

Code Adoption Committee

Meeting Date: April 16, 2021 at 9:00 am

AGENDA ITEM 2

Discuss adoption of 2021 International Existing Building Code (IEBC) Chapters 6 through 11 and 13

This Code Adoption Committee (Subcommittee of the Commission) meeting is conducted to discuss possible adoption of International Existing Building Code IEBC chapters 6 through 11 and 13 into 2022 California Existing Building Code (CEBC).

When Chapter 34 Existing Structures was deleted from the 2015 International Building Code (IBC) and the Existing Structures provisions were relocated to 2015 IEBC, the Building Standards Commission's Coordinating Council met to discuss and coordinate how best to handle where and how the state agencies should relocate their amendments for existing buildings. The consensus was that most state agencies would propose adoption of certain IEBC provisions (same requirements that were in IBC Chapter 34) and relocate their respective California Building Code (CBC) Chapter 34 amendments to CEBC. All the agencies followed this recommendation in adopting 2015 and 2018 IEBC. Chapters 6-11 and 13 of IEBC have not been adopted to be applicable to buildings under state agencies jurisdictions and all the nonresidential buildings not covered by a state agency. These chapters were not printed in the CEBC; however, these chapters are available to local jurisdictions for their adoption and use.

In November 2019, California Building Standards Commission (CBSC) received a petition from Michael Malinowski of the American Institute of Architects, California (AIA-CA) which proposes to adopt Chapters 6-11 and 13 of IEBC into 2022 CEBC. This petition was presented by AIA-CA and discussed at the September 24, 2020 CBSC Coordinating Council meeting. The principal rationale for the AIA petition for California adopting these IEBC chapters is to provide flexibility and alternative compliance paths that are effective in assuring life safety performance when existing buildings are repurposed, rehabilitated, repaired, altered, and expanded.

In preparation of the Code Adoption Committee meeting, CBSC surveyed five proposing agencies to gather feedback focused on each agency's perception of the general impact, pros and cons of adoption vs non-adoption of Chapters 6-11 and 13, and possible conflicts with existing California laws. The survey results are listed below.

Item 2a

California Building Standards Commission (BSC)

BSC contact: Irina Brauzman, Associate Architect

Phone: 916-263-5159

Email: Irina.Brauzman@dgs.ca.gov

Question 1. Is your agency going to adopt/amend those chapters? What is the reasoning?

BSC does not intend to adopt IEBC chapters pertaining to the work area method (Chapters 6 – 11) nor the performance method (Chapter 13).

Regulations governing additions, alterations, reconstruction, and change in occupancy for buildings within BSC's authority (see CEBC section 1.2.1) are contained in Chapters 3, 4 and 5 of this code and already provide stakeholders the option of performance based seismic design through the application of ASCE 41. Much of the remaining regulations contained in Chapters 6-11 and 13 regulated in other parts of the California Building Standards Code or not within BSC authority; therefore, adoption of these chapters by BSC is not deemed constructive at this time.

Question 2. Pros and cons of adopting those chapters by the Commission on behalf of California?

Structural requirements defined in the prescriptive (Chapter 5) and work area compliance methods (Chapters 6-11) of the IEBC are generally the same. Performance compliance method (Chapter 13) does not contain structural requirements for performance-based design but simply states that the building with the work completed must be capable of resisting the loads specified in Chapter 16 of IBC. Most of the other regulations in Chapters 6-11 and 13 are within SFM and/or HCD authority, so BSC defers to them for their recommendation.

State agencies primarily adopt IEBC Chapter 5, Prescriptive Compliance Method. The common rationale for agencies and California not adopting the IEBC Chapters 6-11 and 13 has been historically based upon the feasibility of local jurisdictions to incorporate the necessary viable training and personnel to utilize and enforce the chapters containing alternative compliance paths. If these chapters are adopted statewide, additional resources, personnel and training in the performance methods may need to be considered.

As the AIA petition points out, additional compliance method options may provide relief from certain requirements that may allow industry the flexibility to fully comply with current requirements without burdening projects with costly improvements.

Question 3. Pros and cons of not adopting those chapters by the Commission on behalf of California but printing them for local adoption?

Printing the Chapters may not provide a discernable advantage or benefit to the code user since access to those chapters would be based on whether local jurisdictions adopt the IEBC chapters.

Question 4. Are there possible conflicts with current California laws or other building standards if the chapters are printed vs adopted?

DSA and SFM have listed some existing Title 24 and California Law sections that will conflict with various IEBC chapters for applications under their authority.

More in-depth study may be needed for other agencies to ascertain the conflicts within the scope of the applications that each agency represents.

Question 5. Is there any quantifiable estimate of how much more existing building stock can be utilized if California adopts the chapters?

BSC has no data on this question.

Item 2b

Division of is the State Architect – Structural Systems (DSA-SS)

DSA Contact: Bryan Frank, SE

District Structural Engineer | Codes and Standards Unit

Phone: (510) 622-3120

Email: Bryan.Frank@dgs.ca.gov

Question 1. Is your agency going to adopt/amend those chapters? What is the reasoning?

DSA-SS and DSA-SS/CC do not intend to adopt IEBC chapters pertaining to the work area method (Chapters 6 – 11) nor the performance method (Chapter 13). Relatedly, we also intend to continue the adoption of only a single section (503.3) of Chapter 5, which covers the prescriptive method.

DSA-SS and DSA-SS/CC regulations governing additions, alterations, reconstruction, and change in occupancy for buildings are contained in Chapter 4 of the California Administrative Code (Part 1). Adoption of IEBC Chapters 6 through 11 and 13 for buildings under DSA jurisdiction will result in competing and sometimes contradictory regulations with those already contained in Part 1. Experience indicates the current regulations contained in Part 1 generally serve their intended purpose and are known and implemented by stakeholders.

Replacement or large-scale revision to these regulations is not deemed constructive at this time. Furthermore, the regulations in the California Administrative Code (CAC) have a documented history of development substantiated by our authority under the Field Act in the Education Code. Transitioning to the adoption of the CEBC would be a resource intensive endeavor for which there is very little or no benefit to what already exists in the CAC.

The current regulations of the CAC Chapter 4 are appropriate for DSA authority which differs from that of the typical building code official in local jurisdictions. For example, the Education Code does not grant DSA the authority to require the elimination of dangerous conditions as is given local jurisdictions (refer to IEBC Section 302.1). For differences such as this, retention and preservation of the regulations contained in the CAC is critical to DSA function.

Structural safety requirements for existing buildings, particularly with respect to the lateral (seismic) force resisting system, differ between the CAC and IEBC in

both methodology and specifics. For example, while certain alterations will require an existing building to comply with selected sections of the California Building Code (Part 2), the broader concept of a rehabilitation [1] as defined by the CAC is not employed by the IEBC. Additionally, the IEBC allows the evaluation and compliance of existing buildings for reduced seismic forces [2], which are not permitted by the CAC. These examples illustrate how the IEBC regulations do not provide equivalency to the current requirements of the CAC.

Example differences between structural safety requirements of the IEBC and CAC as described above are not specific to the consideration of Chapters 6 through 11. The structural regulations of the work area method (Chapters 6 – 11) are the same as those of the prescriptive method (Chapter 5), which has been and is currently printed in the CEBC. With the exception of the section noted below, DSA-SS and DSA-SS/CC have not previously adopted Chapter 5 of the CEBC in deference to the regulations contained in the CAC. Declining to adopt Chapters 6 through 11 is a continuation of this approach and consistent with the reasons explained above.

Section 503.3 of the CEBC as adopted by DSA-SS and DSA-SS/CC addresses requirements for existing structural elements carrying gravity loads effected by an alteration. Corresponding structural requirements for the work area method found in IEBC Sections 706.2, 805.2, and 901.2 are identical to those of Section 503.3. Therefore, adoption of these additional sections provides no benefit to stakeholders. In general, it is our understanding that the ICC code development committee has endeavored to align the structural regulations across all compliance methods.

IEBC Chapter 13 addresses performance compliance methods but does not contain structural requirements for performance-based design. IEBC Section 1301.4.1 requires existing buildings be evaluated for and demonstrate compliance with loads prescribed for new buildings. This is effectively a prescriptive, not performance-based, methodology. As noted above, DSA-SS and DSA-SS/CC regulations governing new work in existing buildings are contained in Chapter 4 of Part 1. These regulations in combination with current and continuing amendment Sections 317 through 323 of the CEBC provide stakeholders the option and parameters by which to implement performance-based seismic design through the application of ASCE 41. Therefore, because Chapter 13 does not provide structural requirements for a performance-based design equivalent to the adopted regulations in CAC Chapter 4, the adoption of Chapter 13 provides no additional benefit to stakeholders.

Question 2. Pros and cons of adopting those chapters by the Commission on behalf of California?

As noted in the previous response, the structural requirements defined in the prescriptive and work area compliance methods of the IEBC are generally the same. We understand this alignment was intended by the ICC code development committee. Also as described above, the performance compliance method does not contain a performance-based structural design methodology. Therefore, from the perspective of structural regulations alone we do not find pros nor cons in the Commission's adoption of IEBC Chapters 6 through 11 and

13.

DSA defers to others for the answer to this question relative to regulatory content outside our code adoption authority.

Question 3. Pros and cons of not adopting those chapters by the Commission on behalf of California but printing them for local adoption?

DSA defers to local jurisdictions and CBSC evaluation of logistical implications (e.g., printing, cost, size, shipping, etc.) for the answer to this question.

Question 4. Are there possible conflicts with current California laws or other building standards if the chapters are printed vs adopted?

Printing of IEBC Chapters 6 through 11 and 13 will not create conflicts with current California laws and other building standards for DSA jurisdiction, however, adoption of those chapter may do so. More detailed study is needed to fully identify potential conflicts.

Based on a cursory review, the following conflicts may result from DSA-SS and/or DSA-SS/CC adoption of IEBC Chapters 6 through 11 and 13:

- IEBC Section 805.3: The Exception of this provision conflicts with Section 4-309 of the California Administrative Code (Part 1).
- IEBC Section 1006.3: The Exceptions of this provision conflict with Section 4-309 of the California Administrative Code (Part 1).
- IEBC Section 1103.2: The Exceptions of this provision conflict with Section 4-309 of the California Administrative Code (Part 1).
- IEBC Section 1301.3.1: DSA does not have the statutory authority to adopt this regulation. Refer to Education Code 17315(a).

Question 5. Is there any quantifiable estimate of how much more existing building stock can be utilized if California adopts the chapters?

While additional studies would be required to determine the utilization rate of public school and community college buildings, DSA believes nearly all existing building stock under its jurisdiction is utilized and anticipates the adoption of IEBC Chapters 6 through 11 and 13, will have negligible impact on this utilization rate.

DSA Footnotes

^[1] Per CAC Section 4-314: REHABILITATION is the evaluation and resulting retrofit of an existing nonconforming building or a school building conforming to earlier code requirements to bring the building, or portion thereof, into conformance with the safety standards of the currently effective regulations, Parts 2, 3, 4, 5, 6, 8, 9, 10, 11 and 12, Title 24, C. C. R.

^[2] Per IEBC Section 304.3.2 reduced seismic forces as typically applied are 75% of the seismic forces a new building would be designed for.

Item 2c

Office of Statewide Health Planning and Development (OSHPD)

OSHPD Contact: Richard Tannahill, Architect
Supervisor, Building Standards Unit | Facilities Development Division
Phone: (916) 440-8393
Email: Richard.Tannahill@oshpd.ca.gov

Question 1. Is your agency going to adopt/amend those chapters? What is the reasoning?

No. We do not intend to adopt these chapters for OSHPD projects. OSHPD already aligns with these basic principles where if something is replaced through maintenance or repair, it can meet the same requirements it was originally installed under. Otherwise it must comply with the code.

Question 2. Pros and cons of not adopting those chapters by the Commission on behalf of California but printing them for local adoption?

The con of adopting these chapters could result in less protection and safety if new components do not need to meet current code requirements.

Question 3. Pros and cons of not adopting those chapters by the Commission on behalf of California but printing them for local adoption?

The pro of not adopting these chapters is that it may require work above and beyond what is currently required.

Question 4. Are there possible conflicts with current California laws or other building standards if the chapters are printed vs adopted?

There is so little difference that this is going to create a lot of confusion in application and interpretation.

Question 5. Is there any quantifiable estimate of how much more existing building stock can be utilized if California adopts the chapters?

I do not know of anything.

OSHPD Comment:

I have had little, if any, familiarity with these sections prior to this request so do not have a strong opinion either way. It seems to me this would be adding a lot of confusion where there is none today.

Item 2d

Department of Housing and Community Development (HCD)

HCD Contact: Tom Martin
State Housing Law | Department of Housing and Community Development
Phone: 916-263-3272
Email: Thomas.G.Martin@hcd.ca.gov

Question 1. Is your agency going to adopt/amend those chapters? What is the reasoning?

When HCD originally adopted the CEBC the intent was to take the existing requirements from the CBC chapter 34 and move them to the CEBC no more no less. At that time HCD did state that our intent was to evaluate and propose for

adoption more of the IEBC in future rulemakings. AIA has been working with HCD on making that happen.

Question 2. Pros and cons of not adopting those chapters by the Commission on behalf of California but printing them for local adoption?

AIA stated that they believe adoption of additional chapters of the IEBC will help facilitate making existing building stock more useable.

Question 3. Pros and cons of not adopting those chapters by the Commission on behalf of California but printing them for local adoption?

HCD is planning on proposing adoption of chapters 6, 7, 8, 9, 10 and 11.

Question 4. Are there possible conflicts with current California laws or other building standards if the chapters are printed vs adopted?

There are sections within each of these chapters that HCD is proposing to not adopt which either conflict with other codes or HCD has no authority over.

Question 5. Is there any quantifiable estimate of how much more existing building stock can be utilized if California adopts the chapters?

HCD does not currently have any information on this. AIA may be able to help with is issue.

Item 2e

Office of State Fire Marshal (SFM)

SFM Contact: Gregory Andersen, Chief of Code Development & Analysis

Phone: (916) 568-2915

Email: greg.andersen@fire.ca.gov

Question 1. Is your agency going to adopt/amend those chapters? What is the reasoning?

No. There are issues with the chapters, such as: 803.2.1, 803.2.2, 904.1.1, 904.1.4, & 904.1.7 where the regulations exempt the fire sprinkler requirements based on the water supply. These requirements are based on the hazard not the cost of provide the fire protection that is required throughout the state.

1011.2.1 allows the separation of fire sprinklered and non-sprinklered areas with non-rated partitions.

The chapters will need a thorough analysis to determine if there are conflicts with statute.

Question 2. Pros and cons of adopting those chapters by the Commission on behalf of California?

Pros: These chapters allow designers options when working with existing buildings.

Cons: The reduction of fire protections standards.

Question 3. Pros and cons of not adopting those chapters by the Commission on behalf of California but printing them for local adoption?

Pros: This will allow the local AHJ to have ordinance that can be useful to designs are renovations of existing buildings.

Cons: The locals could approve items that are a conflict with statute inadvertently, without a complete analysis of the chapters.

Question 4. Are there possible conflicts with current California laws or other building standards if the chapters are printed vs adopted?

Identified so far: Chapter 12, Historic Buildings is a known conflict with the California Historical Building Code. That chapter should not be printed.

Question 5. Is there any quantifiable estimate of how much more existing building stock can be utilized if California adopts the chapters?

I do not know.