

## 2. Architectural

### Overview

Architectural site visits were performed from February 9 through February 12, 2009 in the following locations:

- Typical floors 10, 15, 21
- Restricted floors 2, 3, 5, 17, 19
- Remediated floors 22, 23, 24
- Floor 1
- The parking garage.

The architectural team visually assessed these floors for accessibility and fire/life safety requirements per the 2007 California Building Code (CBC). (See the Code Compliance section of the Executive Summary for additional information.) The architectural team also conducted a below ceiling visual assessment for water damage. The architectural team observed 6 primary concerns with the existing condition of the building:

- Accessible van parking does not comply with ADA requirements.
- The vertical clearance at accessible parking spaces on floors 2 and 3 does not comply with ADA requirements.
- Wheelchair seating and an assistive listening system are not provided in the Board Room per ADA requirements.
- The recessed planters in the main lobby create a drop-off hazard.
- The exit door widths from the Stair 2 ground floor exit doors and the adjacent exit passageway do not comply with CBC requirements.
- Corridor 127 is not continuous to an exit as required by the CBC.

### A. Accessibility

The building was visually assessed for compliance with the 2007 CBC accessibility requirements. (See the Code Compliance section of the Executive Summary for additional information.) The following observations and/or concerns were found:

#### Accessible Parking

1. The clear height on the first floor of the parking garage is 99 inches. The clear height is 90 inches on floors 2 and 3. Per 2007 CBC 1130B, 98 inches of vertical clearance is required inside a parking structure. Therefore, it is recommended to locate accessible van parking on floor 1 and accessible parking on floors 1 and 4.
2. Based on the Dreyfuss & Blackford 11/5/90 drawings, there are 695 parking spaces. Per 2007 CBC Table 11B-6, 14 accessible parking spaces are required and 2 of these spaces should be van parking.
3. At the accessible parking stalls, the words "NO PARKING" were not provided in the adjacent loading area. The accessible parking stalls were 8 feet wide instead of the required 9 feet. Wheel stops were not provided at the accessible parking stalls. See 2007 CBC figure 11A-2A.
4. On floor 4, the accessible parking signage was not the minimum 36 inches high per 2007 CBC 1109A8.8.

5. On floor 3, there are 6 parking spaces with signage indicating the spaces are reserved for vehicles with disabled placards. The existing signage does not comply with 2007 CBC 1129B.4. Also, these parking spaces do not have adjacent loading areas, accessible route striping, and the ISA is not painted on the ground.
6. On floor 2, there are 7 parking spaces with signage indicating the spaces are reserved for vehicles with disabled placards. The existing signage does not comply with 2007 CBC 1129B.4. Also, these parking spaces do not have adjacent loading areas, accessible route striping, and the ISA is not painted on the ground.
7. On floor 1, 6 parking spaces are indicated as van parking but they do not have the required 8 ft wide loading area.
8. The tow away sign is not provided per 2007 CBC 1129B.4.

### **Accessible Path of Travel**

See the Civil portion of this report for additional information on the accessible path of travel.

9. There is no directional signage at the building exterior indicating the accessible path of travel. Signage with the ISA was provided at the main building entrances.
10. The accessible path of travel from the ground floor van parking spaces to the building entry does not comply for the following reasons:
  - a. A ramp is provided from the parking space up to the sidewalk. Current code requirements eliminate the ramp up to the sidewalk (see 2007 CBC figure 11A-3F).
  - b. Where the accessible path crosses the loading dock driveway, truncated domes are not provided per ADAAG 4.29.5.
  - c. Where the accessible path comes to the ramp up to the building entry, there is no ADA compliant identification signage.
  - d. The ramp slope is an acceptable 5.7%. Handrails should be provided on both sides of the ramp per 2007 CBC 1010.8. A column protrudes into the ramp reducing the required width by more than 4 inches.

### **Signage**

11. Tactile room identification signage was generally provided throughout the building. Tactile signage was mounted 60 inches on center per 2007 CBC 1117B.5.7. Tactile room identification signage was missing at the entry to the cafeteria.
12. Tactile exit signage was not provided as required by 2007 CBC 1011.3. This comment includes the majority of the offices, the Board Room, and the cafeteria.
13. Tactile exit signage at stairs simply reads "STAIRS" instead of "EXIT STAIR DOWN" per 2007 CBC 1011.3. Stairway floor number signage complies with 2007 CBC 1020.1.6.
14. The triangular and round restroom signs did not have the respective male and female pictograms. See 2007 CBC 1117B.5.

15. Evacuation signage was provided at the main entry, stairwells and elevators. The evacuation signage at the main entry is difficult to read because it is separated from the circulation path by the recessed planter.

### **Restrooms**

Stantec performed an initial review of the restrooms from February 9-12. On April 23 Stantec received copies of a restroom survey performed by DGS dated 6/17/08 (see Exhibit D). The DGS survey listed the following deficiencies:

- a) Accessible toilet compartment: Modify the toilet partition to provide 48 inches clear in front of the toilet.
- b) Accessible faucet: Provide ADA compliant levers or sensor operated faucets.
- c) Accessible lavatory: The DGS survey indicates a “counter edge no higher than 34” AFF.” Actually, the code reads that the rim of the lav or counter height should not exceed 34 inches AFF. Stantec re-measured the countertop heights on May 5 and found heights measuring from 33-1/2 inches to 34-1/4 inches with a 3/4 inch high lav rim. None of the restroom lavs/countertops comply with the current code requirement.
- d) Receptacles and dispensers: 40 inches maximum to the highest operable part.
- e) Accessible compartment door: Provide a u-shaped handle at the inside and outside.
- f) Room ID signage and door signage: Replace per CBC 1115B.6 and 1117B.5.1.

The DGS survey drawing indicates that the cased opening to the restroom should be widened from 36 inches to 44 inches. The purpose for widening the door is unclear. Based upon 2007 CBC Figure 11B-12(b), it appears that the existing 36 inch wide cased opening and the existing 3'-5" clearance at the existing protrusion provide adequate clearance for wheelchair maneuverability.

Stantec double-checked the required 5ft turning radius. The clearance between the toilet partitions and face of countertop apron is 4'-9-1/2". Since the countertop apron is less than 27 inches high, the turning radius cannot extend beneath the countertop (see 2007 CBC 1115B.3.1). Therefore, there is no 5 ft clear turning radius in the restrooms until the apron is raised to 27 inches clear.

Stantec made the following additional observations:

16. On floors 22 through 24, the lavatory faucets have ADA compliant sensors. In all other restrooms, non-compliant push-type knobs are provided. The undercounter piping was protected.
17. Toilets and urinals were located the correct distances from walls, had the correct mounting heights, and the correct clearances.
18. Accessible toilet compartments had self-closing doors and sliding latches. A u-shaped handle was not provided on the inside per 2007 CBC 1115B3.1.4.5. The coat hook was located out of reach at 66 inches high.
19. Toilet seat cover dispensers were located at 42 inches high rather than the required 40 inches.
20. Toilet paper dispensers protruded more than 4 inches.

### **Drinking Fountains**

21. Hi-lo drinking fountains are not provided per 2007 CBC 1115B.4.6.
22. The dimensions for the drinking fountain alcove comply with the minimum requirements per 2007 CBC figure 11B-3A.
23. The drinking fountain at grid M21 on floor 24 does not work.

### **Public Telephones**

24. A bank of three public telephones is provided on the ground floor. These phones comply with mounting heights and clearances for a side reach approach per 2007 CBC figure 11A-11B.
25. Telephones for the hearing impaired are not provided per 2007 CBC 1117B.2.8. A text telephone is not required per 2007 CBC 1117B.2.9.

### **BOE Board Room**

26. Wheelchair seating areas were not provided per 2007 CBC 1104B.3.1 and Table 11B-1.
27. An assistive listening system was not provided per 2007 CBC 1104B.

### **Ramps**

28. The west ramp in Board Room Anteroom 119 has a slope of 8.7% which exceeds the acceptable limit of 8.3%.
29. The ramp in Corridor 158 near gridline 1 has a slope of 11% which exceeds the acceptable limit of 8.3%. Handrails are not provided per 2007 CBC 1010.8.
30. The majority of the ramps inside the building have slopes ranging from 5.5 to 7.5%.
31. No handrails were provided at the ramp adjacent to Big Red Room 207.
32. No handrails were provided at the ramp in Computer Room 515.

### **Hazards**

33. In the main lobby on the ground floor, recessed planters are provided along the north and south walls. The recess is approximately 12 inches deep. Therefore, a warning curb to warn the blind of a potential drop-off should be provided per 2007 CBC 1133B.8.1.

### **Plumbing Fixture Count**

34. Based on the 2007 California Plumbing Code (CPC), the existing building does not have a sufficient number of plumbing fixtures for the office use on floors 2 through 24 (see Exhibit C).
35. Based on the 2007 CPC, the existing building does not have a sufficient number of plumbing fixtures for the assembly uses on floor 1 (see Exhibit C).

## **B. Fire/Life Safety**

The building was visually assessed for compliance with the 2007 CBC. (See the Code Compliance section of the Executive Summary for additional information.) The following observations and/or concerns were found:

## **Parking Garage**

1. The illuminated exit signs were not lit per 2007 CBC 1011.4. This was a consistent observation on each floor of the parking garage. See the Electrical section for additional information.
2. The garage stairs have open risers which do not comply with 2007 CBC 1009.3.3.
3. Handrails are provided on both sides of the stair. However, the handrails do not comply with size requirements per 2007 CBC figure 11B-1C and the handrails do not extend beyond the top and bottom riser per 2007 CBC 1133B.4.2.2.
4. Pipe rails are provided as vehicle barriers along the garage perimeter. These rails are not designed to resist a 6,000 lb load per 2007 CBC 1607.7.3.

## **Tower**

5. Stantec has performed a cursory building code analysis based on the 2007 CBC (see Exhibit A). Based on this analysis, 2 exits are required from each floor. At floor 1, a total of 4 exits are provided.
6. A pair of exit doors is provided from Stair 2 to the adjacent exit passageway. The active door leaf is 36 inches wide and the inactive leaf is 24 inches wide. The active door leaf provides adequate exit width per the code check (see Exhibit A). The doors both have panic hardware but only the active leaf has a door closer. A closer should be provided for the inactive leaf in order to maintain the integrity of the stair's fire-rated enclosure.

A pair of exit doors is provided from the Stair 2 exit passageway to the building exterior. The active door leaf is 36 inches wide and the inactive leaf is 24 inches wide. The active door leaf provides adequate exit width per the code check (see Exhibit A). The doors both have closers but only the active leaf has panic hardware.

7. Corridor 127 is not continuous to an exit as required by 2007 CBC 1017.5. The corridor ends at stair 2 and this current configuration creates a dead end corridor situation. Stantec recommends that this condition be reviewed with the State Fire Marshal during any future modifications that affect this area.
8. South of column J18, there is a protrusion into the exit door which reduces the required exit width.
9. A column on the pull side of door 129C reduces the landing width from the required 60 inches to only 48 inches. See 2007 CBC 1133B.2.4.2.
10. At stair 4 on the ground level, the landing width on the pull side of the door is only 48 inches instead of the required 60 inches per 2007 CBC 1133B.2.4.2.
11. An illuminated exit sign is not provided at the 4<sup>th</sup> Street exit door in Corridor 158.
12. Five broken fire extinguisher cabinets (FEC) were observed on the ground floor. They are located in Daycare Reception 160, Corridor 158 near the trash compactor room, Corridor 127 near door #123, Corridor 132 near the southeast stair, and Corridor 132 near the entry to Mail Processing Room 139.
13. In Open Area 1707, the cubicle layout has created a dead end condition near grid N22.

14. The existing stair width is 51 inches but the stairs do not qualify as accessible means of egress because they only have 46 inches clear between the handrails instead of 48 inches per 2007 CBC 1007.3. Also, emergency chairs are provided on each floor in stairs 1 and 2.
15. An accessible means of egress and adjacent areas of refuge were not provided per 2007 CBC 1007.1 and 1007.6. A concern of the Sacramento Fire Dept. is that during building evacuation, a large number of building occupants cannot walk down the stairs due to heart problems, asthma, being overweight, etc. An area of refuge on each floor would provide a staging place for these persons.
16. At the espresso bar adjacent to the Cafeteria dining area, there is a skylight above that is not fire sprinklered. See Fire Protection section of this report for additional information.
17. Visual/audible alarms were consistently provided in the restrooms surveyed. However, visual/audible alarms were not consistently provided in conference rooms per 2007 CBC 907.9.1.1. For example, strobes were missing in conference rooms 1007 and 1917 but were provided in conference room 1002. See the Fire Alarm section for more information.
18. Breathing air tanks for firefighter use are stored in Stair 2 under the metal stairs. The 2007 CBC does not indicate whether open storage under exit stairs is allowed. However, 2001 CFC 1210.3 and 1988 UBC 3309(f) indicate that open storage under exit stairs is not allowed. Stantec recommends that this condition be reviewed with the State Fire Marshal during any future modifications that affect this area.
19. The northwest exit door from Lobby/Reception 102 does not have panic hardware as required per 2007 CBC 1008.1.9.
20. At corridor 132 there is an overhead roll-up door that closes in the event of a fire. If this roll-up door closes, then there are no longer 2 exits from corridor 132 as required by 2007 CBC 1019.1. Stantec recommends that this condition be reviewed with the State fire marshal during any future modifications that affect this area. If the existing roll-up door has an integral man door, then there would be no problem. Stantec was unable to verify the condition from the as-built information provided.

### **C. Water Damage**

The building was visually assessed for water damage along the interior perimeter and for below ceiling visual evidence of any leaks. Stantec presented their observations to DGS in the March 27, 2009 preliminary report. The observations were forwarded by DGS to LaCroix Davis to be addressed under their scope of work.

A copy of the December 19, 2008 LaCroix Davis (LCD) preliminary report was given to Stantec on January 22, 2009. This report was reviewed by Stantec. DGS gave Stantec a copy of the February 25, 2009 LCD final report on April 21. This report was not reviewed by Stantec.





The Dept. of Utilities does not have any planned future improvements that would affect the BOE headquarters building. However, there are ongoing upgrades to the existing water and sewer systems. Any major utility improvements would be generated by development projects in the area. Adequate water is currently provided from the Sacramento River water treatment plant.

It should be noted that sewer mitigation fees would be required if there was a change in occupancy/building use at the BOE headquarters building (see Exhibit E).

Stantec interviewed Mr. Batha on March 16. He confirmed that there are no future improvements that would affect the BOE building. There is a new 18 inch diameter sewer line that runs down 5<sup>th</sup> Street between Capitol Mall and N Streets. Mr. Batha is comfortable that this size of pipe can handle future loads. The existing storm drain runs down N Street to 4<sup>th</sup> Street.