

# CODE BOOK FUNDAMENTALS

Information for the proper interpretation and application of laws, regulations and building codes

California  
Laws &  
Regulations

Model  
Codes

Federal  
Laws

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**C A L I F O R N I A**  
BUILDING STANDARDS COMMISSION

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# Introduction and Purpose

The California Building Standards Commission (CBSC) has created this publication to help users of laws, regulations and code books make accurate interpretations and properly apply requirements. It covers six fundamentals, or principles, that should be understood when using and applying laws, regulations, ordinances or code book requirements. If some of these fundamentals are overlooked or not completely understood, mistakes can result.

Throughout this publication, the word “code” is used in a generic sense to mean any law, regulation, ordinance or model code referenced in the text.

After each fundamental is covered, take the quiz to check your understanding of the subject. Quiz answers are provided at the end of the publication. Some questions will require access to the Health and Safety Code (HSC), the California Building Standards Code, Title 24 of the Code of Regulations (Title 24), or model codes. If you don't have printed copies, you can view them online:

1. Title 24 can be viewed on the [Codes tab of CBSC's website](http://www.dgs.ca.gov/BSC/Codes) [www.dgs.ca.gov/BSC/Codes](http://www.dgs.ca.gov/BSC/Codes). Quiz questions may be answered from the identified part of Title 24.
2. The HSC can be accessed via the [California Legislative Information website](http://leginfo.legislature.ca.gov/faces/codes) – <http://leginfo.legislature.ca.gov/faces/codes>. Select HSC from the listing of state laws, select Division 13 and scroll to the desired section number.
3. Model Codes:
  - a. International Building Code (IBC) – [codes.iccsafe.org/content/IBC2018](http://codes.iccsafe.org/content/IBC2018)
  - b. Uniform Plumbing Code (UPC) – [epubs.iapmo.org/2018/upc](http://epubs.iapmo.org/2018/upc)
  - c. National Electrical Code (NEC) – [www.nfpa.org/NEC](http://www.nfpa.org/NEC)

# Understand Organizational Systems

Each code, whether a federal law, federal regulation, state law, state regulation, local ordinance, model code, or other code, has an organizational system or hierarchy. Unfortunately, no two are exactly alike. Each federal, state, county, city or private organization developing a code determines their own method of organization; there is no standard system. The importance of understanding a code's organizational system cannot be overemphasized. It is very important to the proper and effective use of the code's contents.

Most codes are divided into segments so that individual subjects may be addressed separately. The names given to the segments are not the same in all codes. The reader must recognize the different uses of names in order to understand the application of the code provisions. Some codes, because of their size or subject matter, need extensive subdividing into small subject areas, and the subjects are usually further broken down with the addition of numbers and/or letters to the names.

The most common names used to subdivide codes are, in no particular order:

- Chapter
- Title
- Article
- Part
- Division
- Section

The table below illustrates how several different codes are organized (in descending order):

<b>Federal Law:</b>	<b>Code of Federal Regulations:</b>	<b>California Law:</b>	<b>California Code of Regulations:</b>	<b>IBC &amp; UPC (model code):</b>	<b>NEC (model code):</b>
Title Subtitle Chapter Subchapter Part Subpart Division Section	Title Part Subpart Section	Code Name Title Division Part Chapter Article Section (Note: exceptions exist)	Title Part or Division Chapter Subchapter Article Subarticle Section	Chapter Part Section	Chapter Article Part Section

You can see that each code is organized differently, and that the organizational names (chapter, article, part, etc.) used in one code may not have the same placement in another.

## Quiz #1

Test your knowledge of Understanding Organizational Systems. Answers and references are provided at the end of this publication.

1. The organization of the California Building Code (Part 2 of Title 24, based on the International Building Code) is mostly by:
  - a. Chapter, Article, Section
  - b. Article, Section
  - c. Volume, Chapter, Section
  - d. Division, Article, Chapter, Section
  
2. The organization of the California Electrical Code (Part 3 of Title 24, based on the National Electrical Code) is by:
  - a. Chapter, Article, Part, Section
  - b. Article, Chapter, Section, Part
  - c. Chapter, Section
  - d. Division, Article, Chapter, Section
  
3. The organization of most chapters of the California Plumbing Code (Part 5 of Title 24, based on the Uniform Plumbing Code) is by:
  - a. Chapter, Article, Section
  - b. Article, Section
  - c. Chapter, Section
  - d. Division, Article, Chapter, Section
  
4. The organization of state laws in the Health and Safety Code is most often by:
  - a. Chapter, Article, Section
  - b. Title, Article, Section
  - c. Chapter, Section
  - d. Division, Part, Chapter, Article, Section

# Understand Application Limitations

In some codes, you may not take requirements found in one segment and apply them to construction that is actually the subject of another segment of the code. In other codes, you may be allowed to do so, depending on the organization and the preamble that identifies the use of the segment.

For example, if a code is first divided into chapters, then articles, then parts, and finally into sections, you may or may not be able to use the requirements contained in Chapter 3, Article 2, Part 4, Section 697 in combination with the requirements found in another chapter, article and part. The user must ascertain how the provisions of each segment apply.

At the beginning of most code segments such as chapters, articles or parts, there is a preamble that identifies the purpose, use and/or limitations of the provisions to follow. It may be titled “Application,” “Scope,” “Use,” “Intent,” “Purpose,” “Application and Scope” or something similar.

For this fictitious example, we will use “Application and Scope” to show how it explains the permissible application of the code.

## *Chapter 6 Roofs*

### *Article 1 Wood Shakes*

#### *Section 6-100.1 Application and Scope*

- a. The provisions of this Article apply throughout the state, and preempt any code, ordinance or other requirement on the same subject by any city, county, or city and county government.*
- b. The provisions of this Article apply only to existing one and two story buildings, used as dwellings, with wood shake roofs.*
- c. The provisions of this Article do not apply to residential buildings located within a Severe High Fire Hazard Zone designated by the State Fire Marshal.*

In the above fictitious example of an “Application and Scope” preamble, the provisions of Section 6-100.1 apply only to existing one- and two-story buildings used as dwellings with wood shake roofs. It does not apply to new dwellings, or to dwellings of more than two stories, or to dwellings with other than wood shake roofs or that are located in a Severe High Fire Hazard Zone. The provisions will preempt any local code.

The provisions of Article 1 are limited by the “Application and Scope” in Section 6-100.1, and may not be applied to buildings subject to the other articles within Chapter 6, unless specified by a cross reference in the respective preamble. Therefore, it is important to recognize a code’s organizational scheme, and to read the preamble of each segment.



## Quiz #2

Test your knowledge of Understanding Application Limitations.

1. Which of the following sections from the International Building Code provides application and scope for the related chapter?
  - a. 801
  - b. 1003.1
  - c. 1402.1
  - d. All of the above
  
2. Health and Safety Code Section 17950 provides the application and scope for the provisions within Part 1 of Division 13. It establishes that the provisions:
  - a. Apply throughout the state
  - b. Preempt any local ordinance on the subject
  - c. Apply to employee housing
  - d. All of the above
  
3. Health and Safety Code Section 17950 provides application and scope for the provisions within:
  - a. Part 1.5 of Division 13
  - b. All of the Health and Safety Code
  - c. All of Division 13 of the Health and Safety Code
  - d. None of the above
  
4. Section 101.2 of the Uniform Plumbing Code establishes that the code provisions apply to plumbing systems:
  - a. Only when newly constructed
  - b. Only when being altered
  - c. That are either new or existing
  - d. When altered but not repaired

# Recognize and Understand Definitions

Terms, words, titles, and occasionally phrases are defined within a code in order to clarify the application, or limit the application, of requirements. This allows the code writers to articulate precise code requirements. To utilize the code correctly, users must seek out the definitions and keep them in mind while applying the code requirements.

Definitions are found in different locations within a code.

1. Most commonly, definitions are located near the beginning of the code in a separate segment such as a chapter. With this method, the definitions generally apply throughout the code. The preamble will state:

*The following definitions apply in this code.*

2. Definitions may also be found in a code segment where the use is applicable only within the provisions of that segment. For example, a chapter, article or section within a code may provide definitions that apply only in that chapter, article or section and nowhere else in the code. This may be written as:

*The following definitions will apply in this chapter.*

*For the purposes of this section, house shall mean a detached single-family dwelling.*

When there are different definitions located throughout the code, an opening statement may say, “*Except as provided elsewhere in this code the following definitions apply throughout this code.*” This is a flag that additional definitions are provided within other areas of the code, and may only apply to the segment in which they are located. Read all preambles in order to understand the intended application of definitions.

Sometimes only general definitions are contained in the first segment of the code, with other more specific definitions located closer to the code requirements for the subject.

Let’s look at some examples:

1. In Volume 1 of the California Building Code (CBC) Part 2 of Title 24, definitions are provided in Chapter 2, and apply throughout the CBC, and additional definitions can be found in other chapters. Additionally, Section 201.3 within Chapter 2 states that words and terms that are not defined in the CBC, but are defined in the California Fire, Mechanical or Plumbing codes, also apply within the California Building Code.

The provisions of Section 201 of Chapter 2 illustrate how important it is to read the application and scope provisions at the beginning of a code segment.

2. In the California Electrical Code (CEC), Part 3 of Title 24, definitions that apply throughout the code are provided in Part I of Article 100 of Chapter 1. Definitions that apply to only systems with 1,000 volts or more are provided in Part II of Article 100, Chapter 1. There are additional definitions in several other articles of the CEC that apply in that article and wherever used in the code as explained in “Scope” of Article 100. For example, Articles 240, 250 and other articles provide definitions of terms used in those articles.

Let’s look at an example of how one basic word has been defined differently within one code.

1. In California Health and Safety Code (HSC), Division 13, Part 1.5, known as the State Housing Law, Section 17920(a) reads in part:

*“17920. Definitions*

*As used in this part:*

*(a) Approved, means acceptable to the department.”*

Notice the use of the word “part” defines the limits of the definition of the word “approved” to within Part 1.5. In this law, the word “department” is defined to mean the California Department of Housing and Community Development (HCD). So, whenever something must be approved, HCD must approve it. But, this is not always true.

2. The HSC Section 17920(a) definition above for the word “approved” would apply throughout Part 1.5 except that Section 17921.1(m), only a few sections away but still within Part 1.5, reads:

*“Approved,” when used in connection with any material, type of construction, or appliance in this section, means meeting the approval of the enforcement agency as the result of investigation and tests conducted by the agency or by reason of accepted principles or tests by national authorities, technical, health, or scientific organizations or agencies.*

So, in Section 17921.1(m), the word “approved” has a specific and much narrower meaning than established by Section 17920(a) for Part 1.5.

3. Just a few more sections away, and still in Part 1.5, Section 17960.5 reads in part:

*For the purposes of this section, “approval” includes, but is not limited to, approval or conditional approval of a tentative subdivision or tentative parcel map or parcel map pursuant to the Subdivision Map Act (Division 2 (commencing with Section 66410) of Title 7 of the Government Code), condominium plan or other permit for a residential housing project.*

Therefore, in HSC, Division 13, Part 1.5, the terms “approved” and “approval” are defined differently for three different situations.

Code users must read definitions carefully and understand to what segment of the code the definition applies because it may have significant bearing on the application of the code requirements. Practice looking for definitions within each code used. An experienced code user will recognize words within a code that are most likely defined. This code user will seek out the definitions before making a determination as to the application of the code requirement.

### Quiz #3

Test your knowledge of Recognize and Understand Definitions.

1. The definitions that apply throughout the California Building Code (Part 2 of Title 24) are located in:
  - a. Chapter 1
  - b. Chapter 2
  - c. Appendix 1
2. In the California Building Code (Part 2 of Title 24), if no definition is provided for a particular word, but there is a definition provided for that word in the California Plumbing, Mechanical, or Fire Code, it will:
  - a. Only apply in the code where the definition is found
  - b. Not apply in the International Building Code
  - c. Also apply in the International Building Code
3. In the California Plumbing Code (Part 5 of Title 24), the definitions in Chapter 2 apply:
  - a. Throughout the code
  - b. Only in Chapter 2 of the code
  - c. May be used interchangeably in any other Parts of Title 24
4. Definitions provided in Section 18905 of the Health and Safety Code are located in:
  - a. Chapter 1, and apply throughout Chapter 1
  - b. Chapter 1, Article 2, and apply throughout Part 2.5 of Division 13
  - c. Article 2 of Part 2.5 and apply throughout the Article
5. The definition of "press box" in Health and Safety Code Section 18934.9, applies:
  - a. Throughout Part 2.5
  - b. Throughout Division 13
  - c. Only in Section 18934.9

# Use Section Identifiers Correctly

Generally, the smallest and last segments of a code's hierarchy, after the names, are numbers and letters. Again, there is no standard method.

Some codes use numbers that identify the segment where the section is located. For example, in the International Building Code (IBC) section number "1202" is located in Chapter 12. The National Electrical Code (NEC) uses the article number as part of the section number and the first digit of the article number will identify the chapter number. For example, Section 250.52 is located in Article 250 of Chapter 2. There are several other numbering styles used in published codes.

Once the numbering style is established, the contents of each subsection may need to be organized in another hierarchy. Styles include alphabetical, numerical, or a combination of alternating alphabetical and numerical to identify elements of the subsections or subdivisions. Here is a fictitious example of a common code section hierarchy (only the titles are shown, without regulatory text):

## *Section 100. Buildings*

### *a. Large Buildings, 5,000 or more square feet*

#### *1. Publicly owned*

#### *2. Privately owned*

##### *A. Commercial Use*

##### *B. Residential Use*

### *b. Small Buildings, less than 5,000 square feet*

#### *1. Publicly owned*

#### *2. Privately owned*

##### *A. Commercial Use*

##### *B. Residential Use*

###### *1. multi-family rental housing*

###### *2. single family dwelling*

###### *i) owner low income program assisted*

###### *ii) No public funding assistance*

Another method of section numbering does not use alpha identifiers. For example, the provisions of Section 100 (b)(2)(B)(2)(ii) above would instead be numbered Section 100.2.2.2.2 in the example below. This style is also used in several common codes.

*Section 100. Buildings*

*100.1 Large Buildings, 5,000 square feet or more*

*100.1.1 Large Buildings, Publicly Owned*

*100.1.2 Large Buildings, Privately Owned*

*100.1.2.1 Large Buildings, Privately Owned, Commercial Use*

*100.1.2.2. Large Buildings, Privately Owned, Residential Use*

*100.2. Small Buildings, less than 5,000 square feet*

*100.2.1 Small Buildings, Publicly Owned*

*100.2.2. Small Buildings, Privately Owned*

*100.2.2.1 Small Buildings, Privately Owned, Commercial Use*

*100.2.2.2 Small Buildings, privately Owned, Residential Use*

*100.2.2.2.1. Small Buildings, Privately Owned, Residential Use, Multi-family rental housing*

*100.2.2.2.2. Small Buildings, Privately Owned, Residential Use, Single family dwelling*

*100.2.2.2.2.1 Small Buildings, Privately Owned, Residential Use, Single family dwelling,  
owner low income program assisted*

*100.2.2.2.2.2 Small Buildings, Privately Owned, Residential Use, Single Family Dwelling, No  
public funding assistance*

It is critically important to understand the organizational hierarchy, since it determines the proper application of a section's provisions.

Citing a 2,500 square foot residential building as being in violation of Section 100(B) in the first example would be incorrect because there are two provisions identified by the capital letter "B" and they are substantially different. For that size and type of structure, the correct citation would be Section 100(b)(1)(B). Never skip any part of the section numbering when citing code in oral or written communications. In legal proceedings, incorrect code references may be enough to have a case terminated without an adjudication or decision.

## Quiz #4

Test your knowledge of Use Section Identifiers Correctly.

1. Which of the following best describes the section numbering methods of the California Building Code in Part 2 of Title 24 based on the International Building Code?
  - a. 100.1.1
  - b. 100.A.1
  - c. 100(a)(1)
  
2. Which of the following best illustrates the section numbering methods of the California Plumbing Code in Part 5 of Title 24 based on the Uniform Plumbing Code?
  - a. 100.1a
  - b. 100.1.1
  - c. 100(a)(1)
  
3. Which of the following best illustrates the section numbering method used in Health and Safety Code Section 18930?
  - a. 18930.1.1.2
  - b. 18930.1,a,1.2
  - c. 18930(a)(1)

# Recognize Exceptions

Application and scope provisions within a code are one method used to limit or apply code requirements specifically to a subject. Exceptions are another way. There are generally three forms of exceptions that must be recognized and understood in order to properly apply the code.

1. Exceptions can immediately follow a code provision, as in this fictitious example:

*Section 3456. Doorbell Required. All buildings must be provided a doorbell at the primary entrance that is powered by an electrical circuit of the building.*

**Exceptions:**

1. *Buildings with entry doors that are not locked and remain open to the general public at all times need not be provided doorbells.*
  2. *Doorbells may be energized by solar energy with backup battery capability complying with Section 6789.*
2. Exceptions can also be made by referencing another section that may have other requirements or allowances.

Fictitious Example:

*Except as provided in Section 1234, all buildings must be provided a doorbell at the primary entrance that is powered by an electrical circuit of the building.*

The phrase “except as provided in” is the prompt that there is more to consider. To properly apply the requirement for a doorbell, the code user must also read Section 1234 which will provide additional information. For example, it may exempt buildings that have doors that are unlocked at all times, or provide alternatives to the basic requirement.

3. Another exception is one that supersedes another code provision.

Fictitious Example:

*Notwithstanding Section 2345, all buildings of three stories or less must be provided a doorbell at the primary entrance that is powered by an electrical circuit of the building.*

The word “notwithstanding” means that regardless of what Section 2345 requires, this section takes precedence and all buildings must be provided the specified doorbell. This method is used when the other section still has a purpose for some applications. Lawmakers use this method when enacting new laws and ensuring that some other existing law will not conflict with or preempt the new requirements.



Exceptions sometimes makes code application confusing and challenging. A best practice is to read the code requirements thoroughly, including all referenced codes. Connect with colleagues, architects or design professionals who may have institutional knowledge, or contact code organizations such as ICC or CALBO for training. Your local jurisdiction's building department may also be a good resource to help ensure you are applying code properly.

### **Quiz #5**

Test your knowledge of how to Recognize Exceptions.

1. The provisions of Section 307.1 of the California Building Code (Part 2 of Title 24) establishing the Group H Occupancy do not include a liquor store without bulk storage.
  - a. True
  - b. False
2. According to Health and Safety Code Section 17921(a), only the Department of Housing and Community Development shall propose for adoption all building standards that are to apply to residential dwellings.
  - a. True
  - b. False
3. Health and Safety Code Section 18960(c)(1) overrides the provisions of Health and Safety Code Section 18945(b).
  - a. True
  - b. False

# Code Authority Assistance

Many authorities that create and publish regulations will provide guidance to the code user regarding information important to the proper understanding and use of the code. There are several forms of assistance that code users should take advantage of:

1. **Margin Marks** are used in model codes such as the International Building Code or the National Electrical Code. Margin marks are not as common in laws, regulations or ordinances by government entities.

Margin marks identify code provisions that are new, amended or repealed since the previous edition of the code. The explanation of each margin mark is usually provided at the beginning of the code, before the Table of Contents.

2. **Preambles** provide important background information about the code, the organization publishing the code, how the code may be adopted and applied, and if there are any accompanying handbooks or guides that provide instructional information. Preambles may also include information about how to obtain interpretations and clarifications from the publishing organization, and about how to submit proposed code changes to the publishing organization.

In the case of Title 24, the preamble pages appear before the Table of Contents and provide information about how to distinguish a California amendment from model code text. There is also information explaining how to use the Matrix Adoption Tables and read margin marks.

3. **Indexes** may be very helpful when searching for requirements for a particular subject. However, a code user should not become completely dependent on the index, as it is no substitute for learning the code.
4. **Highlighting** is used in the National Electrical Code to illuminate changes.

Make a practice of looking for any and all means of assistance the code authority may have provided.

## Quiz #6

Test your knowledge of Code Authority Assistance.

1. Within the California Building Code, Volume 1, which page provides an explanation of the margin marks:
  - a. xxi
  - b. xvi and vx1
  - c. v and xvii
  - d. viii
  
2. Within the California Building Code, Volume 1, an explanation of the Matrix Adoption Tables begins on page:
  - a. vi
  - b. xix
  - c. xx
  - d. xvi
  
3. Within the California Building Code, Volume 1, the Index begins on page:
  - a. 831
  - b. 678
  - c. 789
  - d. 634
  
4. Within the California Building Code, Volume 1, which page provides a listing of the state agencies and contact information?
  - a. v
  - b. 1v
  - c. Vi
  - d. iv

We hope you found this publication helpful and we welcome your comments. You may contact us at via email at [cbsc@dgs.ca.gov](mailto:cbsc@dgs.ca.gov), call us at (916) 263-0916 or mail your comments to 2525 Natomas Park Drive, Suite 130, Sacramento, Ca. 95833. To follow CBSC activities related to code development, subscribe to our electronic mailing list on the [Contact page](#) of our website.

## Quiz Answers

Quiz #1	Answer	Reference
Question 1	c	California Building Code Table of Contents
Question 2	a	California Electrical Code Table of Contents
Question 3	c	California Plumbing Code Table of Contents
Question 4	d	Health and Safety Code online Index

Quiz #2	Answer	Reference
Question 1	d	California Building Code
Question 2	d	Health and Safety Code Section 17920
Question 3	a	Health and Safety Code Section 17950
Question 4	c	Health and Safety Code Section 17950

Quiz #3	Answer	Reference
Question 1	b	California Building Code Chapter 2
Question 2	c	California Building Code Ch. 2 Section 201.3
Question 3	a	California Plumbing Code Chapter 2
Question 4	b	Health and Safety Code Section 18905
Question 5	c	Health and Safety Code Section 18934.5

<b>Quiz #4</b>	<b>Answer</b>	<b>Reference</b>
Question 1	a	California Building Code
Question 2	b	California Plumbing Code
Question 3	c	Health and Safety Code Section 18930

<b>Quiz #5</b>	<b>Answer</b>	<b>Reference</b>
Question 1	a	California Building Code Section 307.1
Question 2	b	Health and Safety Code Sec.179219(a), 18945(b)
Question 3	a	Health and Safety Code Sec. 18960(c)(1)

<b>Quiz #6</b>	<b>Answer</b>	<b>Reference</b>
Question 1	d	Volume 1 of the California Building Code
Question 2	a	Volume 1 of the California Building Code
Question 3	c	Volume 1 of the California Building Code
Question 4	d	Volume 1 of the California Building Code