CONSTRUCTION CODE SUPPLEMENT

For Adoption by Communities Affected By High-Wind and Hail

A supplemental code to the 2021 International Residential Code.

SMART HOME AMERICA

APPROVED SMART HOME AMERICA

The original Coastal Construction Code Supplement was created and adopted by community leaders and Building Code Officials in Coastal Alabama, together with Smart Home America, after being impacted by both Hurricanes Ivan and Katrina during back-to-back years. The Construction Code Supplement was created after the FORTIFIED Home™ High Wind standard was released in 2015.

The Construction Code Supplement aims to increase community resilience and reduce future damage from high winds, hail, and even low-level tornadoes. Adoption has many benefits, including reducing losses during severe weather events and lowering insurance costs. A recent study shows that a FORTIFIED Home™ designation increases the resale value of a property. Additional benefits from using and enforcing this supplemental code are increased numbers of FORTIFIED Home™ designations and reduced storm debris cleanup costs.

Adopting the Code Supplement closes the gap between existing I Codes®[1] and the Insurance Institute for Business and Home Safety's (IBHS) FORTIFIED Home™ Technical Standards. The Code Supplement is meant to be adopted and enforced in addition to local building codes. IBHS provides technical input to keep the Code Supplement current. The Supplement is based on the latest research and testing conducted at the IBHS Research Center and in the field. To connect with communities enforcing this supplemental code, please contact us at 1.855.742.7233 or info@smarthomeamerica.org.

Additionally, Smart Home America strongly advises adopting the most current IRC/IBC flood-resistant construction standards. Flooding is one of the most devastating and shared hazards facing communities today. By incorporating added steps to mitigate against wind and flood hazards, the durability and strength of homes can be increased while bolstering the safety of residents.

PLEASE NOTE: By adopting this Supplemental Code, municipalities and jurisdictions recognize that individual homes built, re-roofed, or otherwise permitted under this code will be constructed to beyond-code standards but will not be designated as a FORTIFIED Home™. To be identified as a FORTIFIED Home and issued a Designation Certificate, a homeowner, or the builder, must voluntarily contract the services of a Certified FORTIFIED Evaluator™. They will inspect and collect relevant documentation confirming that a home meets all the IBHS FORTIFIED Home™ High Wind standard requirements.

This public resource is maintained by Smart Home America and is available at: SmartHomeAmerica.org/resources/details/code-supplement

[1] The International Code Council (ICC) develops and mains the International Codes®, or I-Codes®. They provide minimum safeguards for people at home, at school, and in the workplace. The I-Codes are a complete set of comprehensive, coordinated building safety and fire prevention codes. www.ICCsafe.org

High Wind & Hail Resilience Supplement

SECTION
S101 SCOPE

S101.1 General. These provisions shall be applicable for residential construction where improved high wind or high wind and hail performance is desired. This appendix provides prescriptive-based requirements for the construction of residential structures to reduce damage and losses associated with high wind and/or hail events. The nominal design winds correspond to ultimate design wind speeds, V_{ult} = 130 mph in terrain exposure C. The objective of the provisions is to reduce damage and losses in severe windstorms, including narrowing the path of destruction in tornadoes. The provisions provide alternative requirements to those contained in Appendix Y that are expected to provide similar continuous load path enhancements.

S101.2 Application. In addition to the general administration requirements of Chapter 1, the administrative provisions of this chapter shall also apply to the building planning and construction requirements of Chapters 1 through 10.

SECTION S102
PRESCRIPTIVE STRUCTURAL REQUIREMENTS FOR 1 AND 2-STORY WOOD FRAME BUILDINGS

S102.1 Roof Sheathing: Roof sheathing shall be minimum $^{7}/_{16}$-inch-thick wood structural panels with a span rating of 24/16. For clay and concrete tile roofs, the roof sheathing shall be minimum 15/32-inch thick plywood.

S102.2 Roof Sheathing Attachment: Wood structural panels shall be attached to roof framing members using 8d ring shank nails (full round head diameter; minimum 2 $^{3}/_{8}$-inch-long and 0.113-inch-diameter) installed at minimum 6 inches o.c. along all panel edges and along all intermediate framing members.

S102.3 Roof Structure Design/Construction: Roof structure design and construction shall comply with S102.3.1 or ASD102.3.2 as appropriate.

S102.3.1 Engineered Trusses: Engineered trusses shall be designed for V_{ult} = 130 mph exposure C.

S102.3.2 Rafters: Rafters shall be sized for span, and V_{ult} = 130 mph exposure C and a collar tie (nominal 1-by-6 or 2-by-4 lumber attached to rafters with a minimum of five 10d nails at each end) shall be installed within the upper 1/3rd of each set of rafter pairs.

S102.4 Exterior Wall and Interior Shear Wall/Braced Wall Sheathing: Wall sheathing installed on exterior walls and interior shear walls/braced frames shall be minimum 7/16-inch-thick wood structural panels for stud spacing of 16 inches or less.

S102.5 Exterior Wall and Interior Shear Wall/Braced Wall Sheathing Attachment: Wood structural panel wall sheathing shall be attached with a minimum 8d Common (minimum 2 $^{1}/_{2}$-inch-long and 0.131- inch-diameter) or 10d box (minimum 3-inch-long and 0.128-inch-diameter), or 8d ring shank (full round head diameter; minimum 2 $^{3}/_{8}$-inch-long and 0.113-inch-diameter) installed as prescribed in S102.5.1 or S102.5.2.

S102.5.1 Wall sheathing attachment for a one-story building or top story on a two-story building: fasteners shall be installed at a minimum of 4 inches o.c. along all edges and 12 inches on center along framing members in the field of the panels.

S102.5.2 Wall sheathing attachment for the bottom story of a two-story building: fasteners shall be installed at a minimum of 3 inches o.c. along all edges and 12 inches on center along framing members in the field of the panels.

S102.6 Interior Shear Walls/Braced Walls: Install interior shear wall(s)/braced wall(s) perpendicular to the long direction of the building such that the distance between shear walls/braced walls (exterior walls and interior walls/braced walls) is never greater than 2.25 times the building width. Interior shear walls/braced walls shall be fully sheathed, including areas above or below wall openings with wood structural panels.

S102.7 Anchorage of Exterior Walls and Interior Shear Walls/Braced Walls to Foundation System: Exterior walls and interior shear walls/braced walls shall be anchored as prescribed in S102.7.1 or S102.7.2

S102.7.1 Slab on grade construction: 5/8-inch-diameter anchor bolts with 3-inch-by-3-inch-by-1/4-inch-thick plate washers shall be installed at 24-inch maximum spacing and within 6 inches of the end of the plate.

S102.7.2 Raised floor foundations, including stem-wall foundations: Exterior walls and interior shear walls on raised floor foundations, including stem walls, shall be anchored as prescribed in S102.7.2.1 or S102.7.2.2.

S102.7.2.1 One-story buildings: 5/8-inch-diameter anchor bolts with 3-inch-by-3-inch-by-1/4-inch-thick plate washers shall be installed at 24-inch maximum spacing along exterior walls (and interior shear walls if present).

S102.7.2.2 Two-story buildings: 5/8-inch-diameter anchor bolts with 3-inch-by-3-inch-by-1/4-inch-thick plate washers shall be installed at 24-inch maximum spacing along exterior walls (and interior shear walls if present).

S102.8 Hold-downs Connecting Ends of Exterior Walls and Interior Shear Walls/Braced Walls to Foundation: Hold-downs or metal straps with indicated capacities shall be installed at the ends of exterior walls and interior shear walls/braced walls as prescribed in S102.8.1 and S102.8.2.

S102.8.1 One-story building or top story on a two-story building: Hold-downs or metal straps with a minimum allowable capacity of 4,360 pounds shall be installed at the exterior corners of the building and at the ends of any interior shear walls where they connect to the exterior walls.

S102.8.2 Bottom story of a two-story building: Hold-downs or metal straps with a minimum allowable capacity of 8,720 pounds must be installed at the exterior corners of the building and at the ends of any interior shear walls where they connect to the exterior walls.

S102.9 Roof structure to Wall Connections: Trusses or rafters shall be connected to exterior bearing walls using metal straps. Metal connectors connecting the roof structure to the exterior wall system at all wall-to-roof framing connections (trusses and rafters) sized to meet the load requirements of Table F2, as shown in Figure 1.

S102.10 Top Floor to Bottom Floor Connections: Exterior load-bearing walls above and below floor systems in multi-story buildings shall be connected to pass loads from the wall system above to the wall system below as prescribed in S102.10.1 or S102.10.2.

S102.10.1 Metal straps: Install metal straps that connect the wall studs in the wall above to the wall studs below or from the wall studs above to the rim boards and from the rim board to the wall studs below. Straps shall be installed on each stud or at some other convenient spacing not to exceed 8-foot minimum strap capacities shall be 340 pounds for 16-inch strap spacing, 510 pounds for 24-inch strap spacing, 1,020 pounds for 48-inch strap spacing or 2,040 pounds for 96-inch strap spacing.

S102.10.2 Continuous Wood Structural Panel Floor Connections: Install continuous wood structural panels, with a minimum height of 4 feet perpendicular to the floor plane, to span across the floor structure. These panels shall be nailed to the lower portion of wall studs for the floor above and the top portion of wall studs of the floor below using a minimum of 6 nails (8d common, 10d Box, or 8d ring shank) in each stud above and below the floor line. Nail spacing along the studs shall not be less than 3 inches.

S102.11 Strapping at ends of openings in exterior load-bearing walls: Strapping shall be applied as prescribed in S102.11.1 through S102.11.4 at the ends of openings more than 3-feet-wide and less than 6' wide in exterior load-bearing walls.

S102.11.1 Double Top Plate to King Stud Connection: Strap double top plate to king stud using strapping with 1295-pound capacity at each end of the opening.

S102.11.2 Double Top Plate to Header Connection: Strap double top plate to the header at 16 inches o.c. spacing using strapping with 353-pound per linear foot capacity at each connection.

S102.11.3 Header to Jack Stud Connection: Strap each end of the header to the jack stud using strapping with 1060-pound capacity.

S102.11.4 King/Jack Stud to Foundation Connection: Connect the king/jack stud to the foundation using strapping or hold down with a capacity of 1,295 pounds at each end of the opening.

S102.12 Blocking of Floor Framing: Blocking shall be installed at floor deck edges in the first two joist or truss bays from exterior walls for edges where exterior walls are parallel to floor joists or floor trusses. Blocking shall be spaced a maximum of 4 feet o.c. and connected using three (3) 16d nails at each end and two (2) 16d nails through the floor sheathing above. For a second-floor-level floor system, a strap with a minimum capacity of 200 pounds shall be installed so that it wraps the outside edge of the double top plate of the wall below and is connected to the bottom of the blocking in the first bay.

S102.13 Gable end Bracing: Gable end bracing shall be installed for systems not using balloon framing. Continuous 2-by-4 lateral braces shall be installed on the top edges of ceiling joists or the top edges of truss bottom chords at 6-feet o.c. The braces shall extend back from the gable truss/framing at a distance equal to 90% of the building width. Each lateral brace shall have a minimum 20-gauge metal strap connected to the lateral brace that wraps over the bottom chord of the gable end wall plate/truss, over the top plate of the wall below, and is connected to a stud in the wall below. Straps shall be connected with ten (10) 8d nails at each end. Blocking (2-by-4s) shall be added in the bay between the gable wall framing and the first ceiling joist or truss and attached to the bottom of each lateral brace with four (4) 10d nails. Refer to Figure 3.7a in the 2018 Wood Framed Construction Manual.

S102.14 Wood Frame Chimney Chases: Wood frame chimney chases shall be structurally connected to rafters and/or ceiling joists. The attachment shall meet the following minimum requirements. Each corner of the chimney structure shall have a tension strap fastened to the corner stud that continues downward to the roof and/or ceiling support members below. The tension strap must have a minimum tension capacity of 700 pounds. Chimney framing shall be sheathed with minimum $^{7}/_{16}$-inch-thick wood structural panels on all four exterior sides. The base perimeter of the chimney framing at the roof deck level shall be continuously supported by minimum 2-by-4 blocking fastened to roof framing members with joist hangers. Figure S1 shows example locations of connections.

S102.15 Porch Roofs, Carports, Roofs of Lanais: A continuous load path shall be provided that anchors the roofs of attached structures to their foundations using metal connectors. Roof framing (rafter or truss) connections to support beams shall be provided using metal straps with uplift capacities capable of resisting the site-specific loads.

S102.16 Garage Doors: Garage doors and their attachment system shall be tested and approved per ANSI/DASMA 108, ASTM E 330, or Florida Building Code TAS 202 for the site-specific design pressures.

SECTION S103
ALTERNATE STRUCTURAL REQUIREMENTS: WOOD FRAME CONSTRUCTION

S103.1 Structural Design Alternatives: Alternate structural designs or designs for buildings that are more than 2 stories shall be based on either S103.1.1 or S103.1.2.

S103.1.1 Engineering Design: Accepted engineering design for wood frame construction using a design wind speed V_{ult} = 130 mph Exposure C when sealed by a professional engineer registered in the State.

S103.1.2 Prescriptive Wood Frame Design: Designs based on the American Forest and Paper Association, American Wood Council (AWC), Guide to Wood Construction in High Wind Areas for One-and Two-Family Dwellings or the AWC Wood Frame Construction Manual for V_{ult} = 130 mph Exposure C.

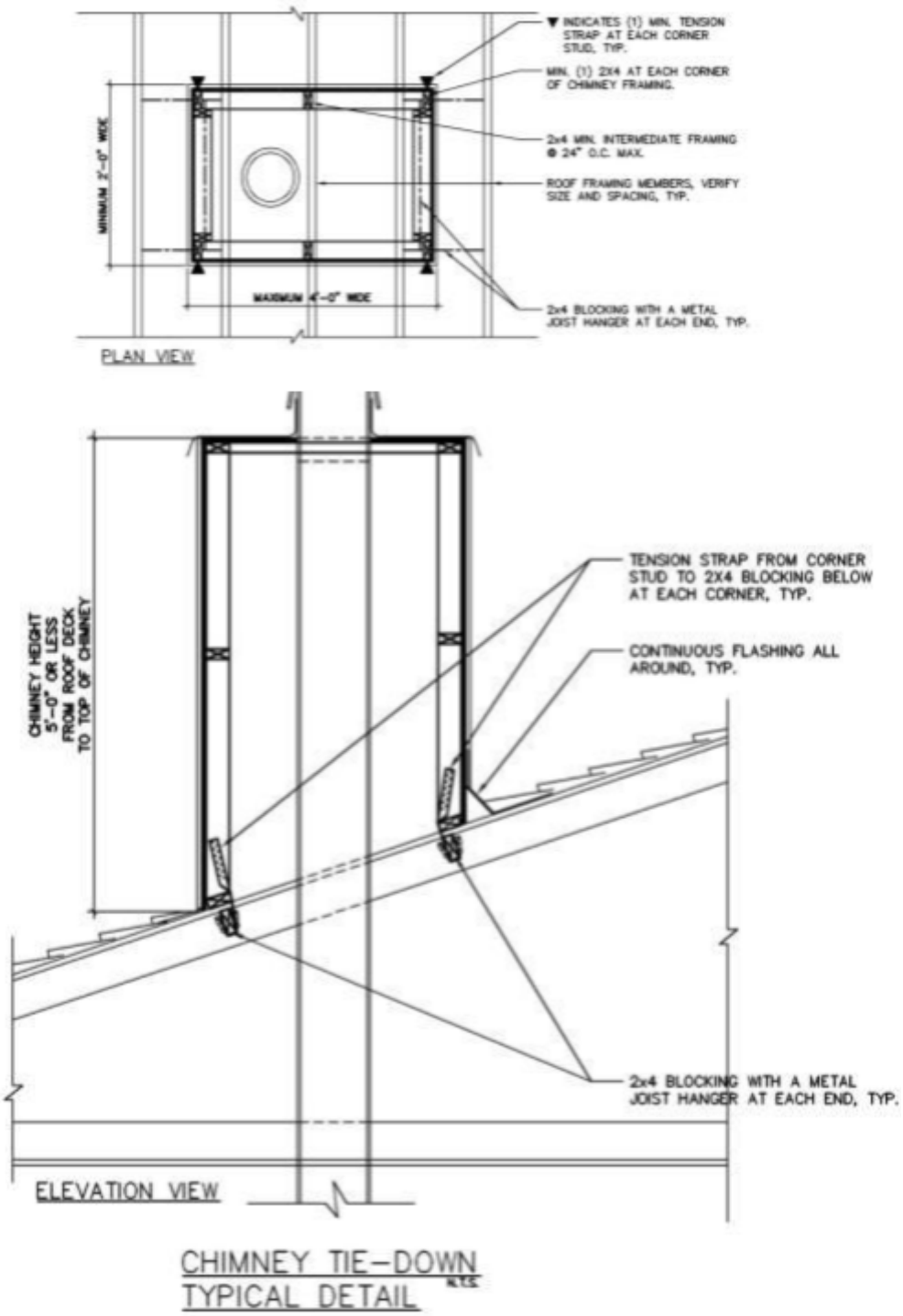

FIGURE S1. TYPICAL CHIMNEY TIE-DOWN DETAILS

SECTION S104
ROOF COVER REQUIREMENTS

S104.1 Roof Cover Requirements for Asphalt Shingles or Metal Roofs shall be applied in accordance with this appendix and the manufacturer's installation instructions over Wood Decks:

S104.1.1 Sealed Roof Deck: The roof deck shall be sealed using one of the options prescribed in S104.1.1.1 through S104.1.1.3. S104.1.1.1 through S104.1.1.3 provide the necessary underlayment for the selected roof cover.

S104.1.1.1 Taping of Seams between Roof Sheathing: All seams between roof sheathing that forms the roof deck shall be taped using either an ASTM 1970 compliant self-adhering polymer-modified bitumen flashing tape at least 4-inch-wide or an AAMA 711-13, Level 3 (for exposure up to 80^0C/176^0F) compliant self-adhering flexible flashing tape at least 3 $^3/_4$-inch-wide. The roof surface shall be covered with a code-compliant ASTM D226 Type II or ASTM D4869 Type III or Type IV underlayment over the self-adhering tape. As an alternative, apply a reinforced synthetic roof underlayment which has an ICC approval as an alternate to ASTM D226 Type II felt paper. The synthetic underlayment shall have a minimum tear strength of 15 pounds per ASTM D5034 or ASTM D4533. The underlayment shall be attached using annular ring or deformed shank roofing fasteners with minimum 1-inch-diameter caps (button cap nails) at a minimum 6 inches o.c. spacing along all laps and two rows 12 inches o.c. spacing in the field.

Horizontal laps must be a minimum of 2 inches, and end laps must be a minimum of 6 inches.

Notes:

I. Weave underlayment across valleys.
II. Double-lap underlayment across ridges (unless there is a continuous ridge vent).
III. Lap underlayment with minimum 6-inch leg “turned up” at wall intersections; lap wall weather barrier over turned-up roof underlayment.

S104.1.1.2 Double layer of Felt: Two (2) layers of ASTM D 226 Type II or ASTM D 4869 Type III or Type IV underlayment shall be installed in a shingle-fashion, lapped 19 inches on horizontal seams (36-inch-wide roll), and 6 inches on vertical seams. The starter course of felt is to be cut 19 inches wide and installed along the eave. Install a 36-inch-wide roll of ASTM D 226 Type II or ASTM D 4869 Type III or Type IV underlayment over the 19-inch-wide course also along the eave. Overlap subsequent sheets 19 inches leaving 17 inches exposed up to the ridge. The underlayment shall be attached using annular ring or deformed shank roofing fasteners with minimum 1-inch-diameter caps (button cap nails) at a minimum 6 inches o.c. spacing along all laps and 12 inches o.c. spacing in the field.

Notes:

I. Weave underlayment across valleys.
II. Double-lap underlayment across ridges (unless there is a continuous ridge vent).
III. Lap underlayment with minimum 6-inch leg “turned up” at wall intersections; lap wall weather barrier over turned-up roof underlayment.

S104.1.1.3 Self-Adhered Membrane: The entire roof deck shall be covered with a full layer of self-adhering polymer-modified bitumen membrane conforming to ASTM D1970 requirements.

Notes:

I. In some instances, the ability of the self-adhered membranes to adhere to Oriented Strand Board (OSB) sheathing may be compromised by the level of surface texture, wax used to improve the water resistance of the OSB panels, and/or the job site conditions. In applications where membrane adhesion to OSB is marginal, apply a primer to the OSB panels to ensure the proper attachment of the self-adhering membrane to the sheathing.

II. Roofers are finding that shingles are bonding to many of these membranes, which could lead to sheathing damage when it is time to replace the shingles. Consequently, the membrane should be covered with a bond break such as an ASTM D226, Type I underlayment. This underlayment on shingle roofs only needs to be fastened sufficiently enough to keep it on the roof surface until the shingles are applied.

III. Roof covering manufacturers emphasize the need for adequate attic ventilation when a self-adhering membrane is applied over the entire roof. Also, some local building departments prohibit the use of this system. Check with the local building department for restrictions.

S104.1.2 Drip Edge Requirements: A drip edge shall be installed along eave edges and gable rakes over the underlayment. Drip edges shall extend 1/2-inch below the sheathing and extend back a minimum of 2 inches on the roof.

Overlap drip edge at joints a minimum of 3 inches. Drip edge shall be attached using roofing nails long enough to penetrate the roof deck at a maximum of 12 inches o.c. in an alternating (staggered) pattern along the length of the drip edge with adjacent fasteners placed near opposite edges of the leg/flange of the drip edge on the roof.

S104.1.3 Flashing Requirements: Roof underlayment membranes shall be taped and sealed around all roof penetrations. Flashing at roof penetrations, changes in roof slope, and intersections with walls or building features shall follow the manufacturer's installation instructions.

S104.1.4 Asphalt Shingles: Asphalt shingles shall be tested in accordance with ASTM D7158 and meet the classification requirements listed in Table S1. Their packaging shall be labeled to indicate compliance with ASTM D7158 and the classification required for areas with V_{asd} design wind speeds of 110 mph (V_{ult}= 130 mph.

S104.1.4.1 Shingle attachment: Shingles shall be installed using the number of fasteners required by the manufacturer for high-wind fastening. In areas where the local building code requires more fasteners than required by the manufacturer, fasteners shall comply with the local building code. Shingles shall not extend more than ¼-inch beyond the drip edge metal.

S104.1.4.2 Installation of starter strips at eaves: Starter strips at eaves shall be a product developed by the shingle manufacturer for that purpose, with a sealant strip located along the edge that will be placed above the drip edge metal and fastened according to the manufacturer's recommendations for high wind areas.

S104.1.5 Metal Panels: Metal panel roofing systems and their attachment shall be installed in accordance with the manufacturer's installation instructions and shall provide uplift resistance equal to or greater than the design uplift pressure for the roof based on requirements for areas with wind speeds of V_{ult} = 130 mph. The metal panels shall be installed over continuous decking and one of the acceptable sealed roof deck underlayment options (See Section S104.1.1).

S104.2 Roof Cover Requirements for Clay and Concrete Roof Tiles shall be applied in accordance with this appendix and the manufacturer's installation instructions: Clay and concrete roof tile systems shall be installed over continuous 15/32" thick plywood roof decking and one of the acceptable sealed roof deck underlayment options prescribed in S104.2.1.

S104.2.1 Sealed Roof Deck: The roof deck shall be sealed using one of the options prescribed in S104.2.1.1 through S104.2.1.4. S104.2.1.1 through S104.2.1.4 provide the necessary underlayment for the clay or concrete tiles.

S104.2.1.1 Self-Adhered Membrane: The entire roof deck shall be covered with a full layer of self-adhering polymer-modified bitumen roof tile underlayment membrane conforming to ASTM D1970 and Florida Building Code TAS 103 requirements.

Notes:

I. In some instances, the ability of the self-adhered membranes to adhere to Oriented Strand Board (OSB) sheathing may be compromised by the level of surface texture, the wax used to release the OSB panel from its mold during the manufacturing process, and the job site conditions. In applications where membrane adhesion to OSB is marginal, apply a primer to the OSB panels to ensure the proper attachment of the self-adhering membrane to the sheathing.

II. Roof covering manufacturers emphasize the need for adequate attic ventilation when a self-adhering membrane is applied over the entire roof. Also, some local building departments prohibit the use of this system. Check with the local building department for restrictions.

S104.2.1.2 Taping of Seams between Roof Sheathing and Self-Adhering Membrane over Underlayment: All seams between roof sheathing that forms the roof deck shall be taped using either an ASTM 1970 compliant self-adhering polymer-modified bitumen flashing tape at least 4-inch-wide or an AAMA 711-13, Level 3 (for exposure up to 80^0C/176^0F) compliant self-adhering flexible flashing tape at least 3 $^3/_4$-inch-wide. The roof surface and the self-adhering tape shall be covered with a code-compliant ASTM D226 Type II or approved equal anchor sheet. The anchor sheet shall be attached using annular ring or deformed shank roofing fasteners with minimum 1-inch-diameter caps (button cap nails) at a minimum 6 inches o.c. spacing along all laps and two rows with a maximum of 12 inches o.c. spacing in the field. Horizontal laps must be a minimum of 2 inches, and end laps must be a minimum of 6 inches. When required by the roof covering, a self-adhering polymer-modified bitumen cap sheet complying with ASTM D1970 shall be applied over this anchor sheet.

Notes:

I. Weave underlayment across valleys.
II. Double-lap underlayment across ridges (unless there is a continuous ridge vent).
III. Lap underlayment with minimum 6-inch leg “turned up” at wall intersections; lap wall weather barrier over turned-up roof underlayment.

S104.2.1.3 Taping of Seams between Roof Sheathing and Hot-Mopped #90 Mineral Surface Cap Sheet over Underlayment: All seams between roof sheathing that forms the roof deck shall be taped using either an ASTM 1970 compliant self-adhering polymer-modified bitumen flashing tape at least 4-inch-wide or an AAMA 711-13, Level 3 (for exposure up to 80^0C/176^0F) compliant self-adhering flexible flashing tape at least 3 $^3/_4$-inch-wide. The roof surface shall be covered with a code-compliant ASTM D226 Type II anchor sheet or approved equal base sheet over the self-adhering tape. The anchor sheet shall be attached using annular ring or deformed shank roofing fasteners with minimum 1-inch-diameter caps (button cap nails) at a minimum 6 inches o.c. spacing along all laps and two rows with a maximum of 12 inches o.c. spacing in the field. Horizontal laps must be a minimum of 2 inches, and end laps must be a minimum of 6 inches. When required by the roof covering, the underlayment shall be hot-mopped using hot asphalt and apply a #90 mineral surface cap sheet or approved modified cap sheet.

Notes:

I. Weave underlayment across valleys.
II. Double-lap underlayment across ridges (unless there is a continuous ridge vent).
III. Lap underlayment with minimum 6-inch leg “turned up” at wall intersections; lap wall weather barrier over turned-up roof underlayment.

S104.2.1.4 Double layer of Felt: Two (2) layers of ASTM D 226 Type II or approved equal anchor sheet shall be installed in a shingle fashion, lapped 19 inches on horizontal seams (36-inch-wide roll), and 6 inches on vertical seams. The starter course of felt is to be cut 19 inches wide and installed along the eave. Install a 36-inch-wide roll of ASTM D 226 Type II or ASTM D 4869 Type III or Type IV underlayment over the 19-inch-wide course also along the eave. Overlap subsequent sheets 19 inches leaving 17 inches exposed up to the ridge. The underlayment shall be attached using annular ring or deformed shank roofing fasteners with minimum 1-inch-diameter caps (button cap nails) at a minimum 6 inches o.c. spacing along all laps and 12 inches o.c. spacing in the field.

Notes:

I. Weave underlayment across valleys.
II. Double-lap underlayment across ridges (unless there is a continuous ridge vent).
III. Lap underlayment with minimum 6-inch leg “turned up” at wall intersections; lap wall weather barrier over turned-up roof underlayment.

When required by the roof covering, the two-ply anchor sheets shall be covered with either a self-adhering polymer-modified bitumen cap sheet complying with ASTM D1970 or shall be hot-mopped using hot asphalt and apply a #90 mineral surface cap sheet.

S104.2.2 Drip Edge Requirements: A drip edge shall be installed along eave edges and gable rakes over the underlayment. Drip edges shall extend 1/2-inch below sheathing and extend back on the roof a minimum of 2 inches.

Overlap drip edge at joints a minimum of 3 inches. Drip edge shall be attached using roofing nails long enough to penetrate the roof deck at a maximum of 12 inches o.c. in an alternating (staggered) pattern along the length of the drip edge with adjacent fasteners placed near opposite edges of the leg/flange of the drip edge on the roof.

S104.2.3 Flashing Requirements: Roof underlayment membranes shall be taped and sealed around all roof penetrations. Flashing at roof penetrations, changes in roof slope, and intersections with walls or building features shall follow the manufacturer's installation instructions or the FRSA/Tile Roofing Institute guide.

S104.2.4 Clay and Concrete Tiles: Clay and concrete roof tile systems and their attachment shall meet the requirements for areas with V_{ult} wind speeds of 130 mph with exposure C.Clay, and concrete roof tiles shall be installed in accordance with FRSA/ Tile Roofing Institute installation guidelines, "Florida High Wind Concrete and Clay Roof Tile Installation Manual Fifth Edition, FRSA/TRI April 2012 (04-12)" for areas with V_{ult} wind speeds of 130 mph with Exposure C. Mortar set tile or mortar set hip and ridge tiles (Systems Three and Four B, as listed in FRSA/TRI Manual) are not permitted. Hip and ridge boards shall be attached to the roof framing to resist the uplift pressure for the site design wind speed and exposure or in accordance with Table 11 of the FRSA/Manual. Hip and ridge tiles shall be secured to hip and ridge boards with mechanical fasteners and/or an approved roof tile adhesive.

S1.4 Other Roof Coverings:

For all other roof coverings, the designer must provide documentation showing the roof covering and the attachments were designed for the component and cladding wind pressures corresponding to areas with V_{ult} wind speeds of 130 mph with Exposure C. All roof coverings, regardless of type, shall be installed in accordance with the manufacturer's installation guidelines for areas with V_{ult} wind speeds of 130 mph with Exposure C. When applicable (e.g., wood shakes, slate roofs), the roof deck shall be sealed using one of the options provided in Section S104.1.1 that is compatible with the manufacturer's installation requirements for the roof covering selected.

This public resource is maintained by Smart Home America and is available at: SmartHomeAmerica.org/resources/details/code-supplement

For more information, contact:

Smart Home America
PO Box 2731
Mobile, AL, 36652

info@smarthomeamerica.org 1.855.742.7233
SmartHomeAmerica.org

V1.1