



EVALUATION REPORT

FLORIDA BUILDING CODE, 9TH EDITION (2026)

Manufacturer: WESTLAKE ROYAL ROOFING, LLC, UNIFIED STEEL
3093 "A" Industry Street
Oceanside, CA 92054
(760) 435-9842
www.westlakeroyalroofing.com

Issued October 16, 2026

Manufacturing: Oceanside, CA

Quality Assurance: QAI Laboratories (QUA7628)

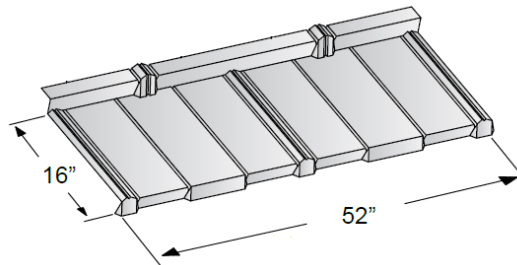
SCOPE

Category: Roofing
Subcategory: Metal Roofing
Code Edition: Florida Building Code, 9th Edition (2026) including High-Velocity Hurricane Zones (HVHZ)
Code Sections: 1504.3.1, 1504.3.2, 1518.9, 1523.6.5.2.4
Properties: Wind Resistance, Physical Properties

PRODUCT DESCRIPTION

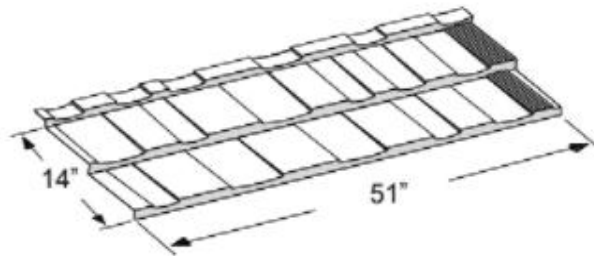
Pine Crest Shake

Profile: 16 in. x 52 in. panel; leading edge is turned down 1 in. and back edge is bent up and horizontally back 1.5 in. Panel side laps are 2 in.
Description: Preformed, fastened, stone-coated steel panels
Material: Min. 26 ga. ASTM A792 AZ50; F_y = min. 40 ksi; Shall conform with FBC Section 1507.4.3



Cottage Shingle

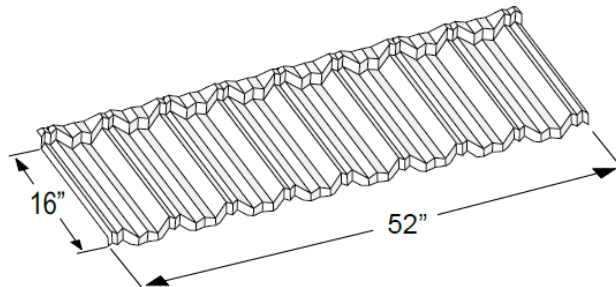
Profile: 14 in. x 51 in. panel; leading edge is turned down 1 in. and back edge is bent up and horizontally back 1.5 in. Panel side laps are 2 in.
Description: Preformed, fastened, stone-coated steel panels
Material: Min. 26 ga. ASTM A792 AZ50; F_y = min. 40 ksi; Shall conform with FBC Section 1507.4.3





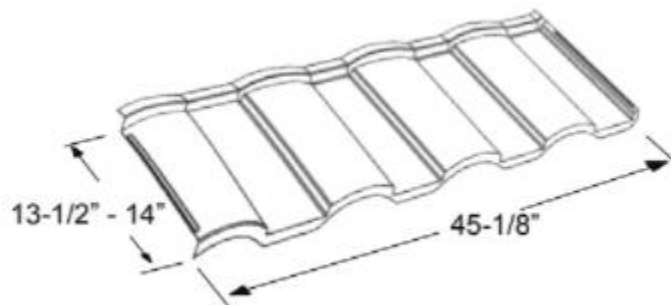
Pacific Tile

Profile: 16 in. x 52 in. panel; leading edge is turned down 1 in. and back edge is bent up and horizontally back 1.5 in. Panel side laps are 2 in.
Description: Preformed, fastened, stoned-coated steel panels
Material: Min. 26 ga. ASTM A792 AZ50; F_y = min. 40 ksi; Shall conform with FBC Section 1507.4.3



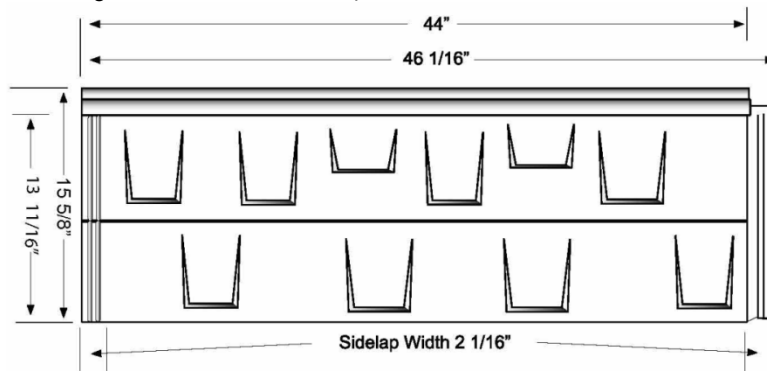
Barrel Vault Tile

Profile: 13-1/2 in. to 14 in. x 45-1/8 in. panel
Description: Preformed, fastened, stoned-coated steel panels
Material: Min. 26 ga. ASTM A792 AZ50; F_y = min. 40 ksi; Shall conform with FBC Section 1507.4.3



Granite Ridge Shingle

Profile: Metal shingle with Pittsburgh lock at head lap; 13-11/16 in. x 44 in. coverage
Description: Preformed, fastened, stoned-coated steel panels
Material: Min. 26 ga. ASTM A792 AZ50; F_y = min. 40 ksi; Shall conform with FBC Section 1507.4.3



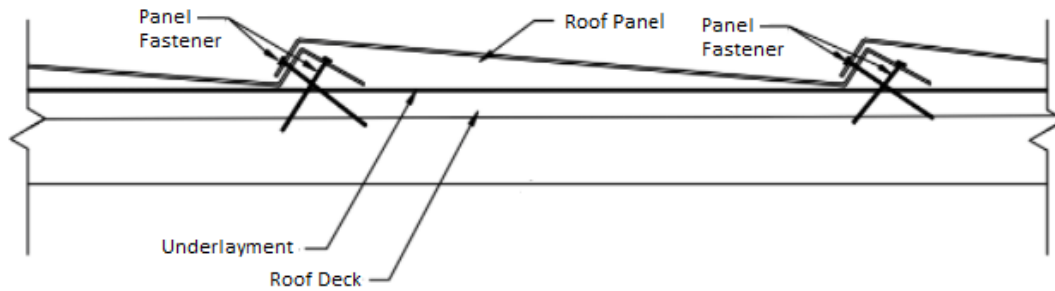


INSTALLATION

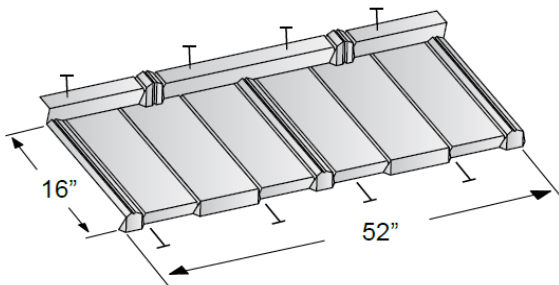
Note - Refer to the [APPROVED ASSEMBLIES](#) section of this report for the maximum design pressures of the approved assemblies.

Unless otherwise specified in this report the following installation details shall be met for the named products:

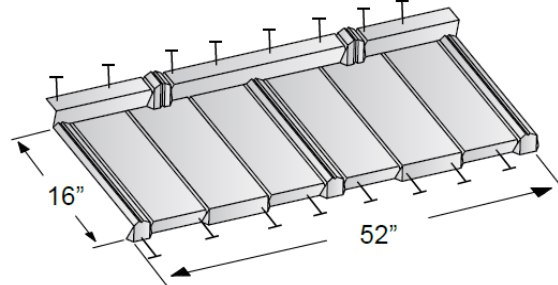
Direct-to-Deck Installation



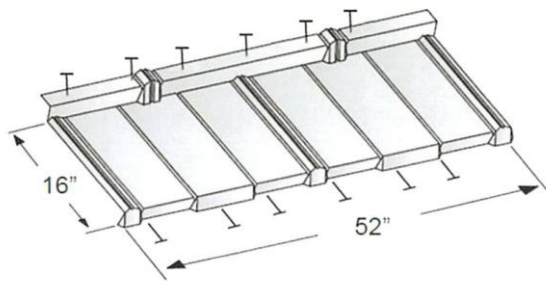
Pine Crest Shake - Pattern 1



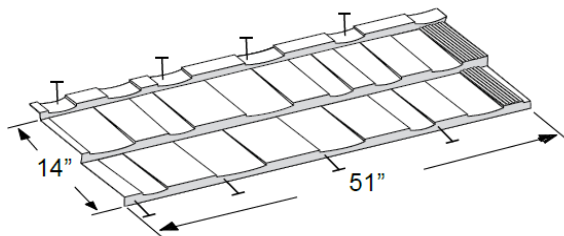
Pine Crest Shake - Pattern 2



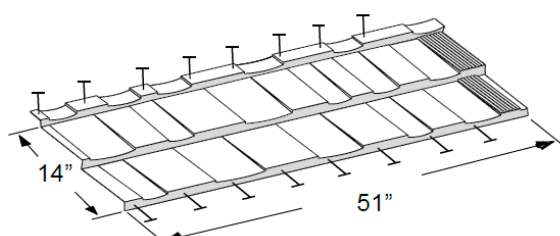
Pine Crest Shake - Pattern 3



Cottage Shingle - Pattern 1

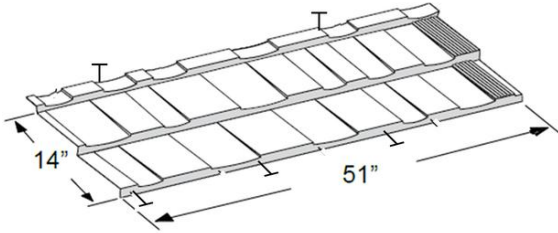


Cottage Shingle - Pattern 2

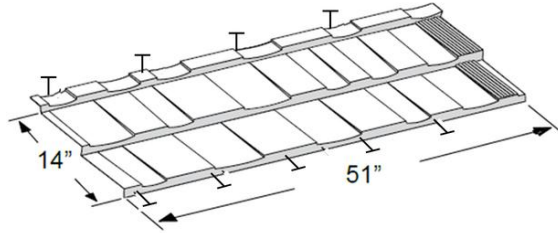




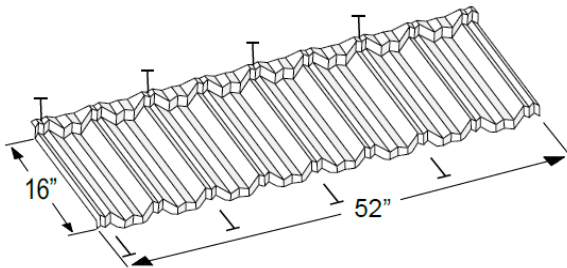
Cottage Shingle - Pattern 3



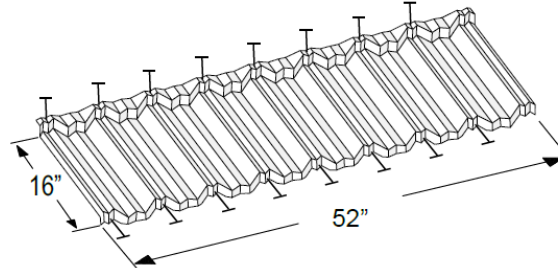
Cottage Shingle - Pattern 4



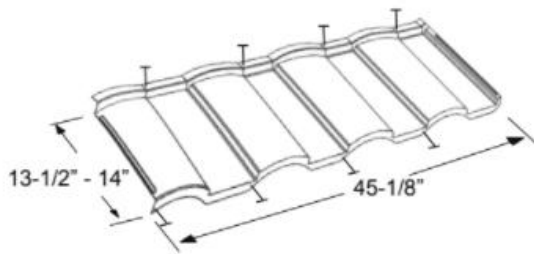
Pacific Tile - Pattern 1



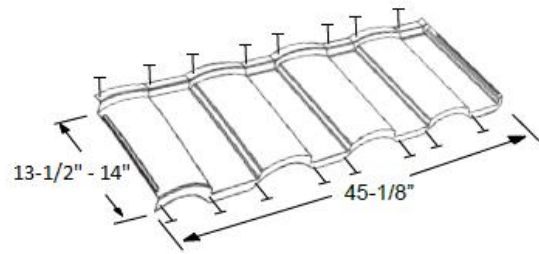
Pacific Tile - Pattern 2



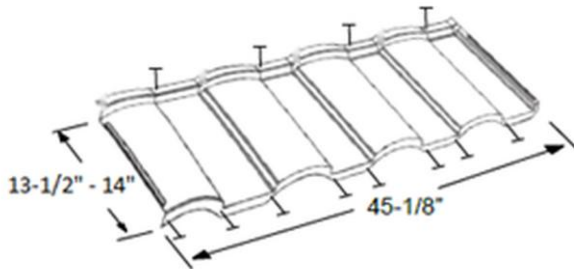
Barrel Vault Tile - Pattern 1



Barrel Vault Tile - Pattern 2

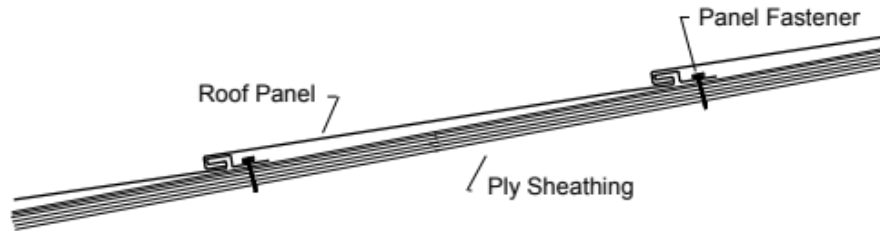


Barrel Vault Tile - Pattern 3

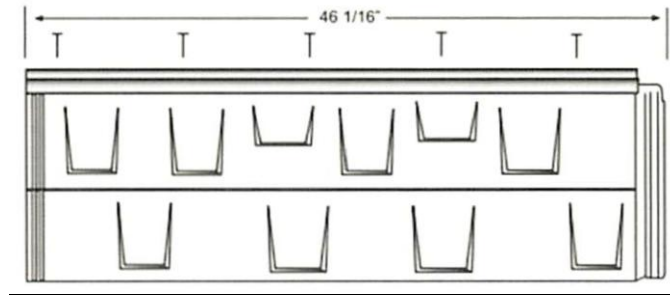




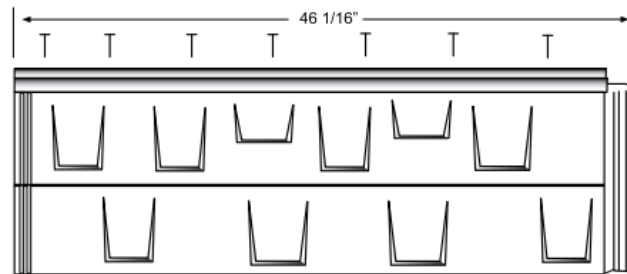
Granite Ridge Installation



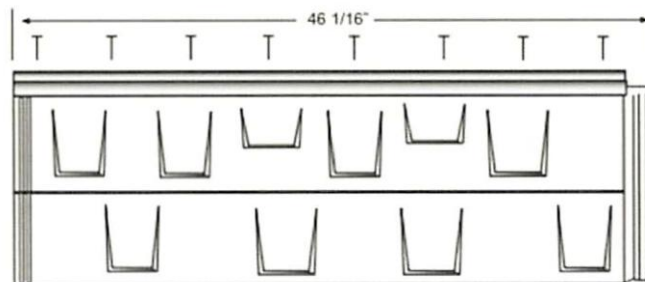
GR Pattern 1:



GR Pattern 2:



GR Pattern 3:



APPROVED ASSEMBLIES

System 1									
Slope:		3:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.							
Panel:		Pine Crest Shake, Cottage Shingle, Pacific Tile or Barrel Vault Tile Pattern							
Panel Attachment:		Installed as shown in INSTALLATION Pattern 1 with four (4) #10-16 x 2-1/2 in. HWH wood screws through the vertical leg at the headlap beginning at the center of the side lap and four (4) #10-16 x 2-1/12 in. HWH wood screws through the horizontal leg at the back of panel beginning at the side lap. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-52.5 psf <i>Pressure calculated using 2:1 margin of safety</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	57 ft	35 ft	22 ft	NA	NA	NA
C	60 ft	50 ft	24 ft	NA	NA	NA	NA	NA	NA
D	51 ft	20 ft	NA	NA	NA	NA	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	59 ft	34 ft	20 ft	NA	NA	NA	NA	NA
C	28 ft	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	39 ft	21 ft	NA	NA	NA	NA	NA	NA	NA
C	NA	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}\sqrt{0.6}$ per 1609.3.1.									



System 2									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.								
Panel:	Pine Crest Shake, Cottage Shingle, Pacific Tile or Barrel Vault Tile								
Panel Attachment:	Installed as shown in INSTALLATION Pattern 2 with eight (8) #10-16 x 2-1/2 in. HWH wood screws through the vertical leg at the headlap beginning at the center of the side lap and eight (8) #10-16 x 2-1/2 in. HWH wood screws through the horizontal leg at the back of panel beginning at the side lap. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.								
Maximum Design Pressures:	-127.5 psf <i>Pressure calculated using 2:1 margin of safety</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
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	57 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	42 ft	23 ft
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
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	41 ft	24 ft	NA
D	60 ft	60 ft	60 ft	60 ft	60 ft	30 ft	16 ft	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	51 ft	34 ft	23 ft
C	60 ft	60 ft	60 ft	60 ft	34 ft	19 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	27 ft	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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.									

System 3									
Slope:		3:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.							
Panel:		Pine Crest Shake							
Panel Attachment:		Installed as shown in INSTALLATION Pine Crest Shake Pattern 1 with four (4) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the vertical leg at the headlap beginning 1 in. from the overlapping sidelap and continuing 12-1/2 in. o.c. and four (4) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the horizontal leg at the back of panel beginning 1 in. from the overlapping sidelap and continuing 12-1/2 in. o.c. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-101 psf <i>Pressure calculated using 2:1 margin of safety</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
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	51 ft	30 ft	18 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	40 ft	20 ft	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	40 ft	27 ft
C	60 ft	60 ft	60 ft	60 ft	41 ft	23 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	34 ft	16 ft	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	52 ft	33 ft	21 ft	NA	NA
C	60 ft	60 ft	40 ft	20 ft	NA	NA	NA	NA	NA
D	60 ft	37 ft	15 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 an effective wind area of 10ft ² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.									

System 4									
Slope:		3:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.							
Panel:		Pine Crest Shake							
Panel Attachment:		Installed as shown in INSTALLATION Pine Crest Shake Pattern 3 with six (6) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the vertical leg at the headlap beginning 1 in. from the overlapping sidelap and continuing in a 10"-5"-10"-10"-5" pattern and six (6) #10-14 x 2-1/12 in. T17 Wood-X HWH wood screws secured through the horizontal leg at the back of panel beginning 1 in. from the overlapping sidelap and continuing in a 10"-5"-10"-10"-5" pattern. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-108.5 psf <i>Pressure calculated using 2:1 margin of safety</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
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	43 ft	26 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	31 ft	16 ft	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	52 ft	35 ft
C	60 ft	60 ft	60 ft	60 ft	59 ft	32 ft	18 ft	NA	NA
D	60 ft	60 ft	60 ft	51 ft	24 ft	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	43 ft	28 ft	18 ft	NA
C	60 ft	60 ft	58 ft	29 ft	15 ft	NA	NA	NA	NA
D	60 ft	56 ft	23 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 an effective wind area of 10ft ² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}/\sqrt{0.6}$ per 1609.3.1.									

System 5									
Slope:		3:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.							
Panel:		Cottage Shingle							
Panel Attachment:		Installed shown in INSTALLATION Cottage Shingle Pattern 3 with three (3) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the vertical leg at the headlap beginning 1-1/2 in. from the overlapping sidelap and continuing 16 in. o.c. and two (2) #10-14 x 2-1/12 in. T17 Wood-X HWH wood screws secured through the horizontal leg at the back of panel beginning 8 in. from the overlapping sidelap and continuing 28 in. o.c. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-63.5 psf <i>Pressure calculated using 2:1 margin of safety</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	46 ft	30 ft	20 ft	NA
C	60 ft	60 ft	60 ft	31 ft	16 ft	NA	NA	NA	NA
D	60 ft	60 ft	26 ft	NA	NA	NA	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	41 ft	25 ft	16 ft	NA	NA	NA
C	60 ft	33 ft	16 ft	NA	NA	NA	NA	NA	NA
D	30 ft	NA	NA	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	43 ft	25 ft	15 ft	NA	NA	NA	NA	NA
C	19 ft	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.									

System 6									
Slope:	3:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.								
Panel:	Cottage Shingle								
Panel Attachment:	Installed shown in INSTALLATION Cottage Shingle Pattern 4 with five (5) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the vertical leg at the headlap beginning 1-1/2 in. from the overlapping sidelap and continuing 9-1/2 in.o.c. and four (4) #10-14 x 2-1/12 in. T17 Wood-X HWH wood screws secured through the horizontal leg at the back of panel beginning 1 in. from the overlapping sidelap and continuing 12 in.o.c. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.								
Maximum Design Pressures:	-86 psf <i>Pressure calculated using 2:1 margin of safety</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	42 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	41 ft	23 ft	NA	NA
D	60 ft	60 ft	60 ft	60 ft	32 ft	15 ft	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft	32 ft	21 ft	15 ft
C	60 ft	60 ft	60 ft	35 ft	19 ft	NA	NA	NA	NA
D	60 ft	60 ft	30 ft	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	46 ft	28 ft	18 ft	NA	NA	NA
C	60 ft	38 ft	18 ft	NA	NA	NA	NA	NA	NA
D	37 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 an effective wind area of 10ft ² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.									

System 7									
Slope:		3:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.							
Panel:		Pacific Tile							
Panel Attachment:		Installed as shown in INSTALLATION Pacific Tile Pattern 1 with four (4) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the vertical leg at the headlap beginning 1 in. from the overlapping sidelap and continuing 12-1/4 in.o.c. and four (4) #10-14 x 2-1/12 in. T17 Wood-X HWH wood screws secured through the horizontal leg at the back of panel beginning 3 in. from the overlapping sidelap and continuing 12-1/4 in.o.c. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-108.5 psf <i>Pressure calculated using 2:1 margin of safety</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
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	43 ft	26 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	31 ft	16 ft	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	52 ft	35 ft
C	60 ft	60 ft	60 ft	60 ft	59 ft	32 ft	18 ft	NA	NA
D	60 ft	60 ft	60 ft	51 ft	24 ft	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	43 ft	28 ft	18 ft	NA
C	60 ft	60 ft	58 ft	29 ft	15 ft	NA	NA	NA	NA
D	60 ft	56 ft	23 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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}/\sqrt{0.6}$ per 1609.3.1.									

System 8									
Slope:		3:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.							
Panel:		Barrel Vault Tile							
Panel Attachment:		Installed as shown in INSTALLATION Barrel Vault Tile Pattern 1 with four (4) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the vertical leg at the headlap beginning 1 in. from the overlapping sidelap and continuing 10-3/4 in.o.c. and four (4) #10-14 x 2-1/12 in. T17 Wood-X HWH wood screws secured through the horizontal leg at the back of panel beginning 9 in. from the overlapping sidelap and continuing 10-3/4 in.o.c. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-86 psf <i>Pressure calculated using 2:1 margin of safety</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	42 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	41 ft	23 ft	NA	NA
D	60 ft	60 ft	60 ft	60 ft	32 ft	15 ft	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft	32 ft	21 ft	15 ft
C	60 ft	60 ft	60 ft	35 ft	19 ft	NA	NA	NA	NA
D	60 ft	60 ft	30 ft	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	46 ft	28 ft	18 ft	NA	NA	NA
C	60 ft	38 ft	18 ft	NA	NA	NA	NA	NA	NA
D	37 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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.									

System 9									
Slope:		3:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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; In the HVHZ, decking shall be attached with 0.113" x 2-3/8" ring shank nails spaced 3 in. o.c. Designed by others in accordance with FBC requirements.							
Underlayment:		Installed in accordance with FBC requirements.							
Panel:		Barrel Vault Tile							
Panel Attachment:		Installed as shown in INSTALLATION Barrel Vault Tile Pattern 3 with eight (8) #10-14 x 2-1/2 in. T17 Wood-X HWH wood screws secured through the vertical leg at the headlap beginning 1 in. from the overlapping sidelap and continuing in a 4.75"-6"-4.75"-6"-4.75"-6"-4.75" pattern and four (4) #10-14 x 2-1/12 in. T17 Wood-X HWH wood screws secured through the horizontal leg at the back of panel beginning 9 in. from the overlapping sidelap and continuing 10-3/4 in. o.c.. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-161 psf <i>Pressure calculated using 2:1 margin of safety</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
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 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
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	46 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	32 ft	18 ft
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	56 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	59 ft	34 ft	20 ft	NA
D	60 ft	60 ft	60 ft	60 ft	49 ft	24 ft	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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.									



System 10									
Slope:	4:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.								
Panel:	Granite Ridge Shingle								
Panel Attachment:	Installed as shown in INSTALLATION GR Pattern 1 with five (5) #10-14 x 1-1/2 in. T17 Wood-X HWH wood screws along back flange of panel as shown starting 1-1/2 in. from edge and continuing 10-1/4 in. o.c.. Side laps should be staggered a minimum of 9 inches. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.								
Maximum Design Pressures:	-74.75 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	55 ft	36 ft	24 ft
C	60 ft	60 ft	60 ft	60 ft	37 ft	20 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	29 ft	NA	NA	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	46 ft	29 ft	19 ft	NA	NA
C	60 ft	60 ft	35 ft	17 ft	NA	NA	NA	NA	NA
D	60 ft	31 ft	NA	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	46 ft	27 ft	16 ft	NA	NA	NA	NA
C	42 ft	19 ft	NA	NA	NA	NA	NA	NA	NA
D	16 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 an effective wind area of 10ft ² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}/\sqrt{0.6}$ per 1609.3.1.									



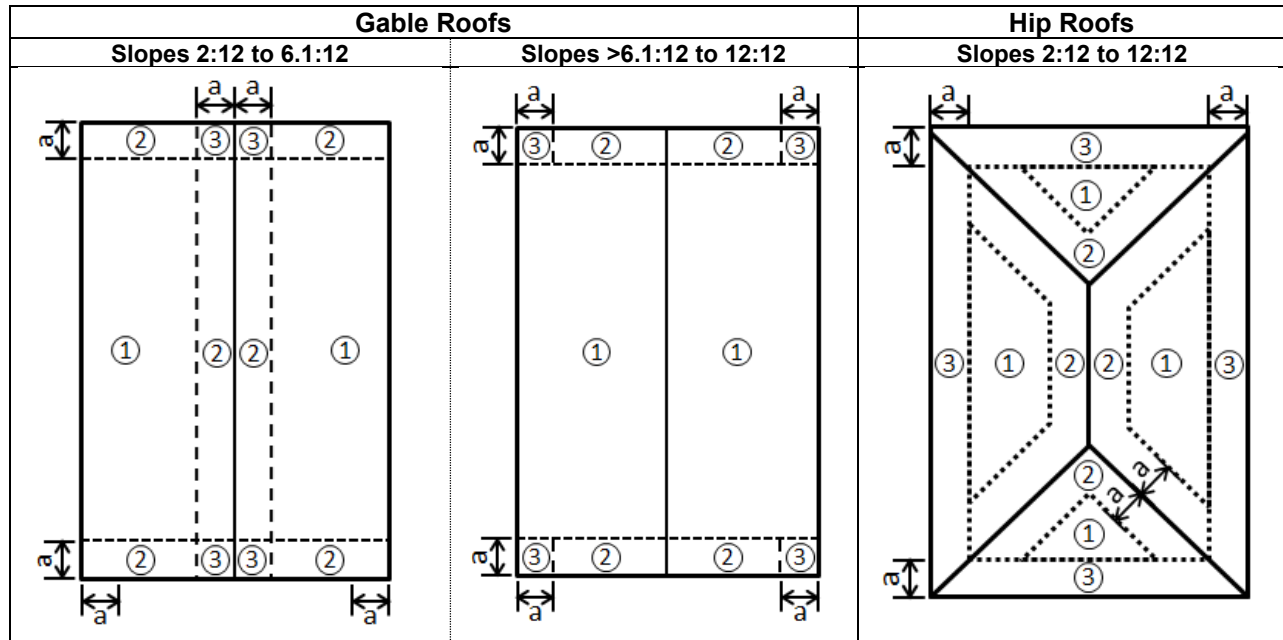
System 11									
Slope:		4:12 or greater							
Roof Deck:		Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.							
Underlayment:		Installed in accordance with FBC requirements.							
Panel:		Granite Ridge Shingle							
Panel Attachment:		Installed as shown in INSTALLATION GR Pattern 2 with seven (7) #10-14 x 1-1/2 in. T17 Wood-X HWH wood screws along back flange of panel as shown starting 1-1/2 in. from edge and continuing 6-3/4 in. o.c.. Side laps should be staggered a minimum of 9 inches. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.							
Maximum Design Pressures:		-86 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>							
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	42 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	41 ft	23 ft	NA	NA
D	60 ft	60 ft	60 ft	60 ft	32 ft	15 ft	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft	32 ft	21 ft	15 ft
C	60 ft	60 ft	60 ft	35 ft	19 ft	NA	NA	NA	NA
D	60 ft	60 ft	30 ft	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	46 ft	28 ft	18 ft	NA	NA	NA
C	60 ft	38 ft	18 ft	NA	NA	NA	NA	NA	NA
D	37 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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}/\sqrt{0.6}$ per 1609.3.1.									



System 12									
Slope:	4:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.								
Panel:	Granite Ridge Shingle								
Panel Attachment:	Installed as shown in INSTALLATION GR Pattern 3 with eight (8) #10-14 x 1-1/2 in. T17 Wood-X HWH wood screws along back flange of panel as shown starting 1 in. from edge and continuing 6 in. o.c.. Side laps should be staggered a minimum of 9 inches. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.								
Maximum Design Pressures:	-93.5 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	58 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	35 ft	20 ft	NA
D	60 ft	60 ft	60 ft	60 ft	51 ft	25 ft	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	45 ft	30 ft	20 ft
C	60 ft	60 ft	60 ft	54 ft	28 ft	15 ft	NA	NA	NA
D	60 ft	60 ft	48 ft	21 ft	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	39 ft	24 ft	16 ft	NA	NA
C	60 ft	58 ft	28 ft	NA	NA	NA	NA	NA	NA
D	59 ft	23 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 an effective wind area of 10ft² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}/\sqrt{0.6}$ per 1609.3.1.									



System 13									
Slope:	4:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX 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.								
Panel Attachment:	Installed as shown in INSTALLATION GR Pattern 2 with seven (7) #9-15 x 1-1/2 in. HWH wood screws along back flange of panel as shown (max. 6-1/4 in. o.c. fastener spacing). Side laps should be staggered a minimum of 9 inches. Fasteners shall penetrate through the deck a minimum 3/8" and shall comply with sections 1506.6 and 1507.4.4.								
Maximum Design Pressures:	-110 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
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	46 ft	28 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	34 ft	18 ft	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	55 ft	37 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	35 ft	20 ft	NA	NA
D	60 ft	60 ft	60 ft	55 ft	26 ft	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	45 ft	29 ft	19 ft	NA
C	60 ft	60 ft	60 ft	31 ft	16 ft	NA	NA	NA	NA
D	60 ft	60 ft	25 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 an effective wind area of 10ft ² 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) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 19 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.									



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 information are provided based on testing. FBC requirements for the rational design of the roof deck, including the attachment, are not within the scope of this evaluation.
3. Reroofing shall be in accordance with FBC Section 1511 outside the HVHZ 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. Materials shall conform to FBC Section 1711 as well as FBC Section 1506 outside of the HVHZ and FBC Section 1517 within the HVHZ.
6. FBC Section 1504.3.1.1 is not within the scope of this evaluation. Compliance with FBC Section 1504.3.1.1 shall be established through other *approved* products.
7. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

REFERENCES

<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST5878)	BORR-099-02-01A	ASTM B 117	2016
		TAS 110	2000
PRI Construction Materials Technologies (TST5878)	BORR-099-02-01B	ASTM G 155	2021
		TAS 110	2000
PRI Construction Materials Technologies (TST5878)	BORR-099-02-01C	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	BORR-099-02-01D	UL 580	2006
		UL 1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	BORR-099-02-01E	UL 580	2006
		UL 1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	BORR-099-02-01F	ASTM E 8	
PRI Construction Materials Technologies (TST5878)	BORR-099-02-01G	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	GRT-007-02-01	ASTM B 117	2016
		TAS 110	2000
PRI Construction Materials Technologies (TST5878)	GRT-008-02-01	ASTM G 155	2021
		TAS 110	2000
PRI Construction Materials Technologies (TST5878)	GRT-022-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	GRT-026-02-01	UL 580	2006
		UL 1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2480A0001	ASCE 7	2022
		ANSI/AWC NDS	2018
PRI Construction Materials Technologies (TST5878)	2458T0016	UL 580	2006
		UL 1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2458T0017	UL 580	2006
		UL 1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2458T0027	UL 580	2006
		UL 1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2458T0028	UL 580	2006
		UL 1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2458T0029	UL 580	2006
		UL 1897	2015
		TAS 125	2003



COMPLIANCE STATEMENT

This report has been prepared in accordance with F.A.C. Rule 61G20-3.



This item has been
digitally signed and
sealed by Zachary R.
Priest, PE, on 10/16/2026.

Printed copies of this
document are not
considered signed and
sealed and the signature
must be verified on any
electronic copies.


Digitally signed by Zachary R. Priest
CREEK Technical Services, LLC

2026.10.16
13:13:03
-04'00'

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

CERTIFICATION OF INDEPENDENCE

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