



**EVALUATION REPORT**

**FLORIDA BUILDING CODE, 7<sup>TH</sup> EDITION (2020)**

**Manufacturer:** VARITILE INC.  
 6 Denny Rd. Ste. 200  
 Wilmington, DE 19809  
 (541) 948-3887  
[www.varitile.com](http://www.varitile.com)

*Issued August 9, 2020*

**Manufacturing:** Belgium

**Quality Assurance:** UL LLC (QUA9625)

**SCOPE**

**Category:** Roofing  
**Subcategory:** Metal Roofing  
**Code Edition:** Florida Building Code, 7<sup>th</sup> Edition (2020) including High-Velocity Hurricane Zones (HVHZ)  
**Code Sections:** 1504.3.1, 1504.3.2, 1518.9, 1523.1.1, 1523.6.5.2.4  
**Properties:** Wind Resistance, Wind-Driven Rain, Physical Properties

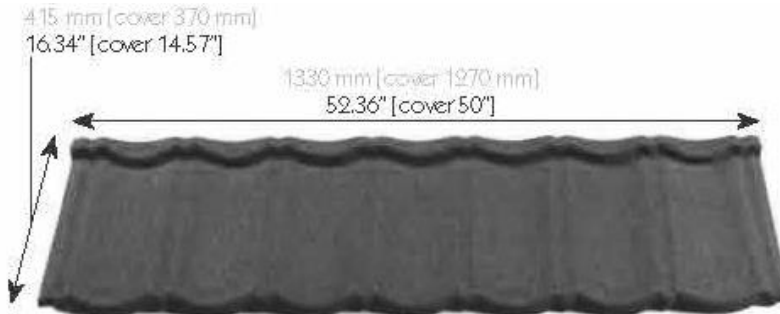
**REFERENCES**

<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST5878)	MTTE-001-02-01	ASTM G 155	2013
		TAS 110	2000
PRI Construction Materials Technologies (TST5878)	MTTE-002-02-01	ASTM B 117	2016
		TAS 110	2000
PRI Construction Materials Technologies (TST5878)	MTTE-003-02-01	TAS 125	2003
PRI Construction Materials Technologies (TST5878)	MTTE-004-02-01	TAS 125	2003
PRI Construction Materials Technologies (TST5878)	MTTE-005-02-01	TAS 125	2003
PRI Construction Materials Technologies (TST5878)	MTTE-008-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	MTTE-009-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	MTTE-010-02-01	ASTM E 8	2013a
PRI Construction Materials Technologies (TST5878)	VRT-003-02-01	TAS 125	2003
		UL 580	2006
		UL 1897	2012
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	VRT-007-02-01	UL 580	2006
		UL 1897	2012
		ICC-ES AC10	2014
UL LLC (TST9628)	ER38141-01	ICC-ES AC166	2012

**PRODUCT DESCRIPTION**

**Bond (7 pan)**

**Profile:** Beavertail Tile; 14.57 in. x 50 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 26 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3



**Classic**

**Profile:** Metal panel; 14.57 in. x 49.8 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 26 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3



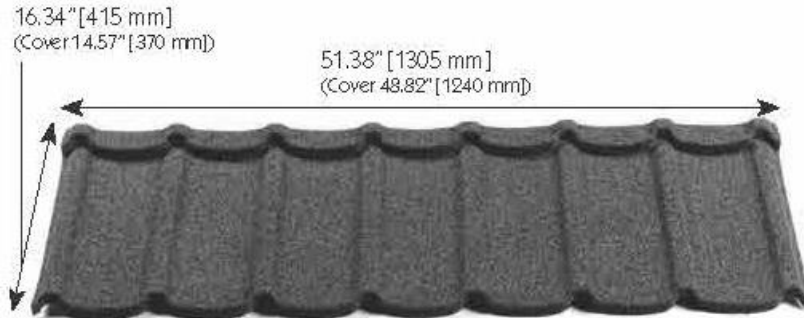
**Gallo**

**Profile:** Metal panel; 14.57 in. x 46.65 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 26 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3



**Mistral**

**Profile:** Metal panel; 14.57 in. x 48.82 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 26 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3



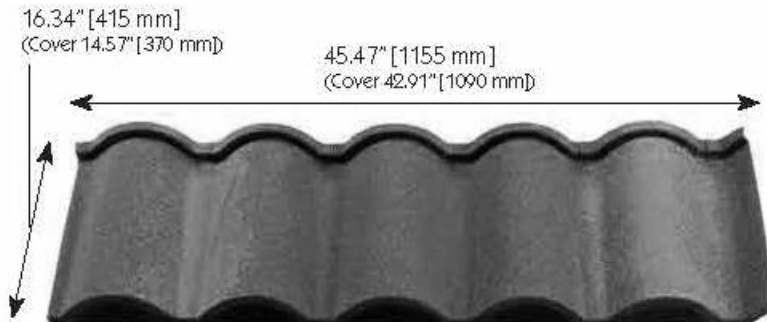
**Riviera**

**Profile:** Metal panel; 14.57 in. x 47.76 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 26 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3



**Romana**

**Profile:** Barrel tile; 14.57 in. x 42.91 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 25 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3



**Shake**

**Profile:** Wood shake; 14.57 in. x 49.8 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 26 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3



**Viksen**

**Profile:** Wood shingle; 14.57 in. x 49.61 in. coverage  
**Description:** Preformed, fastened, stoned-coated steel panels  
**Material:** Min. 26 ga. ASTM A792 AZ50; F<sub>y</sub> = min. 50 ksi; Shall conform with FBC Section 1507.4.3

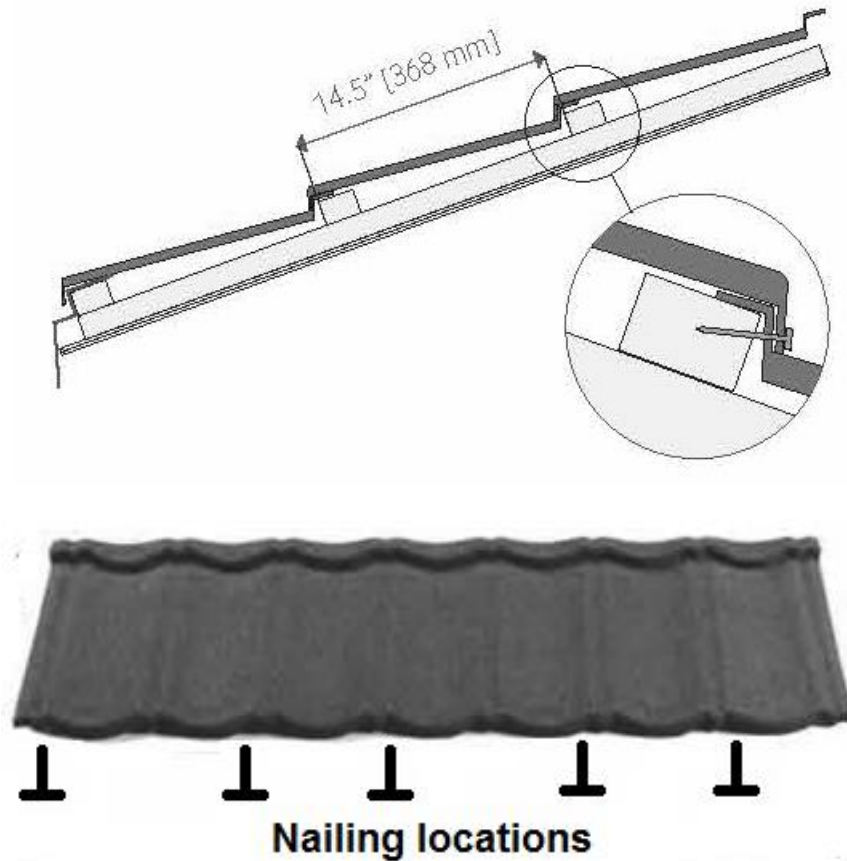


**APPROVED ASSEMBLIES**

<b>System 1 – Bond (7 pan) over wood battens</b>									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with one (1) #10 x 3-1/2 in. wood screw per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Bond (7 pan) panels installed over batten with five (5) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 2-1/2 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-75 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
<b>Maximum Mean Roof Heights for Gable/Hip Roofs</b> Slopes 2:12 – 12:12									
Exposure	<sup>9</sup> Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft	34 ft	24 ft
C	60 ft	60 ft	60 ft	60 ft	37 ft	21 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	31 ft	NA	NA	NA	NA	NA
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	48 ft	30 ft	20 ft	NA	NA	NA
C	60 ft	44 ft	22 ft	NA	NA	NA	NA	NA	NA
D	46 ft	18 ft	NA	NA	NA	NA	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	42 ft	26 ft	16 ft	NA	NA	NA	NA
C	42 ft	19 ft	NA	NA	NA	NA	NA	NA	NA
D	17 ft	NA	NA	NA	NA	NA	NA	NA	NA
Notes:	1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on the exposed area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_{zj} = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the above table. Design pressures are calculated using $V_{asd} = V_{ult}\sqrt{0.6}$ per 1609.3.1.								

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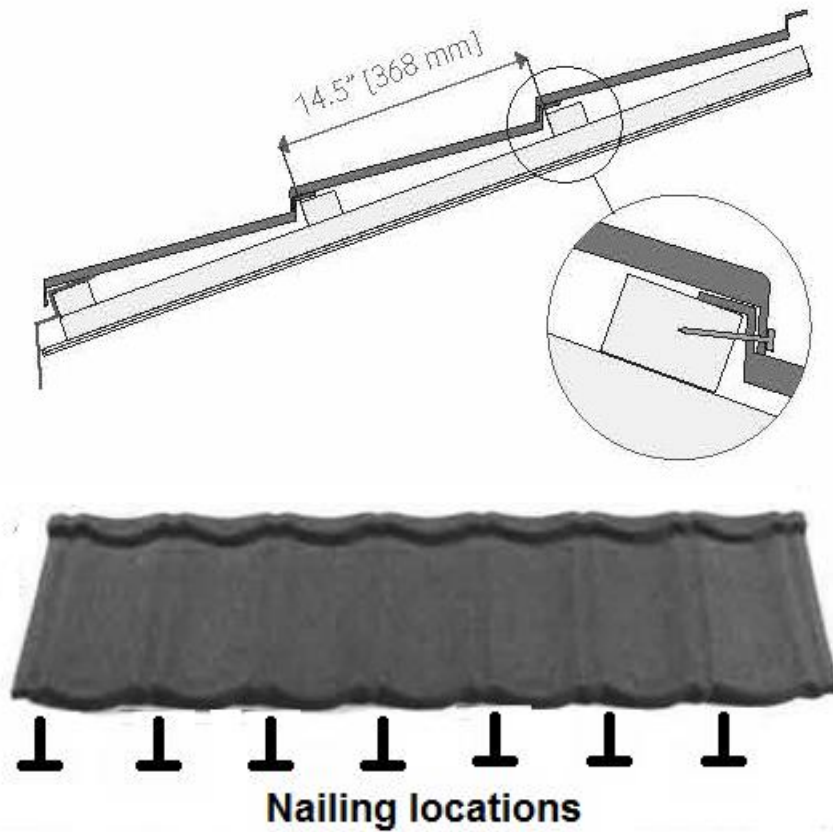
**System 1 – Bond (7 pan) over wood battens**



System 2 – Bond (7 pan) over wood battens									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with two (2) #10 x 3-1/2 in. wood screws per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Bond (7 pan) panels installed over batten with seven (7) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 2-1/2 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-135 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	33 ft
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	33 ft	19 ft	NA
D	60 ft	60 ft	60 ft	60 ft	50 ft	24 ft	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	39 ft	27 ft
C	60 ft	60 ft	60 ft	60 ft	44 ft	25 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	38 ft	18 ft	NA	NA	NA	NA
Notes:	1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on the exposed area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_d = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the above table. Design pressures are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.								

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**System 2 – Bond (7 pan) over wood battens**

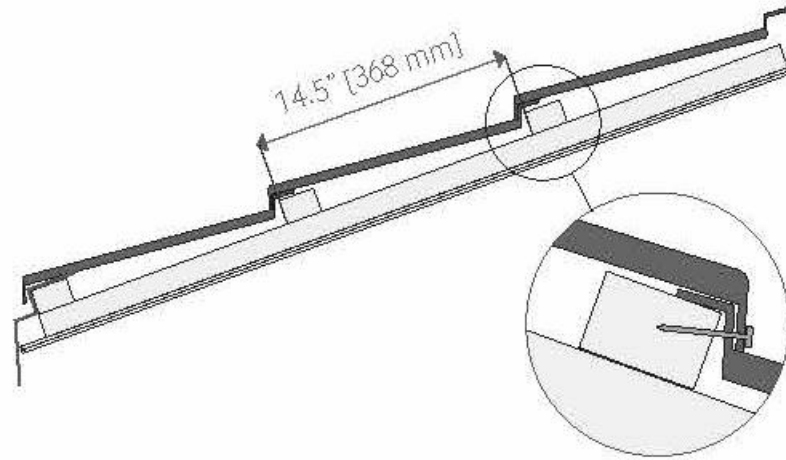




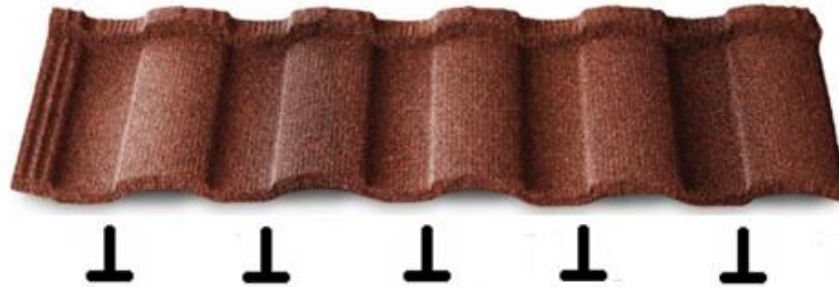
<b>System 3 – Classic, Riviera, Shake, or Viksen over wood battens</b>									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with one (1) #10 x 3-1/2 in. wood screw per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Classic, Riviera, Shake or Viksen panels installed over batten with five (5) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 2-1/2 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-86.25 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
<b>Maximum Mean Roof Heights for Gable/Hip Roofs</b> Slopes 2:12 – 12:12									
Exposure	<sup>9</sup> Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	56 ft	39 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	40 ft	23 ft	NA	NA
D	60 ft	60 ft	60 ft	60 ft	33 ft	16 ft	NA	NA	NA
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	50 ft	32 ft	21 ft	15 ft	NA
C	60 ft	60 ft	43 ft	22 ft	NA	NA	NA	NA	NA
D	60 ft	41 ft	17 ft	NA	NA	NA	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	43 ft	27 ft	17 ft	NA	NA	NA
C	60 ft	38 ft	18 ft	NA	NA	NA	NA	NA	NA
D	38 ft	15 ft	NA	NA	NA	NA	NA	NA	NA
Notes:	1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on the exposed area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_{zr} = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the above table. Design pressures are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.								
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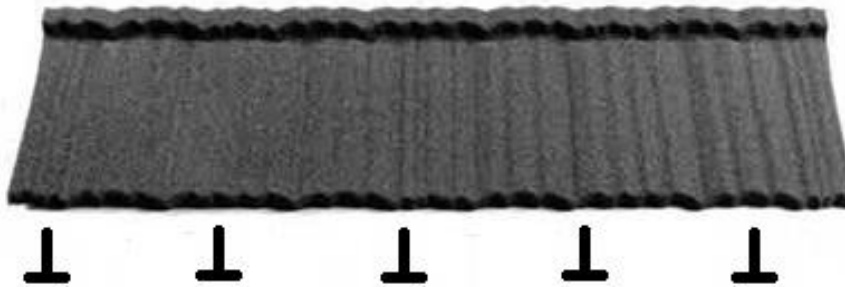
**System 3 – Classic, Shake, or Viksen over wood battens**



**Nailing locations**

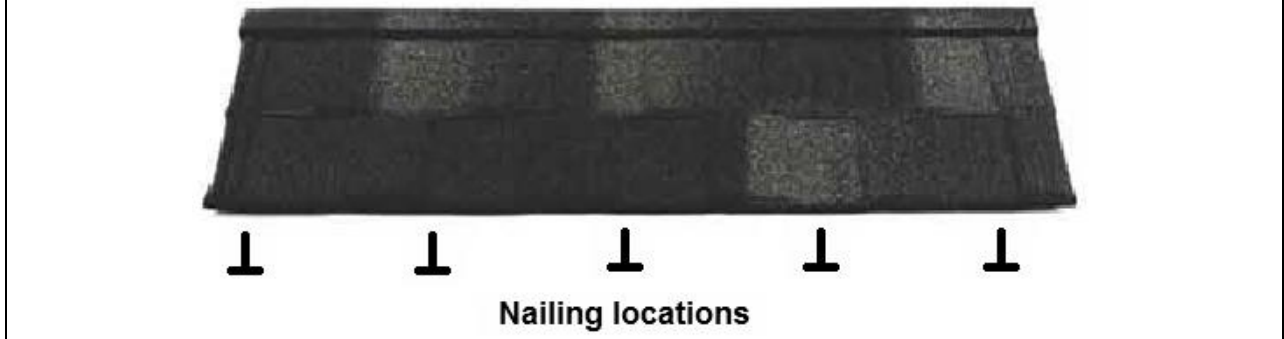


**Nailing locations**



**Nailing locations**

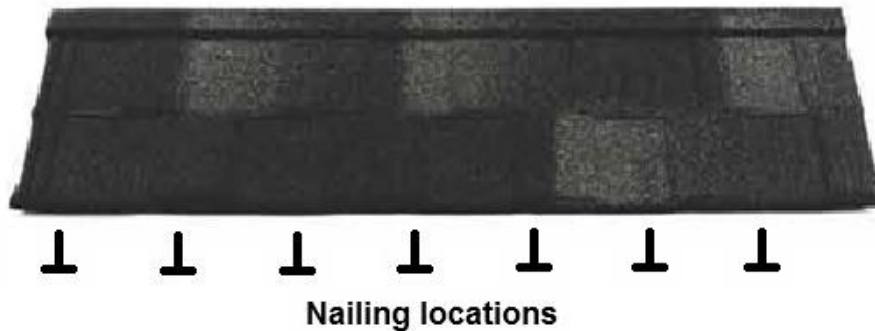
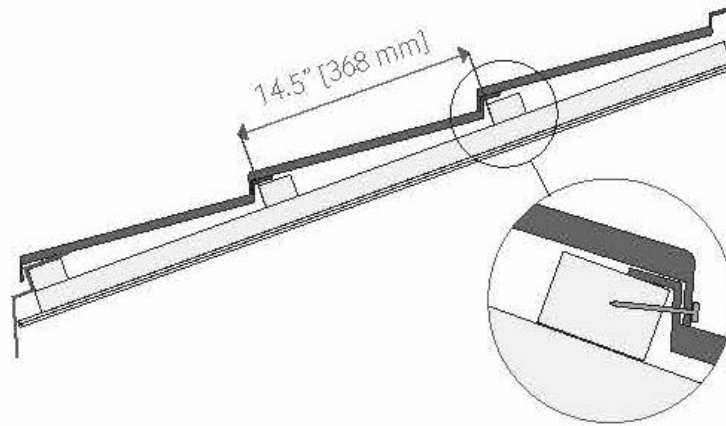
**System 3 – Classic, Shake, or Viksen over wood battens**





<b>System 4 – Classic, Shake, or Viksen over wood battens</b>									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with two (2) #10 x 3-1/2 in. wood screws per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Classic, Shake or Viksen panels installed over batten with seven (7) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 2-1/2 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-112.5 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
<b>Maximum Mean Roof Heights for Gable/Hip Roofs</b> Slopes 2:12 – 12:12									
Exposure	<sup>9</sup> Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft	30 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	39 ft	21 ft	NA
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	55 ft	38 ft	26 ft
C	60 ft	60 ft	60 ft	60 ft	42 ft	24 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	36 ft	17 ft	NA	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	60 ft	60 ft	45 ft	30 ft	20 ft	15 ft
C	60 ft	60 ft	60 ft	34 ft	18 ft	NA	NA	NA	NA
D	60 ft	60 ft	30 ft	NA	NA	NA	NA	NA	NA
Notes:	1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on the exposed area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_z = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the above table. Design pressures are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.								
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**System 4 – Classic, Shake, or Viksen over wood battens**



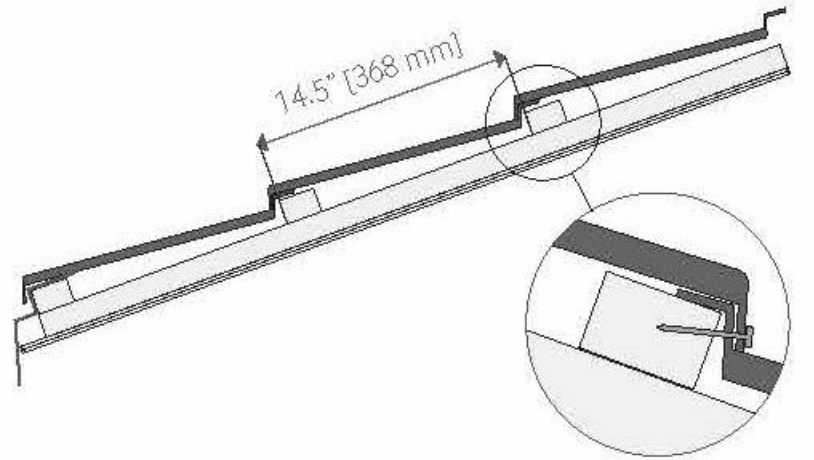


System 5 – Riviera over wood battens									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with two (2) #10 x 3-1/2 in. wood screws per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Riviera panels installed over batten with seven (7) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 2-1/2 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-135 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	33 ft
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	33 ft	19 ft	NA
D	60 ft	60 ft	60 ft	60 ft	50 ft	24 ft	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	39 ft	27 ft
C	60 ft	60 ft	60 ft	60 ft	44 ft	25 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	38 ft	18 ft	NA	NA	NA	NA
Notes:	<ol style="list-style-type: none"> <li>1) Exposure category for the structure location shall be as defined in the Florida Building Code</li> <li>2) Limitations are based on the exposed area of 10ft<sup>2</sup> or less</li> <li>3) Topographic factors such as escarpments or hills are not included in the above assessment</li> <li>4) Applicable for Enclosed Buildings without overhangs</li> <li>5) NA = "Not Allowed"</li> <li>6) <math>K_{zr} = 0.85</math></li> <li>7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional</li> <li>8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3</li> <li>9) <math>V_{ult}</math> is shown in the above table. Design pressures are calculated using <math>V_{asd} = V_{ult} \sqrt{0.6}</math> per 1609.3.1.</li> </ol>								

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**System 5 – Riviera over wood battens**



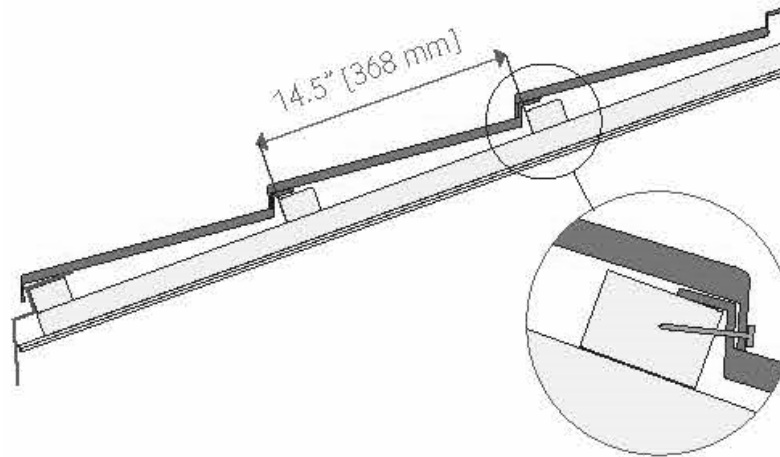
**Nailing locations**



System 6 - Romana over wood battens									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with one (1) #10 x 3-1/2 in. wood screw per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Romana panels installed over batten with six (6) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 3-1/8 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-105 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	36 ft	22 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	51 ft	26 ft	NA	NA
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	43 ft	30 ft	20 ft
C	60 ft	60 ft	60 ft	56 ft	30 ft	17 ft	NA	NA	NA
D	60 ft	60 ft	54 ft	24 ft	NA	NA	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	60 ft	54 ft	35 ft	23 ft	16 ft	NA
C	60 ft	60 ft	48 ft	25 ft	NA	NA	NA	NA	NA
D	60 ft	47 ft	20 ft	NA	NA	NA	NA	NA	NA
Notes:	1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on the exposed area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_z = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the above table. Design pressures are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.								
<i>Continued on next page</i>									



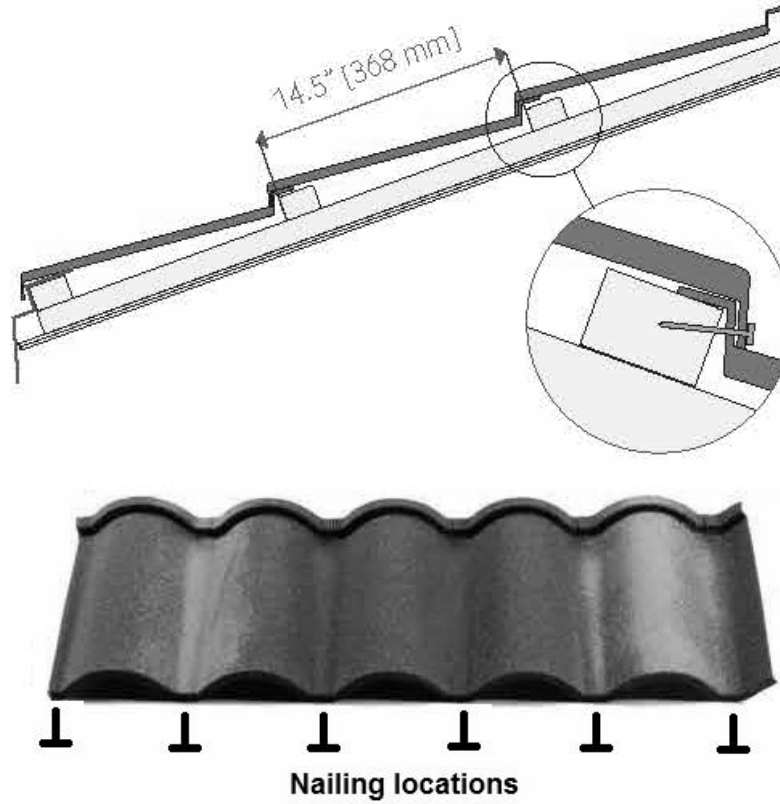
**System 6 - Romana over wood battens**



System 7 - Romana over wood battens									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with two (2) #10 x 3-1/2 in. wood screws per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Romana panels installed over batten with six (6) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 3-1/8 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-172.5 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	39 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	52 ft	28 ft	15 ft
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	46 ft	28 ft	17 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	37 ft	19 ft	NA
Notes:	1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on the exposed area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_r = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the above table. Design pressures are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.								
<i>Continued on next page</i>									

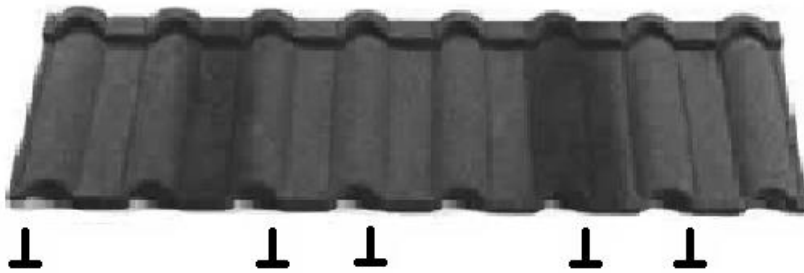
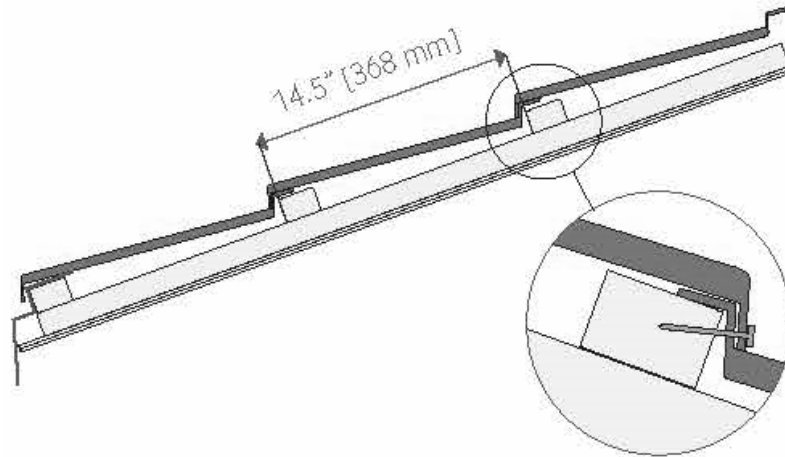


**System 7 - Romana over wood battens**

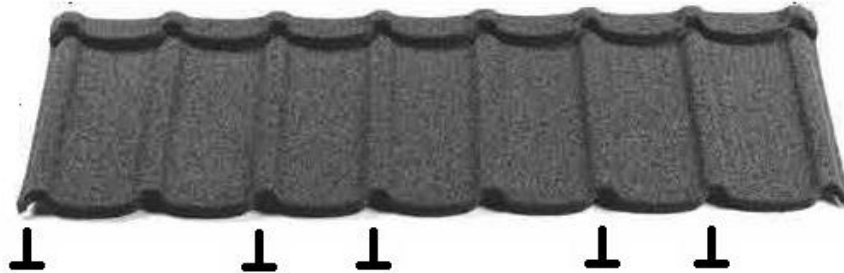


System 8 – Gallo or Mistral over wood battens									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with one (1) #10 x 3-1/2 in. wood screw per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Gallo or Mistral panels installed over batten with five (5) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 3-1/8 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-86.25 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs									
Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	56 ft	39 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	40 ft	23 ft	NA	NA
D	60 ft	60 ft	60 ft	60 ft	33 ft	16 ft	NA	NA	NA
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	50 ft	32 ft	21 ft	15 ft	NA
C	60 ft	60 ft	43 ft	22 ft	NA	NA	NA	NA	NA
D	60 ft	41 ft	17 ft	NA	NA	NA	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	43 ft	27 ft	17 ft	NA	NA	NA
C	60 ft	38 ft	18 ft	NA	NA	NA	NA	NA	NA
D	38 ft	15 ft	NA	NA	NA	NA	NA	NA	NA
Notes:	<ol style="list-style-type: none"> <li>1) Exposure category for the structure location shall be as defined in the Florida Building Code</li> <li>2) Limitations are based on the exposed area of 10ft<sup>2</sup> or less</li> <li>3) Topographic factors such as escarpments or hills are not included in the above assessment</li> <li>4) Applicable for Enclosed Buildings without overhangs</li> <li>5) NA = "Not Allowed"</li> <li>6) <math>K_z = 0.85</math></li> <li>7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional</li> <li>8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3</li> <li>9) <math>V_{ult}</math> is shown in the above table. Design pressures are calculated using <math>V_{asd} = V_{ult} \sqrt{0.6}</math> per 1609.3.1.</li> </ol>								
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**System 8 – Gallo or Mistral over wood battens**



**Nailing locations**

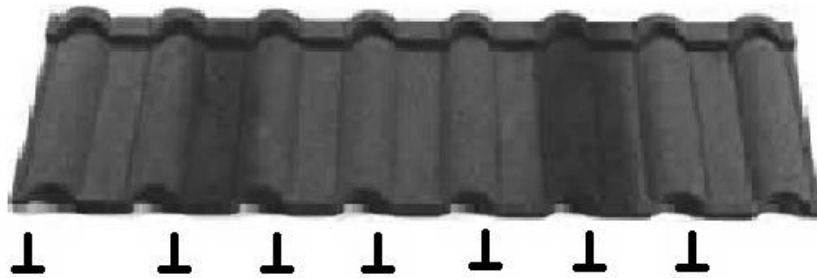
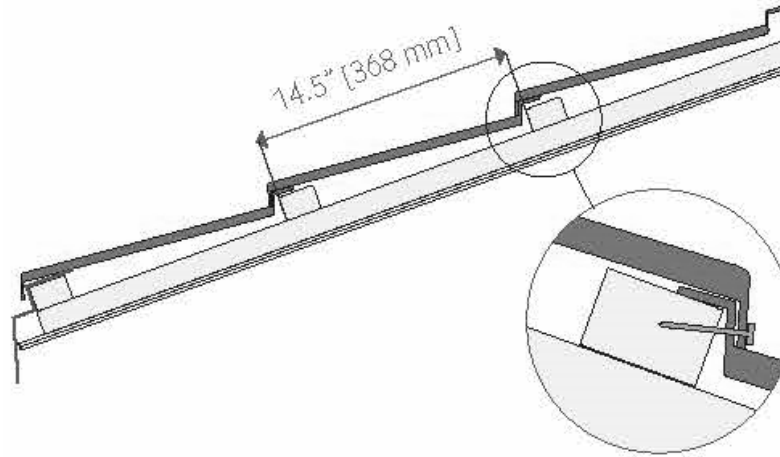


**Nailing locations**

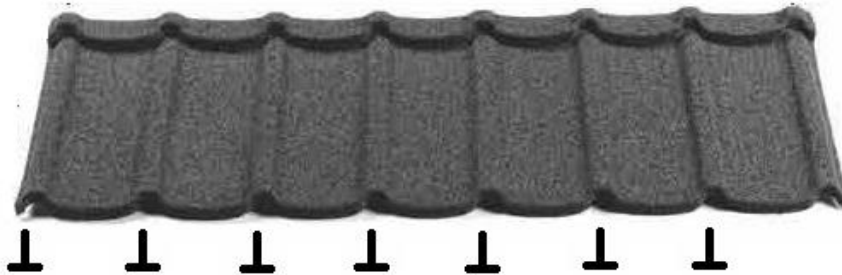
System 9 – Gallo or Mistral over wood battens									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed as described in RAS 115 Section 4. At the eave and rake edges, the underlayment shall be folded down to cover the edge of the sheathing. After installation of the drip edge metal, a layer of underlayment shall be applied to cover the drip edge.								
Batten:	Nominal 2x2 SPF, SYP or DF fastened to rafter with two (2) #10 x 3-1/2 in. wood screws per truss/rafter intersection and one (1) #9 x 2-1/2 in. wood screw into sheathing, mid-span between truss/rafter intersections (max. spacing 24 in. o.c.). Maximum batten spacing is 14-1/2 in. o.c.								
Attachment:	Gallo or Mistral panels installed over batten with seven (7) 11.5 ga. x 2-1/4 in. UFO Ballistic Nailscrews located through the head lap of each panel as shown on following page. Panels applied with 14-1/2 in. exposure and overlapped adjacently 3-1/8 in. Fasteners must be corrosion resistant in accordance with section 1507.4.4.								
Maximum Design Pressures:	<b>-142.5 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤ 120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	46 ft
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	42 ft	25 ft	15 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	34 ft	17 ft	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	47 ft	33 ft
C	60 ft	60 ft	60 ft	60 ft	57 ft	32 ft	18 ft	NA	NA
D	60 ft	60 ft	60 ft	53 ft	25 ft	NA	NA	NA	NA
Notes:	1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on the exposed area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_{zr} = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 24 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the above table. Design pressures are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.								
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**System 9 – Gallo or Mistral over wood battens (corner installation)**

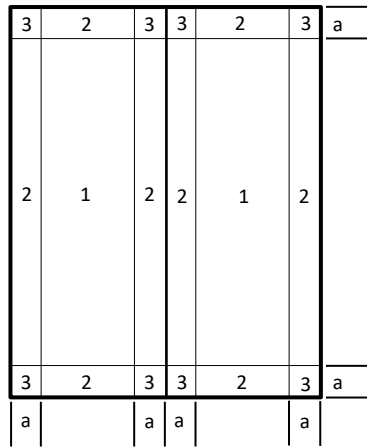


**Nailing locations**

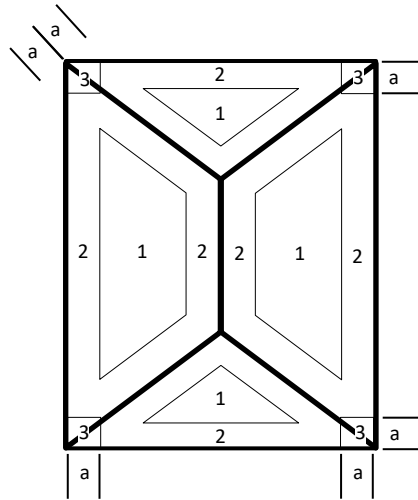


**Nailing locations**

**Gable**



**Hip**



Dimension “a” shall be 10% of the least horizontal dimension or (0.4 x *Mean Roof Height*), whichever is smaller, but not less than either 4% of the least horizontal dimension or 3ft.

**LIMITATIONS**

1. Fire classification is not within the scope of this evaluation.
2. The roof deck and the roof deck attachment shall be designed by others to meet the minimum design loads established for components and cladding and in accordance with FBC requirements.
3. Reroofing shall be in accordance with FBC Section 1511 or Section 1521 within the HVHZ.
4. Installation of the evaluated products shall comply with this report, the FBC and RAS 133 in the HVHZ and the manufacturer’s published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
5. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

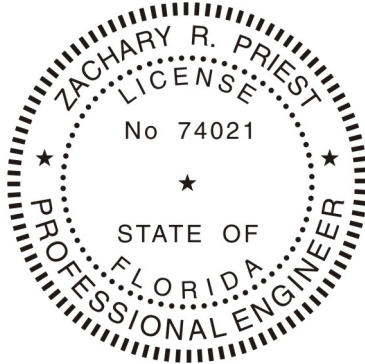




**COMPLIANCE STATEMENT**

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The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 7<sup>th</sup> Edition (2020) including High-Velocity Hurricane Zones (HVHZ) as evidenced in the referenced documents submitted by the named manufacturer.



Zachary R. Priest, P.E.  
Florida Registration No. 74021  
Organization No. ANE9641

**CERTIFICATION OF INDEPENDENCE**

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CREEK Technical Services, LLC does not have, nor will it acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

CREEK Technical Services, LLC is not owned, operated, or controlled by any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

**END OF REPORT**