



FLORIDA BUILDING CODE ENGINEERING EVALUATION REPORT

Date | Sept 18, 2020
File No. | 0064-15-2
For | Davinci Roofscapes, LLC
Address | 13890 W 101 St, Lenexa, KS 66215

Subject

DaVinci Slate, DaVinci Shake, Select Shake, Fancy Shake, Bellaforté Slate, Bellaforté Shake Roof Shingles

Evaluation Scope

This report is provided to assist registered design professionals and building officials in the United States with determining compliance to the performance objectives in the named building codes. The product(s) described herein have been evaluated to the 2020 Florida Building Code (FBC) and Residential Code (FBC-R).

CSI DIVISION: 07 00 00 THERMAL AND MOISTURE PROTECTION
SUBDIVISION: 07 32 26 Plastic Roof Tiles

FBC CATEGORY: Roofing
SUB-CATEGORY: Products Introduced as a Result of New Technology

CODE SECTIONS AND STANDARDS:

<u>FBC Section</u>	<u>Description</u>	<u>Referenced Standard or Code Section¹</u>	<u>Year</u>
1504.3.1	Wind Uplift Resistance (Non-HVHZ)	UL 1897	2012
1504.6 ²	Durability	ASTM G155	2013
1505	Fire Classification (Non-HVHZ)	ASTM E108	2016
1516.1	Fire Classification (HVHZ)	ASTM E108	2016
1523.6.5	Discontinuous Roofing Systems, Wind-driven Rain (HVHZ)	TAS 100	1995
1523.6.5.2.4.1 ²	Wind Uplift Resistance (HVHZ)	TAS 125	2003
2606.4	Burning Rate	ASTM D635	2014
2606.4	Self-Ignition Temperature	ASTM D1929	2016
2606.4	Smoke Density	ASTM D2843	2016
2615.2	Weathering (HVHZ)	ASTM G155	2013
2615.2	Tensile Strength after Weathering (HVHZ)	ASTM D638	2003

<u>FBC-R Section</u>	<u>Description</u>	<u>Referenced Standard or Code Section¹</u>	<u>Year</u>
R902.1	Fire Classification	ASTM E108	2016
R904.3	Material Specifications and Physical Characteristics	-	-



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R905.1	Roof Covering Application	Table R301.2(2), R301.2(3)	2020
R4402.1	Roof Assemblies and Rooftop Structures (HVHZ)	FBC Ch 15	2020
R4412.1	Plastics (HVHZ)	FBC Ch 26	2020

1. Only the applicable reference standards and code sections cited in the main body text are listed. (-) indicates that the main body text covers the full explanation of the objective.
2. Code section citing related roof covering performance requirements and referenced test standard.

Compliance Statement: DaVinci Slate, DaVinci Shake, Select Shake, Fancy Shake, Bellaforté Slate, Bellaforté Shake Roof Shingles, as produced by DaVinci Roofscapes, LLC., installed as described in this report, have demonstrated compliance with the listed sections of the 2020 Florida Building Code, including requirements for High Velocity Hurricane Zones (HVHZ), through testing in accordance with the listed Standards.

This report has been prepared and reviewed on behalf of Boca Engineering Co. by:

Christopher Bowness, P.Eng., P.E.

2020-09-18

Date



Evaluation

1.0 PRODUCT DESCRIPTION:

Davinci roofing is manufactured by injection molding of a polymer blend in to individual slates and shakes, that serve as exterior roof covering.

- 1.1 **DaVinci Slate:** thickness of 1/8-inch at head to 1/2-inch at tail, 18-inch long by 6, 7, 9, 10 or 12-inch wide.
- 1.2 **DaVinci Shake:** thickness of 1/4-inch at head to 1/2-inch to 5/8-inch at tail, 22-inch long by 4, 6, 7, 8, or 9-inch wide.
- 1.3 **Select Shake:** thickness of 1/4-inch at head to 5/8-inch at tail, 22-inch long by 8, or 10-inch wide.
- 1.4 **Fancy Shake:** thickness of 1/4-inch at head, 1/2-inch at tail, 18-inch long by 5, 7, or 12-inch wide. Fancy Shake are available with a "Diamond Point" or "Beaver Tail" leading edge; these "Diamond Point" and "Beaver Tail" shakes are 5-inch wide.
- 1.5 **Bellaforté Slate:** thickness of 3/8-inch at head to 1/2-inch at tail, 16 1/4-inch long by 13 3/8-inch wide.
- 1.6 **Bellaforté Shake:** thickness of 3/8-inch at head to 3/4-inch to 1 1/4-inch at tail, 16 1/4-inch long by 13 3/8-inch wide.

2.0 TECHNICAL EVALUATION:

2.1 INSTALLATION

- 2.1.1 DaVinci slates and shakes shall be installed in accordance with the Florida Building Code and this report, subject to the Limitations in Section 3.
- 2.1.2 Roof framing construction and underlayment for which the shakes are to be installed over shall be designed and installed in accordance with the Florida Building Code.
- 2.1.3 **ASSEMBLY INSTALLATION DETAILS WITH DESIGN WIND PRESSURE**
See attachments 1-5 of this report, Tables 1- 38, and assembly diagrams.



2.2 CODE SECTIONS REVIEW:

<u>FBC Section</u>	<u>Description</u>
1504.3.1	Wind Uplift Resistance (Non-HVHZ) DaVinci Slate, DaVinci Shake, Select Shake, Fancy Shake, Bellaforté Slate, Bellaforté Shake roofing assemblies for non-HVHZ applications have been tested in accordance with UL1897 or UL580 (via TAS 125) to determine the allowable wind uplift pressure, applying a 2:1 margin of safety to tested results per Section 1504.9. See Tables 3 – 38 of this report.
1504.6	Durability DaVinci Roofing products covered in this report demonstrate physical integrity over the course of 2000 hours of exposure to accelerated weathering tests conducted in accordance with ASTM G155.
1505	Fire Classification (Non-HVHZ) See section 4 of this report.
1516.1	Fire Classification (HVHZ) All roofing assemblies in HVHZ applications require to classification to ASTM E108 Class A, B, or C, depending on building occupancy class. Information on DaVinci roofing classified assemblies is in Section 4 of this report.
1523.6.5	Discontinuous Roofing Systems, Wind Driven Rain (HVHZ) DaVinci Roofing systems covered in this report for HVHZ applications have been tested in compliance with TAS100 for wind-driven water infiltration resistance.
1523.6.5.2.4.1	Wind Uplift Resistance (HVHZ) DaVinci Roofing systems covered in this report for HVHZ applications have been tested in accordance with TAS 125 to determine the allowable wind uplift pressure, applying a 2:1 margin of safety to tested results per Section 1523.4. See Tables 3 – 38 of this report.
2606.4	Burning Rate DaVinci Roofing products covered in this report have been tested to ASTM D635 and qualify as a Class CC2.
2606.4	Self-Ignition Temperature DaVinci Roofing products covered in this report have been tested to ASTM D1929 and have self-ignition temperatures greater than 650°F.
2606.4	Smoke Density DaVinci Roofing products covered in this report have been tested to ASTM D2843 and have a smoke density rating less than 75.



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2615.2	Weathering (HVHZ) DaVinci Roofing products covered in this report have been tested to 4500 hours of accelerated xenon arc weathering exposure to ASTM G155.
2615.2	Tensile Strength after Weathering (HVHZ) After 4500 hours of accelerated weathering exposure, DaVinci roofing materials tested to ASTM D638 loss of tensile strength yield does not exceed 10%.
<u>FBC-R Section</u>	<u>Description</u>
R902.1	Fire Classification Same as this report commentary to FBC 1505.
R904.3	Material Specifications and Physical Characteristics Testing has been conducted to the requirements of the FBC for materials compliance to FBC-R 903.2. See details in the FBC commentary of this report.
R905.1	Roof Covering Application Allowable wind pressure values published in this report may be used with Tables R301.2(2) and R301.2(3) for roofs using an effective wind area of 10 square feet.
R4402.1	Roof Assemblies and Rooftop Structures (HVHZ) DaVinci Roofing systems as covered in this report comply with HVHZ applications as prescribed in FBC Chapter 15.
R4412.1	Plastics (HVHZ) DaVinci Roofing systems as covered in this report comply with HVHZ applications as prescribed in FBC Chapter 26.

3.0 LIMITATIONS:

- 3.1 This Evaluation is for the base code requirements of the building system as addressed in this report. In some building applications, additional performance objectives may be required by Code which must be addressed in the building design for those specific cases.
- 3.2 Design calculations, drawings, and special inspections are to be furnished for building projects by registered professionals as required by the respective jurisdictional authorities and Codes.
- 3.3 The installation details for each roof assembly evaluated for determining the maximum design wind uplift pressure are described in Tables 3 - 38 and are limited to those prescribed conditions.
- 3.4 Materials used as components in the roof assembly shall comply with the FBC, and where necessary possess the required product approval certification and labeling.
- 3.5 The minimum roof slope in all cases is 3:12.
- 3.6 DaVinci roofing slates and shakes are for installation and fastening in to wood-based solid sheathing, in accordance with this report.
- 3.7 Building framing and roof sheathing must be designed and installed in accordance with Code for capability of supporting the imposed loads, including but not limited to positive and negative wind loads.



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3.8 The allowable negative wind pressures for roofing shown in Tables 3 - 38 must not exceed the design negative wind pressures determined in accordance with Chapter 16 of the FBC or Section R301.2.1.1 of the FBC-R.

4.0 FIRE CLASSIFICATION:

Where roof assembly fire classification of Class A, B, or C is required, DaVinci Roofscapes' Listed assemblies by QAI Laboratories may be found at <https://qai.org/directory/davinci-roofscapes-llc/> and shall be verified for each installation by the authority having jurisdiction.

5.0 QUALITY ASSURANCE ENTITY:

The products evaluated in this report are surveyed at the approved manufacturing locations with third-party quality assurance inspections and product certification labeling by QAI Laboratories.

6.0 MANUFACTURING PLANTS:

Manufacturing and labeling location(s): Lenexa, KS

7.0 LABELING:

Labeling shall be in accordance with the requirements of FBC and the Accredited Quality Assurance Agency.

8.0 **EVALUATION RENEWALS:** This Evaluation Report expires Dec 31, 2023, open to renewal. Up to the renewal date, the report is valid until such time as the named product(s) changes, the Quality Assurance Agency changes, or provisions of the Code that relate to the product change.

9.0 REFERENCE TESTING AND EVALUATION DOCUMENTS:

Entity	Entity Accreditation ¹	Standards	Report No.	Issue Date
Farabaugh Eng. and Testing	FBC TST1654	TAS 125	T159-19	2019-04-05
Farabaugh Eng. and Testing	FBC TST1654	TAS 100	T145-19r1	2019-08-30
Intertek	IAS TL274	TAS 125	103032787COQ-002B	2018-11-26
Intertek	IAS TL274	TAS 125	103032787COQ-001 R2	2018-10-30
Intertek	IAS TL274	TAS 100	103032787COQ-001Ar01	2018-06-26
PRI	FBC TST5878	ASTM D635	DRM-054-02-01	2015-11-16
PRI	FBC TST5878	ASTM D1929	DRM-054-02-01	2015-11-16
PRI	FBC TST5878	ASTM D2843	DRM-054-02-01	2015-11-16
PRI	FBC TST5878	ASTM G155	DRM-156-02-01	2015-12-02
PRI	FBC TST5878	ASTM D638	DRM-156-02-01	2015-12-02
PRI	FBC TST5878	TAS 125	DRM-155-02-01	2015-07-30
Intertek	IAS TL274	TAS 125	3118011COQ-004	2007-04-30
PRI	FBC TST5878	TAS 100	DRM-010-02-01	2007-07-26
Intertek	IAS TL274	TAS 125	3128992COQ-004	2007-07-31
Intertek	IAS TL274	TAS 125	3169679COQ-033	2009-08-28
PRI	FBC TST5878	TAS 100	DRM-034-02-01	2012-06-20
PRI	FBC TST5878	TAS 125	DRM-035-02-01	2012-06-28
PRI	FBC TST5878	TAS 100	DRM-037-02-01	2012-08-07



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Intertek	IAS TL274	UL 1897	103032787COQ-003	2017-08-22
PRI	FBC TST5878	TAS 100	DRM-013-02-01	2008-06-30
Intertek	IAS TL274	TAS 125	3155558COQ-003A	2008-06-27
Intertek	IAS TL274	TAS 125	100246786COQ-009	2010-12-22
QAI	FBC QUA7628	Quality Assurance	B0150	2020-08-12
QAI	FBC CER3916	Fire Classification	B0150	2020-08-12

1. Testing, certification, evaluation, and inspection agencies referenced have been verified to be accredited for the applicable scope and to be in good standing in accordance to Rule 61G20-3. All technical reference documents are current as of this date.

10.0 CERTIFICATION OF INDEPENDENCE:

1. Boca Engineering Co., its employees and shareholders, do not have, nor do they intend to or will acquire, a financial interest in any company manufacturing or distributing products that they evaluate.
2. Boca Engineering Co. is not owned, operated or controlled by any company manufacturing or distributing products that they evaluate.

11.0 EVALUATION REPORT TERMS:

This report is a general evaluation of the building code section requirements as identified and applies only to the samples that were evaluated. It does not imply any endorsement or warranty, nor that the signatory Engineer is the Designer of Record of any construction project for which the information is used.

Rule 61G20-3 (17)(a) Definition: Evaluation report means a report based upon testing or comparative or rational analysis, or a combination thereof, from an approved product evaluation entity or a licensed Florida professional engineer or architect indicating that the product was evaluated to be in compliance with the Code or the intent of the Code and that the product complies with the Code or is, for the purpose intended, at least equivalent to that required by the Code.

ATTACHMENTS:

1. General Assembly Details -HVHZ_____ (pg 7)
2. General Assembly Details -Non-HVHZ_____ (pg 8)
3. User's Guide to Davinci Wind Uplift Tables_____ (pg 9)
4. Wind Uplift, Limiting Heights and Wind Speed Conversion Tables_____ (pg 10 – 27)
5. Diagrams of Roofing Components and Typical Installation Details for Wind Assemblies_____ (pg 28 – 29)



ATTACHMENT 1:

TABLE 1: GENERAL ASSEMBLY COMPONENT DETAILS FOR USE WITH TABLES 3 - 38, INSTALLATIONS IN HVHZ REGIONS^{1,2}

ROOFING SHINGLE:	Lists which specific Davinci product the assembly detail applies to.
MAX SHINGLE EXPOSURE	Specifies the exposure length of the shingle in inches as the maximum course-to-course spacing.
DECK SHEATHING:	HVHZ: Min. 19/32-inch plywood or wood plank; HVHZ Re-Roofing or Non-HVHZ: Min. 15/32-inch plywood or wood plank
SHINGLE FASTENER	Specifies number and type of fasteners per individual shingle.
ALLOWABLE PRESSURE:	Maximum ASD design pressure in pounds-per-square-foot (psf) for wind uplift.
EXPOSURE CATEGORY:	Terrain wind exposure category defined in ASCE7-16, section 26.7.
SLOPE RANGE:	Slope is shown in Vertical:Horizontal (e.g. 3:12 = 3-inch rise to 12-inch run).
WIND VELOCITY V_{ult}:	Maximum wind velocity (mph) for the respective installation condition.
DECK ATTACHMENT:	In accordance with applicable Code, at minimum for HVHZ: 8d ring shank nails 6-inches (152 mm) on center at panel edges and at intermediate supports and 4-inches (102 mm) on center at gable ends of the following minimum dimensions: (a) 0.113-inch (2.9 mm) nominal shank diameter, (b) ring diameter of 0.012 inch (0.3 mm) over shank diameter, (c) 16 to 20 rings per inch, (d) 0.280-inch (7.1 mm) full round head diameter, (e) 2-inch (60.3 mm) nail length.
UNDERLAYMENT:	For HVHZ, minimum underlayment shall be ASTM D226, Type II (30# felt) in accordance with FBC Sections 1518.2 through 1518.4, or any HVHZ compliant underlayment listed by an approved certification agency. Not less than a full-width of approved ASTM D1970 self-adhering underlayment shall be applied around the perimeter of the entire roof. Per manufacturer's instructions, for roof slopes less than 4:12 an approved self-adhering underlayment is to be used in all applications.
VALLEYS:	In accordance with published manufacturer's instructions. Minimum for HVHZ shall be a full-width sheet of Approved ASTM D1970 self-adhering underlayment centered in the valley, followed by minimum 16-inch wide valley metal set in roofing cement and secured with roofing nails spaced 4-inch o.c., 1-inch from the edge of the metal. Prime metal edges and embed a minimum 4-inch strip of asphalt coated fabric over a minimum 6-inch wide bed of roofing cement.
STARTER: DaVinci Slate, DaVinci Shake, Select Shake, Fancy Shake	Each DaVinci Starter Slate to be installed extending approximately 1-inch over eaves and ¾-inch over rakes and with a 3/8-inch gap between starter shingles. (Note: If using Style D or Style F drip edge, the starter shingle can be allowed to overhang less if it is appropriate for the gutter system.) Each Starter Slate to be nailed approximately 3½-inch up from the butt edge and 1-inch from each side with 11-gage nails as specified. In high wind areas (greater than 110 mph in accordance with FBC Figure 1609), an additional nail should be placed in an area below the 8-inch line so that it will not be exposed through the shingles on the first course.
STARTER: Bellaforte Slate, Bellaforte Shake	Each Bellaforte Starter Slate/Shake to be installed extending approximately 1-inch over eaves and ¾-inch over rakes and with a 3/8-inch gap between starter shingles, adjusted as needed to achieve water-flow into the gutter (if present). Starter tiles are spaced 3/8 to ½ inch apart and nailed with a minimum of four 11-gage nails as specified.
SLATES AND SHAKES NAIL FASTENING (HVHZ):	Minimum 11 gage (0.12-inch), galvanized, annular ring shank nails having not less than 20 rings per inch, heads not less than 3/8-inch (9.5 mm) in diameter; and lengths sufficient to penetrate through the thickness of plywood panel or wood plank decking not less than 3/16-inch (4.8 mm), or to penetrate into a 1 inch (25 mm) or greater thickness of lumber not less than 1 inch. All nails shall be listed by a certification agency to the applicable Code.
SLATES AND SHAKES FASTENING (other):	See Tables for alternate fastening methods.

1. Additional assembly-specific components details are provided for some systems in Tables 3 - 38. The assembly-specific details govern if conflicting with those in Table 1.
2. HVHZ assemblies may also be used in non-HVHZ regions following the same details.



ATTACHMENT 2:

TABLE 2: GENERAL ASSEMBLY COMPONENT DETAILS FOR USE WITH TABLES 3 - 38, INSTALLATIONS IN NON-HVHZ REGIONS¹

ROOFING SHINGLE:	Lists which specific Davinci product the assembly detail applies to.
MAX SHINGLE EXPOSURE	Specifies the exposure length of the shingle in inches as the maximum course-to-course spacing.
DECK SHEATHING:	Non-HVHZ: Min. 15/32-inch plywood or wood plank, or 7/16 OSB, as specified.
SHINGLE FASTENER	Specifies number and type of fasteners per individual shingle.
ALLOWABLE PRESSURE:	Maximum ASD design pressure in pounds-per-square-foot (psf) for wind uplift.
EXPOSURE CATEGORY:	Terrain wind exposure category defined in ASCE7-16, section 26.7.
SLOPE RANGE:	Slope is shown in Vertical:Horizontal (e.g. 3:12 = 3-inch rise to 12-inch run).
WIND VELOCITY V_{ult}:	Maximum wind velocity (mph) for the respective installation condition.
DECK ATTACHMENT:	In accordance with applicable Code.
UNDERLAYMENT:	For non-HVHZ, minimum underlayment shall be in accordance with FBC 1507.1.1 or any Approved underlayment having current Florida Statewide or Local Product Approval. Per manufacturer's instructions, for roof slopes less than 4:12 an approved self-adhering underlayment is to be used in all applications.
VALLEYS:	In accordance with applicable Code and published manufacturer's instructions.
STARTER: DaVinci Slate, DaVinci Shake, Select Shake, Fancy Shake	Each DaVinci Starter Slate to be installed extending approximately 1-inch over eaves and ¾-inch over rakes and with a 3/8-inch gap between starter shingles. (Note: If using Style D or Style F drip edge, the starter shingle can be allowed to overhang less if it is appropriate for the gutter system.) Each Starter Slate to be nailed approximately 3½-inch up from the butt edge and 1-inch from each side with 11-gage nails as specified. In high wind areas (greater than 110 mph in accordance with FBC Figure 1609), an additional nail to be placed in an area below the 8-inch line so that it will not be exposed through the shingles on the first course.
STARTER: Bellaforte Slate, Bellaforte Shake	Each Bellaforte Starter Slate/Shake to be installed extending approximately 1-inch over eaves and ¾-inch over rakes and with a 3/8-inch gap between starter shingles, adjusted as needed to achieve water-flow into the gutter (if present). Starter tiles are spaced 3/8 to ½ inch apart and nailed with a minimum of four 11-gage nails as specified.
SLATES AND SHAKES NAIL FASTENING (NON-HVHZ):	Galvanized, stainless steel, aluminum or copper roofing nails, minimum 11-gage [0.12 inch] ring-shank with a minimum 3/8-inch-diameter (9.5 mm) head, of a length to penetrate through the roofing materials and a minimum of 3/4 inch (19.1 mm) into the roof sheathing. Where the roof sheathing is less than 3/4 inch (19.1 mm) thick, the nails shall penetrate through the sheathing. Fasteners shall comply with ASTM F1667.
SLATES AND SHAKES FASTENING (other):	See Tables for alternate fastening methods

1. Additional assembly-specific components details are provided for some systems in Tables 3 - 38. The assembly-specific details govern if conflicting with those in Table 2.



ATTACHMENT 3: USER'S GUIDE TO DAVINCI WIND UPLIFT TABLES

The DaVinci wind uplift pressures and wind speed conversion tables have been developed to assist users in determining appropriate installation details for a wide range of DaVinci products, roof construction components, building dimension plans, and site and environmental conditions.

Wind speed conversion tables have been prepared following design methodology of ASCE7-16, Ch. 30.3, for low-rise buildings with maximum height of 60 ft, for enclosed buildings with topographic and elevation factors set to unity. These settings are typical of many installations, and consistent with the prescriptive approach used in FBC-R Table R301.2(2). All conditions must be consistent with Table Notes 1-10 and the details within the wind speed conversion tables to be considered valid. If the actual site, building dimension or climatic conditions (including the given variables) differ from those prescribed, the allowable pressure values may be used to calculate adjusted wind speed limits.

For building heights over 60 ft, the Allowable Pressure (ASD) values listed in the wind uplift tables may be used by a licensed design professional to calculate ultimate wind speed and/or allowable height, for the given DaVinci product installation detail and building project conditions.

At any building height, when the Allowable Pressure (ASD) has been pre-determined by the designer or building official, the user only needs to check that the installation detail is shown as capable of that pressure or greater.

Tables 3 – 38, Notes:

- 1) Table limiting heights and wind velocity values are for low-rise buildings of maximum 60 ft height, developed in accordance with ASCE7-16, Table 30.3-1. Design input values: $GC_p = \text{ASCE7-16 Figs 30.3-2A-I}$, $GC_{pi} = 0.18$, $K_{zt} = 1$, $K_d = 0.85$, $K_e = 1$, $I_w = 1.0$.
- 2) To convert to Factored Design Resistance Pressure (psf) (LRFD), multiply Allowable Pressure (psf) (ASD) by 1.67.
- 3) Wind speed conversion corresponds to the maximum Zone 2/3 pressure with effective area of 10 ft². Table wind speeds are only valid under the design conditions stated. For other site conditions and/or building dimensions, designers can use the published Allowable Pressure (psf) (ASD) to determine allowable wind speeds with FBC-R Table R301.2(2) or calculations to FBC Ch 16.
- 4) Allowable pressure (psf) (ASD) represents tested assembly ultimate pressure divided by safety factor of 2.
- 5) Plywood Sheathing: Min. 0.42 SG, Exposure 1, complying with NIST DOC PS 2. Wood sheathing may be substituted with thicker profile of up to nominal 1-inch.
- 6) OSB Sheathing: Exposure 1, complying with NIST DOC PS 2. Wood sheathing may be substituted with thicker profile of up to nominal 1-inch.
- 7) All fasteners are to be corrosion resistant. Nails must comply with ASTM F1667 with minimum head diameter of 3/8-inch.
- 8) Wind exposure categories as defined in ASCE7-16, section 26.7.
- 9) Interpolation not permitted. For heights in between those listed, use next highest height column.
- 10) NA indicates that the installation condition is not acceptable within the design limits of the table.

Davinci Product Locator

Davinci Slate, Davinci Shake _____ Tables 3 - 14 (pg 10 – 15)
Bellaforte Slate, Bellaforte Shake _____ Tables 15 – 26 (pg 16 – 21)
Select Shake, Fancy Shake _____ Tables 27 – 38 (pg 22 – 27)



Table 3: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 3:12 – 4.4:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	206	197	191	187
					C	187	181	177	174	169	165	163
					D	169	166	163	160	156	NA	NA
Davinci Slate	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	205	197	191	185	178	172	168
					C	168	163	160	157	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Davinci Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	206	201
					C	201	195	191	187	181	177	175
					D	182	178	175	172	168	164	162

Table 4: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 3:12 – 4.4:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	206	197	191	187
					C	187	181	177	174	169	165	163
					D	169	166	163	160	156	153	150
Davinci Slate	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	205	197	191	185	178	172	168
					C	168	163	160	157	152	148	146
					D	153	149	146	144	140	138	135
Davinci Slate	6 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	89	B	178	171	165	161	154	149	146
					C	146	142	139	136	132	129	127
					D	132	129	127	125	122	119	117
Davinci Slate	8 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	71	B	159	152	148	143	138	133	130
					C	130	126	124	121	118	115	113
					D	118	115	113	111	109	106	105
Davinci Slate	8 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	53	B	137	132	128	124	119	115	112
					C	112	109	107	105	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Davinci Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	206	201
					C	201	195	191	187	181	177	175
					D	182	178	175	172	168	164	162
Davinci Shake	9 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	93.5	B	182	175	169	165	158	153	149
					C	149	145	142	139	135	132	130
					D	136	132	130	128	125	122	120
Davinci Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	86	B	175	168	162	158	151	147	143
					C	143	139	136	133	129	126	125
					D	130	127	125	123	120	117	115
Davinci Shake	9 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	70	B	158	151	147	142	137	132	129
					C	129	126	123	120	117	114	113
					D	117	115	113	111	108	106	104
Davinci Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	64.5	B	151	145	141	137	131	127	124
					C	124	121	118	115	112	110	108
					D	113	110	108	106	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 5: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	207	202	198	192	188	185
					D	193	189	185	182	178	174	171
Davinci Slate	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	203	196	192
					C	192	186	182	179	173	169	167
					D	174	170	167	164	160	157	NA
Davinci Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	207	202	199
					D	208	203	199	196	191	187	184

Table 6: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	207	202	198	192	188	185
					D	193	189	185	182	178	174	171
Davinci Slate	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	203	196	192
					C	192	186	182	179	173	169	167
					D	174	170	167	164	160	157	154
Davinci Slate	6 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	89	B	203	195	189	183	176	170	166
					C	166	161	158	155	150	147	145
					D	151	147	145	142	139	136	134
Davinci Slate	8 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	71	B	181	174	168	164	157	152	148
					C	148	144	141	138	134	131	129
					D	135	132	129	127	124	121	120
Davinci Slate	8 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	53	B	157	150	146	141	136	131	128
					C	128	125	122	119	116	113	112
					D	116	114	112	110	107	105	NA
Davinci Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	207	202	199
					D	208	203	199	196	191	187	184
Davinci Shake	9 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	93.5	B	208	199	193	188	180	174	170
					C	170	166	162	159	154	150	148
					D	155	151	148	146	142	139	137
Davinci Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	86	B	199	191	185	180	173	167	163
					C	163	159	155	152	148	144	142
					D	148	145	142	140	136	134	132
Davinci Shake	9 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	70	B	180	173	167	162	156	151	147
					C	147	143	140	137	133	130	128
					D	134	131	128	126	123	121	119
Davinci Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	64.5	B	173	166	161	156	150	145	141
					C	141	137	135	132	128	125	123
					D	128	125	123	121	118	116	114

See page 9 for Table Notes 1-10.



Table 7: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	210	206	200	196	193
					D	201	197	193	190	185	181	178
Davinci Slate	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	210	204	200
					C	200	194	190	186	180	176	174
					D	181	177	174	171	167	163	161
Davinci Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	208
					D	210	210	208	204	199	195	192

Table 8: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	210	206	200	196	193
					D	201	197	193	190	185	181	178
Davinci Slate	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	210	204	200
					C	200	194	190	186	180	176	174
					D	181	177	174	171	167	163	161
Davinci Slate	6 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	89	B	210	203	196	191	183	177	173
					C	173	168	164	161	156	153	151
					D	157	153	151	148	144	142	139
Davinci Slate	8 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	71	B	189	181	175	170	163	158	155
					C	155	150	147	144	140	136	135
					D	140	137	135	132	129	126	124
Davinci Slate	8 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	53	B	163	156	151	147	141	137	133
					C	133	130	127	124	121	118	116
					D	121	118	116	114	111	109	108
Davinci Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	208
					D	210	210	208	204	199	195	192
Davinci Shake	9 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	93.5	B	210	208	201	195	188	182	177
					C	177	172	169	165	160	157	154
					D	161	157	154	152	148	145	143
Davinci Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	86	B	208	199	193	187	180	174	170
					C	170	165	162	158	154	150	148
					D	154	151	148	146	142	139	137
Davinci Shake	9 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	70	B	187	180	174	169	162	157	153
					C	153	149	146	143	139	135	134
					D	139	136	134	131	128	126	124
Davinci Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	64.5	B	180	172	167	162	156	151	147
					C	147	143	140	137	133	130	128
					D	134	131	128	126	123	120	119

See page 9 for Table Notes 1-10.



Table 9: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 3:12 – 4.4:12))

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	207	203	197	192	190
					D	198	193	190	186	182	178	175
Davinci Slate	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	207	201	196
					C	196	190	186	183	177	173	171
					D	178	174	171	168	164	160	158
Davinci Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	207	204
					D	210	208	204	200	195	191	189

Table 10: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 3:12 – 4.4:12))

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	207	203	197	192	190
					D	198	193	190	186	182	178	175
Davinci Slate	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	207	201	196
					C	196	190	186	183	177	173	171
					D	178	174	171	168	164	160	158
Davinci Slate	6 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	89	B	207	199	193	187	180	174	170
					C	170	165	162	158	154	150	148
					D	154	151	148	145	142	139	137
Davinci Slate	8 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	71	B	185	178	172	167	160	155	152
					C	152	147	144	141	137	134	132
					D	138	135	132	130	127	124	122
Davinci Slate	8 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	53	B	160	153	149	144	139	134	131
					C	131	127	125	122	118	116	114
					D	119	116	114	112	109	107	106
Davinci Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	207	204
					D	210	208	204	200	195	191	189
Davinci Shake	9 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	93.5	B	210	204	198	192	184	178	174
					C	174	169	166	162	157	154	152
					D	158	154	152	149	145	142	140
Davinci Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	86	B	204	195	189	184	177	171	167
					C	167	162	159	155	151	147	145
					D	152	148	145	143	139	137	134
Davinci Shake	9 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	70	B	184	176	171	166	159	154	151
					C	151	146	143	140	136	133	131
					D	137	134	131	129	126	123	121
Davinci Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	64.5	B	177	169	164	159	153	148	145
					C	145	141	137	135	131	128	126
					D	131	128	126	124	121	118	116

See page 9 for Table Notes 1-10.



**Table 11: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ
Hip Roofs (Slope 4.5:12 – 6.1:12)**

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	205	201	198
Davinci Slate	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	210	210	210
					C	210	210	210	206	200	195	193
					D	201	196	193	189	185	181	178
Davinci Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	210	210	210

**Table 12: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ
Hip Roofs (Slope 4.5:12 – 6.1:12)**

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	205	201	198
Davinci Slate	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	210	210	210
					C	210	210	210	206	200	195	193
					D	201	196	193	189	185	181	178
Davinci Slate	6 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	89	B	210	210	210	210	203	196	192
					C	192	186	182	179	173	169	167
					D	174	170	167	164	160	157	154
Davinci Slate	8 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	71	B	209	201	194	189	181	175	171
					C	171	166	163	160	155	151	149
					D	156	152	149	147	143	140	138
Davinci Slate	8 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	53	B	181	173	168	163	157	152	148
					C	148	144	141	138	134	131	129
					D	134	131	129	127	124	121	119
Davinci Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	210	210	210
Davinci Shake	9 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	93.5	B	210	210	210	210	208	201	197
					C	197	191	187	183	178	174	171
					D	179	174	171	168	164	161	158
Davinci Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	86	B	210	210	210	208	199	193	189
					C	189	183	179	176	170	166	164
					D	171	167	164	161	157	154	152
Davinci Shake	9 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	70	B	208	199	193	187	180	174	170
					C	170	165	162	158	154	150	148
					D	155	151	148	146	142	139	137
Davinci Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	64.5	B	199	191	185	180	173	167	163
					C	163	159	155	152	148	144	142
					D	148	145	142	140	136	134	132

See page 9 for Table Notes 1-10.



Table 13: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	210	208	202	198	195
					D	203	198	195	191	187	183	180
Davinci Slate	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	210	206	201
					C	201	196	192	188	182	178	176
					D	183	179	176	172	168	165	162
Davinci Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	206	201	197	194

Table 14: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Davinci Slate	8 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	146	B	210	210	210	210	210	210	210
					C	210	210	210	208	202	198	195
					D	203	198	195	191	187	183	180
Davinci Slate	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	118.5	B	210	210	210	210	210	206	201
					C	201	196	192	188	182	178	176
					D	183	179	176	172	168	165	162
Davinci Slate	6 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	89	B	210	204	198	192	185	179	175
					C	175	170	166	163	158	154	152
					D	159	155	152	149	146	143	141
Davinci Slate	8 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	71	B	190	183	177	172	165	160	156
					C	156	152	148	145	141	138	136
					D	142	138	136	134	130	128	126
Davinci Slate	8 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	53	B	165	158	153	148	143	138	135
					C	135	131	128	125	122	119	117
					D	122	120	117	115	112	110	109
Davinci Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	169	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	206	201	197	194
Davinci Shake	9 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	93.5	B	210	210	203	197	189	183	179
					C	179	174	170	167	162	158	156
					D	163	159	156	153	149	146	144
Davinci Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	86	B	210	201	195	189	182	176	172
					C	172	167	163	160	155	152	150
					D	156	152	150	147	143	140	138
Davinci Shake	9 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	70	B	189	181	176	171	164	159	155
					C	155	151	147	144	140	137	135
					D	141	137	135	133	129	127	125
Davinci Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	64.5	B	182	174	169	164	157	152	149
					C	149	144	141	138	134	131	130
					D	135	132	130	127	124	122	120

See page 9 for Table Notes 1-10.



Table 15: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 3:12 – 4.4:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	19/32 Plywood (1/2 Plywood for re-roofing)	3 per shingle, #10 2-inch galv. Screw	121	B	207	199	193	187	180	174	170
					C	170	165	162	158	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	169	162	157	NA	NA	NA	NA
					C	NA	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	1/2 Plywood for re-roofing	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	72.5	B	161	NA	NA	NA	NA	NA	NA
					C	NA	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

Table 16: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 3:12 – 4.4:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, #10 2-inch galv. Screw	121	B	207	199	193	187	180	174	170
					C	170	165	162	158	154	150	148
					D	154	151	148	145	142	139	137
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	169	162	157	152	146	141	138
					C	138	134	131	129	125	122	120
					D	125	123	120	118	115	113	111
Bellaforte Slate / Shake	12 inches	15/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	75	B	163	157	152	147	141	137	134
					C	134	130	127	125	121	118	116
					D	121	119	116	114	112	109	108
Bellaforte Slate / Shake	12 inches	19/32 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	60	B	146	140	136	132	126	123	120
					C	120	116	114	111	108	106	104
					D	109	106	104	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	7/16 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	56	B	141	135	131	127	122	118	116
					C	116	112	110	108	104	NA	NA
					D	105	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	45	B	126	121	118	114	110	106	NA
					C	NA	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	7/16 OSB	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	34	B	110	105	NA	NA	NA	NA	NA
					C	NA	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 17: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	19/32 Plywood (1/2 Plywood for re-roofing)	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	205	198	194
					C	194	188	184	180	175	171	169
					D	176	172	169	166	162	158	156
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	192	184	179	174	167	161	158
					C	158	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	1/2 Plywood for re-roofing	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	72.5	B	183	176	170	165	159	NA	NA
					C	NA	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

Table 18: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	205	198	194
					C	194	188	184	180	175	171	169
					D	176	172	169	166	162	158	156
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	192	184	179	174	167	161	158
					C	158	153	150	147	142	139	137
					D	143	140	137	135	131	129	127
Bellaforte Slate / Shake	12 inches	15/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	75	B	186	179	173	168	161	156	153
					C	153	148	145	142	138	135	133
					D	139	135	133	131	127	125	123
Bellaforte Slate / Shake	12 inches	19/32 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	60	B	167	160	155	150	144	140	136
					C	136	133	130	127	123	120	119
					D	124	121	119	117	114	112	110
Bellaforte Slate / Shake	12 inches	7/16 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	56	B	161	154	150	145	139	135	132
					C	132	128	125	123	119	116	115
					D	120	117	115	113	110	108	106
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	45	B	144	138	134	130	125	121	118
					C	118	115	112	110	107	104	NA
					D	107	105	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	7/16 OSB	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	34	B	125	120	117	113	109	105	NA
					C	NA	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 19: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	19/32 Plywood (1/2 Plywood for re-roofing)	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	210	207	202
					C	202	196	192	188	182	178	176
					D	183	179	176	173	168	165	162
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	200	192	186	181	173	168	164
					C	164	159	156	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	1/2 Plywood for re-roofing	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	72.5	B	191	183	177	172	165	160	156
					C	156	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

Table 20: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	210	207	202
					C	202	196	192	188	182	178	176
					D	183	179	176	173	168	165	162
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	200	192	186	181	173	168	164
					C	164	159	156	153	148	145	143
					D	149	145	143	140	137	134	132
Bellaforte Slate / Shake	12 inches	15/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	75	B	194	186	180	175	168	163	159
					C	159	154	151	148	144	140	138
					D	144	141	138	136	133	130	128
Bellaforte Slate / Shake	12 inches	19/32 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	60	B	173	166	161	157	150	145	142
					C	142	138	135	132	128	125	124
					D	129	126	124	122	119	116	114
Bellaforte Slate / Shake	12 inches	7/16 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	56	B	168	161	156	151	145	141	137
					C	137	133	130	128	124	121	120
					D	125	122	120	117	115	112	111
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	45	B	150	144	140	136	130	126	123
					C	123	120	117	115	111	109	107
					D	112	109	107	105	NA	NA	NA
Bellaforte Slate / Shake	12 inches	7/16 OSB	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	34	B	131	125	121	118	113	110	107
					C	107	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 21: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 3:12 – 4.4:12))

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	19/32 Plywood (1/2 Plywood for re-roofing)	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	209	203	198
					C	198	192	188	184	179	175	173
					D	180	176	173	170	165	162	160
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	197	189	183	177	170	165	161
					C	161	156	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	1/2 Plywood for re-roofing	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	72.5	B	187	179	174	169	162	157	NA
					C	NA	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

Table 22: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 3:12 – 4.4:12))

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	209	203	198
					C	198	192	188	184	179	175	173
					D	180	176	173	170	165	162	160
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	197	189	183	177	170	165	161
					C	161	156	153	150	146	142	140
					D	146	143	140	138	134	132	130
Bellaforte Slate / Shake	12 inches	15/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	75	B	190	183	177	172	165	160	156
					C	156	152	148	145	141	138	136
					D	142	138	136	133	130	128	126
Bellaforte Slate / Shake	12 inches	19/32 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	60	B	170	163	158	154	147	143	139
					C	139	136	133	130	126	123	121
					D	127	124	121	119	116	114	112
Bellaforte Slate / Shake	12 inches	7/16 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	56	B	165	158	153	148	142	138	135
					C	135	131	128	125	122	119	117
					D	122	120	117	115	112	110	109
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	45	B	147	141	137	133	128	124	121
					C	121	117	115	112	109	107	105
					D	110	107	105	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	7/16 OSB	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	34	B	128	123	119	116	111	108	105
					C	105	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 23: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	19/32 Plywood (1/2 Plywood for re-roofing)	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	210	210	210
					C	210	210	210	208	202	197	195
					D	203	198	195	191	187	183	180
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	210	210	206	200	192	186	182
					C	182	177	173	169	164	161	158
					D	165	161	158	156	NA	NA	NA
Bellaforte Slate / Shake	12 inches	1/2 Plywood for re-roofing	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	72.5	B	210	203	196	191	183	177	173
					C	173	168	165	161	157	NA	NA
					D	157	NA	NA	NA	NA	NA	NA

Table 24: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	210	210	210
					C	210	210	210	208	202	197	195
					D	203	198	195	191	187	183	180
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	210	210	206	200	192	186	182
					C	182	177	173	169	164	161	158
					D	165	161	158	156	152	149	146
Bellaforte Slate / Shake	12 inches	15/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	75	B	210	206	200	194	186	180	176
					C	176	171	167	164	159	155	153
					D	160	156	153	151	147	144	142
Bellaforte Slate / Shake	12 inches	19/32 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	60	B	192	184	179	174	167	161	157
					C	157	153	150	147	142	139	137
					D	143	140	137	135	131	129	127
Bellaforte Slate / Shake	12 inches	7/16 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	56	B	186	178	173	168	161	156	152
					C	152	148	145	142	138	134	133
					D	138	135	133	130	127	124	123
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	45	B	167	160	155	150	144	140	136
					C	136	133	130	127	123	120	119
					D	124	121	119	117	114	112	110
Bellaforte Slate / Shake	12 inches	7/16 OSB	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	34	B	145	139	135	131	125	121	119
					C	119	115	113	110	107	105	NA
					D	108	105	NA	NA	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 25: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	19/32 Plywood (1/2 Plywood for re-roofing)	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	210	209	204
					C	204	198	194	190	184	180	177
					D	185	181	177	174	170	167	164
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	202	194	188	182	175	170	166
					C	166	161	157	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA
Bellaforte Slate / Shake	12 inches	1/2 Plywood for re-roofing	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	72.5	B	192	185	179	174	167	161	158
					C	158	NA	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

Table 26: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, #10 2-inch galv. Screw	121	B	210	210	210	210	210	209	204
					C	204	198	194	190	184	180	177
					D	185	181	177	174	170	167	164
Bellaforte Slate / Shake	12 inches	19/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	80	B	202	194	188	182	175	170	166
					C	166	161	157	154	150	146	144
					D	150	147	144	142	138	135	133
Bellaforte Slate / Shake	12 inches	15/32 Plywood	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	75	B	196	188	182	177	170	164	160
					C	160	156	152	149	145	142	140
					D	146	142	140	137	134	131	129
Bellaforte Slate / Shake	12 inches	19/32 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	60	B	175	168	163	158	152	147	143
					C	143	139	136	134	130	127	125
					D	130	127	125	123	120	117	115
Bellaforte Slate / Shake	12 inches	7/16 OSB	5 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	56	B	169	162	157	153	146	142	139
					C	139	135	132	129	125	122	121
					D	126	123	121	119	116	113	112
Bellaforte Slate / Shake	12 inches	15/32 Plywood	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	45	B	152	145	141	137	131	127	124
					C	124	121	118	116	112	110	108
					D	113	110	108	106	NA	NA	NA
Bellaforte Slate / Shake	12 inches	7/16 OSB	3 per shingle, 11ga 1.5-inch galv. ring-shank roofing nail	34	B	132	126	122	119	114	111	108
					C	108	105	NA	NA	NA	NA	NA
					D	NA	NA	NA	NA	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 27: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 3:12 – 4.4:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	207	201	196
					C	196	190	186	182	177	173	171
					D	178	174	171	168	164	160	158
Select Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	208	200	194	189
					C	189	184	180	176	171	167	165
					D	172	168	165	162	158	NA	NA
Fancy Shake	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	207	201	195	187	181	177
					C	177	172	168	165	160	156	NA
					D	161	157	NA	NA	NA	NA	NA

Table 28: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 3:12 – 4.4:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	207	201	196
					C	196	190	186	182	177	173	171
					D	178	174	171	168	164	160	158
Select Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	208	200	194	189
					C	189	184	180	176	171	167	165
					D	172	168	165	162	158	155	152
Fancy Shake	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	207	201	195	187	181	177
					C	177	172	168	165	160	156	154
					D	161	157	154	151	148	145	142
Select Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	80	B	169	162	157	152	146	141	138
					C	138	134	131	129	125	122	120
					D	125	123	120	118	115	113	111
Select Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	60	B	146	140	136	132	126	123	120
					C	120	116	114	111	108	106	104
					D	109	106	104	NA	NA	NA	NA

See page 9 for Table Notes 1-10.



Table 29: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	208	202	197	195
					D	203	198	195	191	187	183	180
Select Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	205	201	195	190	188
					D	196	191	188	185	180	176	174
Fancy Shake	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	206	202
					C	202	196	192	188	182	178	176
					D	183	179	176	173	168	165	162

Table 30: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	208	202	197	195
					D	203	198	195	191	187	183	180
Select Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	205	201	195	190	188
					D	196	191	188	185	180	176	174
Fancy Shake	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	206	202
					C	202	196	192	188	182	178	176
					D	183	179	176	173	168	165	162
Select Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	80	B	192	184	179	174	167	161	158
					C	158	153	150	147	142	139	137
					D	143	140	137	135	131	129	127
Select Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	60	B	167	160	155	150	144	140	136
					C	136	133	130	127	123	120	119
					D	124	121	119	117	114	112	110

See page 9 for Table Notes 1-10.



Table 31: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Gable Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	205	203
					D	210	206	203	199	194	190	187
Select Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	209	203	198	196
					D	204	199	196	192	187	184	181
Fancy Shake	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	210
					C	210	204	200	195	190	185	183
					D	191	186	183	180	175	172	169

Table 32: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Gable Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	205	203
					D	210	206	203	199	194	190	187
Select Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	209	203	198	196
					D	204	199	196	192	187	184	181
Fancy Shake	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	210
					C	210	204	200	195	190	185	183
					D	191	186	183	180	175	172	169
Select Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	80	B	200	192	186	181	173	168	164
					C	164	159	156	153	148	145	143
					D	149	145	143	140	137	134	132
Select Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	60	B	173	166	161	157	150	145	142
					C	142	138	135	132	128	125	124
					D	129	126	124	122	119	116	114

See page 9 for Table Notes 1-10.



Table 33: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 3:12 – 4.4:12))

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	207	202	199
					D	208	203	199	196	191	187	184
Select Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	205	199	195	192
					D	200	196	192	189	184	180	178
Fancy Shake	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	206
					C	206	200	196	192	186	182	180
					D	187	183	180	176	172	169	166

Table 34: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 3:12 – 4.4:12))

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	207	202	199
					D	208	203	199	196	191	187	184
Select Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	205	199	195	192
					D	200	196	192	189	184	180	178
Fancy Shake	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	206
					C	206	200	196	192	186	182	180
					D	187	183	180	176	172	169	166
Select Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	80	B	197	189	183	177	170	165	161
					C	161	156	153	150	146	142	140
					D	146	143	140	138	134	132	130
Select Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	60	B	170	163	158	154	147	143	139
					C	139	136	133	130	126	123	121
					D	127	124	121	119	116	114	112

See page 9 for Table Notes 1-10.



Table 35: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	210	210	208
Select Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	208	204	201
Fancy Shake	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	205	203
					D	210	206	203	199	194	190	187

Table 36: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 4.5:12 – 6.1:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	210	210	208
Select Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	210	210
					D	210	210	210	210	208	204	201
Fancy Shake	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	205	203
					D	210	206	203	199	194	190	187
Select Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	80	B	210	210	206	200	192	186	182
					C	182	177	173	169	164	161	158
					D	165	161	158	156	152	149	146
Select Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	60	B	192	184	179	174	167	161	157
					C	157	153	150	147	142	139	137
					D	143	140	137	135	131	129	127

See page 9 for Table Notes 1-10.



Table 37: HVHZ Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC HVHZ Hip Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	207	205
					D	210	208	205	201	196	192	189
Select Shake	10 inches	19/32 Plywood (1/2 Plywood for re-roofing)	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	210	205	200	197
					D	206	201	197	194	189	185	183
Fancy Shake	6 inches	19/32 Plywood (1/2 Plywood for re-roofing)	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	210
					C	210	206	201	197	192	187	185
					D	192	188	185	181	177	173	171

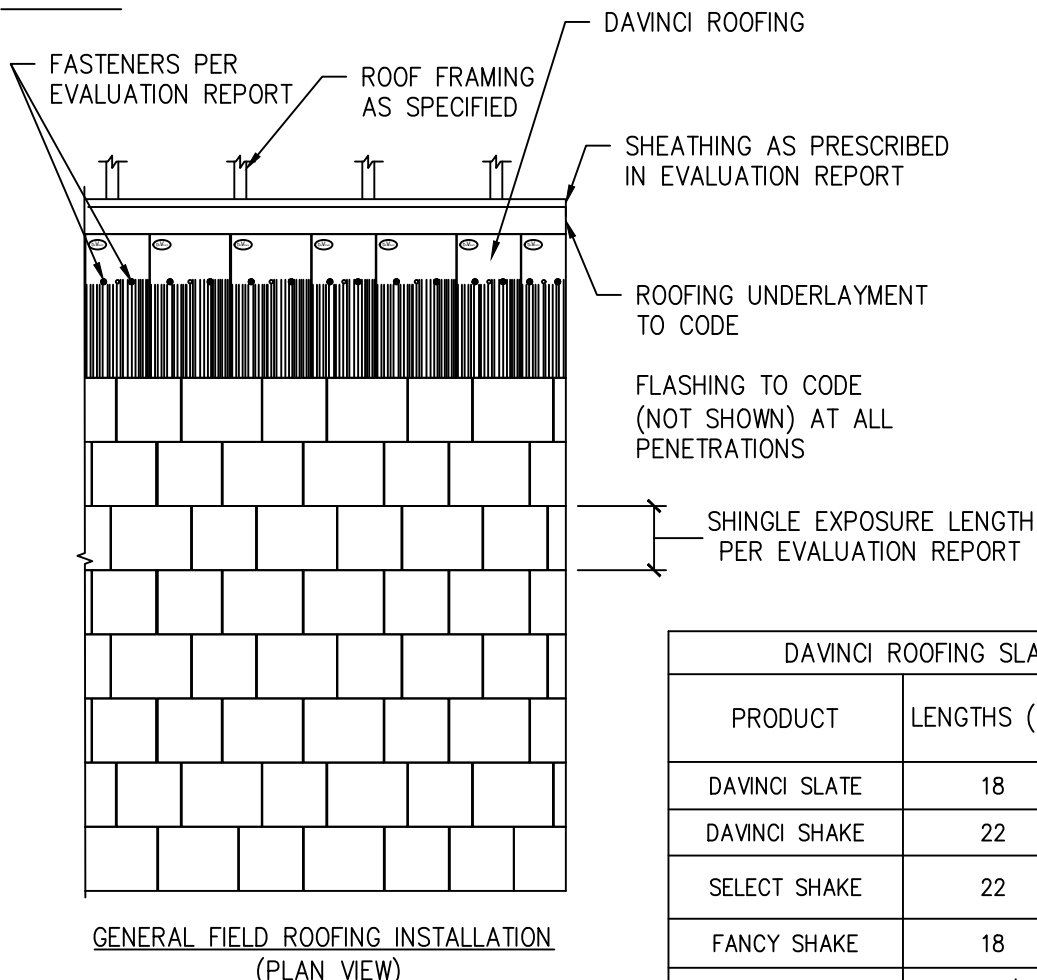
Table 38: Maximum Wind Speeds of Roof Cladding Installed at Various Building Heights¹ - 2020 FBC Non-HVHZ Hip Roofs (Slope 6.2:12 – 12:12)

Roofing Shingle	Max Shingle Exposure	Sheathing _{5,6}	Shingle Fastener ⁷	Allowable Pressure ² (psf)(ASD)	Exposure Category ⁸	Maximum Wind Speed V _{ult} (mph) ^{3,10}						
						Mean Roof Height (ft) ⁹						
						15	20	25	30	40	50	60
Fancy Shake Dia. Head & Beaver Tail	5 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	161	B	210	210	210	210	210	210	210
					C	210	210	210	210	210	207	205
					D	210	208	205	201	196	192	189
Select Shake	10 inches	15/32 Plywood	4 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	150	B	210	210	210	210	210	210	210
					C	210	210	210	210	205	200	197
					D	206	201	197	194	189	185	183
Fancy Shake	6 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	131	B	210	210	210	210	210	210	210
					C	210	206	201	197	192	187	185
					D	192	188	185	181	177	173	171
Select Shake	10 inches	15/32 Plywood	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	80	B	202	194	188	182	175	170	166
					C	166	161	157	154	150	146	144
					D	150	147	144	142	138	135	133
Select Shake	10 inches	7/16 OSB	2 per shingle, 11ga 1.75-inch galv. ring-shank roofing nail	60	B	175	168	163	158	152	147	143
					C	143	139	136	134	130	127	125
					D	130	127	125	123	120	117	115

See page 9 for Table Notes 1-10.



DAVINCI ROOFING DETAILS AND NOTES FOR WIND LOAD RESISTANCE ASSEMBLIES



DAVINCI ROOFING SLATE AND SHAKE DIMENSIONS				
PRODUCT	LENGTHS (IN.)	WIDTH (IN.)	THICKNESS (IN.)	
			HEAD	TAIL
DAVINCI SLATE	18	6, 7, 9, 10, 12	1/8	1/2
DAVINCI SHAKE	22	4, 6, 7, 8, 9	1/4	1/2
SELECT SHAKE	22	8, 10	1/4	5/8
FANCY SHAKE	18	5, 7, 12	1/4	1/2
BELLFORTE SLATE	16 1/4	13 5/8	1/8	1/2
BELLAFORTE SHAKE	16 1/4	13 5/8	1/8	1/2

NOTES:

1. THE INSTALLATION DETAILS DESCRIBED ARE OF THE LABORATORY TESTED ASSEMBLY AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, THE LICENSED ENGINEER OR ARCHITECT PREPARED SITE-SPECIFIC DOCUMENTS SHALL BE USED.
2. THE STRUCTURAL FRAMING AND SHEATHING SHALL BE DESIGNED AND ANCHORED TO PROVIDE LATERAL BRACING AND PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. FRAMING DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3. THESE DRAWINGS APPLY TO THE TESTING ASSEMBLY ONLY AND DO NOT IMPLY THAT THE SIGNATORY ENGINEER IS THE DESIGNER OF RECORD FOR ANY FUTURE CONSTRUCTION ON WHICH THEY ARE USED.
4. SOME NON-STRUCTURAL COMPONENTS NOT SHOWN AND DO NOT IMPACT STRENGTH FOR ATTACHMENT. TO BE INSTALLED PER CODE AND MAY INCLUDE: FLASHING, INSULATION, INTERIOR FINISH.

DRAWING FOR DAVINCI
ROOFING ENGINEERING
EVALUATION REPORT – NOT
FOR USE AS CONSTRUCTION
DESIGN DOCUMENTS

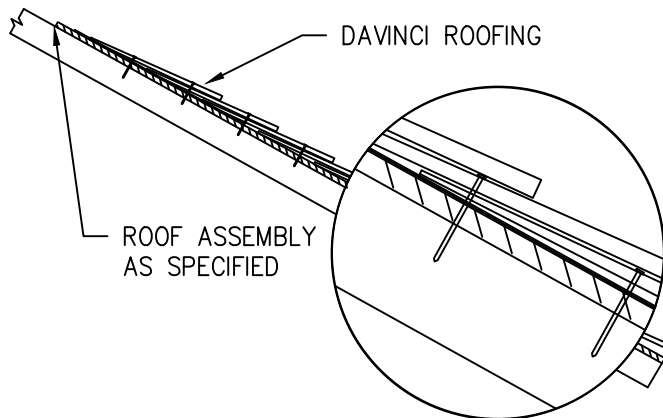
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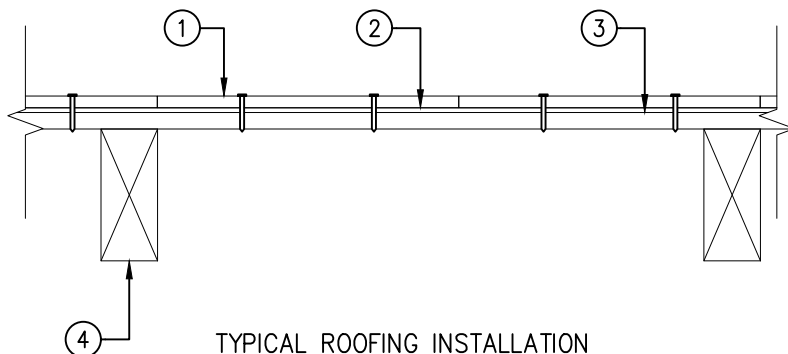
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DATE	SEPTEMBER 14, 2020		DRN LI
			CHK CB



DAVINCI ROOFING SECTIONS AND NOTES FOR WIND LOAD RESISTANCE ASSEMBLIES



TYPICAL ROOFING INSTALLATION
(SECTION VIEW)



TYPICAL ROOFING INSTALLATION
(SECTION VIEW)

ROOF FRAMING & WOOD-BASE SHEATHING ASSEMBLY EXTERIOR TO INTERIOR	
1	DAVINCI ROOFING SLATES OR SHAKES FASTENING PER ENGINEERING EVALUATION REPORT
2	WOOD-BASED SHEATHING FASTENED TO FRAMING PER CODE, SEE ENGINEERING EVALUATION REPORT
3	ROOFING UNDERLAYMENT
4	ROOF FRAMING PER PLANS, TO CODE

NOTES:

1. THE INSTALLATION DETAILS DESCRIBED ARE OF THE LABORATORY TESTED ASSEMBLY AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, THE LICENSED ENGINEER OR ARCHITECT PREPARED SITE-SPECIFIC DOCUMENTS SHALL BE USED.
2. THE STRUCTURAL FRAMING AND SHEATHING SHALL BE DESIGNED AND ANCHORED TO PROVIDE LATERAL BRACING AND PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. FRAMING DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
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4. SOME NON-STRUCTURAL COMPONENTS NOT SHOWN AND DO NOT IMPACT STRENGTH FOR ATTACHMENT. TO BE INSTALLED PER CODE AND MAY INCLUDE: FLASHING, INSULATION, INTERIOR FINISH.

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