

FIRST COAST CHAPTER

INTERNATIONAL CODE COUNCIL (ICC) AND
BUILDING OFFICIALS ASSOCIATION OF FLORIDA, INC. (BOAF)
SERVING BAKER, BRADFORD, CLAY, DUVAL, NASSAU, PUTNAM, ST. JOHNS & UNION COUNTIES



Updated January 1, 2009

Based on the 2007 FBC



BULLETIN FROM THE FIRST COAST CHAPTER ICC~BOAF CODES & STANDARDS COMMITTEE STUCCO INSTALLATION AND PROCEDURES

Intent:

The First Coast Chapter of the Building Officials Association of Florida offers the following procedures for stucco installation, as outlined in the Florida Building Code (FBC), to provide a method for achieving consistency of enforcement amongst its member jurisdictions.

Acknowledgements:

The First Coast Chapter Codes & Standards Committee would like to thank the following organizations for their professional interest and generous contribution of qualified, knowledgeable personnel aiding in the formulation of this bulletin.

First Coast Stucco Contractors, Northeast Florida Home Builders Association, Florida Concrete & Products Association, Portland Cement Association, DuPont Corporation, Cemex Corporation, Masonry Information Technologists Inc., Alabama Metal Industries Corporation, ASTM International, Titan America, and Dennis M. Williams, Architect, P.C.

Time Frame:

It is suggested that jurisdictions adopting this policy make it effective on all buildings permitted after March 1, 2009.

Action Plan:

- In as much as one-coat stucco systems do not comply with the referenced ASTM Standard C 1063-03 and Standard C 926-98a in the FBC, all systems not conforming with ASTM Standards must be approved in writing from the Building Official as alternative methods per the FBC Section 104.11 or obtain required state product approval. If used, it must be specified on the drawings at the time of permitting along with installation requirements and details for that specific product, including but not limited to, lathing, termination, backing and flashing details. In the absence of the aforementioned information, the jurisdiction should assume a three-coat conventional stucco application.

Masonry:

- Conventional stucco over masonry surfaces may be applied with two or three coats. Two-coat systems over masonry consist of: first coat = 3/8 inch thick and finish coat = 1/8 inch thick; or over cast concrete consist of: first coat = 1/4 inch thick and finish coat = 1/8 inch thick. Three-coat systems consist of: first coat = 1/4 inch thick, second coat = 1/4 inch thick, and finish coat = 1/8 inch thick over both masonry and cast concrete.
- When required by ASTM C 926, Section 5.2.2; an exterior bonding agent, conforming to ASTM C 932, shall be used on all masonry surfaces. In lieu of a bonding agent, a dash coat, roughing the surface, or metal lath are also acceptable methods for bonding.

Wood:

- Conventional stucco over **wood** should always be applied as a three-coat system. Scratch coat = 3/8 inch thick, brown coat = 3/8 inch thick, and finish coat = 1/8 inch thick. The scratch coat must be scored horizontally on vertical surfaces. Successive coats should be applied as soon as possible after the underlying coat has sufficient strength and rigidity to resist damage when the next coat is applied. A mist cure shall be maintained as needed for climatic conditions.

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BOAF First Coast Chapter STUCCO BULLETIN

- Where structural wood panels are used for sheathing, a minimum 1/8 inch separation shall be provided.
- The weather resistant barrier (WRB) must be installed per Sections R703.6.3 of the Florida Building Code-Residential and 1404.2.1 of the Florida Building Code. Where cement plaster (stucco) is to be applied to lath over frame construction, measures shall be taken to prevent bonding between the cement plaster and the water resistive barrier. A bond break shall be provided between the water resistive barrier and the cement plaster (stucco) consisting of one of the following:
 1. Two layers of an approved water resistant barrier material, or
 2. One layer of an approved water resistant barrier over an approved plastic house wrap, or
 3. Other approved methods or materials applied in accordance with the manufacturer's installation instructions.
- Lathing shall be connected to the framing members 7 inches on center. The fasteners must penetrate the **wood framing members** not less than 3/4 inch and not be installed randomly in the wall sheathing.
- **Lathing shall be self-furring or furred out** from solid bases and comply with ASTM C 1063, Table 3. Maximum on center spacing of framing members shall be no more than 24 inches.
- Lath accessories shall have perforated or expanded flanges, to permit complete embedment in the plaster, and be designed to receive the specified thickness of plaster. Accessories include control joints, expansion joints, corner bead, casing bead (plaster stop), cornerite, weep screed, etc.
- Control joints shall be placed at 144 sq. ft. on vertical surfaces and 100 sq. ft. on horizontal surfaces. The distance between control joints shall not exceed 18 feet, in either direction, or exceed length- to-width ratio of 2-1/2 to 1. The ASTM standard requires the paper to be installed, continuous, behind the joint material and that lath shall not be continuous through control joints, but shall be stopped and fastened on each side of the control joint. All accessories must be installed to receive a minimum 7/8 inch application for a three-coat system over **wood**.
- Accessories and end laps of metal lath, where they occur between framing members, may be stapled or nailed to the substrate or wired; 9 inches on center for end laps and 18 inches on center for accessories.
- At the intersections of vertical and horizontal control joints, the horizontal control joint shall be cut to fit and butted to the continuous, uninterrupted, vertical control joint. Embed all accessory ends, angles, butts, and intersections in sealant at time of installation.
- In wood-frame construction, accent features (foam, accent strips, banding, and trim) should be installed over the brown coat, using adhesive and minimum fasteners penetrating the stucco. (See Recommended Practice Section)

Alternative methods: (accent features applied directly over metal lath)

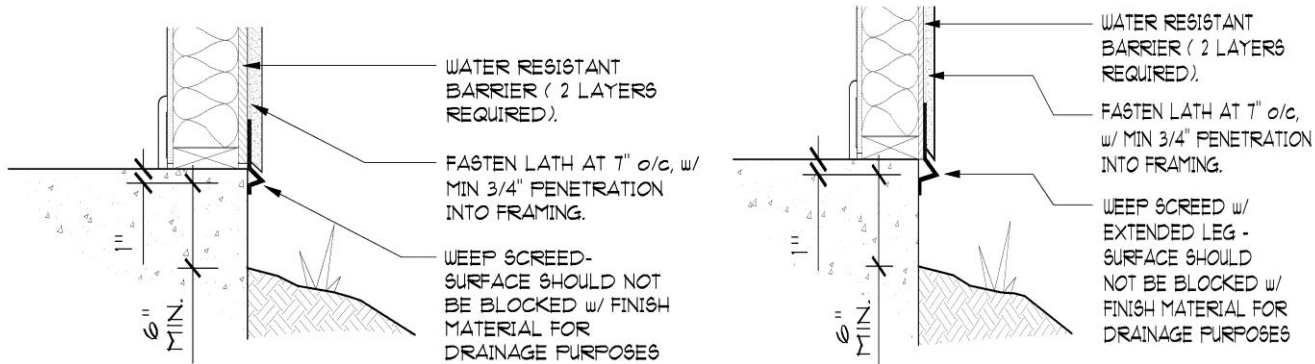
1. Accent features may be installed directly over metal lath when they are properly flashed or the WRB and lath extend over the top section of the accent feature.

2. Accent features may be installed directly over metal lath when they are isolated from the stucco as prescribed in ASTM C 926, Sec. A2.3.3. This method may require a renewable backer-rod and sealant joint.
3. A proprietary detail, using synthetic stucco and reinforcing mesh.

NOTE: Details for alternative methods must be shown on plans and approved by the Building Official.

- The termination of the stucco at the base of a wood structure shall be per ASTM C-926, Section A2.2.2.

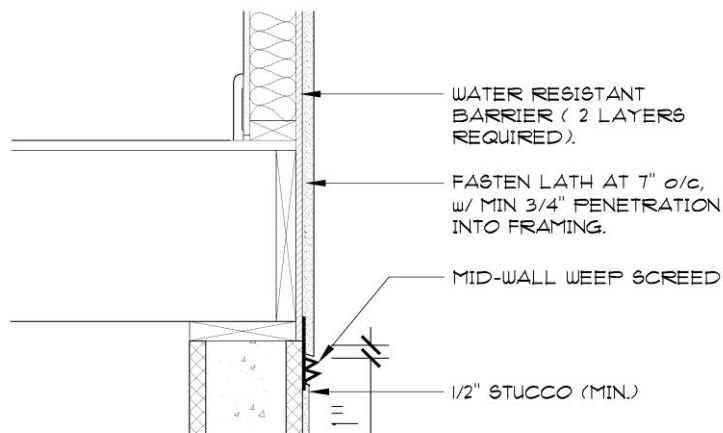
A weep screed shall be installed per ASTM Standard 1063-03. See below:



RECOMMENDED

ALTERNATIVE

Please note the position of the wood structural panel (OSB or plywood), in the RECOMMENDED illustration. It is raised off the concrete and aligned with the face of the foundation. Care must be taken to construct foundation walls straight and true. In areas where the bottom of the wood structural panel is exposed, it shall have an ‘Exterior’ Bond Classification (‘Exposure 1’ is not rated for long-term exposure) or be otherwise protected as shown in the ALTERNATIVE illustration, or as approved by the Building Official. BOAF Informal Interpretation Number 2656, attached, may be used by the Building Official for guidance as to the intent of the Florida Building Code.



MID-WALL

General Notes:

1. Stucco on wood frame shall be min. 7/8", 3-coat application.
2. Stucco on masonry shall be min. 1/2", 2-coat application or 5/8", 3-coat application.
3. WRB should extend down, over the upper flange of weep screed or accessory in a shingle-lap fashion.

- FBC-R703.14 requires flashing or other approved drainage system (similar to the detail above) at the base of framed walls over masonry walls. One-piece and two-piece accessories are available to meet this requirement.

- Separation shall be provided where stucco plaster abuts dissimilar materials, openings, and fenestration products and the juncture shall be sealed with sealant. See FBC-R703.6.5 and ASTM C 926, Sec. 7.1.4.
- The weather-resistant barrier (WRB), bond-break, lath, and stucco shall be installed to the top of the wall top plate, including behind soffits. Where walls butt into perpendicular walls, rough framing shall not contact perpendicular wall sheathing; provide sufficient space to install continuous WRB, bond-break, lath, and stucco.

Recommended Practice:

Based on the collective experience of this committee, the following recommended practices, when carefully done, will provide enhanced protection against water intrusion into framed wall systems.

- Installing accent features (foam, accent strips, banding, and trim) over a proper stucco base coat (Scratch and brown coats) helps eliminate a major source of moisture intrusion. This method is highly encouraged and considered Recommended Practice.
- Installing a strip of self-adhering flashing or self-sealing membrane under trim, banding, and lath accessories (both vertical and horizontal) helps protect against water intrusion where fasteners penetrate the WRB.
- Self-furring, paper-back lath (made with 10-minute, Grade D paper) over house wrap meets all of the requirements of the Florida Building Code. Self-furring, unbacked lath over two layers of WRB, consisting of a layer of 60-minute, Grade D paper (or better) over a layer of house wrap will provide enhanced protection against water intrusion.
- When installing the WRB's, care must be taken to keep the membranes tight into the corner, so the lath can be installed without puncturing the WRB's.
- In multistory, frame construction, where stucco wall covering is continuous past a floor; a weep screed should be provided, with expansion/contraction capabilities, or other effective means to drain away any water that may get behind the plaster,
- 2007 FBC, Sec. R703.6.5 Fenestration states:

The juncture of exterior plaster and fenestration products shall be sealed with a sealant complying with Section R613.8.1.

The documents referenced in Section R613.8.1 specify types of sealant and sealant joints, with backer-rod, detailed in ASTM C 1193. This method of sealing joints around windows is the recommended practice.