

**State of California**  
**Office of Statewide Health Planning and Development (OSHPD)**  
**Facilities Development Division (FDD)**

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Standard Structural Review Comments  
Based on the 2010 California Building Standards Code (CBSC 2010)

Applicable to single-story Type V skilled nursing or intermediate care facilities utilizing wood-frame or light steel-frame construction for OSHPD 2 projects **received after January 1, 2011.**

(a) Marked plans and response

The structural comments are shown on this set of drawings in red. Each comment is identified by a number such as S-1, S-2, S-3, etc, and is enclosed in a cloud.

The text of standard structural comments called out on the review set by "2010(a)" etc, can be found in the attached list of standard structural comments.

The comments are based on the California Building Code, 2010 (CBC 2010) and California Administrative Code, 2010 (CAC 2010).

In order to facilitate the back check, please respond in writing to each comment. Your response may be in the form of a letter or each response may be written on this final review set of drawings near the comment in a color other than red or green. If the responses are presented in a letter, identify the comment by drawing number and the comment number. In either case, each response should specify how and where on the resubmitted drawings, specifications, or calculations the OSHPD comments have been resolved.

If you have any questions, please do not hesitate to call the Structural Reviewer:

\_\_\_\_\_  
(name)

\_\_\_\_\_  
(phone)

Reference: The CBC 2010 Sections 105 and 107.

(b) Equipment Anchorage Exempt from Permit

Show the following note prominently on the plans:

"Work exempt from permit by the CBC 2010 Section 105.2 or ASCE 7-05 Section 13.1.4 need not be detailed on the construction documents. Exemptions from permit requirements of the code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. The Inspector of Record (IOR) shall assure that the above requirements are enforced."

Reference: The CBC 2010 Sections 105 and 1613.

(c) Intent of the Drawings

Due to the difficulty of anticipating every unsatisfactory condition that may arise in connection with an existing facility where alteration or reconstruction work is proposed, the following clause or one of similar meaning shall be included on the construction documents:

"The intent of the construction documents is to reconstruct the building in accordance with the CBSC 2010. Should any condition develop not covered by the construction documents wherein the finished work will not comply with the CBSC 2010, a change order detailing and specifying the required work shall be submitted to and approved by OSHPD before proceeding with the work."

Reference: The CBC 2010 Section 116.

(d) Pipes, Ducts, and Conduits Supports and Bracings

Provide calculations and drawings for the support and bracing of all pipes, ducts, and conduits. If a pre-approved system is specified for the bracing, calculations and details for the supporting structure are still required. Only pre-approvals specifically approved for the CBC 2010 shall be used. Once the exact location of all pipes, ducts, and conduits have been established, the structural engineer shall verify the adequacy of the supporting structure to ensure that the original design is still adequate.

Reference: The CAC 2010 Sections 7-115, 7-126 and CBC 2010 Section 107.

(e) Equipment anchorage approval

Provide details on the construction documents and substantiating calculations for the support and anchorage of fixed equipment as required by the CBSC 2010. See comment 2010 (b) for exemption to anchorage requirements.

Equipment must be anchored if it is permanently attached to the building utility services such as electricity, gas, or water. For the purposes of this requirement, "permanently attached" shall include all electrical connections except three-prong plugs for duplex receptacles.

The details must be clearly coordinated with the calculations and the manufacturer's literature. Sketches shown in the calculations for the purpose of illustrating the analytical method are not adequate. OSHPD does not approve calculations; therefore, they cannot appear on the approved construction documents.

These details and calculations may not necessarily be the responsibility of the Structural Engineer of Record.

Reference: The CAC 2010 Sections 7-115, 7-126 and CBC 2010 Section 107.

(f) Vibration Isolators

For all vibration isolators and their anchorage, provide calculations, details, and / or test data to substantiate the isolator's capacity for vertical and lateral loads or use OSHPD pre-approved isolators. If the anchorage is not pre-approved, then calculations shall also be submitted to substantiate the size, quantity, location, and connection to structure of the isolator. The drawings shall be coordinated with the calculations and clearly specify the manufacturer, model type, model number, base plate size, quantity used and location at each piece of equipment, and how it is attached to the structure. Isolators which support a component inside the prefabricated unit will not be reviewed.

Reference: The CAC 2010 Sections 7-115, 7-126 and CBC 2010 Section 107.

(g) Post-Installed Anchors

For all Post-Installed anchors show on the construction documents the manufacturer, type, diameter, minimum embedment, concrete type(s) and strength(s). Show the actual magnitudes of the test loads on the contract documents. Testing is required in accordance with the CBC 2010 Section 1912.2.

Reference: The CBC 2010 Sections 107 and 1912.

(h) Signature - Structural Engineer

All final construction documents shall bear the structural engineer's stamp or seal, signature, and expiration date.

Reference: The CAC 2010 Section 7-115 and CBC 2010 Section 107.

(i) Geologic Hazards Report

Provide a geologic and earthquake engineering report in accordance with the CBC 2010 Section 1803.7.

Reference: The CAC 2010 Section 7-115 and CBC 2010 Section 107.

(j) Geotechnical Report

Provide a geotechnical report in accordance with Section 1803.6.

Reference: The CAC 2010 Section 7-115 and CBC 2010 Section 107.

- (k) Separate the substantiating documentation from the construction documents to be stamped "Reviewed for Code Compliance" by OSHPD and bind them separately. OSHPD only approve drawings and specifications, it does not approve substantiating documentation such as calculations, cost estimates, manufacturer cut sheets, etc. These substantiating documents should be submitted if they are required for approval of the construction documents but they shall not be bound with the construction documents to be stamped "Reviewed for Code Compliance". For post approval construction documents, clearly identify the documents to be stamped "Reviewed for Code Compliance" by numbering all of the sheets which comprise changes to the existing OSHPD approved construction documents. Provide a cover sheet with a complete index of the documents to be stamped "Reviewed for Code Compliance". Changes to the existing OSHPD "Reviewed for Code Compliance" contract documents must be identified by clouding them on the plans or identifying them by some other means.

Reference: The CBC 2010 Section 107

- (l) Equipment Not In Contract (NIC)

For all new or relocated equipment to be installed under the scope of this application and designated as "by others" or "not in contract," it is the responsibility of the architect and/or the structural engineer in responsible charge of the project to sign and submit the necessary construction documents, and supporting calculations to OSHPD for review and approval. Alternatively, exclude the equipment from the construction documents and the scope of this application. All equipment thus excluded can be installed only after obtaining the approval of OSHPD under a separate application.

Reference: The CAC 2010 Sections 7-115 and 7-126.

- (m) Kitchen Equipment

Provide calculations and details for the support and anchorage of all kitchen equipment that is to be permanently fastened to the building or utilities.

Reference: The CAC 2010 Sections 7-115 and 7-126

(n) Equipment Anchorage Approval

Equipment anchorage details must be approved by OSHPD, prior to fabrication and installation, in one of the following ways:

- a. If the equipment has been specified such that anchorage details can be determined, then the details must be shown on the construction documents. No reference to "or equal" is allowed unless it is clearly specified that any "or equal" substitutions must be approved by OSHPD by means of a change order, or:
- b. Where the anchorage details cannot yet be determined, then their approval will be **deferred** if all of the following conditions are met:
  - 1) The anchorage cannot be fully detailed on the approved construction documents because of variations in product design or manufacture; e.g., the manufacturer has not yet been chosen, or specified equipment is for performance criteria only.
  - 2) All items requiring deferred approval shall be listed under a separate heading on the drawings, preferably on the title sheet, and on a letter size sheet which will be attached to the building permit. This list must include the maximum weight of the equipment for which the supporting structure was designed. Clearly indicate that OSHPD approval of the deferred portion is required prior to fabrication and/or installation.
  - 3) The construction documents shall fully describe the performance and loading criteria for such work. The design of the supporting building structure cannot be deferred; therefore, show the maximum allowable equipment weight on the drawings. When the equipment is chosen, the adequacy of the supporting structure can be substantiated by comparing the actual equipment weight to the maximum allowable equipment weight shown on the plans.
  - 4) The architect and/or engineer responsible for preparation of the construction documents for the main project, as listed on the applications, shall sign the construction documents for the deferred approval items.

- 5) The anchorage details and calculations shall be submitted sufficiently in advance of the desired date of approval to provide time for the initial review by OSHPD and at least one cycle of response and back check review.

(o) Grab Bars

Show on the drawings details of how grab bars and / or tub and shower seats, located in handicapped toilets and shower stalls, are connected to the supporting structure. See the CBC 2010 Section 1607.7 for required strength.

Reference: The CBC 2010 Section 1607.

(p) Television and Monitor Brackets

The design of wall or ceiling mounted television and monitor brackets shall comply with the ASCE 7 Chapter 13 as modified by the CBC 2010 Section 1615. The design shall include: 1) The connection of the bracket to the structure; 2) The supporting structure; 3) The bracket itself; and 4) The connection of television and monitor to bracket.

Reference: The CBC 2010 Section 1607.

(q) Fire Sprinklers

Show a note on the plans or in the specifications requiring that the spacing and details of the support and bracing of fire sprinkler piping comply with NFPA 13-10 with applicable SFM amendments. Provide anchorage details and calculations for the connection of sway bracing to the structure. Where applicable, details for the support and bracing may be referred to an OSHPD pre-approved anchorage system. All shop drawings of the sprinkler system shall be submitted to OSHPD for review and approval prior to installation. The allowable values for anchors shall be in accordance with the CBC 2010 Sections 1911 or 1912 subject to limitations there in.

Reference: The CBC 2010 Section 1607.

(r) Tests and Inspections

A Testing, Inspection and Observation (TIO) program shall be developed, submitted and approved during the plan review process. See the CAC 2010 Section 7-141 for requirements. An acceptable TIO form can be down loaded from the OSHPD web site.

OSHPD must approve the TIO program including the individuals and/or firms who will perform the specified tests and/or inspections prior to issuance of a building permit.

Reference: The CAC 2010 Section 7-141.

(s) Incomplete submittals

The following comments are based on a preliminary or incomplete submittal. A more thorough review will be made upon re-submittal and additional comments will follow.

Reference: The CAC 2010 Section 7-121.