

**Advisory** Guide Series

WEATHER PROTECTION FOR INTERIOR GYPSUM

**WALLBOARD** 

**FOR ALL BUILDINGS UNDER OSHPD JURISDICTION** 

Office of Statewide Hospital Planning and Development

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#### INTRODUCTION

The California Department of Health Care Access and Information (HCAI) – Office of Statewide Hospital Planning and Development (OSHPD is the statewide building department for hospitals. Hospital buildings are often large, complex structures that may take multiple years to construct. It is often desirable to begin early-stage gypsum wallboard installation before the building is completely "weathered in"; however, mold and other infection control issues are of even greater concern in hospitals, than in most other building types.

Inadequate moisture control can lead to condensation problems. Condensation can cause mold growth and corrosion of metal components. Moisture infiltration can damage structural elements, such as framing and sheathing. This can compromise the building's integrity. Therefore, it is essential that the installation of gypsum wallboard occur only after adequate weather protection is in place.

It is the intent of this *Advisory Guide* to assist the designer and builder regarding acceptable methods of providing weather protection for gypsum wallboard installation prior to the building being "weathered in." In other words, prior to the exterior skin or cladding and/or roof being completed on the building. It is not intended to cover maintenance, replacement of exterior windows or doors, or other conditions that may affect the building's interior environment after completion of the building's exterior weather protection, such as in an existing building.

Refer to OSHPD's "Design Guide for Working on Projects Under OSHPD Jurisdiction – Tips from the Experts" on HCAIs website for information on how to prepare design documents, which includes examples, tips, methods, and approaches that have been successfully used on numerous projects, benefitting all parties involved in the planning, design, and construction of hospital construction projects in California. Following the guidelines presented in the Guide and the tips from the experts will increase the likelihood of a successful project for all parties involved.

Department of Health Care Access and Information (HCAI)
Office of Statewide Hospital Planning and Development (OSHPD)

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## SECTION 1 CODE REFERENCES

### California Building Standards Code References

2022 California Building Code, Part 2, Title 24, California Code of Regulations. Including the 2022 Supplement effective July 1, 2024.

Chapter 2 DEFINITIONS
Section 202 WEATHER-EXPOSED SURFACES

Chapter 14 EXTERIOR WALLS Section 1402.2 Weather protection.

Chapter 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES Section 1503.1 General.

Chapter 25 GYPSUM BOARD, GYPSUM PANEL PRODUCTS AND PLASTER Section 2508.2 Limitations.
Section 2508.2.1 Weather protection.

Access to the referenced codes in this *Advisory Guide*, is provided through the California Building Standards Commission website (<a href="https://www.dgs.ca.gov/en/BSC/Codes">https://www.dgs.ca.gov/en/BSC/Codes</a>) with active links to each publisher's website for read-only public access versions of the codes. These codes are also known as California Code of Regulations, Title 24.

- Part 1, California Administrative Code
- Part 2, California Building Code, Volumes 1 and 2
- Part 3, California Electrical Code (Note: Accessed through the National Fire Protection Association (NFPA), however, requires the creation of a user account to view the <a href="Free Access">Free Access</a> NFPA 70: 2022 California Electrical Code NFPA 70 (2020 NEC®)
- Part 4, California Mechanical Code
- Part 5, California Plumbing Code
- Part 6, California Energy Code
- Part 9. California Fire Code
- Part 10, California Existing Building Code

## SECTION 2 ACRONYMS AND DEFINITIONS

Acronyms and Definitions assist the user in recognizing and identifying various acronyms and terms generally used in the *Advisory Guide*. Please refer to the *Master Glossary of Acronyms and Definitions* on the HCAI website at <a href="https://hcai.ca.gov/document/master-glossary-of-acronyms-and-definitions/">https://hcai.ca.gov/document/master-glossary-of-acronyms-and-definitions/</a> for a list that includes terms used in this *Advisory Guide*, as well as in other OSHPD published documents. Other definitions may also be found in Title 24. The following definition is found in the California Building Code (CBC) and used in this *Advisory Guide*.

**WEATHER-EXPOSED SURFACES.** Surfaces of walls, ceilings, floors, roofs, soffits and similar surfaces exposed to the weather except the following:

- 1. Ceilings and roof soffits enclosed by walls, fascia, bulkheads or beams that extend a minimum of 12 inches (305 mm) below such ceiling or roof soffits.
- Walls or portions of walls beneath an unenclosed roof area, where located a horizontal distance from an open exterior opening equal to at least twice the height of the opening.
- 3. Ceiling and roof soffits located a minimum horizontal distance of 10 feet (3048 mm) from the outer edges of the ceiling or roof soffits.

# SECTION 3 WEATHER PROTECTION FOR GYPSUM WALLBOARD

Gypsum wallboard shall not be installed where it will have direct weather exposure, exposed to water or wet conditions, or exposed to continuous humidity conditions. The CBC requires buildings to have weather protection prior to installation of gypsum wallboard. Weather protection is required for all weather exposed surfaces and is generally provided by the exterior walls and roof. Surfaces that are not weather-exposed may have gypsum wallboard installed prior to the exterior walls being constructed, if it is accomplished in accordance with the approved construction specifications and the manufacturer's written installation instructions.

This includes walls or portions of walls, beneath an upper floor deck or roof area, where located a horizontal distance from an exterior opening equal to at least twice the height of the opening. Exterior openings shall include shafts or any other opening in the deck or roof above that are unprotected and could thus expose the gypsum wallboard to direct water. For example, if the building floor-to-floor height is 15 feet, gypsum wallboard may not be installed on walls within 30 feet of the exterior slab edge or open shafts and other openings in the deck or roof above unless some approved form of protection is provided.

## SECTION 4 APPROACHES TO WEATHER PROTECTION OF GYPSUM WALLBOARD

There are three approaches to dealing with the weather protection requirements for gypsum wallboard installation:

- 1. Provide construction documents clearly describing how weather protection will be accomplished prior to the installation of gypsum wallboard.
- Submit a deferred submittal in accordance with California Administrative Code (CAC) Section 7-126, including construction documents clearly describing how weather protection will be accomplished prior to the installation of gypsum wallboard.
- 3. Gypsum wallboard shall not be installed to weather exposed surfaces until the building is "weathered in," meaning that the exterior wall covering and roofing are installed, as required by CBC Sections 1402.2 and 1503.

The first two approaches may require the submittal of an Alternate Method of Compliance (AMC) in accordance with CAC Section 7-104. OSHPD will consider AMCs if it can be demonstrated that the alternate will provide equivalent weather protection for the installation of gypsum wallboard to that required by the CBC, the approved construction specifications, and the manufacturer's written installation instructions.

In addition to the CBC weather protection requirements, the project specifications and the manufacturer's installation instructions may also require temperature, humidity control, and other conditions be maintained before, during and/or after the installation of gypsum wallboard.