



INDIAN RIVER COUNTY/CITY OF VERO BEACH
BUILDING DIVISION

1801 27th Street, Vero Beach, FL 32960 772 226-1260

Stucco Installation Informational Bulletin

February 2015

FBC Building 2510 and 2512
FBC Residential 703.6 and 704
ASTM C926-98a (2005)
ASTM 1063-06

CMU solid base – lath and accessory inspection required

Ceilings, soffits, entries, gables, penetrations, openings, dissimilar materials, etc
C926 A2.1.4 Dissimilar material – V-Joint in lieu of casing bead
Stucco abuts – wood or metal door and window frames
Three coat – through second and first coat – ½ inch V-Joint
Two coat – through finish coat – 1/8 inch V-Joint
V-joint must be uniform depth and width

Plywood

C1063 Table 3 Note A - Plywood requires 1/8 inch gap between adjoining sheets for expansion (ends and sides)

Fasteners - ASTM C1063

Nail size and type- (no double nailing in lieu of compliance)

- 6.7.1 Nails – metal lath to wood 0.01205 inch – 11 gauge
7/16 inch head, barbed, galvanized roofing nails or galvanized common nails
- 6.7.1.1 Nails – lath to solid substrates ¾ inch long
- 6.7.2 Screws – lath 7/16 inch pan wafer head 0.120 inch dia. Shank
- 7.10.2 **Lath to Wood Framing**
- 7.10.2.1 Lath to wood 7 inch o.c. maximum (too tight of spacing will effect stucco encapsulation)
- 7.10.2.2 Diamond-mesh expanded lath, flat-rib expanded lath, wire lath,
Horizontal Framing members 1 ½ inch roofing nails
Vertical framing members 6d common nails, 1 inch roofing nails – penetration ¾ inch,
1 inch roofing nails – ¾ inch crown – engage min. 3 strands – penetrate member ¾ inch
- 7.10.2.3 Expanded 3/8 inch Rib Lath
Horizontal and Vertical framing members nails or staples
Horizontal – 1 ¾ inch penetration = 2 inch long nails or staples
Vertical - ¾ inch penetration = 1 inch nails or staples
- 7.10.2.4 Common nails – bent over engage min. 3 strands or bent over rib
- 7.10.2.5 Screws
Horizontal and vertical – 5/8 inch penetration – engage min. 3 strands (equals 1 inch long screws)
3/8 inch Rib Lath - screw pass through rib but not deform rib
- 7.10.3 **Lath to Metal Framing**
- 7.10.3.1 18 gauge wire ties, clips or other carrying strength, corrosion resistant
- 7.10.3.3 Screws
3/8 inch through framing member – engage min. 3 strands
3/8 inch Rib Lath – through rib do not deform rib
- 7.10.5 **Lath to solid base – concrete - masonry**
Power or powder actuated, combo power actuated and hardened concrete stub nails
Combo – one power or powder actuated at each corner and one at mid-point of the long dimension, balance can be hardened concrete stub nails
Rows 16 inch maximum o.c. – 7 inch maximum o.c. spacing, corrosion resistant ¾ inch long minimum
3/8 inch heads

- 7.9 **Spacing of attachment of lath**
 7 inch maximum o.c. – diamond mesh, flat rib (too tight of spacing will effect stucco encapsulation)
 3/8 inch Rib Lath at each rib

Laps

- 7.8 **Lapping Lath**
 7.8.1 Side laps – secured to framing members – tied between supports w/ 0.0475 wire at 9 inch o.c.
 7.8.2 Metal lath Side laps – ½ inch (not max or min, too much lap effects stucco encapsulation) or nest the edge ribs
 Metal lath – end laps 1 inch
 End laps between framing members laced or wire tied 0.0475 inch galvanized, annealed steel wire
 Wire lath – lapped one mesh at sides and ends
 7.8.3 Paperback lath – Vertical and Horizontal Laps backing to backing and metal to metal
 7.8.3.1 Backing lapped min. 2 inch
 Backing shall not be placed between plaster base (lath) and flanges of accessories,
 Metal lath to metal flange contact required

7.10 Application

- 7.10.1.1 Table 3 spacing framing members – what we see typically
 Lath – Walls 24 inch o.c. Ceilings 12 inch o.c.
 Flat Rib – Walls 16 inch o.c. Ceilings 16 inch o.c.
 3/8 inch Rib Lath – Walls 24 inch o.c. Ceilings 24 inch o.c.
 7 inch o.c. framing member, 3/8 inch Rib Lath at the rib
 7.10.1.2 Lath long dimension perpendicular to supports
 7.10.1.3 Lath ends shall be staggered
 7.10.1.4 Lath shall not be continuous through control joints but shall be stopped and tied at each side
 7.10.1.5 Ceilings – casing beads required at columns, walls, beams, other elements, min 3/8 inch clearance
 between elements
 7.10.1.6 Walls – load bearing or partitions – casing beads required – butting into structural walls, columns, floor or
 roof slabs, sides or ends of wall or partition, lath shall terminate at internal angles
 3/8 inch clearance required

Lath installed smooth going down and rough coming up – stucco applied with force and pressure going up
 Lath over metal straps and over peel and stick

7.11 Accessories

- 7.11.1 Metal accessories completely embedded in stucco
 7.11.1.1 Flanges secured max. 7 inch o.c.
 7.11.3 Casing beads
 Isolate non- bearing members from load bearing members
 All penetrating elements separate dissimilar materials
 7.11.4 Control joints
 Single prefabricated product or two piece expansion joint properly installed
 Back to back casing beads w/ flexible barrier membrane behind casing beads, 1/8 inch separation
 space – baker rod and caulk
 7.11.4.1 Walls - Delineate areas max. 144 sqft
 Ceilings – max. 100 sqft
 7.11.4.2 Distance between CJ max. 18 ft either direction or length to width ratio 2 ½ to 1
 (18 ft long and 4 ft high = 18/4=4.5 ratio long side: short side ratio, which means it exceeds the 2 ½:1 ratio, 18 ft
 length is too long for the 4 ft height between control joints)
 CJ ceilings - framing changes direction
 7.11.5 Foundation weep screed
 Bottom of all steel or wood framed exterior walls
 Bottom edge min. 1 inch below joint, nose of screed min. 4 inch (**FBCR 6 inch more stringent**) above grade or
 2 inch above paved surfaces
 1 inch below joint applies to mid wall weep screed as well
 Weather resistive barrier and lath shall entirely cover the vertical flange
 FBCR 704 Requires min. 6 inch between exterior wall covering and grade – steel, wood or CMU
 Exception #1 paint or decorative cementitious finish DCF (just for cosmetics) less than 5/8 inch thick
 CMU – solid base – can be terminated with a J Channel or cut it is just a termination point

Note: Optional acceptable method for stucco below grade

1. Less than 5/8 inch stucco can extend below grade if the solid smooth or non-absorbent surface (cast-in-place or precast concrete) i.e. footing, is prepared as indicated in ASTM C926 section 5.2.2. This area of

the footing must be prepared in order to provide the proper required suction. Solid CMU surfaces below grade (such as stem wall) must be thoroughly cleaned/prepared prior to stucco application.

Accessory end joints and intersections must be embedded in sealant (caulking)

Lath must not burn the accessories – cut short for embedment/lath coverage

Do not caulk control joints

Vertical control joint must be continuous through horizontal control joint

Backer rod required not just caulking

ASTM C926

4.6 Water – must be potable, suitable for domestic consumption

5.2 Solid bases

Remove form ties or other obstructions- trimmed back

5.2.1 Solid surfaces shall have suction (ability to absorb water)

5.2.2 Smooth or non-absorbent surfaces (such as cast-in-place or precast concrete) shall be prepared to receive stucco by one of the following methods:

5.2.2.1 Sandblasting, wire brushing, acid

5.2.2.2 Dash coat

5.2.2.3 Bonding compound/agent

5.2.3 Lath- -per C1063

7.1.4 Separation shall be provided where stucco abuts dissimilar materials or openings

7.1.10 Stucco coats that become dry shall be evenly dampened

7.2 Stucco to lath

Three coat – 7/8 inch total thickness – 3/8 + 3/8 + 1/8

7.2.1 First (scratch) coat 3/8 inch thick must embed lath, score surface

Proper tool for both applying stucco and scratching

7.2.1.1 First (scratch) coat becomes firm – score surface horizontally

7.2.1.2 First coat sufficiently rigid (finger print)

7.2.2 Second (brown) coat 3/8 inch thick

7.2.2.1 Second (brown) coat – brought true rod or straightedge

7.2.3 Third (finish) coat 1/8 inch thick

7.3 Stucco to solid bases

7.3.1 High suction bases

Evenly dampened

7.3.2 Three coat – 5/8 inch total thickness – 1/4 + 1/4 + 1/8

7.3.2.1 First (scratch) coat 1/4 inch

Becomes firm score horizontally

7.3.2.2 Second (brown) coat 1/4 inch

Even plane rod or straightedge

7.3.2.3 Third (finish) coat 1/8 inch

7.3.3 Two coat - 1/2 inch total thickness – 3/8 + 1/8

C926 A1.6.1 Mortar joints shall be flush not struck

Dissimilar materials such as ties, reinforcing steel and so forth cut back 1/8 inch below surface and treated with corrosion-resistant coating

A2.1.6 Max. Deflection vertical and horizontal Framing L/360

A2.2.3 Vertical and horizontal surfaces meet - both surfaces shall terminate with casing beads

Vertical surface extend min. 1/4 inch below horizontal - form drip edge

Horizontal casing bead terminate min. 1/4 inch from back of vertical surface