CREEK
TECHNICAL SERVICES, LLC

Certificate of Authorization No. 29824
17520 Edinburgh Dr
Tampa, FL 33647
(813) 480-3421

EVALUATION REPORT

FLORIDA BUILDING CODE, 6TH EDITION (2017)

Issued February 10, 2020

Manufacturer: TAMKO BUILDING PRODUCTS LLC
198 Four States Drive
Galena, KS 66739-0097
(417) 624-6644

Manufacturing Plants: Joplin, MO
Phillipsburg, KS
Frederick, MD
Dallas, TX
Tuscaloosa, AL

Quality Assurance: UL LLC (QUA9625)

SCOPE

Category: Roofing
Subcategory: Asphalt Shingles
Code Sections: 1504.1.1, 1507.2.5, 1507.2.7.1, 1523.6.5.1
Properties: Physical properties, Wind Resistance, Wind Driven Rain

REFERENCES

Entity	Report No.	Standard	Year
PRI Construction Materials Technologies (TST5878)	TAP-043-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-051-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-054-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-114-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-117-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-130-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-131-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-165-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-280-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-303-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-307-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-314-02-01 Rev 2	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	TAP-315-02-01	ASTM D 6381	2008(2013)e1
PRI Construction Materials Technologies (TST5878)	TAP-317-02-01	TAS 100	1995
UL LLC (TST9628)	02NK9507	ASTM D 3161	2016
UL LLC (TST9628)	04NK24366	ASTM D 3462	2010A
UL LLC (TST9628)	05NK28006	ASTM D 6381	2008(2013)e1
		UL 2390	
		ASTM D 7158	2011
UL LLC (TST9628)	06NK03898	ASTM D 3161	2016
		ASTM D 3462	2010A
UL LLC (TST9628)	08CA59132	ASTM D 3161	2016
UL LLC (TST9628)	09NK07896	ASTM D 3161	2016
		ASTM D 3462	2010A
UL LLC (TST9628)	10CA50498	ASTM D 3462	2010A
UL LLC (TST9628)	10CA64882	ASTM D 3161	2016
UL LLC (TST9628)	11NK14014	ASTM D 3161	2016
		ASTM D 3462	2010A
UL LLC (TST9628)	12CA24551	ASTM D 3161	2016
UL LLC (TST9628)	4786110543	ASTM D 6381	2008(2013)e1
UL LLC (TST9628)	4787043752	ASTM D 3161	2016
UL LLC (TST9628)	4787148748	ASTM D 7158	2011
		ASTM D 3161	2016
		ASTM D 3462	2010A
CREEK Technical Services LLC (ANE11669)	TBP15001.3	Calculations	2017

This evaluation report is provided for State of Florida product approval under Rule 61G20-3. The manufacturer shall notify CREEK Technical Services, LLC of any product changes or quality assurance changes throughout the duration for which this report is valid. This evaluation report does not express nor imply warranty, installation, recommended use, or other product attributes that are not specifically addressed herein.

PRODUCT DESCRIPTION

Elite Glass-Seal® (Frederick & Joplin)	12-1/4" x 36", ASTM D 3161, Class F and ASTM D 7158, Class H self-sealing, 3-tab asphalt shingle with fiberglass mat coated on both sides with asphalt and surfaced with ceramic granules complying with ASTM D 3462.
Heritage® (Dallas, Frederick, Joplin, Phillipsburg & Tuscaloosa)	13-1/4" x 39-3/8", ASTM D 3161, Class F and ASTM D 7158, Class H fiberglass reinforced, laminated architectural asphalt shingle surfaced with mineral granules complying with ASTM D 3462.
Heritage® Premium (Frederick & Phillipsburg)	13-1/4" x 39-3/8", ASTM D 3161, Class F and ASTM D 7158, Class H fiberglass reinforced, laminated architectural asphalt shingle surfaced with mineral granules complying with ASTM D 3462.
Heritage® Vintage® (Phillipsburg)	17-1/2" x 40", ASTM D 3161, Class F and ASTM D 7158, Class H fiberglass reinforced, laminated architectural asphalt shingle surfaced with mineral granules complying with ASTM D 3462.
Heritage® Woodgate (Dallas & Frederick)	13-1/4" x 39-3/8", ASTM D 3161, Class F and ASTM D 7158, Class H fiberglass reinforced, laminated architectural asphalt shingle surfaced with mineral granules complying with ASTM D 3462.
Hip and Ridge Shingles (Frederick & Joplin)	12-1/4" x 12", ASTM D 3161, Class F fiberglass reinforced, hip and ridge asphalt shingle surfaced with mineral granules complying with ASTM D 3462.
Vintage® Hip and Ridge (Phillipsburg)	12" x 12", ASTM D 3161, Class F fiberglass reinforced, hip and ridge asphalt shingle surfaced with mineral granules complying with ASTM D 3462.

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INSTALLATION

Elite Glass-Seal® (Frederick & Joplin)

Basic Wind Speed (V_{ult}):	Max. 194 mph
Basic Wind Speed (V_{asd}):	Max. 150 mph
Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. plywood or wood plank for new construction; Min. 15/32 in. plywood existing construction.
Deck (Non-HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 3/8 in. plywood, min. 15/32 in. wood plank or min. 7/16 in. OSB for new construction; Min. 3/8 in. plywood or min. 7/16 in. OSB for existing construction.
Underlayment:	In accordance with FBC requirements.
Min. slope:	2:12 and in accordance with FBC requirements. Refer to the manufacturer's application instructions when installing shingles at slopes greater than 21:12.
Installation (HVHZ):	Installed with 5-1/8 inch exposure in accordance with RAS 115 and manufacturer's published installation instructions. Shingles shall be attached using "6 Nail Pattern" detailed below.
Installation (Non-HVHZ):	Installed with 5-1/8-inch exposure in accordance with FBC requirements and manufacturer's published installation instructions. Shingles shall be attached using either "4 Nail Pattern" or "6 Nail Pattern" detailed below.

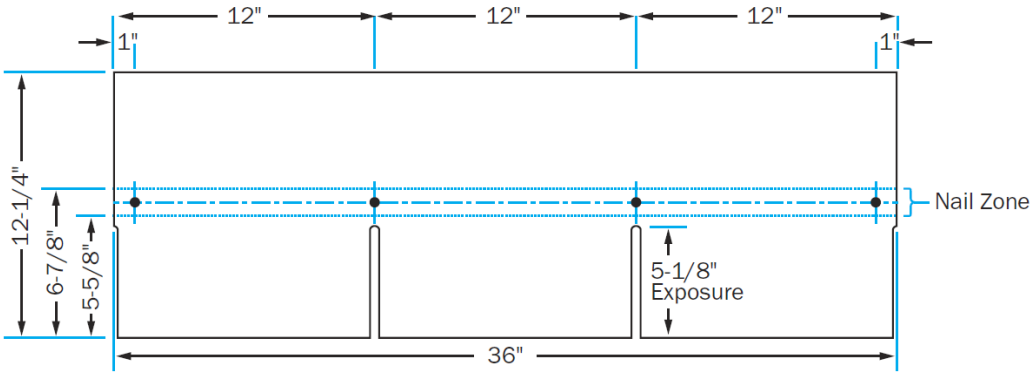


Figure 1. Elite Glass-Seal
4 Nail Pattern (Non-HVHZ only)

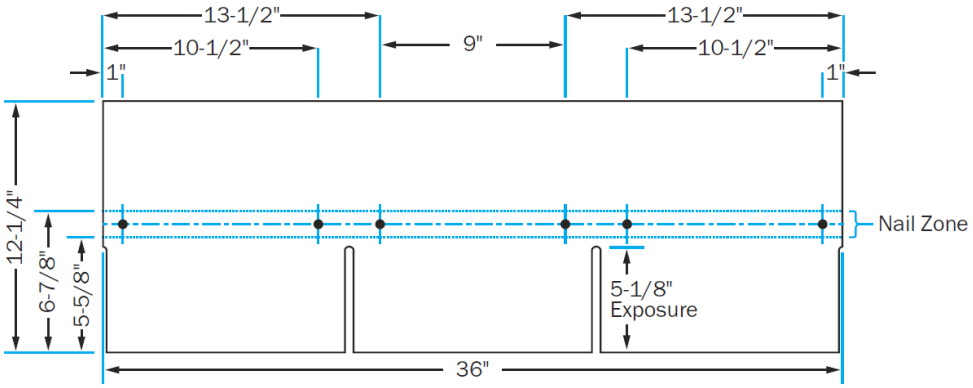


Figure 2. Elite Glass-Seal
6 Nail Pattern

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Heritage® (Dallas, Frederick, Joplin, Phillipsburg & Tuscaloosa)
Heritage® Premium (Frederick & Phillipsburg)
Heritage® Woodgate (Dallas & Frederick)

Basic Wind Speed (V_{ult}):	Max. 194 mph
Basic Wind Speed (V_{asd}):	Max. 150 mph
Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. plywood or wood plank for new construction; Min. 15/32 in. plywood existing construction.
Deck (Non-HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 3/8 in. plywood, min. 15/32 in. wood plank or min. 7/16 in. OSB for new construction; Min. 3/8 in. plywood or min. 7/16 in. OSB for existing construction.
Underlayment:	In accordance with FBC requirements.
Min. slope:	2:12 and in accordance with FBC requirements. Refer to the manufacturer's application instructions when installing shingles at slopes greater than 21:12.
Installation (HVHZ):	Installed with 5-5/8 in. exposure in accordance with RAS 115 and manufacturer's published installation instructions. Shingles shall be attached using "6 Nail Pattern" detailed below.
Installation (Non-HVHZ):	Installed with 5-5/8 in. exposure in accordance with FBC requirements and manufacturer's published installation instructions. Shingles shall be attached using either "4 Nail Pattern" or "6 Nail Pattern" detailed below.

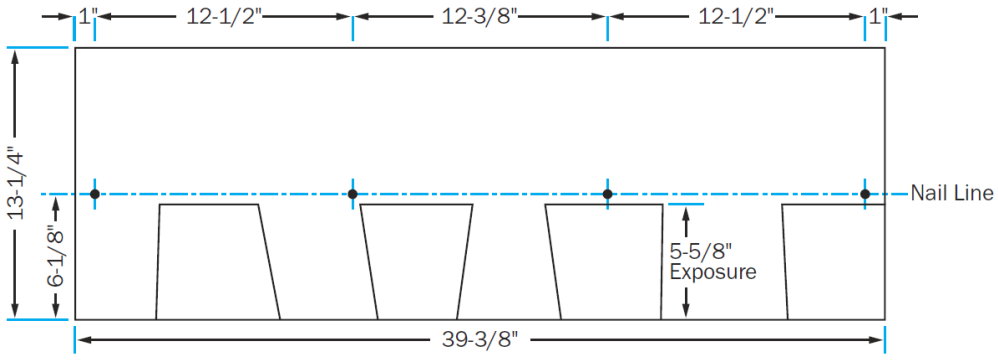


Figure 3. Heritage® & Heritage® Premium
4 Nail Pattern (non-HVHZ only)

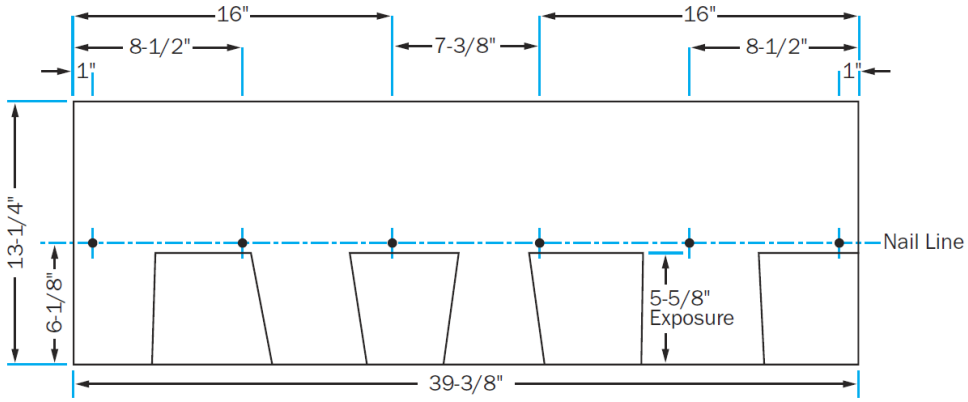


Figure 4. Heritage® & Heritage® Premium
6 Nail Pattern

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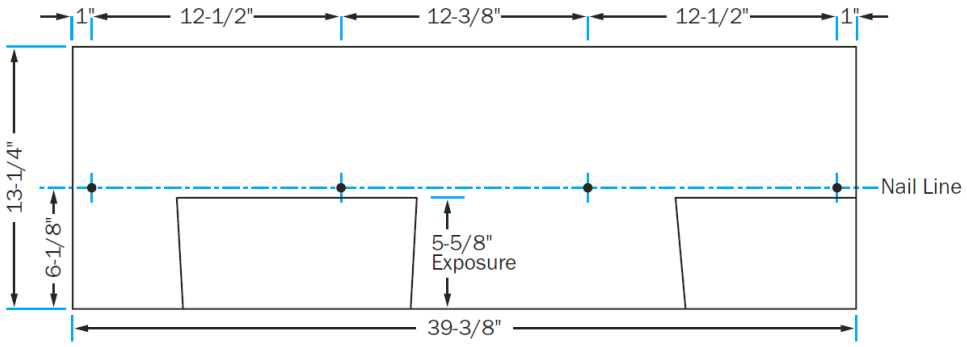


Figure 5. Heritage® Woodgate
4 Nail Pattern (non-HVHZ only)

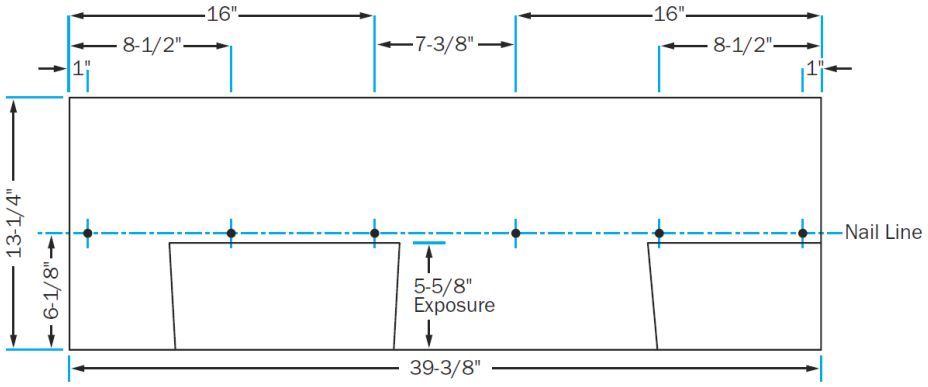


Figure 6. Heritage® Woodgate
6 Nail Pattern

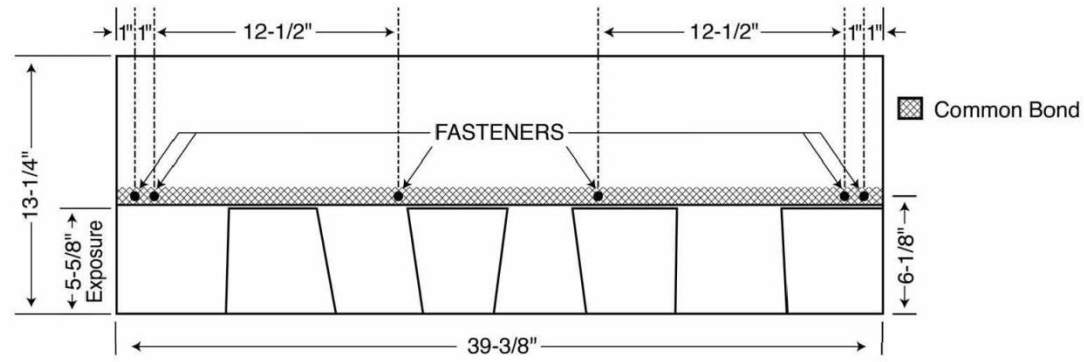


Figure 7. Heritage®, Heritage® Premium, & Heritage® Woodgate
Alternate 6 Nail Pattern

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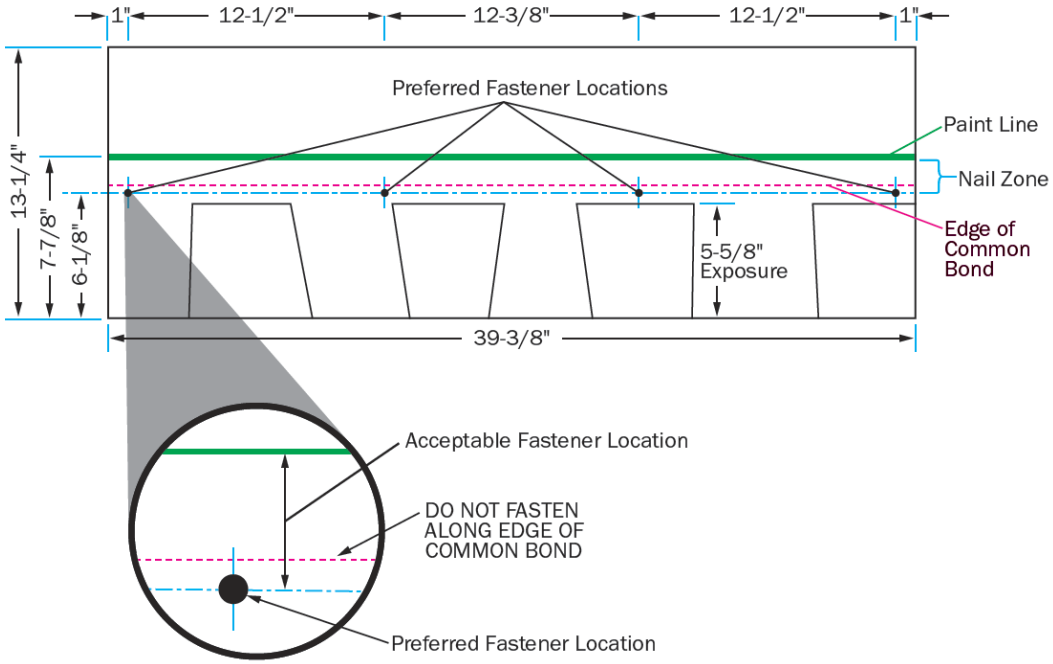


Figure 8. Heritage® (Tuscaloosa) Expanded Nail Zone

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Heritage® Vintage® (Phillipsburg)

Basic Wind Speed (V_{ult}):	Max. 194 mph
Basic Wind Speed (V_{asd}):	Max. 150 mph
Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. plywood or wood plank for new construction; Min. 15/32 in. plywood existing construction.
Deck (Non-HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 3/8 in. plywood, min. 15/32 in. wood plank or min. 7/16 in. OSB for new construction; Min. 3/8 in. plywood or min. 7/16 in. OSB for existing construction.
Underlayment:	In accordance with FBC requirements.
Min. slope:	2:12 and in accordance with FBC requirements. Refer to the manufacturer's application instructions when installing shingles at slopes greater than 21:12.
Installation (HVHZ):	Installed with 5 in. exposure in accordance with RAS 115 and manufacturer's published installation instructions. Shingles shall be attached using "6 Nail Pattern" detailed below.
Installation (Non-HVHZ):	Installed with 5 in. exposure in accordance with FBC requirements and manufacturer's published installation instructions. Shingles shall be attached using either "5 Nail Pattern" or "6 Nail Pattern" detailed below.

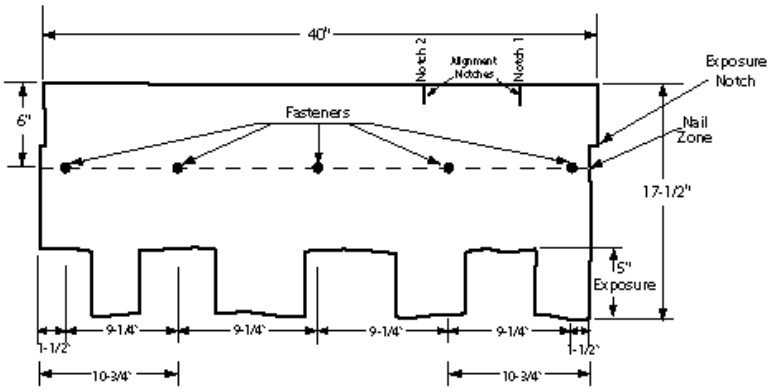


Figure 9. Heritage® Vintage®
5 Nail Pattern (non-HVHZ only)

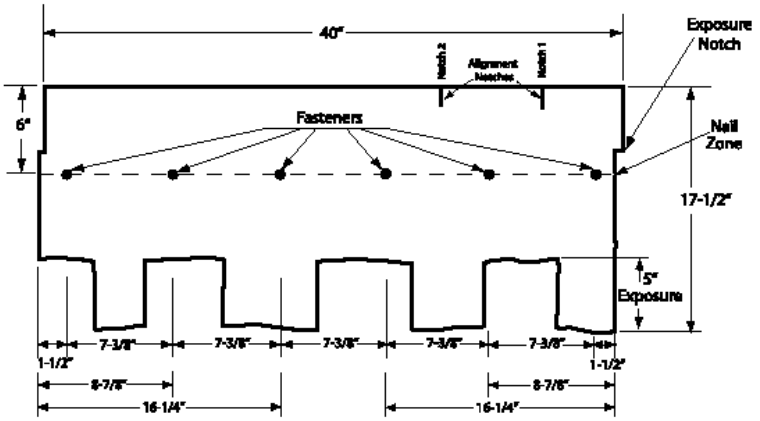


Figure 10. Heritage® Vintage®
6 Nail Pattern

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Hip & Ridge (Frederick & Joplin)

Basic Wind Speed (V_{ult}):	Max. 194 mph
Basic Wind Speed (V_{asd}):	Max. 150 mph
Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. plywood or wood plank for new construction; Min. 15/32 in. plywood existing construction.
Deck (Non-HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 3/8 in. plywood, min. 15/32 in. wood plank or min. 7/16 in. OSB for new construction; Min. 3/8 in. plywood or min. 7/16 in. OSB for existing construction.
Underlayment:	In accordance with FBC requirements.
Min. slope:	2:12 and in accordance with FBC requirements.
Installation:	Installed with 5-1/8 inch exposure in accordance with the FBC and manufacturer's published installation instructions. The direction of the exposed end shall be away from the prevailing wind.

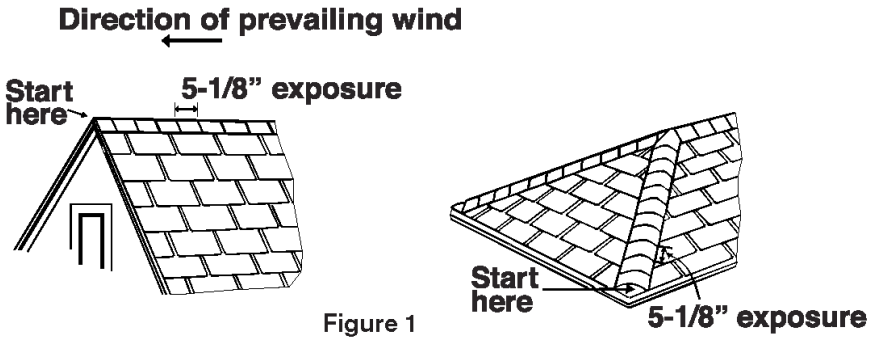


Figure 1

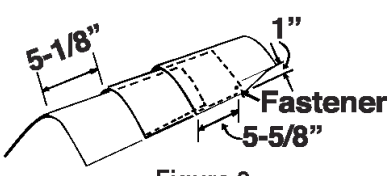


Figure 2

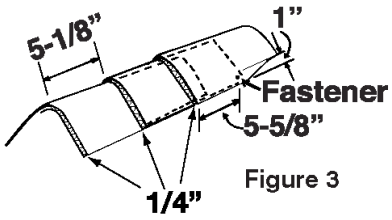


Figure 3

Figure 11. Hip & Ridge

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Vintage® Hip & Ridge (Phillipsburg)

Basic Wind Speed (V_{ult}):	Max. 194 mph
Basic Wind Speed (V_{asd}):	Max. 150 mph
Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. plywood or wood plank for new construction; Min. 15/32 in. plywood existing construction.
Deck (Non-HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 3/8 in. plywood, min. 15/32 in. wood plank or min. 7/16 in. OSB for new construction; Min. 3/8 in. plywood or min. 7/16 in. OSB for existing construction.
Underlayment:	In accordance with FBC requirements.
Min. slope:	2:12 and in accordance with FBC requirements.
Installation:	Installed with 5 inch exposure in accordance with the FBC and manufacturer's published installation instructions. The direction of the exposed end shall be away from the prevailing wind.

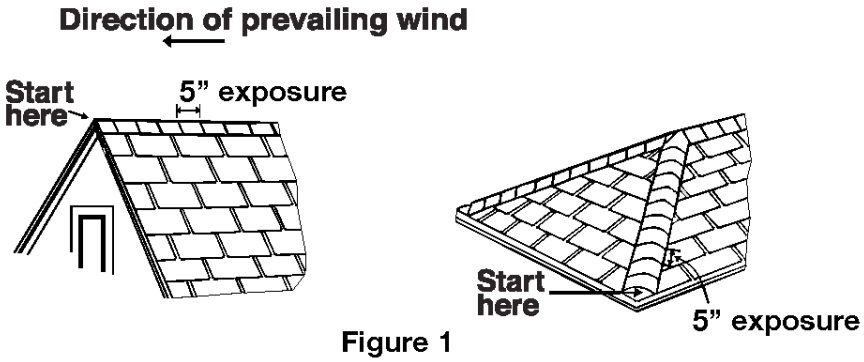


Figure 1

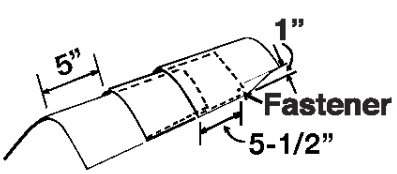


Figure 2

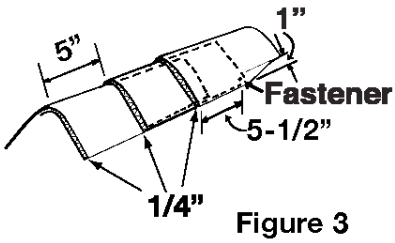


Figure 3

Figure 12. Vintage® Hip & Ridge

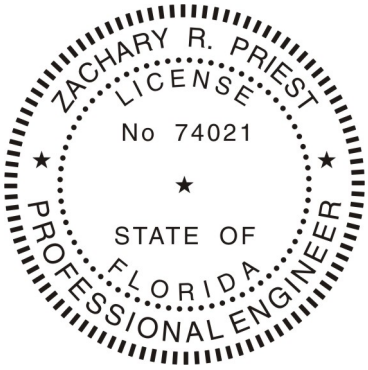
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LIMITATIONS

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) The mean roof height shall be restricted to a maximum 33 ft in the HVHZ.
4) Classification to ASTM D 7158 applies to exposure B & C with a building mean roof height of 60-ft or less.
5) Deck substrates shall be clean, dry, and free from any irregularities and debris. All fasteners in the deck shall be checked for protrusion and corrected prior to underlayment application.
6) Shingles shall be installed starting at the eave in horizontal layers such that the laps shed water from the deck.
7) Installation of the evaluated products shall comply with this report, the FBC, and the manufacturer's published application instructions. Where discrepancies exist between these sources, the more restrictive and code compliant detail shall prevail.
8) All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

COMPLIANCE STATEMENT

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 6th Edition (2017) as evidenced in the referenced documents submitted by the named manufacturer.



Digitally signed by Zachary R. Priest
2020.02.10 17:16:22 -05'00'

Zachary R. Priest, P.E.
Florida Registration No. 74021
Organization No. ANE11669

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

This evaluation report is provided for State of Florida product approval under Rule 61G20-3. The manufacturer shall notify CREEK Technical Services, LLC of any product changes or quality assurance changes throughout the duration for which this report is valid. This evaluation report does not express nor imply warranty, installation, recommended use, or other product attributes that are not specifically addressed herein.