



## South Central Regional Construction Code Council

5058 W. Main Street Houma, Louisiana 70360  
P.O. Box 1870, Gray, Louisiana 70359  
Toll Free at 1-866-95-PERMIT or (985) 655-1070

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### Roof Covering Replacement – Building Code Requirements

#### Underlayment [IRC T905.1.1(2) & (3) / IBC 1507.1.1]

1. **Underlayment** (for our region): Underlayment shall meet ASTM D226 Type II, ASTM D4869 Type III or Type IV (ie. 30# felt or synthetic). NOTE: 15# felt (Type I) not allowed in our region. Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet. The underlayment shall be attached with corrosion-resistant fasteners in a grid pattern of **12** inches between side laps with a 6-inch spacing at side and end laps. Underlayment shall be attached using annual ring or deformed shank nails with 1-inch-diameter metal or plastic cap.

**As an alternative**, a minimum 4-inch-wide strip of self-adhering polymer-modified bitumen membrane bearing a label indicating compliance with ASTM D1970, installed in accordance with the manufacturer's installation instructions for the deck material, **shall be applied over all joints** in the roof decking. An approved underlayment complying with the applicable roof covering for areas where wind design is not required in accordance with IRC Figures shall be applied over the entire roof over the 4-inchwide membrane strips. Underlayment shall be applied in accordance with IRC Table R905.1.1(2) using the application requirements for areas where wind design is not required in accordance with Figure R301.2.1.1. Underlayment shall be attached in accordance with Table R905.1.1(3). See IBC for Commercial requirements

(WILL NEED TO BE VERIFIED PRIOR TO SUBSTANTIAL COVERING WITH ROOF COVERING MATERIALS – SEE END OF LETTER FOR SCHEDULING INSPECTION)

#### Asphalt Shingles [IRC 905.2 / IBC 1507.2]

1. Shingles must be tested in accordance with ASTM D 3161, Class F approved for use up to 194mph (V-ult)/150mph (V-asd) or ASTM D 7158, Class G up to 155mph (V-ult)/120mph (V-asd) OR Class H up to 194mph (Vult)/150 mph (V-asd).
2. Shingles that are MIAMI-DADE approved are also approved for use.
3. Asphalt shingles shall have the minimum number of fasteners (6 for our region) required by the manufacturer's approved installation instructions. Where the roof slope exceeds 21 units vertical in 12 units horizontal (21:12, 175-percent slope), shingles shall be installed in accordance with the manufacturer's approved installation instructions.

### Metal Roof Panel Covering [IRC 905.10 / IBC 1507.4]

1. Metal roof panel coverings shall be applied to solid sheathing, except where the roof covering is specifically designed to be applied to spaced supports (purlins, lats, runners etc...), see manufacturers installation requirements.
2. Metal roof panel coverings shall be applied to solid sheathing, except where the roof covering is specifically designed to be applied to spaced supports (i.e. purlins, lats, runners, etc..). Spaced supports shall be a minimum 2x4 when attached directly to rafters. Minimum (2) number 8 x 3-1/2" wood screws shall be used to attach spaced supports to rafters.
3. Metal roof panels shall be secured in accordance with manufacturers installation instructions.

### Flat Roof Systems [IRC 905.11 thru 905.15 / IBC 1507.11 thru 1507.15]

Flat roof systems shall comply with noted code references and manufacturer's installation instructions.

### Re-covering verses Replacement [IRC 907.3 / IBC 1510.3]

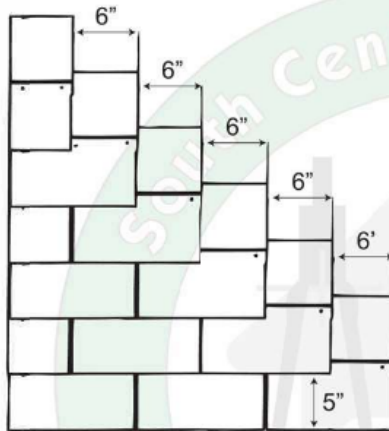
New roof coverings shall not be installed without first removing all existing layers of roof coverings where the roof has two or more applications of coverings. New covering attachment to existing wood shake, slate, clay, cement or asbestos-cement tile NOT ALLOWED.

### INSPECTION REQUIREMENT:

Inspection by the building department shall be conducted. This inspection shall be performed during the roof covering installation prior to **substantial completion of each pitch (VERIFICATION OF UNDERLAYMENT INSTALLATION METHOD MANDATORY)**. To schedule required inspection, call 985-655-1070. **Since inspections are scheduled as next day inspections, it is recommended that you schedule your inspections the day prior to starting the job so that building department can VERIFY Roof Underlayment requirements. NOTE: If inspection takes place and portions of roof underlayment have not yet been applied or torn off yet, make arrangements with inspection dept to schedule additional roof inspection.(First Inspection will then be changed to Partial, then final roof inspection will be the last inspection).**

**SEE NEXT PAGES FOR DETAILED EXAMPLES**

## Detail A



### Requirements for Roof Coverings

ASTM D 3161 Class F (Approved for UP TO 194 MPH)

MIAMI DADE approved (Any wind zone)

(Note: ASTM D 7158 Based on wind zone map ASCE 7-10)

ASTM D 7158 Class G (Approved for ONLY UP TO 155 MPH)

Class H (Approved for ONLY UP TO 194 MPH)

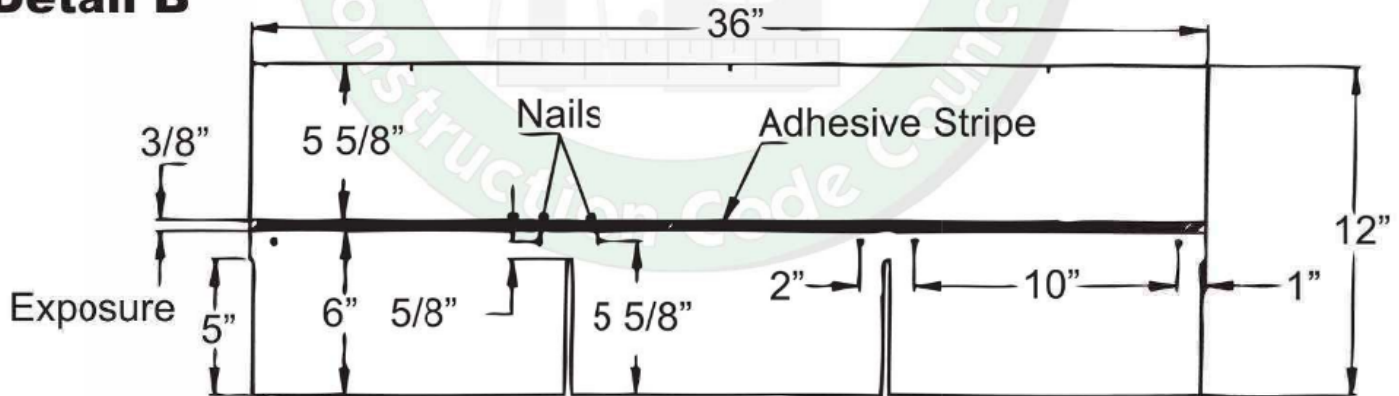
IRC Table R905.2.4.1

IBC Table 1504.1.1

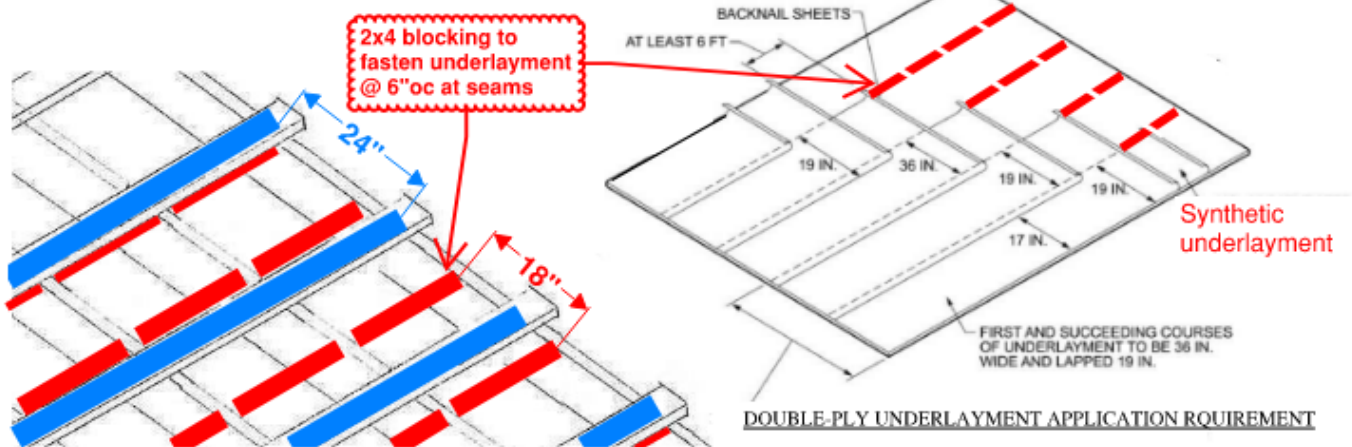
**Fasteners:** 6 Nails Per Shingle

**Underlayment** shall be Minimum **30# Felt or synthetic** (NO 15# Felt allowed) attached with corrosion-resistant fasteners in a grid pattern of 12 inches between side laps with a 6-inch spacing at side and end laps. Underlayment shall be attached using annular ring or deformed shank nails with 1-inch-diameter metal or plastic cap.

## Detail B

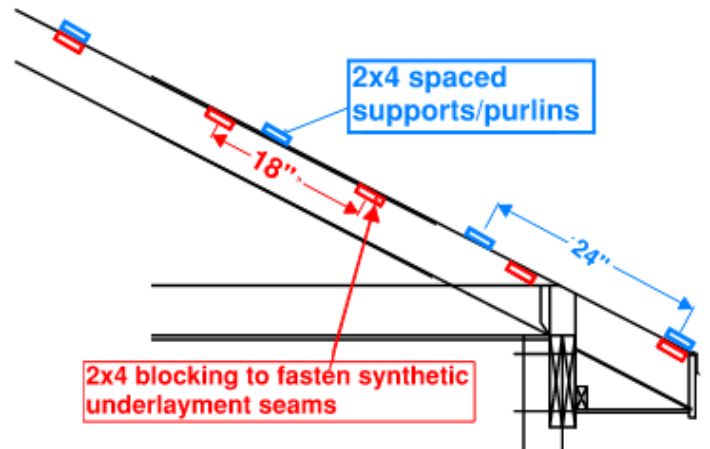
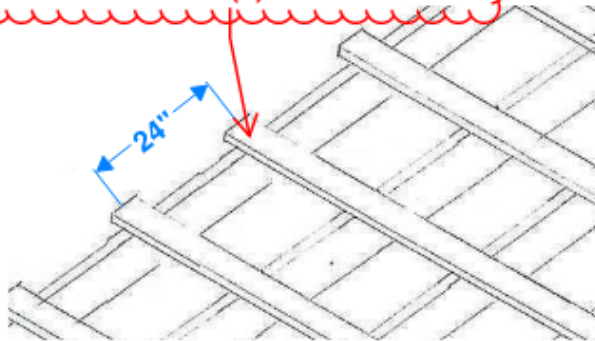


## Metal Roof Synthetic Underlayment application on Spaced supports



No Underlayment necessary for spaced support roof system on Open canopies, lean-to's, and Detached Accessory structures with No finishes inside.

2x4 spaced supports/purlins fasten at each rafter with (2) #8 deck screws



2x4 min for stripping fasten at each rafter point with (2) #8 deck screws

Treated stripping reacts with metal coatings not recommended

