls, the rear (north) wall and the two end walls are mostly solid with a few doorways and the front wall is mostly doorways and truck dock doors with very small concrete piers between the doors. The roof is a panelized wood roof with plywood sheathing, timber purlins and sub-purlins and glued-laminated beams supported by structural steel tube columns and the tilt-up walls.



November 19, 2019
Page 2

The wood framing details of the roof are good and eliminate most of the normal seismic concerns about this type of tilt-up construction. The ledgers are a structural steel channel which is bolted to the tilt-up panels. Steel plates welded to the channel bolt to the purlins for out of plane wall anchorage to the roof. This detail was used at both front and rear walls contrary to a reference to an inferior detail on the drawings. One detail observed at interior glu-lam beams where a Simpson "VB" brace connects the first purlins each side of each column (Detail G/SD-4 on drawings, see Figure 1) was constructed so poorly that the light metal braces are severely bent and will be ineffective in an earthquake. See Figures 2 and 3. We recommended in 2006 that CEB inform the owner and have them repair or replace these braces. No repairs have been made and we again recommend that you encourage the building owner to repair or replace these braces. The purpose of these braces is to provide a north/south tension capacity in the roof diaphragm to work with the strap on the top, hopefully there but concealed by the roofing.

Our most significant seismic concern of this building is the front or south wall of this building. It is full of roll-up doorways for truck loading and contains very little concrete wall. We did a very rough calculation in 2006 regarding the capacity of this front wall and found it overstressed by the then current Building Code requirements. The rough calculation indicated a demand to capacity ratio of 1.7. A check with the current code indicates about the same overstress. Building Code requirements were quite a bit lower for seismic forces in 1987 and we would guess that this wall just complied with minimum code at that time. All of the piers are flexurally controlled which is a benefit as some limited ductility may be present.

Mr. Smedley indicated that they had complied with our recommendation made in 2006 to relocate the heavier storage items to the lower shelves as their racks and shelving have minimal base anchorage and seismic bracing. He indicated they have also relocated most of their stored product to the west side of their space anticipating possibly a smaller leased space. He indicated they used to employ a staff of about 25 in the facility and now they have only 4 employees in the space, largely due to an increased use of digital product vs. paper product. Thus the personnel occupancy of this space is greatly reduced from what it was.

It is our professional opinion that this building was generally well built and will not collapse or partially collapse in a major earthquake, despite the somewhat code overstressed south or front wall. The front wall with all the large truck openings may crack and possibly slightly rack in a major earthquake but not collapse. Considering all of these factors including the good structural detailing, the minimal occupancy of the CEB space, the implied seismic damageability contained in the UC Seismic Policy and using our engineering judgment, we believe a proper expected seismic performance level for this facility is IV or FAIR. We do recommend, however, that you should encourage the Owner to repair or replace the roof's deficient tension ties as illustrated in Figures 2 and 3.

Please contact us if you have any questions. It is our pleasure to be of service.

Very truly yours,
DEGENKOLB ENGINEERS

A handwritten signature in black ink, appearing to read "Loring A. Wyllie, Jr.", written in a cursive style.

Loring A. Wyllie, Jr.
Senior Principal