

## About Matrix Adoption Tables

Matrix Adoption Tables—their purpose and how to use them—are topics of interest to many of our stakeholders, and especially to those who use the codes on a day-to-day basis (e.g., architects, engineers, builders and building officials, etc.).

Matrix adoption tables (MATs) are nonregulatory (\*) and are included in the California Building Standards Code, Title 24 of the California Code of Regulations (Title 24) to assist code users to correctly apply the regulations to their projects. MATs are included in all parts of Title 24 except Parts 1, 6, 8 and 12. See below for the names of the parts with their numbers.

The agencies that have authority in law to propose and/or amend regulations in Title 24 are:

- Board of State and Community Corrections (BSCC)
- California Building Standards Commission (BSC)
- California Department of Public Health (DPH)
- California Energy Commission (CEC)
- Department of Consumer Affairs (CA), and various boards and bureaus therein
- Department of Food and Agriculture (AGR)
- Department of Housing and Community Development (HCD)
- Department of Water Resources (DWR)
- Division of the State Architect (DSA)
- Office of Statewide Health Planning and Development (OSHPD)
- Office of the State Fire Marshal (SFM)
- State Historical Building Safety Board (SHBSB)
- State Lands Commission (SLC)
- State Library (SL)

The state agency acronyms are shown at the top of every MAT:

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1-AC	AC	SS	SS/CC	1	1R	2	3	4	5							

Some agencies have varied applications, so they have additional identifiers to help the code user. For instance, DSA adopts/amends regulations for accessibility (AC), structural safety (SS) and structural safety/community colleges (SS/CC). Most amendments in the different parts of Title 24 are made by the following state agencies:

**Part 1 - Administrative Code** - BSC, BSCC, CEC, DSA, OSHPD

**Part 2 - Building Code** - BSC, DPH, BSCC, DSA, HCD, OSHPD, SFM, SLC

**Part 2.5 – Residential Code** - HCD, SFM

**Part 3 – Electrical Code** - BSC, DSA, HCD, OSHPD, SFM

**Part 4 – Mechanical Code** - BSC, DSA, HCD, OSHPD, SFM

**Part 5 – Plumbing Code - BSC, DSA, DWR, HCD, OSHPD, SFM**

**Part 6 – Energy Code - CEC**

**Part 7 – Vacant**

**Part 8 – Historical Building Code - SHBSB**

**Part 9 – Fire Code - SFM**

**Part 10 – Existing Building Code - BSC, HCD, DSA, OSHPD, SFM**

**Part 11 – Green Building Standards Code - BSC, CEC, DSA, HCD**

**Part 12 – Referenced Standards Code - DPH, DSA, SFM**

Chapter 1 of each part of Title 24 details state agency authority and building occupancy applications. Then, the MAT at the beginning of a code chapter will provide details about how the chapter and various sections are adopted and amended by each agency.

When looking at a MAT, the right side may be blank due to lack of activity by state agencies in that chapter. Here's a typical MAT from the California Building Code, Part 2 of Title 24 (CBC):

**CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE  
CHAPTER 14 – EXTERIOR WALLS**

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4								
Adopt entire chapter	X																					
Adopt entire chapter as amended (amended sections listed below)				X	X			X	X	X	X	X		X	X							
Adopt only those sections that are listed below		X	X																			
Chapter / Section																						
1401			X																			
1402			X																			
1402.2.1		X																				
1403			X																			
1404			X																			
1404.1.1								X	X	X	X	X		X	X							
1404.3.1				X	X																	
1404.3.2				X	X																	
Table 1404.3.2				†	†																	
1405			X																			
1406			X																			
1407			X																			
1408			X																			
1410								X	X	X	X	X		X	X							

The state agency does not adopt sections identified by the following symbol: †  
The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

**What does this mean?**

1<sup>st</sup> row: Acronyms for state agencies that have authority to adopt and amend regulations in Title 24.

2<sup>nd</sup> row: BSC adopts the entire chapter of the code as it applies to occupancies under their authority (see CBC, Chapter 1, Section 1.2).

3<sup>rd</sup> row: HCD-1, HCD-2 and others adopt the entire code chapter, and then make amendments to different sections listed in the MAT. HCD-1 and HCD-2 amend two sections and do not adopt a table. According to Chapter 1, Section 1.8.2.1.1 of the CBC, HCD 1 applies to “hotels, motels, lodging houses, apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities including accessory buildings, facilities, and uses thereto,” and HCD 2 is for permanent buildings in mobile home parks and special occupancy parks. This demonstrates how important it is to know and understand the different applications of each state agency.

4<sup>th</sup> row: BSC-CG and SFM only adopt certain sections of Chapter 14 – Exterior Walls. BSC-CG is for all occupancies where no state agency has authority for green building standards and graywater systems for nonresidential occupancies, and SFM has broad authority that is detailed in Section 1.11 of the CBC.

You may notice that Section 1409 is not listed on this MAT. This means that an agency adopting the whole chapter adopts this section; an agency adopting the whole chapter with amendments adopts this section without any amendments; and an agency adopting only certain sections does not adopt this section. This section is a reference to another chapter of the CBC and, because Title 24 applies to all buildings and occupancies within the state, this section should be applied to occupancies that have or will have “plastic composite decking” unless specifically not adopted per the MAT.

## Specific MAT Sections

Let’s look at some specific code sections from the MAT:

### **SECTION 1402 PERFORMANCE REQUIREMENTS**

**1402.1 General.** The provisions of this section shall apply to exterior walls, wall coverings and components thereof.

**1402.2 Weather Protection.** Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing, as described in Section 1404.4. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by

providing a water-resistive barrier behind the exterior veneer, as described in Section 1403.2, and a means for draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with Section 1404.3.

...

**1402.2.1 [BSC-CG].** *See California Green Building Standards Code, Chapter 5, Division 5.4 for additional weather protection requirements.*

**[BS] 1402.3 Structural.** Exterior walls, and the associated openings, shall be designed and constructed to resist safely the superimposed loads required by Chapter 16.

**1402.4 Fire resistance.** Exterior walls shall be fire-resistance rated as required by other sections of this code with opening protection as required by Chapter 7.

...

Note that the MAT indicates BSC adopted the entire chapter, including section 1402.2. BSC-CG, on the other hand, has adopted only section 1402.2.1, which contains a pointer to CALGreen shown by the [BSC-CG] banner, and is printed in italics, indicating it is a California amendment. SFM has adopted sections 1402.1, 1402.2, 1402.3 and 1402.4 and not 1402.2.1. SFM specifically requires the model code language (not italics) to be applied to all occupancies under its authority.

## **SECTION 1404 INSULATION OF WALL COVERINGS**

...

**1404.3.2 Class III vapor retarders.** Class III vapor retarders shall be permitted where any one of the conditions in Table 1404.3.2 is met. Only Class III vapor retarders shall be used on the interior side of frame walls where foam plastic insulating sheathing with a perm rating of less than 1 is applied in accordance with Table 1404.3.2 on the exterior side of the frame wall.

**[HCD 1 & HCD 2]** *Class III vapor retarders shall be permitted where any one of the conditions in Items 1, 2 or 3 below are met. This section shall apply to "low-rise residential buildings" as defined in the California Energy Code.*

1. *Vented cladding over fiberboard*
2. *Vented cladding over gypsum*
3. *Insulated sheathing with R-value  $\geq R4$*

*Spray foam with a minimum density of 2lbs/ft<sup>3</sup> applied to the interior cavity side of OSB, plywood, fiberboard, insulating sheathing or gypsum is deemed to meet the insulating sheathing requirement where the spray foam R-value meets or exceeds the specified insulating R-value.*

...

Note that HCD adopts the entire chapter with amendments. Their amendment to Section 1404.3.2 is shown here and it replaces the requirements of the model code with HCD requirements that should be applied to all occupancies regulated by HCD 1 & 2.

**TABLE 1404.3.2  
CLASS III VAPOR RETARDERS**

ZONE	CLASS III VAPOR RETARDERS PERMITTED FOR: <sup>a</sup>
Marine 4	Vented cladding over wood structural panels Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with <i>R</i> -value $\geq$ R2.5 over 2 × 4 wall Continuous insulation with <i>R</i> -value $\geq$ R3.75 over 2 × 6 wall
5	Vented cladding over wood structural panels Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with <i>R</i> -value $\geq$ R5 over 2 × 4 wall Continuous insulation with <i>R</i> -value $\geq$ R7.5 over 2 × 6 wall
6	Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with <i>R</i> -value $\geq$ R7.5 over 2 × 4 wall Continuous insulation with <i>R</i> -value $\geq$ R11.25 over 2 × 6 wall
7 and 8	Continuous insulation with <i>R</i> -value $\geq$ R10 over 2 × 4 wall Continuous insulation with <i>R</i> -value $\geq$ R15 over 2 × 6 wall

For SI: 1 pound per cubic foot = 16 kg/m<sup>3</sup>.

a. Spray foam with a maximum permeance of 1.5 perms at the installed thickness applied to the interior cavity side of wood structural panels, fiberboard, insulating sheathing or gypsum is deemed to meet the continuous insulation requirement where the spray foam *R*-value meets or exceeds the specified insulating sheathing *R*-value.

This is the table that is not adopted by HCD 1 and HCD 2, as indicated in the MAT with an obelisk symbol. Because the other agencies are adopting the chapter, either amended or not amended, the table applies to all other occupancies regulated by a state agency, with the exception of BSC-CG (which only adopts one section of this chapter).

# California Fire Code – Part 9 of Title 24 – A Different MAT

## CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE CHAPTER 3 – GENERAL REQUIREMENTS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting Agency	BSC	BSC- CG	SFM		HCD			DSA		OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
			T-24	T-19*	1	2	1/AC	AC	SS	1	1R	2	3	4								
Adopt Entire Chapter																						
Adopt Entire Chapter as amended (amended sections listed below)																						
Adopt only those sections that are listed below			X																			
[California Code of Regulations, Title 19, Division 1]				X																		
Chapter / Section																						
301			X																			
[T-19 §3.14]				X																		
[T-19 §3.19 (a-g)]				X																		
304			X																			
[T-19 §3.07(a)]				X																		
[T-19 §3.07(b)]				X																		
[T-19 §3.19 (b)(c)]				X																		
308.1.1			X																			
308.5			X																			
[T-19 §3.25 (a)(b)]				X																		
310.2			X																			
[T-19 §3.32 (a)(b)]				X																		
[T-19 §3.32 (d)]				X																		
[T-19 §3.32 (c)]				X																		
312			X																			
313			X																			
314			X																			
315			X																			
316			X																			
[T-19 §3.05 (b)]				X																		
317			X																			
320			X																			

\* The California Code of Regulations (CCR), Title 19, Division 1 provisions that are found in the California Fire Code are a reprint from the current CCR, Title 19, Division 1 text for the code user's convenience only. The scope, applicability and appeals procedures of CCR, Title 19, Division 1 remain the same.

If there is an "X" in the T-19 column under SFM, this means that the corresponding section from the California Code of Regulations, Title 19 – Public Safety, Division 1 was reprinted in the *California Fire Code* for the code user's convenience. The corresponding Title 19 sections are listed in the matrix adoption tables in the order that they appear in the *California Fire Code*. The scope, applicability and appeals procedures of Title 19, Division 1 have not changed. For information regarding the specific purpose and scope of Title 19, unless otherwise specified, refer to Title 19, Division 1, Chapter 1, Subchapter 1, Article 1, Sections 1.00 through 1.14.

# California Electrical Code – Different Symbols

## ARTICLE 625—ELECTRIC VEHICLE CHARGING SYSTEM

Adopting Agency	BSC	BSC- CG	SFM	HCD		DSA			OSHPD					DPH	
				1	2	AC	SS	SS/CC	1	1R	2	3	4		5
Adopt Entire Article	X						X	X	X	X	X	X	X	X	
Adopt entire Article as amended (amended sections listed below)			X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>										
Adopt only those sections that are listed below		X													
Article/Section															
625.1.1		X	X	X	X										
625.52(B)			†												
625.52(C)			X	♦	♦										

1. This state agency adopts the entire article as amended except for those sections indicated by the following symbol: †

The ♦ designation indicates that the State Fire Marshal’s adoption of this chapter or individual sections is applicable to structures subject to HCD 1 or 2.

For other symbols that occur in MATs, check the notes so the application of the section is understood.

### Appendices

Appendix chapters are not a mandatory part of the code unless specifically adopted by a state agency or a local jurisdiction by the ordinance process. It is always a good idea to check with the local building/planning department while working on a building design for occupancies not regulated by any state agency (except for SFM), such as regular commercial buildings, offices, malls, etc. Additionally, the International Code Council may provide notes to explain adoption(s).

Appendix Example: Appendix I – Patio Covers

### CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE APPENDIX I – PATIO COVERS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4								
Adopt entire chapter			X																			
Adopt entire chapter as amended (amended sections listed below)																						
Adopt only those sections that are listed below			X																			
Chapter / Section																						
I101			X																			
I102			X																			
I103			X																			

**The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.**

*User Notes: About this appendix: Appendix I provides standards applicable to the construction and use of patio covers. It is limited in application to patio covers accessory to dwelling units. Covers of patios and other outdoor areas associated with restaurants, mercantile buildings, offices, nursing homes or other nondwelling occupancies would be subject to standards in the main code and not this appendix.*

## Appendix Example: Appendix F – Rodentproofing

### CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE APPENDIX F – RODENTPROOFING (Not adopted by state agencies)

Adopting agency	BSC	BSC-CG	SFM	HCD			DSA			OSHDP				BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	2	3	4								
Adopt entire chapter																					
Adopt entire chapter as amended (amended sections listed below)																					
Adopt only those sections that are listed below																					
Chapter / Section																					

### APPENDIX F RODENTPROOFING

**The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.**

The following example is from the California Residential Code, Appendix Chapter X – Emergency Housing

### CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE APPENDIX X – EMERGENCY HOUSING

*(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user. See Chapter 1 for state agency authority and building applications.)*

Adopting agency	BSC	BSC-CG	SFM	HCD			DSA			OSHDP					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4								
Adopt entire chapter				X																		
Adopt entire chapter as amended (amended sections listed below)																						
Adopt only those sections that are listed below																						
Chapter / Section																						

### APPENDIX X EMERGENCY HOUSING

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

#### SECTION AX101 GENERAL

*AX101.1 Scope. This appendix shall be applicable to emer-*

*gency housing facilities is limited exclusively to the occupants of the emergency housing, personnel involved in operating the housing, and other emergency personnel.*



Notice that the entire appendix is in italics, therefore it is a California amendment, and the MAT shows that it is adopted by HCD 1. However, the note states that it is not mandatory unless adopted by ordinance. This is because not all jurisdictions will have a need for emergency housing, but if they do, HCD has created these regulations so that there will be uniformity across the state. For more details, please refer to HCD's [Information Bulletin 2020-06](#).

### **\*Errors happen...how to check**

If you noticed that the Chapter 14 MAT in this article is a bit different than the current published MAT (2019 CBC Errata, effective October 1, 2020), that's because during the development of this article we discovered an error and corrected it for this article. We apologize if any confusion is caused by a MAT error and ask that you take the time to verify what's correct. You can do this by looking at the text of the code to see if there's a banner or italics to indicate adoption or amendment by a state agency. Remember, MATs are nonregulatory. However, California code adoptions and amendments are regulations that have been approved by the commission.

If you're still not clear on the application of a particular section of the code, please call or email CBSC at (916) 263-0916 or [cbsc@dgs.ca.gov](mailto:cbsc@dgs.ca.gov). CBSC appreciates hearing from you if you've found an error, corrections for which may be included in future errata, supplements, or editions of Title 24.