Wood-based sheathing is commonly used under many exterior claddings, such as portland cement plaster (stucco). Covering wet wood-based sheathing, plywood or oriented strand board (OSB), is not recommended.

**STRESS:**
Wood products swell when exposed to moisture or humidity. The amount of dimensional change is estimated at 1% of the width or thickness of lumber for every 5% change in moisture content. This expansion of wood-based products can place stress on cement plaster stucco. This stress can crack plaster. Even a minor amount of movement can cause cement plaster that is not fully cured (green) to crack. The same stress can occur when wood-based sheathing shrinks or dries.

**MOISTURE:**
The Engineered Wood Association (APA) recommends wall sheathing and lumber framing “should be allowed to dry (no less than 18%) so that moisture absorbed during construction or induced from other sources is minimized”.

The average fiber saturation point for wood is typically 28%. At this percentage, water begins to fill all the fiber cells. Decay can generally only get started when the moisture content is above the fiber saturation point for a prolonged period of time.

**INSPECTION:**
- All wood-based sheathing should be sound, properly attached to framing members and installed per APA recommendations.
- A moisture content below 19% prior to applying 2 layers of a water-resistive barrier.
- Wood-based panels should be installed with 1/8 inch gaps at edges and ends to allow for expansion of the panel to minimize stress (cracking) in cement stucco (Code requirement behind portland cement plaster per ASTM C1063).
- Fasteners should be set flush prior to applying the water-resistive barrier(s).