NATIONAL BUILDING CODE OF CANADA
ENGINEERING EVALUATION REPORT

Report Number	0064-32	Issue Date	2026-07-23
Client	Westlake DaVinci Roofscapes, LLC	Issue Number	1-5944
Address	13890 W 101 St, Lenexa, KS 66215	Expiry Date	2026-12-31

Subject

DaVinci Slate, DaVinci Shake, Select Shake, Fancy Shake, Inspire Classic Slate, and Province Slate.

Evaluation Scope

This report is provided to assist registered design professionals and building officials in Canada with determining compliance to the performance objectives in the named building codes. The product(s) described herein have been evaluated to the:

2025 National Building Code of Canada (NBCC);
2020 National Building Code of Canada (NBCC);
2024 British Columbia Building Code (BCBC);
2024 Ontario Building Code (OBC);
2023 National Building Code – Alberta Edition (NBC (AE));

Division A, Sections 1.2.1.1.(1)(a) and 1.2.1.1.(1)(b) for compliance with the objectives and functional statements attributed to the applicable acceptable solutions in Division B, for buildings classified under Part 3/4/5 and Part 9 construction.

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

CODE SECTIONS AND STANDARDS

NBCC Div. B Section	Description	Referenced Standard or Div. B Section[1]	Year
Part 3, 4, 5			
3.1.5.3.(1)	Combustible Roofing Materials	Article 3.1.15	-
3.1.15.1.(1)	Roof Covering Classification	CAN/ULC-S107	2019
3.1.15.2.(1)	Roof Coverings	Article 3.1.15.1	-
4.1.7.1.(5)(a)	Specified Wind Load	Article 4.1.7.3	-
5.1.4.1	Resistance to Structural and Environmental Loads	Articles 5.2.1, 5.2.2	-
5.1.4.2	Resistance to Deterioration	-	-
5.2.1.1	Exterior Environmental Loads	Article 1.1.3	-
5.2.1.3.(3)	Environmental (Wind) Load and Transfer Calculations	Article 4.1.7	-
5.2.2.2.(4)	Determination of Wind Load	-	-
5.6.1.1.(1)	Required Protection from Precipitation	-	-
5.9.1.1.(1)(b)	Compliance with Applicable Standards	A-5.9.1.1.(1)	-

A-5.9.1.1.(1)	Selection of Materials and Components and Compliance with Referenced Standards	-	-
Part 9			
9.4.1	Structural Design Requirements and Application Limitations	Part 4	-
9.26.1.2	Required Protection	Part 5	-
9.26.2.1.(2)[2]	Roofing Materials	-	-
9.26.2.2	Installation of Materials	-	-
9.26.2.3	Nails	-	-
9.26.3.1	Slope	-	-
9.26.4	Flashing at Intersections	-	-
9.26.6	Underlay beneath Shingles	-	-

1. Only the applicable reference standards and code sections sited in the main body text are listed. (-) indicates that the main body text covers the full explanation of the objective.
2. Alternative solution evaluation completed for these code sections. See Appendix E for discussion of methodology.

COMPLIANCE STATEMENT

It is the opinion of Boca Engineering Co. that DaVinci Slate, DaVinci Shake, Select Shake, Fancy Shake, Inspire Classic Slate, and Province Slate Roof Shingles, when installed as described in this report, has demonstrated compliance with the listed sections of the of the named building codes. Design and performance information can be found in the *Product Evaluation* section this report.

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

2026-07-23
Issue Date

2026-12-31
Expiry Date

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

Province of British Columbia
Permit to Practice No.: 1002012

Province of Ontario

Province of Alberta
Permit to Practice Stamp in APPENDIX G

EVALUATION REPORT TERMS

1. 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.
2. This Evaluation Report expires 2026-12-31, 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.

CERTIFICATION OF INDEPENDENCE

1. Boca Engineering Co., it's 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.

Contents

Product Evaluation

1.0 PRODUCT DESCRIPTION

DaVinci roof coverings are manufactured by injection molding of a polymer blend in to individual slates and shakes, that serve as an exterior roof covering.

DAVINCI PRODUCT	DESCRIPTION
DaVinci Slate (DVSL)	Thickness of 1/8-inch at head to 1/2-inch at butt, 18-inch long by 6, 7, 9, 10 or 12-inch wide.
DaVinci Shake (DVSH)	Thickness of 1/4-inch at head to 1/2-inch to 5/8-inch at butt, 22-inch long by 4, 6, 7, 8, or 9-inch wide.
Select Shake (SSH)	Thickness of 1/4-inch at head to 5/8-inch at butt, 22-inch long by 8, or 10-inch wide.
Fancy Shake (FSH)	Thickness of 1/4-inch at head, 1/2-inch at butt, 18-inch long by 5, 7, or 12-inch wide. Fancy Shake is also available with a "Diamond Point" or "Beaver Tail" leading edge; these "Diamond Point" and "Beaver Tail" shakes are 5-inch wide.
Inspire Classic Slate (ICSL)	Thickness of 1/4-inch, 18-inch long by 12-inch wide.
Province Slate (PSL)	Thickness of 3/8-inch at head to 5/8-inch at butt, 11-1/2-inch long by 12-inch wide.

1.1 MATERIAL PROPERTIES

The material properties can be found in *APPENDIX A: MATERIAL PROPERTIES*.

2.0 INSTALLATION

The roof cladding systems as described in Section 1 shall be installed in accordance with the manufacturer's installation instructions, the National Building Code of Canada, and are subject to the Limitations stated within this report.

3.0 CODE SECTIONS REVIEW

NBCC Section Part 3,4,5	Description
3.1.5.3.(1)	**Combustible Roofing Materials** DaVinci roof coverings are combustible roof coverings that have a Class A, B or C classification determined in conformance with section 3.1.15. Installation is permitted on buildings required to be of noncombustible construction provided that combustible layers lie above a minimum 50 mm concrete roof deck.
3.1.15.1.(1)	**Roof Covering Classification** DaVinci roof covering classification has been determined based on CAN/ULC-S107. See section 5 of this report for more details.
3.1.15.2.(1)	**Roof Coverings** DaVinci roof coverings have a Class A, B or C classification depending on installation details.
4.1.7.1.(5)(a)	**Specified Wind Load** The specified wind loads are determined based on the Static Procedure in Subsection 4.1.7.3. See wind load assembly performance in *APPENDIX B: WIND PRESSURE AND WIND SPEED TABLES USER GUIDE AND GENERAL NOTES* of this report.

5.1.4.1 **Resistance to Structural and Environmental Loads**
Per Article 5.1.4.1.(1), roof coverings shall have sufficient capacity and integrity resisting all environmental loads (moisture, heat, water ingression, deterioration etc.) and structural loads (wind, wind uplift, impact, etc.).

5.1.4.2 **Resistance to Deterioration**
DaVinci roof coverings have been tested for resistance to Heat Aging, Accelerated Weathering (UV), Freeze-Thaw cycling, Ozone, Acid Rain and Projectile Impacts, and have demonstrated compliance regarding resistance to deterioration/accelerated weathering.

Although no specific testing criteria is referenced in the NBCC 5.1.4.1 & 5.1.4.2 for assessing the conformance to these requirements, DaVinci roof coverings have been tested in accordance with a series of ASTM, UL and TAS standards commonly used by industry design professionals to assess effectiveness of roofing and plastic composite building materials.
The results from these tests demonstrated sufficient performance of Davinci roof coverings and the compliance to the Part 5 performance requirements in resisting structural and environmental loads. See *APPENDIX A: MATERIAL PROPERTIES* and *APPENDIX E – DISCUSSION OF ALTERNATIVE SOLUTIONS* for more details.

5.2.1.1 **Exterior Environmental Loads**
The above ground climatic loads are determined according to NBCC Subsection 1.1.3.

5.2.1.3.(3) **Environmental Load and Transfer Calculations**
The wind load calculations in this report conform to NBCC Subsection 4.1.7.

5.2.2.2.(4) **Determination of Wind Load**
DaVinci roof coverings are subject to and required to be designed to resist wind load. The specified wind loads are determined in accordance with Subsection 4.1.7. The Code referenced CSA-A123.21 - *Standard test method for the dynamic wind uplift resistance of membrane-roofing systems* only applies to membrane roofing systems, where systems are tested in a pressure chamber.. There's no referenced test standard by the Code for testing wind uplift resistance of composite roof shingles, though taking the concept provided for by Code, the uplift resistance of DaVinci roof coverings has been determined in accordance with TAS 125/UL 580 - *Tests for Uplift Resistance of Roof Assemblies* as an appropriate measure for testing the wind uplift performance in a pressure chamber as designed for shingle style roof covering systems. See *APPENDIX E – DISCUSSION OF ALTERNATIVE SOLUTIONS* for more details.

5.6.1.1.(1) **Required Protection from Precipitation**
The wind driven rain resistance of DaVinci roof coverings has been tested in accordance with TAS 100 with performance meeting the requirements.

5.9.1.1.(1)(b) **Compliance with Applicable Standards**
See this report comments to NBCC A-5.9.1.1.(1).

A-5.9.1.1.(1) **Selection of Materials and Components and Compliance with Referenced Standards**
This article provides guidance for the applicability of the use of the ASTM, UL and TAS standards

exercised for determining compliance to the performance requirements of Part 5, in particular drawing on the roofing material standard specification TAS 110-2000, *Testing Requirements for Physical Properties of Roof Membranes, Insulation, Coatings And Other Roofing Components*, *Section 17: Non-Rigid Tiles/Shakes/Slate/Shingles Products (Plastic)*, as published by the Florida Building Commission. Article A-5.9.1.1.(1) reads *"It is important to note that Sentence 5.9.1.1.(1) is stated in such a way that the selection of materials and its components is not limited to those traditionally recognized as serving particular functions or those for which a standard is identified in Table 5.9.1.1. This approach permits more flexibility than is provided by similar requirements in Part 9. As long as the selected material meets the performance requirements stated elsewhere in Part 5, the material may be used to serve the required function."*

Part 9

9.4.1 **Structural Design Requirements and Application Limitations**

The design methodology in this evaluation for determining conformance to Part 9 has been performed in accordance with NBCC 9.4.1.1.(1)(c)(i) using the loads and deflection limits specified in Part 4.

9.26.1.2 **Required Protection**

DaVinci roof coverings function as protection of roofs, compliance to this section is demonstrated through conformance to Part 5.

9.26.2.1 **Material Standards**

DaVinci roof coverings are made of proprietary polymer based composite material. Although NBCC Part 9.26 does not directly address polymer composite roof shingles, code-referenced standards of other roof covering materials, i.e. CSA A123.5 (asphalt shingles) and ASTM D6878 (thermoplastic sheets) are used as a reference for determining the necessary material properties and performance requirements of roof coverings.

DaVinci roof coverings have been tested in accordance with a series of ASTM, UL and TAS standards and found to be an Alternative Solution to the referenced Acceptable Solutions i.e. Asphalt Shingles.
See *Appendix E – DISUSSION OF ALTERNATIVE SOLUTIONS* for more details.

9.26.2.2 **Installation of Materials**

DaVinci roof coverings shall be installed in conformance with the manufacture's written instructions.

9.26.2.3 **Nails**

DaVinci roof coverings are installed using nails conforming to ASTM F1667 – *Standard Specification for Driven Fasteners: Nails, Spikes, and Staples* with sufficient penetration length.

9.26.3.1 **Slope**

DaVinci roof coverings are intended for installation on roof slopes 3:12 or greater.

9.26.4 **Flashing at Intersections**

DaVinci roof covering Installation Guides provide specifications for flashing at intersections and

valleys, with material options.

9.26.6 Underlay beneath Shingles

DaVinci roof covering Installation Guides provide specifications for underlayment and interlayment.

3.1 SUPPLEMENTAL TESTING

Supplemental testing to national standards that are not directly referenced in the NBCC, where the product performance results support in demonstrating objectives of the NBCC are listed below:

ASTM D1929 – Standard Test Method for Determining Ignition Temperature of Plastics
ASTM D2843 – Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics
ASTM D635 – Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
ASTM D638 – Standard Test Method for Tensile Properties of Plastics
ASTM E661 – Standard Test Method for Performance of Wood and Wood-Based Floor and Roof Sheathing Under Concentrated Static and Impact Loads
ASTM D790 – Standard Test Method for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
ASTM G155 – Standard Practice for Operating Xenon Arc Lamp Apparatus for Exposure of Materials
ASTM D1037 – Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials
ASTM D792 – Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
ASTM D570 – Standard Test Method for Water Absorption of Plastics
ASTM D1149 – Standard Test Methods for Rubber Deterioration—Cracking in an Ozone Controlled Environment
ASTM D2583 – Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor
ASTM D5885 – Standard Test Method for Oxidative Induction Time of Polyolefin Geosynthetics by High-Pressure Differential Scanning Calorimetry
UL 2218 – Impact Resistance of Prepared Roof Covering Materials
RILEM TC 127/MS.B5 – Determination of the Damage to Wallettes Caused by Acid Rain
CGSB 37-GP-56M – Membrane, Modified, Bituminous, Prefabricated, and Reinforced for Roofing
TAS 125, UL 580 – Tests for Uplift Resistance of Roof Assemblies
TAS 100 – Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems

4.0 LIMITATIONS

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.
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. The installation details for each roof assembly evaluated for determining the maximum design wind uplift pressure are described in APPENDICES C2 – C6 and are limited to those prescribed conditions.
4. Materials used as components in the roof assembly shall comply with the NBCC, and where necessary possess the required product approval certification and labeling.
5. The minimum roof slope in all cases is 3:12.
6. DaVinci roofing products are for installation and fastening into wood-based solid sheathing, in accordance with this report.
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.
8. Response of cladding to seismic loads have not been considered in this evaluation.

5.0 FIRE CLASSIFICATION

Where roof assembly fire classification of CAN/ULC-S107 Class A, B, or C is required, Westlake DaVinci Roofscapes' assemblies listed by QAI Laboratories may be found in the QAI online directory under Client Number: B1050-1 and shall be verified for each installation by the authority having jurisdiction.

6.0 MANUFACTURING PLANTS, LABELING AND QUALITY ASSURANCE

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. The manufacturing plants of roofing materials covered in this evaluation report are located in: Lenexa, KS, and Metamora, MI. Labeling shall be in accordance with the requirements of the NBCC, and the Accredited Quality Assurance Agency.

7.0 REFERENCE TESTING AND EVALUATION DOCUMENTS

Entity	Entity Accreditation[1]	Standards	Report No.	Issue Date	Product Model (s)
Intertek	IAS TL 144	CAN/ULC S107	m6381.03-121-24 R0	2021-09-29	Inspire Classic A
			105970384COQ-004 R1	2024-10-16	Inspire Classic A
			106189396COQ-001	2025-05-09	Province Shake
			104871262COQ-003B R2	2022-04-13	DaVinci Shake
			104871262COQ-003A	2022-04-13	DaVinci Slate
			104793286COQ-007	2022-04-13	Province Slate
			104019555COQ-003	2019-09-20	DaVinci Slate
			3180624MID-001	2009-05-28	Fancy Shake
			3190926MID-001	2009-09-30	Diamond Shake
			3149048MID-005	2008-05-27	DaVinci Shake
			316508MID-005	2008-12-10	DaVinci Slate
			3143247MID-002B	2008-06-20	Fancy Shake
Intertek	IAS TL 274	ASTM E635	104011548-004 RO	2019-10-16	DaVinci Series
PRI	IAS TL 189	ASTM E635	MMLL-010-02-03	2018-05-18	Inspire Classic Slate
PRI	IAS TL 189	ASTM D1929	MMLL-010-02-02	2018-03-20	Inspire Classic Slate
Intertek	IAS TL 274	ASTM D1929	104011548-003 RO	2019-10-15	DaVinci Series
PRI	IAS TL 189	ASTM D2843	DRM-054-02-01	2015-11-16	DaVinci Series
PRI	IAS TL 189	ASTM D2843	MMLL-010-02-03	2018-05-18	Inspire Classic Slate
PRI	IAS TL 189	ASTM D638	DRM-156-02-01	2015-12-02	DaVinci Series
PRI	IAS TL 189	ASTM D638	MML-010-02-02	2018-11-05	Inspire Classic Slate
PRI	IAS TL 189	ASTM G155	MML-010-02-02	2018-11-05	Inspire Classic Slate
Intertek	IAS TL 274	ASTM G155	104011548COQ-001	2019-08-21	DaVinci series
QAI	IAS TL 220	ASTM D1037	MED-1047	2023-09-01	Province Slate
Intertek	IAS TL 274	ASTM D1037 and Material Properties[2]	103006000COQ-002E	2018-01-01	DaVinci Shake, DaVinci Slate
Intertek	IAS TL 274	ASTM D1037 and Material Properties[2]	1060002036COQ-021E	2026-02-11	Inspire Classic Slate
Intertek	IAS TL 274	UL 580, TAS 125	105228935COQ-003	2025-02-20	DaVinci Shake
Intertek			105228935COQ-003A	2025-02-20	DaVinci Slate
Intertek			105228935COQ-003B	2025-02-20	Select Shake
Intertek			105228935COQ-003C	2025-02-20	Province Slate
Intertek			106281428COQ-002REV	2025-11-21	Province Slate
Intertek			105228935COQ-003D	2025-02-20	Fancy Shake
Intertek			105228935COQ-003E	2025-02-20	Inspire Classic Slate
Intertek			106281428COQ-002REV	2025-11-21	Inspire Classic Slate
Intertek			105970384COQ-009	2025-05-01	Province Shake
Intertek	IAS TL 274	TAS 100	106299264COQ-001B	2025-11-07	Inspire Classic Slate
Intertek			106299264COQ-001A	2025-11-07	DaVinci Shake

Intertek			105970384COQ-014B	2025-07-29	Province Shake
Intertek			105095440COQ-001	2022-06-22	Province Slate
Intertek			103032787COQ-001AR1	2018-06-26	DaVinci Slate
Farabaugh Eng. and Testing	PJLA 74614	TAS 100	T257-21(1)	2021-11-03	DaVinci Slate
Farabaugh Eng. and Testing	PJLA 74614	TAS 100	T145-19r1	2019-08-30	Select Shake
QAI	IAS TL 220	UL 2218	QA-5570P-1 - 3	2025-12-19	Province Shake
			RJ9610P-1-R1	2024-11-21	Inspire Classic
			RJ8508P-1-Rev1	2022-05-25	Province Slate
			RJ6567P-1	2018-11-02	Select Shake
			RJ1523P-1	2011-10-06	Davinci Shake
Intertek	IAS TL 274		100246786COQ-014	2010-12-20	Beaver Tail
			100137239COQ-002	2010-08-31	Davinci Slate
			3180455COQ-003	2009-05-27	Fancy Shake
			3099991	2006-06-30	Inspire Slate
QAI	SCC 10024	Fire Classification	B1050	2026-07-23	All
QAI	IAS AA 723	Quality Assurance	B1050	2026-07-23	All

1. Testing, certification, evaluation, and inspection agencies referenced have been verified to be accredited by Standards Council of Canada (www.scc.ca) or International Accreditation Service (www.iasonline.org) for the applicable scope and to be in good standing on the date of the evaluation, in accordance with ISO 17025 and ISO 17020 international standards for testing and inspection bodies.
2. See Appendix A for complete list of standards.

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LIST OF TABLES

APPENDIX A: MATERIAL PROPERTIES

Table A 1: DaVinci Series Roofing Material Properties

Property	Standard	Result
Fire/Flammability Material Properties		
Spontaneous Ignition Temperature (◦F)	ASTM D1929	747 - 785
Linear Burn Rate (in/min)	ASTM D635	0.6 - 0.7
Average Smoke Density (%)	ASTM D2843	8 - 16
Smoke Developed Index	ASTM E84	400
General Material Properties		
Density (g/cm^3)	ASTM D792	1.5
Water Absorption (%)	ASTM D570	0.0
Flexural Strength (psi)	ASTM D790	2233
Flexural Modulus (psi)	ASTM D790	166938
Tensile Strength (psi)	ASTM D638	1116
Tensile Strength After Heat Aging for 60 days at 176 ◦F Temperature (% of As Received)	ASTM D638	99
Tensile Strength after 4500-hrs of Accelerated Weathering (% of As Received)	ASTM G155 ASTM D638	94
Flexural Strength after 5000-hrs of Accelerated Weathering (% of As Received)	ASTM G155 ASTM D790	98
Freeze-Thaw	[1]	No crazing, cracking or other deleterious surface or joint changes
Ozone Resistance	ASTM D1149	No visible cracks
Hardness (Barcol)	ASTM D2583	9
High-Pressure Oxidative Induction Time (HP-OIT) (minutes)	ASTM D5885	115
Acid Rain	RILEM TC 127/MS	Resisted sulfate ion diffusion
Dynamic Impact	CGSB 37-GP-56M	No deleterious effects
Traffic Load (lb)	ASTM E661	> 202
DaVinci Slate Nail Pull-Through (lb) with 3/8-inch nail head	ASTM D1037	120
DaVinci Shake Nail Pull-Through (lb) with 3/8-inch nail head	ASTM D1037	159
Select Shake Nail Pull-Through (lb) with 3/8-inch nail head	ASTM D1037	159
Fancy Shake Nail Pull-Through (lb) with 3/8-inch nail head	ASTM D1037	159
Province Slate Nail Pull-Through (lb) with 3/8-inch nail head	ASTM D1037	201
Roof Assembly Tests, Regional Codes[2]		
Florida High Velocity Hurricane Zone (HVHZ) Maximum Uplift Resistance (psf)	TAS 125	Uplift design pressure value dependent on assembly details and installation conditions
Florida High Velocity Hurricane Zone (HVHZ) Wind and Wind Driven Rain Resistance (mph)	TAS 100	No shingle displacement or water infiltration on airflow velocity dependent on assembly details and installation conditions

Roof Assembly Tests, Performance Values[2]		
Wind Uplift Resistance (psf)	UL 580	Design values dependent on assembly details and installation conditions
Wind Speed Resistance (mph)	ASCE 7-22	V_{ULT} at heights of 15 – 60 ft dependent on assembly details and installation conditions
Fire Classification	CAN/ULC S107	Class A, B, or C dependent on assembly details and installation conditions
Impact Resistance	UL 2218	Class 4

1. Test procedure for Temperature Cycling (Freeze Thaw) tests: Twelve representative samples of the product were subjected to 25 consecutive cycles, where each cycle consisted of the following treatment: 1 hour of water exposure @room temperature; 6 hours @-40 °F; 2 hours @ 70 °F; 14 hours @ 180 °F; 1 hour @ 70 °F. After completing the cycles, samples were analyzed under 5 times magnification for any signs of cracking, crazing or other deleterious surface or joint changes.
2. Roof assembly tests results are dependent on installation components and environmental conditions consistent with tested details. See DaVinci's document library of Engineering and Certifications reports for further details.

Table A 2: Inspire Classic Roofing Material Properties

Property	Standard	Result
Fire/Flammability Material Properties		
Spontaneous Ignition Temperature (◦F)	ASTM D1929	785
Linear Burn Rate (in/min)	ASTM D635	0.7
Average Smoke Density (%)	ASTM D2843	15.6
General Material Properties		
Density (g/cm^3)	ASTM D792	1380 - 1390
Water Absorption (%)	ASTM D570	0.1
Flexural Strength (psi)	ASTM D790	3582 - 4467
Flexural Modulus (psi)	ASTM D790	356068 - 381014
Tensile Strength (psi)	ASTM D638	2030 - 2175
Tensile Strength After Heat Aging for 60 days at 176 ◦F Temperature (% of As Received)	ASTM D638	95 -101
Tensile Strength after 4500-hrs of Accelerated Weathering (% of As Received)	ASTM G155 ASTM D638	100
Flexural Strength after 5000-hrs of Accelerated Weathering (% of As Received)	ASTM G155 ASTM D790	100 - 108
Freeze-Thaw	[3]	No crazing, cracking or other deleterious surface or joint changes
Ozone Resistance	ASTM D1149	No visible cracks
Hardness (Barcol)	ASTM D2583	49 - 51
High-Pressure Oxidative Induction Time (HP-OIT)	ASTM D5885	> 1000 minutes
Acid Rain	RILEM TC 127/MS	No voids or blistering formed
Dynamic Impact	CGSB 37-GP-56M	No deleterious effects
Traffic Load (lbf)	ASTM E661	> 202
Nail Pull-Through (lb) with 3/8-inch nail head	ASTM D1037	177
Roof Assembly Tests, Regional Codes[4]		
Florida High Velocity Hurricane Zone (HVHZ) Maximum Uplift Resistance (psf)	TAS 125	Uplift design pressure value dependent on assembly details and installation conditions

Florida High Velocity Hurricane Zone (HVHZ) Wind and Wind Driven Rain Resistance (mph)	TAS 100	No shingle displacement or water infiltration on airflow velocity dependent on assembly details and installation conditions
Roof Assembly Tests, Performance Values[4]		
Wind Uplift Resistance (psf)	UL 580	Design values dependent on assembly details and installation conditions
Wind Speed Resistance (mph)	ASCE 7-22	V_{ULT} at heights of 15 – 60 ft dependent on assembly details and installation conditions
Fire Classification	CAN/ULC S107	Class A, B, or C dependent on assembly details and installation conditions
Impact Resistance	UL 2218	Class 4

3. Test procedure for Temperature Cycling (Freeze Thaw) tests: Twelve representative samples of the product were subjected to 25 consecutive cycles, where each cycle consisted of the following treatment: 1 hour of water exposure @room temperature; 6 hours @-40 °F; 2 hours @ 70 °F; 14 hours @ 180 °F; 1 hour @ 70 °F. After completing the cycles, samples were analyzed under 5 times magnification for any signs of cracking, crazing or other deleterious surface or joint changes.
4. Roof assembly tests results are dependent on installation components and environmental conditions consistent with tested details. See DaVinci's document library of Engineering and Certifications reports for further details.

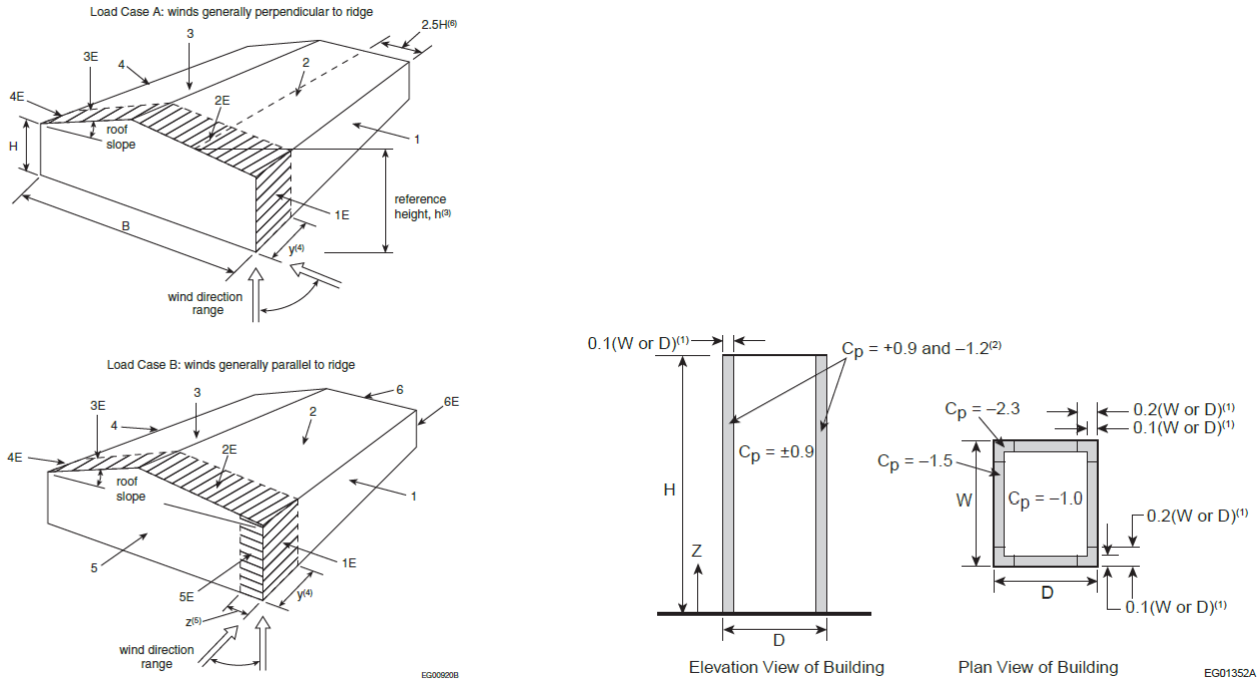
APPENDIX B: WIND PRESSURE AND WIND SPEED TABLES USER GUILDE AND GENERAL NOTES

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

Wind speed conversion tables have been prepared following design methodology of 2025 NBCC Article 4.1.7, for enclosed buildings with maximum height of 30m (100 ft) with topographic factor set to unity. These settings are typical of many installations. All conditions and assembly details must be consistent with Tables in Appendices C1 – C6 to be considered valid. If the actual site, building dimension, or climatic conditions (including the given variables) differ from those prescribed, the maximum design pressure values may be used to calculate adjusted reference velocity pressure limits.

At any building height, when the design wind pressure 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.

It is noticed that in the 2025 NBCC, the reference velocity pressure, q, is based on the probability of being exceeded in 1 in 500 years ($q_{1/500}$), compared to the 2020 NBCC, where q is based on probability of exceeding 1 in 50 years. This leads to a significant increase in the reference velocity pressure value used in the wind design method in Article 4.1.7.3. According to 2025 NBCC Appendix C, the $q_{1/500}$ values were calculated from the $q_{1/10}$ and $q_{1/50}$ values in 2020 NBCC, meanwhile, 2025 NBCC uses a 1.0 wind load factor applied to $q_{1/500}$ wind pressure, which is equivalent to the 1.4 load factor applied to $q_{1/50}$ wind pressure in 2020 NBCC.



(1) Wind loads acting surfaces diagram of low buildings *(2) Pressure Coefficients for Roof Claddings on Rectangular Buildings*

Figure 1: *Wind Pressure Zone Diagram and coefficient (2025 NBCC) for use in conjunction with Appendices C.*

General Notes for Tables in Appendices C

1) Table limiting heights and wind velocity values are for low-rise buildings of maximum 30 m height. Primary structural loads and capacity of the building framing is outside the scope of this table and must be designed and installed for the applicable wind, climate, and occupancy loads as required by Code for the construction project.
2) Assembly No. per Tables B1, C1.1-C6.1 and additional details in the assembly diagrams of this report are to be followed.
3) Wood-Based sheathing min. 7/16 in. OSB to comply with CSA O437. May be substituted with min 15/32 in. plywood complying with CSA O327 and/or thicker profile of up to nominal 1 inch.
4) Fasteners are to be installed per manufactures Installation guide and comply with ASTM F1667.
5) Exposure maximum reduced to 6-inches on roof slopes less than 5:12.
6) Wind pressures are only valid under the design conditions stated. For other site and/or building dimensions, designers can use the published maximum design pressure to determine the allowable wind speeds following Article 4.1.7 NBCC.
7) The maximum design pressure is determined from tested assemblies as the ultimate negative test pressure divided by 2. In limit state design, the safety factor of 2 is applied to the ultimate strength and may be regarded as equal to the wind load factor divided by resistance factor.
8) The maximum design pressure must not exceed the unfactored pressure determined by Article 4.1.7.3.
9) A maximum $q_{1/500}$ value of 1.2 has been applied.
10) The maximum $q_{1/500}$ pre-calculated published values with the inputs of ULS I_W = 1, SLS I_W = 0.6, C_t = 1, C_{gi} = 2.0, C_{pi} = -0.45 to +0.3. The values of C_e, C_{ei}, C_g, C_p, were determined using the procedures of Article 4.1.7.3.
11) Interpolation not permitted. For heights in-between those listed, use the next highest height column.
12) N/A indicates that the installation condition is not acceptable within the design limits of this table.
13) Maximum reference velocity pressure of $q_{1/500}$ is used in 2025 NBCC, while $q_{1/50}$ is used in 2020 NBCC for determining specified wind load.

Table B 1: General Assembly Component Details for Use with General Notes and Tables in Appendices C

Roofing Shingle:	**DaVinci Roof Coverings**
Exposure:	Specifies the exposure length of the shingle in inches as the maximum course-to-course spacing.
Deck Sheathing:	Min. 15/32 in. plywood or wood plank, or 7/16 OSB, as specified.
Shingle Fastener:	Specifies number and type of fasteners per individual shingle.
Exposure Category:	Terrain wind exposure category as defined in NBCC 4.1.7.3
Slope Range:	Slope is shown in Vertical: Horizontal (e.g. 3:12 = 3 in. rise to 12 in. run)
Max. Design Pressure:	Maximum wind pressure in kPa for wind uplift.
Max. Reference Velocity:	Maximum wind velocity V (m/s) for the respective installation condition.
Deck Attachment:	In accordance with the applicable Code, designed to support the maximum design pressure.
Underlayment:	Min. Underlayment shall be in accordance with NBCC, and manufacturers installation guide.
Valleys:	A full-width sheet of Approved ASTM D1970 self-adhering underlayment centered in the valley, followed by minimum 16-inch wide 28-gauge valley metal secured with roofing nails spaced at 4-inch o.c., 1-inch from the edge of the metal. An 18-inch strip of ASTM D1970 self-adhered membrane is placed over the edge of the valley metal.
Starter:	Each DaVinci Slate Starter 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 shingle to be nailed approximately 6-inch up from the butt edge and ¾-inch from each side with 11-gage nails as specified. In high wind areas (reference hourly wind pressure greater than 0.6kPa in accordance with NBCC 9.23.13), 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.
Shingle Fastening:	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, or galvanized 2-inch #10 screws with a minimum 3/8-inch-diameter (9.5 mm) wafer or washer head. Where the

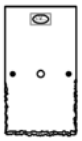
	roof sheathing is less than 3/4 inch (19.1 mm) thick, the nails shall penetrate through the sheathing. Nail and screw fasteners shall comply with ASTM F1667 and ASME B18.6.1, respectively.

a. Additional assembly-specific component details are provided in APPENDICES C1 – C6. Assembly-specific details govern if conflicting with those in Table B1.

Table B 2. Wind Pressure to Wind Speed Conversion Table (Based on 2025 NBCC Table C-1)

Reference Velocity Pressure q (kPa)	Wind Speed V (m/s)	Reference Velocity Pressure q (kPa)	Wind Speed V (m/s)	Reference Velocity Pressure q (kPa)	Wind Speed V (m/s)
0.15	15.2	0.51	28.1	0.87	36.7
0.16	15.7	0.52	28.4	0.88	36.9
0.17	16.2	0.53	28.6	0.89	37.1
0.18	16.7	0.54	28.9	0.9	37.3
0.19	17.1	0.55	29.2	0.91	37.5
0.2	17.6	0.56	29.4	0.92	37.7
0.21	18	0.57	29.7	0.93	37.9
0.22	18.4	0.58	30	0.94	38.1
0.23	18.9	0.59	30.2	0.95	38.3
0.24	19.3	0.6	30.5	0.96	38.5
0.25	19.7	0.61	30.7	0.97	38.7
0.26	20.1	0.62	31	0.98	38.9
0.27	20.4	0.63	31.2	0.99	39.1
0.28	20.8	0.64	31.5	1	39.3
0.29	21.2	0.65	31.7	1.01	39.5
0.3	21.5	0.66	32	1.02	39.7
0.31	21.9	0.67	32.2	1.03	39.9
0.32	22.2	0.68	32.4	1.04	40.1
0.33	22.6	0.69	32.7	1.05	40.3
0.34	22.9	0.7	32.9	1.06	40.5
0.35	23.3	0.71	33.1	1.07	40.7
0.36	23.6	0.72	33.4	1.08	40.9
0.37	23.9	0.73	33.6	1.09	41.1
0.38	24.2	0.74	33.8	1.1	41.3
0.39	24.6	0.75	34.1	1.11	41.4
0.4	24.9	0.76	34.3	1.12	41.6
0.41	25.2	0.77	34.5	1.13	41.8
0.42	25.5	0.78	34.7	1.14	42
0.43	25.8	0.79	35	1.15	42.2
0.44	26.1	0.8	35.2	1.16	42.4
0.45	26.4	0.81	35.4	1.17	42.5
0.46	26.7	0.82	35.6	1.18	42.7
0.47	27	0.83	35.8	1.19	42.9
0.48	27.2	0.84	36	1.2	43.1
0.49	27.5	0.85	36.3	-	-
0.5	27.8	0.86	36.5	-	-

Use absolute value of $q_{1/500}$ from Tables in Appendices C for wind speed conversion.



APPENDIX C1: DAVINCI SLATE (DVSL) WIND PRESSURE & WIND SPEED TABLES

Table C1. 1: Allowable Wind Uplift Pressure for DaVinci Slate Roofing Assemblies

System No.[2]	Min Sheathing[3]	Max Shingle Exposure	Shingle Fasteners[4]	Max. Design Pressure (kPa)[6,7,8]
DVSL-1	7/16" OSB	6"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.45
DVSL-2	7/16" OSB	6"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	7.37
DVSL-3	7/16" OSB	8"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	3.11
DVSL-4	7/16" OSB	8"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.08
DVSL-5	7/16" OSB	8"	2 screws per shingle, #10 2-inch galvanized wafer head screws	6.08
DVSL-6	7/16" OSB	8"	4 screws per shingle, #10 2-inch galvanized wafer head screws	8.52
DVSL-7	1/2" Plywood	6"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	5.94
DVSL-8	1/2" Plywood	6"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	9.86
DVSL-9	1/2" Plywood	8"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.17
DVSL-10	1/2" Plywood	8"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	8.14
DVSL-11	1/2" Plywood	8"	2 screws per shingle, #10 2-inch galvanized wafer head screws	8.14
DVSL-12	1/2" Plywood	8"	4 screws per shingle, #10 2-inch galvanized wafer head screws	11.35
DVSL-13	5/8" Plywood	6"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	9.15
DVSL-14	5/8" Plywood	6"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	11.92
DVSL-15	5/8" Plywood	8"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.98
DVSL-16	5/8" Plywood	8"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	10.82
DVSL-17	5/8" Plywood	8"	2 screws per shingle, #10 2-inch galvanized wafer head screws	8.14
DVSL-18	5/8" Plywood	8"	4 screws per shingle, #10 2-inch galvanized wafer head screws	11.35

See General Notes for Appendices C on page 15 for referenced superscript table notes.

<WIND SPEED TABLES BEGIN NEXT PAGE>

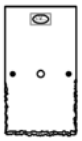


Table C1. 2: Maximum Reference Velocity Pressure for DaVinci Slate Roofing Assemblies

System Number[2]	Max. Design Pressure p (kPa)	Maximum Reference Velocity Pressure $q_{1/500}$ ≤ (kPa)[6,9,10,13]									
		Maximum height of installed cladding (m)[11]									
		Open Terrain, End-zone					Open Terrain, Field				
		6 m	12 m	20 m	24 m	30 m	6 m	12 m	20 m	24 m	30 m
DVSL-1	4.45	-1.20	-1.20	-0.62	-0.60	-0.57	-1.20	-1.20	-1.20	-1.20	-1.18
DVSL-2	7.37	-1.20	-1.20	-1.02	-0.99	-0.94	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-3	3.11	-1.20	-1.19	-0.43	-0.42	-0.40	-1.20	-1.20	-0.90	-0.86	-0.83
DVSL-4	6.08	-1.20	-1.20	-0.84	-0.81	-0.78	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-5	6.08	-1.20	-1.20	-0.84	-0.81	-0.78	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-6	8.52	-1.20	-1.20	-1.18	-1.14	-1.09	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-7	5.94	-1.20	-1.20	-0.82	-0.79	-0.76	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-8	9.86	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-9	4.17	-1.20	-1.20	-0.58	-0.56	-0.53	-1.20	-1.20	-1.20	-1.16	-1.11
DVSL-10	8.14	-1.20	-1.20	-1.13	-1.09	-1.04	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-11	8.14	-1.20	-1.20	-1.13	-1.09	-1.04	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-12	11.35	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-13	9.15	-1.20	-1.20	-1.20	-1.20	-1.17	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-14	11.92	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-15	4.98	-1.20	-1.20	-0.69	-0.67	-0.64	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-16	10.82	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-17	8.14	-1.20	-1.20	-1.13	-1.09	-1.04	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-18	11.35	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
		Rough Terrain, End-zone					Rough Terrain, Field				
DVSL-1	4.45	-1.20	-1.20	-0.87	-0.83	-0.77	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-2	7.37	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-3	3.11	-1.20	-1.20	-0.61	-0.58	-0.54	-1.20	-1.20	-1.20	-1.20	-1.13
DVSL-4	6.08	-1.20	-1.20	-1.19	-1.13	-1.06	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-5	6.08	-1.20	-1.20	-1.19	-1.13	-1.06	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-6	8.52	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-7	5.94	-1.20	-1.20	-1.16	-1.10	-1.03	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-8	9.86	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-9	4.17	-1.20	-1.20	-0.81	-0.77	-0.72	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-10	8.14	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-11	8.14	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-12	11.35	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-13	9.15	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-14	11.92	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-15	4.98	-1.20	-1.20	-0.97	-0.93	-0.87	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-16	10.82	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-17	8.14	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSL-18	11.35	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20

See Table C1. 1 for assembly details, and General Notes for Appendices C on page 15 for referenced superscript table notes.
See Table B 2 for maximum allowable wind pressure to wind speed conversion.

APPENDIX C2: DAVINCI SHAKE (DVSH) WIND PRESSURE & WIND SPEED TABLES

Table C2. 1. Allowable Wind Uplift Pressure for DaVinci Shake Roofing Assemblies

System No.[2]	Min Sheathing[3]	Max Shingle Exposure	Shingle Fasteners[4]	Max. Design Pressure (kPa)[6,7,8]
DVSH-1	7/16" OSB	9"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	3.45
DVSH-2	7/16" OSB	9"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	8.19
DVSH-3	7/16" OSB	10"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	3.40
DVSH-4	7/16" OSB	10"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.89
DVSH-5	7/16" OSB	10"	2 screws per shingle, #10 2-inch wafer head screws	6.56
DVSH-6	7/16" OSB	10"	4 screws per shingle, #10 2-inch wafer head screws	8.81
DVSH-7	1/2" Plywood	9"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.60
DVSH-8	1/2" Plywood	9"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	10.92
DVSH-9	1/2" Plywood	10"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.55
DVSH-10	1/2" Plywood	10"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	9.19
DVSH-11	1/2" Plywood	10"	2 screws per shingle, #10 2-inch wafer head screws	8.76
DVSH-12	1/2" Plywood	10"	4 screws per shingle, #10 2-inch wafer head screws	11.78
DVSH-13	5/8" Plywood	9"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	7.52
DVSH-14	5/8" Plywood	9"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	12.64
DVSH-15	5/8" Plywood	10"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.42
DVSH-16	5/8" Plywood	10"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	10.92
DVSH-17	5/8" Plywood	10"	2 screws per shingle, #10 2-inch wafer head screws	8.76
DVSH-18	5/8" Plywood	10"	4 screws per shingle, #10 2-inch wafer head screws	11.78

See General Notes for Appendices C on page 15 for referenced superscript table notes.

<WIND SPEED TABLES BEGIN NEXT PAGE>

Table C2. 2. Maximum Reference Velocity Pressure for DaVinci Shake Roofing Assemblies

System Number[2]	Max. Design Pressure p (kPa)	Maximum Reference Velocity Pressure $q_{1/500}$ ≤ (kPa)[6,9,10,13]									
		Maximum height of installed cladding (m)[11]									
		Open Terrain, End-zone					Open Terrain, Field				
		6 m	12 m	20 m	24 m	30 m	6 m	12 m	20 m	24 m	30 m
DVSH-1	3.45	-1.20	-1.20	-0.48	-0.46	-0.44	-1.20	-1.20	-0.99	-0.96	-0.92
DVSH-2	8.19	-1.20	-1.20	-1.14	-1.10	-1.05	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-3	3.40	-1.20	-1.20	-0.47	-0.45	-0.44	-1.20	-1.20	-0.98	-0.94	-0.90
DVSH-4	6.89	-1.20	-1.20	-0.96	-0.92	-0.88	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-5	6.56	-1.20	-1.20	-0.91	-0.88	-0.84	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-6	8.81	-1.20	-1.20	-1.20	-1.18	-1.13	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-7	4.60	-1.20	-1.20	-0.64	-0.62	-0.59	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-8	10.92	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-9	4.55	-1.20	-1.20	-0.63	-0.61	-0.58	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-10	9.19	-1.20	-1.20	-1.20	-1.20	-1.18	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-11	8.76	-1.20	-1.20	-1.20	-1.17	-1.12	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-12	11.78	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-13	7.52	-1.20	-1.20	-1.04	-1.01	-0.96	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-14	12.64	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-15	6.42	-1.20	-1.20	-0.89	-0.86	-0.82	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-16	10.92	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-17	8.76	-1.20	-1.20	-1.20	-1.17	-1.12	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-18	11.78	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
		Rough Terrain, End-zone					Rough Terrain, Field				
DVSH-1	3.45	-1.20	-1.20	-0.67	-0.64	-0.60	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-2	8.19	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-3	3.40	-1.20	-1.20	-0.67	-0.63	-0.59	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-4	6.89	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-5	6.56	-1.20	-1.20	-1.20	-1.20	-1.14	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-6	8.81	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-7	4.60	-1.20	-1.20	-0.90	-0.86	-0.80	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-8	10.92	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-9	4.55	-1.20	-1.20	-0.89	-0.85	-0.79	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-10	9.19	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-11	8.76	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-12	11.78	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-13	7.52	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-14	12.64	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-15	6.42	-1.20	-1.20	-1.20	-1.19	-1.12	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-16	10.92	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-17	8.76	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
DVSH-18	11.78	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20

See Table C2. 1 for assembly details, and General Notes for Appendices C on page 15 for referenced superscript table notes.
See Table B 2 for maximum allowable wind pressure to wind speed conversion.

APPENDIX C3: SELECT SHAKE (SSH) WIND PRESSURE & WIND SPEED TABLES

Table C3. 1. Allowable Wind Uplift Pressure for Select Shake Roofing Assemblies

System No.[2]	Min Sheathing[3]	Max Shingle Exposure	Shingle Fasteners[4]	Max. Design Pressure (kPa)[6,7,8]
SSH-1	7/16" OSB	9"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.26
SSH-2	7/16" OSB	9"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.99
SSH-3	7/16" OSB	10"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	3.50
SSH-4	7/16" OSB	10"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.27
SSH-5	7/16" OSB	10"	2 screws per shingle, #10 2-inch wafer head screws	7.95
SSH-6	1/2" Plywood	9"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	5.65
SSH-7	1/2" Plywood	9"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	9.34
SSH-8	1/2" Plywood	10"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.64
SSH-9	1/2" Plywood	10"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	8.33
SSH-10	1/2" Plywood	10"	2 screws per shingle, #10 2-inch wafer head screws	10.63
SSH-11	5/8" Plywood	9"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.70
SSH-12	5/8" Plywood	9"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	12.74
SSH-13	5/8" Plywood	10"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.75
SSH-14	5/8" Plywood	10"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	11.73
SSH-15	5/8" Plywood	10"	2 screws per shingle, #10 2-inch wafer head screws	10.63

See General Notes for Appendices C on page 15 for referenced superscript table notes.

<WIND SPEED TABLES BEGIN NEXT PAGE>

Table C3. 2. Maximum Reference Velocity Pressure for Select Shake Roofing Assemblies

System Number[2]	Max. Design Pressure p (kPa)	Maximum Reference Velocity Pressure $q_{1/500} \leq$ (kPa)[6,9,10,13]									
		Maximum height of installed cladding (m)[11]									
		Open Terrain, End-zone					Open Terrain, Field				
		6 m	12 m	20 m	24 m	30 m	6 m	12 m	20 m	24 m	30 m
SSH-1	4.26	-1.20	-1.20	-0.59	-0.57	-0.55	-1.20	-1.20	-1.20	-1.18	-1.13
SSH-2	6.99	-1.20	-1.20	-0.97	-0.94	-0.89	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-3	3.50	-1.20	-1.20	-0.49	-0.47	-0.45	-1.20	-1.20	-1.01	-0.97	-0.93
SSH-4	6.27	-1.20	-1.20	-0.87	-0.84	-0.80	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-5	7.95	-1.20	-1.20	-1.10	-1.06	-1.02	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-6	5.65	-1.20	-1.20	-0.78	-0.76	-0.72	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-7	9.34	-1.20	-1.20	-1.20	-1.20	-1.19	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-8	4.64	-1.20	-1.20	-0.64	-0.62	-0.59	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-9	8.33	-1.20	-1.20	-1.16	-1.11	-1.07	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-10	10.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-11	6.70	-1.20	-1.20	-0.93	-0.90	-0.86	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-12	12.74	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-13	6.75	-1.20	-1.20	-0.94	-0.90	-0.86	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-14	11.73	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-15	10.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
		Rough Terrain, End-zone					Rough Terrain, Field				
SSH-1	4.26	-1.20	-1.20	-0.83	-0.79	-0.74	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-2	6.99	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-3	3.50	-1.20	-1.20	-0.68	-0.65	-0.61	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-4	6.27	-1.20	-1.20	-1.20	-1.17	-1.09	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-5	7.95	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-6	5.65	-1.20	-1.20	-1.11	-1.05	-0.98	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-7	9.34	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-8	4.64	-1.20	-1.20	-0.91	-0.86	-0.81	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-9	8.33	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-10	10.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-11	6.70	-1.20	-1.20	-1.20	-1.20	-1.17	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-12	12.74	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-13	6.75	-1.20	-1.20	-1.20	-1.20	-1.17	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-14	11.73	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
SSH-15	10.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20

See Table C3. 1for assembly details, and General Notes for Appendices C on page 15 for referenced superscript table notes.
See Table B 2 for maximum allowable wind pressure to wind speed conversion.

APPENDIX C4: FANCY SHAKE (FSH) WIND PRESSURE & WIND SPEED TABLES

Table C4. 1. Allowable Wind Uplift Pressure for Fancy Shake Roofing Assemblies

System No.[2]	Min Sheathing[3]	Max Shingle Exposure	Shingle Fasteners[4]	Max. Design Pressure (kPa)[6,7,8]
FSH-1	7/16" OSB	6" FANCY	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	5.03
FSH-2	7/16" OSB	5" BEAVER/ DIAMOND	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	8.71
FSH-3	1/2" Plywood	6" FANCY	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.70
FSH-4	1/2" Plywood	5" BEAVER/ DIAMOND	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	11.63

See General Notes for Appendices C on page 15 for referenced superscript table notes.

<WIND SPEED TABLES BEGIN NEXT PAGE>

Table C4. 2. Maximum Reference Velocity Pressure for Fancy Shake Roofing Assemblies

System Number[2]	Max. Design Pressure p (kPa)	Maximum Reference Velocity Pressure $q_{1/500}$ ≤ (kPa)[6,9,10,13]									
		Maximum height of installed cladding (m)[11]									
		Open Terrain, End-zone					Open Terrain, Field				
		6 m	12 m	20 m	24 m	30 m	6 m	12 m	20 m	24 m	30 m
FSH-1	5.03	-1.20	-1.20	-0.70	-0.67	-0.64	-1.20	-1.20	-1.20	-1.20	-1.20
FSH-2	8.71	-1.20	-1.20	-1.20	-1.17	-1.12	-1.20	-1.20	-1.20	-1.20	-1.20
FSH-3	6.70	-1.20	-1.20	-0.93	-0.90	-0.86	-1.20	-1.20	-1.20	-1.20	-1.20
FSH-4	11.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
		Rough Terrain, End-zone					Rough Terrain, Field				
FSH-1	5.03	-1.20	-1.20	-0.98	-0.94	-0.87	-1.20	-1.20	-1.20	-1.20	-1.20
FSH-2	8.71	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
FSH-3	6.70	-1.20	-1.20	-1.20	-1.20	-1.17	-1.20	-1.20	-1.20	-1.20	-1.20
FSH-4	11.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20

See Table C4. 1 for assembly details, and General Notes for Appendices C on page 15 for referenced superscript table notes.
See Table B 2 for maximum allowable wind pressure to wind speed conversion.

APPENDIX C5: INSPIRE CLASSIC SLATE (ICSL) WIND PRESSURE & WIND SPEED TABLES

Table C5. 1. Allowable Wind Uplift Pressure for Inspire Classic Slate Roofing Assemblies

System No.[2]	Min Sheathing[3]	Max Shingle Exposure	Shingle Fasteners[4]	Max. Design Pressure (kPa)[6,7,8]
ICSL-1	7/16" OSB	6"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	5.31
ICSL-2	7/16" OSB	6"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	8.62
ICSL-3	7/16" OSB	7.5"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	3.93
ICSL-4	7/16" OSB	7.5"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	8.14
ICSL-5	7/16" OSB	7.5"	2 screws per shingle, #10 2-inch wafer head screws	8.28
ICSL-6	1/2" Plywood	6"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	7.09
ICSL-7	1/2" Plywood	6"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	11.49
ICSL-8	1/2" Plywood	7.5"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	5.27
ICSL-9	1/2" Plywood	7.5"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	10.87
ICSL-10	1/2" Plywood	7.5"	2 screws per shingle, #10 2-inch wafer head screws	11.06
ICSL-11	5/8" Plywood	6"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	8.14
ICSL-12	5/8" Plywood	6"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	11.63
ICSL-13	5/8" Plywood	7.5"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	6.37
ICSL-14	5/8" Plywood	7.5"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	10.87
ICSL-15	5/8" Plywood	7.5"	2 screws per shingle, #10 2-inch wafer head screws	11.06

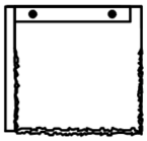
See General Notes for Appendices C on page 15 for referenced superscript table notes.

<WIND SPEED TABLES BEGIN NEXT PAGE>

Table C5. 2. Maximum Reference Velocity Pressure for Inspire Classic Slate Roofing Assemblies

System Number[2]	Max. Design Pressure p (kPa)	Maximum Reference Velocity Pressure $q_{1/500} \leq$ (kPa)[6,9,10,13]									
		Maximum height of installed cladding (m)[11]									
		Open Terrain, End-zone					Open Terrain, Field				
		6 m	12 m	20 m	24 m	30 m	6 m	12 m	20 m	24 m	30 m
ICSL-1	5.31	-1.20	-1.20	-0.74	-0.71	-0.68	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-2	8.62	-1.20	-1.20	-1.20	-1.15	-1.10	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-3	3.93	-1.20	-1.20	-0.54	-0.53	-0.50	-1.20	-1.20	-1.13	-1.09	-1.04
ICSL-4	8.14	-1.20	-1.20	-1.13	-1.09	-1.04	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-5	8.28	-1.20	-1.20	-1.15	-1.11	-1.06	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-6	7.09	-1.20	-1.20	-0.98	-0.95	-0.91	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-7	11.49	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-8	5.27	-1.20	-1.20	-0.73	-0.70	-0.67	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-9	10.87	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-10	11.06	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-11	8.14	-1.20	-1.20	-1.13	-1.09	-1.04	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-12	11.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-13	6.37	-1.20	-1.20	-0.88	-0.85	-0.81	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-14	10.87	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-15	11.06	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
		Rough Terrain, End-zone					Rough Terrain, Field				
ICSL-1	5.31	-1.20	-1.20	-1.04	-0.99	-0.92	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-2	8.62	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-3	3.93	-1.20	-1.20	-0.77	-0.73	-0.68	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-4	8.14	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-5	8.28	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-6	7.09	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-7	11.49	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-8	5.27	-1.20	-1.20	-1.03	-0.98	-0.92	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-9	10.87	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-10	11.06	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-11	8.14	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-12	11.63	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-13	6.37	-1.20	-1.20	-1.20	-1.18	-1.11	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-14	10.87	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
ICSL-15	11.06	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20

See Table C5. 1 for assembly details, and General Notes for Appendices C on page 15 for referenced superscript table notes.
See Table B 2 for maximum allowable wind pressure to wind speed conversion.



APPENDIX C6: PROVINCE SLATE (PSL) WIND PRESSURE & WIND SPEED TABLES

Table C6. 1. Allowable Wind Uplift Pressure for Province Slate Roofing Assemblies

System No.[2]	Min Sheathing[3]	Max Shingle Exposure	Shingle Fasteners[4]	Max. Design Pressure (kPa)[6,7,8]
PSL-1	7/16" OSB	8"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	2.44
PSL-2	7/16" OSB	8"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.26
PSL-3	7/16" OSB	8"	2 screws per shingle, #10 2-inch wafer head screws	6.70
PSL-4	7/16" OSB	8"	4 screws per shingle, #10 2-inch wafer head screws	8.14
PSL-5	1/2" Plywood	8"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	3.30
PSL-6	1/2" Plywood	8"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	5.70
PSL-7	1/2" Plywood	8"	2 screws per shingle, #10 2-inch wafer head screws	8.95
PSL-8	1/2" Plywood	8"	4 screws per shingle, #10 2-inch wafer head screws	10.82
PSL-9	5/8" Plywood	8"	2 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	4.93
PSL-10	5/8" Plywood	8"	4 nails per shingle, 11ga 1.75-inch galvanized ring-shank roofing nails	10.25
PSL-11	5/8" Plywood	8"	2 screws per shingle, #10 2-inch wafer head screws	8.95
PSL-12	5/8" Plywood	8"	4 screws per shingle, #10 2-inch wafer head screws	10.82

See General Notes for Appendices C on page 15 for referenced superscript table notes.

<WIND SPEED TABLES BEGIN NEXT PAGE>

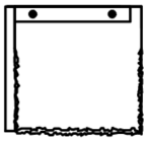


Table C6. 2. Maximum Reference Velocity Pressure for Province Slate Roofing Assemblies

System Number[2]	Max. Design Pressure p (kPa)	Maximum Reference Velocity Pressure $q_{1/500}$ ≤ (kPa)[6,9,10,13]									
		Maximum height of installed cladding (m)[11]									
		Open Terrain, End-zone					Open Terrain, Field				
		6 m	12 m	20 m	24 m	30 m	6 m	12 m	20 m	24 m	30 m
PSL-1	2.44	-1.04	-0.93	-0.34	-0.33	-0.31	-1.20	-1.20	-0.70	-0.68	-0.65
PSL-2	4.26	-1.20	-1.20	-0.59	-0.57	-0.55	-1.20	-1.20	-1.20	-1.18	-1.13
PSL-3	6.70	-1.20	-1.20	-0.93	-0.90	-0.86	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-4	8.14	-1.20	-1.20	-1.13	-1.09	-1.04	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-5	3.30	-1.20	-1.20	-0.46	-0.44	-0.42	-1.20	-1.20	-0.95	-0.92	-0.88
PSL-6	5.70	-1.20	-1.20	-0.79	-0.76	-0.73	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-7	8.95	-1.20	-1.20	-1.20	-1.20	-1.15	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-8	10.82	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-9	4.93	-1.20	-1.20	-0.68	-0.66	-0.63	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-10	10.25	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-11	8.95	-1.20	-1.20	-1.20	-1.20	-1.15	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-12	10.82	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
		Rough Terrain, End-zone					Rough Terrain, Field				
PSL-1	2.44	-1.20	-1.20	-0.48	-0.45	-0.42	-1.20	-1.20	-0.99	-0.95	-0.89
PSL-2	4.26	-1.20	-1.20	-0.83	-0.79	-0.74	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-3	6.70	-1.20	-1.20	-1.20	-1.20	-1.17	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-4	8.14	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-5	3.30	-1.20	-1.20	-0.65	-0.61	-0.57	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-6	5.70	-1.20	-1.20	-1.11	-1.06	-0.99	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-7	8.95	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-8	10.82	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-9	4.93	-1.20	-1.20	-0.96	-0.92	-0.86	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-10	10.25	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-11	8.95	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
PSL-12	10.82	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20

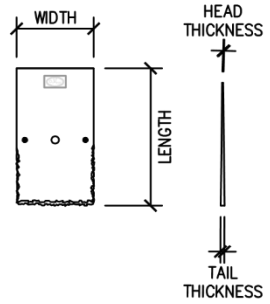
See Table C6. 1 for assembly details, and General Notes for Appendices C on page 15 for referenced superscript table notes.
See Table B 2 for maximum allowable wind pressure to wind speed conversion.

APPENDIX D: ASSEMBLY DIAGRAMS

Begins next page.

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	5/8
SELECT SHAKE	22	8, 10	1/4	5/8
FANCY SHAKE	18	5, 7, 12	1/4	1/2
INSPIRE CLASSIC SLATE	18	12	1/4	1/4
PROVINCE SLATE	11½	12	⅜	⅝

NOTE: "BEAVER TAIL" AND "DIAMOND POINT" FANCY SHAKES ARE ONLY AVAILABLE IN 5" WIDTHS.



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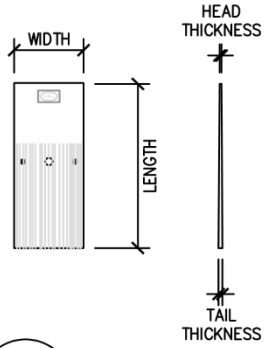

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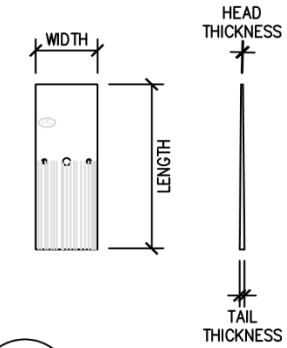
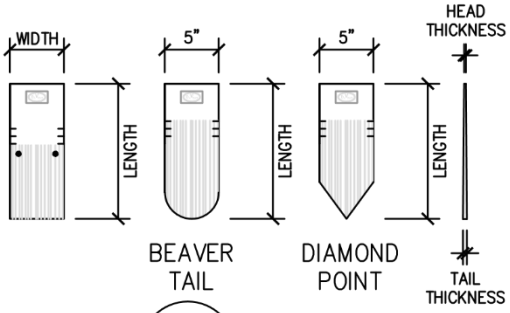


SSH 1 SELECT SHAKE NOT-TO-SCALE



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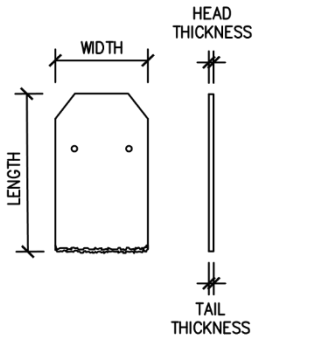
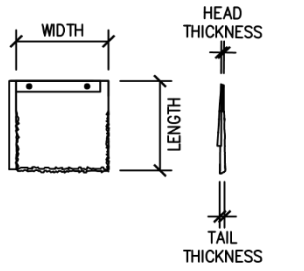


ICSL 1 INSPIRE CLASSIC SLATE NOT-TO-SCALE



PSL 1 PROVINCE SLATE NOT-TO-SCALE

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CLIENT: WESTLAKE DAVINCI ROOFSCAPES, LLC

PROJECT: DAVINCI SHAKE AND SLATE ROOFING

TITLE: DAVINCI ROOFING SLATE AND SHAKE PROFILES

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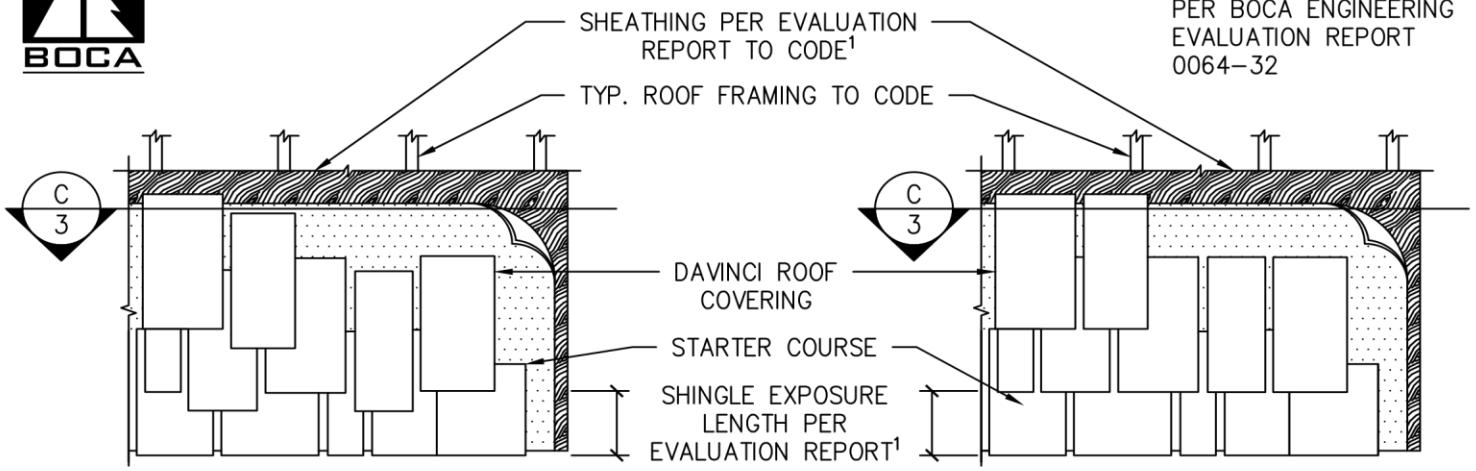
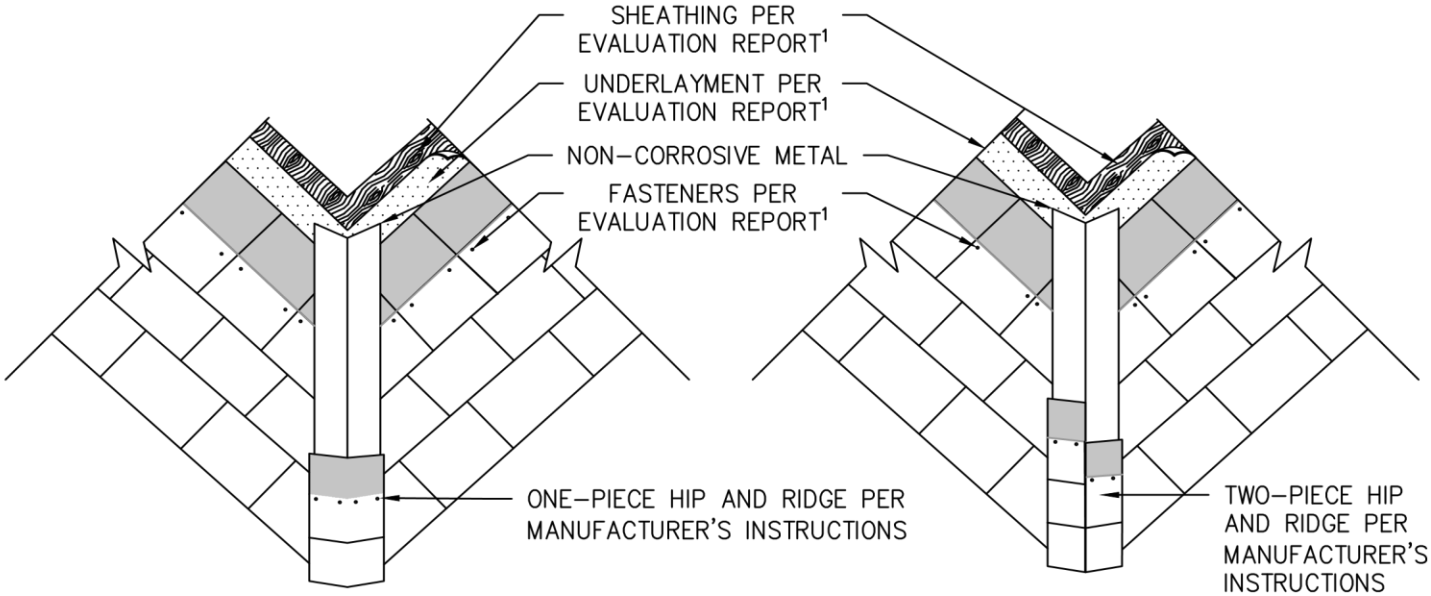


A 2 TYPICAL STAGGERED ROOFING INSTALLATION
PLAN VIEW | NOT–TO–SCALE

B 2 TYPICAL STRAIGHT ROOFING INSTALLATION
PLAN VIEW | NOT–TO–SCALE



C 2 TYPICAL HIP/RIDGE ONE– PIECE DETAIL
PLAN VIEW | NOT–TO–SCALE

D 2 TYPICAL HIP/RIDGE TWO–PIECE DETAIL
PLAN VIEW | NOT–TO–SCALE

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CLIENT: WESTLAKE DAVINCI ROOFSCAPES, LLC

PROJECT: DAVINCI SHAKE AND SLATE ROOFING

TITLE: TYPICAL STAGGERED, STRAIGHT, HIP, AND RIDGE ROOFING PLAN

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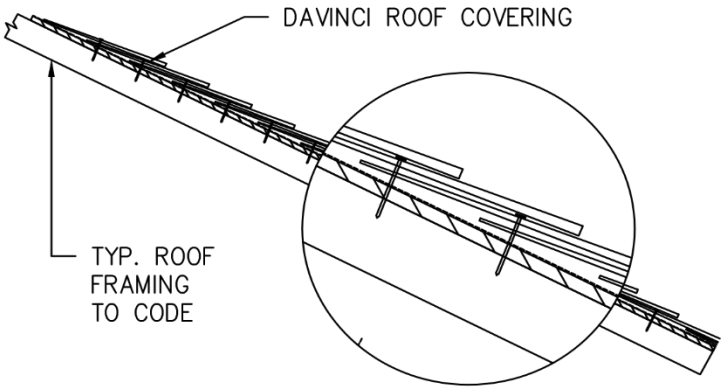

A/3 DAVINCI ROOFING TYPICAL INSTALLATION
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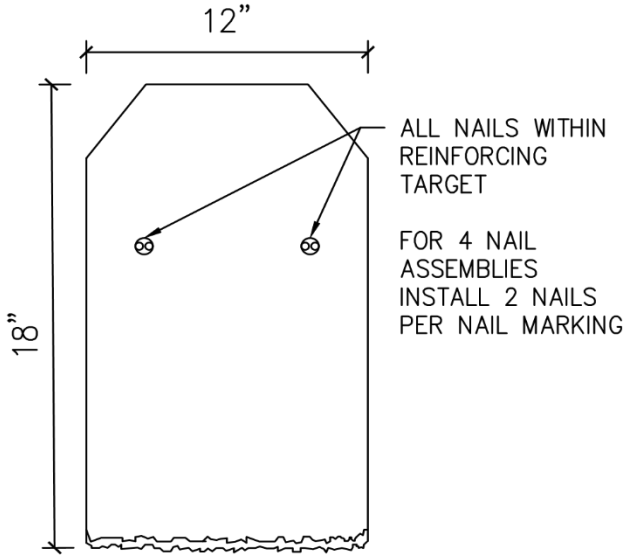

B/3 INSPIRE CLASSIC 4 NAIL INSTALLATION
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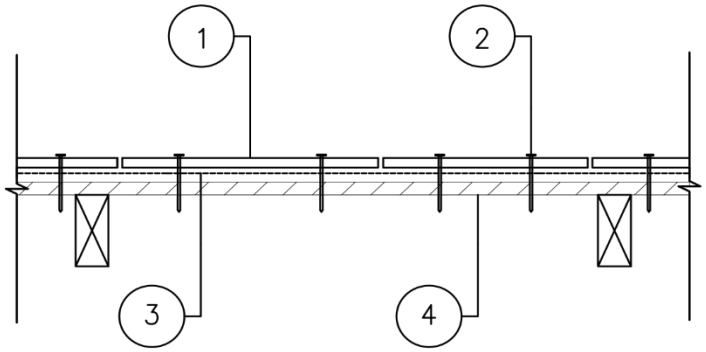

DAVINCI ROOF COVERING ASSEMBLY EXTERIOR TO INTERIOR	
1	DAVINCI ROOF COVERING
2	ROOFING FASTENERS PER EVALUATION REPORT, TO CODE [1]
3	ROOFING UNDERLAYMENT PER EVALUATION REPORT, TO CODE[1]
4	SHEATHING PER EVALUATION REPORT, TO CODE[1]
NOTE 1: SPECIFICATIONS PER BOCA ENGINEERINGEVALUATION REPORT 0064-32	

C/3 DAVINCI ROOFING ON WOOD SHEATHING
SECTION VIEW | NOT-TO-SCALE

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CLIENT	PROJECT	TITLE
WESTLAKE DAVINCI ROOFSCAPES, LLC	DAVINCI SHAKE AND SLATE ROOFING	TYPICAL ROOFING SECTIONS

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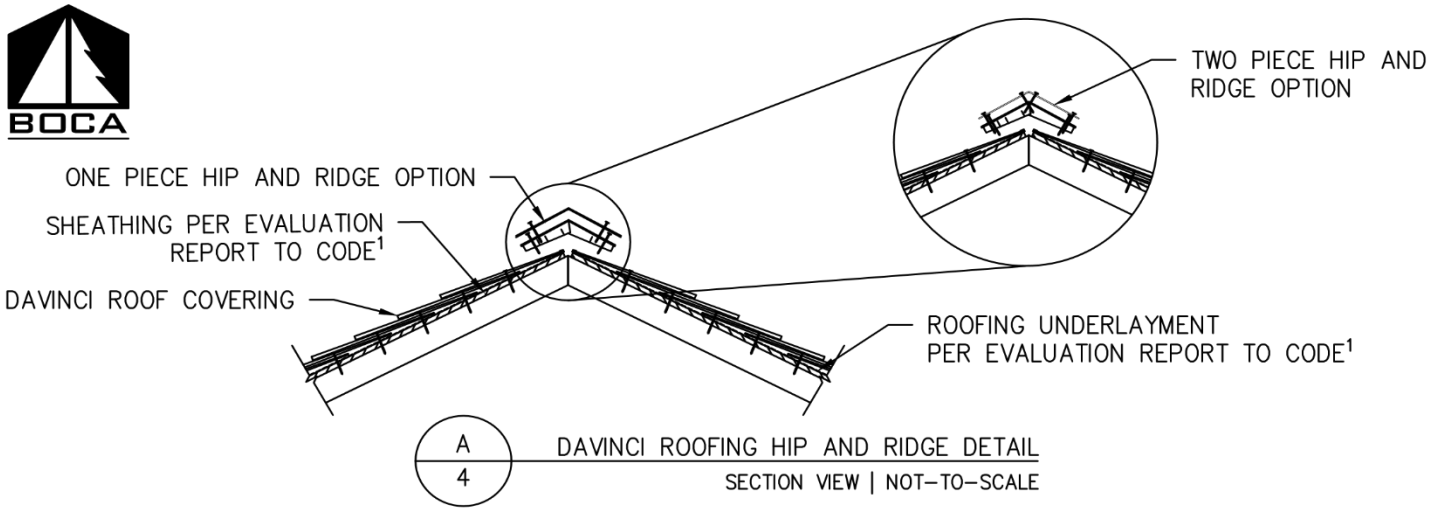

A/4 DAVINCI ROOFING HIP AND RIDGE DETAIL
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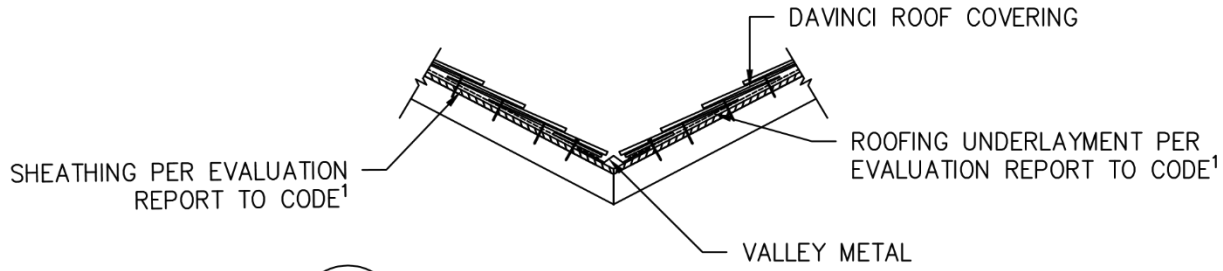

B/4 DAVINCI ROOFING VALLEY DETAIL
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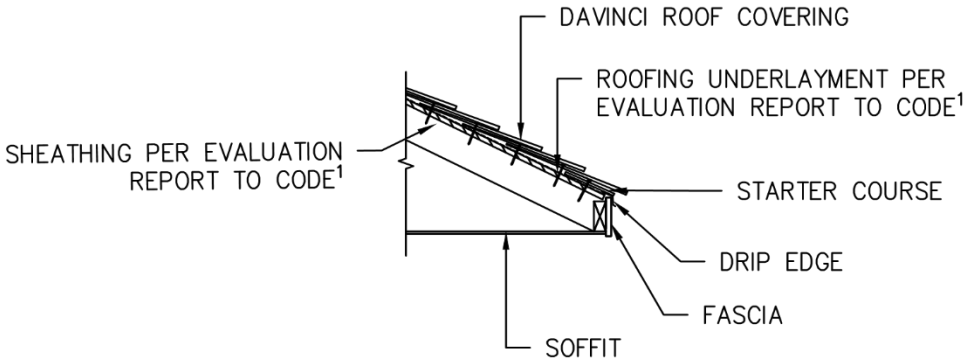

C/4 DAVINCI ROOFING EAVE DETAIL
SECTION VIEW | NOT-TO-SCALE

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CLIENT: WESTLAKE DAVINCI ROOFSCAPES, LLC	PROJECT: DAVINCI SHAKE AND SLATE ROOFING	TITLE: TYPICAL HIP, RIDGE, VALLEY AND EAVE INSTALLATION DETAILS			

1. DRAWING FOR ENGINEERING EVALUATION REPORT: 0064-32-1-5944

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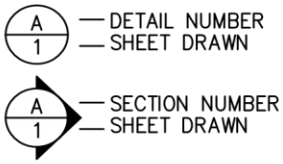
DESIGN LOADS	
LIVE	SEE EVALUATION REPORT[1]
SNOW	
WIND	
SEISMIC	
TEMPERATURE	

LEGEND AND SYMBOLS



ABBREVIATIONS

CONT	CONTINUOUS	O.C.	ON CENTER
EA	EACH	P.T.	PRESSURE TREATED
E/W	EACH WAY	S.G.	SPECIFIC GRAVITY
EXT.	EXTERIOR	SPEC.	SPECIFICATION
INT.	INTERIOR	NO.	TYPICAL
MAX	MAXIMUM	U.N.O.	UNLESS NOTED OTHERWISE
MIN	MINIMUM	W/	WITH
NO.	NUMBER	TYP.	TYPICAL

TESTING AND CODE COMPLIANCE

1. THE ROOFING PRODUCT ASSEMBLY SHOWN IS DESIGNED TO COMPLY WITH THE 2025 NATIONAL BUILDING CODE OF CANADA (NBCC)
2. THE STRUCTURAL FRAMING AND SHEATHING SHALL BE DESIGNED AND ANCHORED TO PROVIDE LATERAL BRACING TO NOT EXCEED DEFLECTION LIMITS, 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 NOW SHOWN AND DO NOT IMPACT STRENGTH FOR ATTACHMENT. TO BE INSTALLED PER CODE AND MAY INCLUDE: FLASHING, INTERIOR INSULATION, INTERIOR FINISH

INSTALLATION

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 JOB ENGINEER OR ARCHITECT PREPARED SITE-SPECIFIC DOCUMENTS SHALL BE USED.

MATERIAL STANDARDS

SHEATHING

1. WOOD-BASED STRUCTURAL SHEATHING:
   - 1.1. PLYWOOD – CSA O325 U.N.O.
   - 1.2. OSB – CSA O437 U.N.O.

FASTENERS

1. NAILS TO CONFORM TO ASTM F1667.
2. SCREWS TO CONFORM TO ASME B18.6.1
3. ALL FASTENERS WITH CORROSION-RESISTANT GALVANIZED COATING.

HIP & RIDGE

INSPIRE CLASSIC SLATE:

ONE PIECE: INSPIRE CLASSIC SLATE ONE-PIECE HIP AND RIDGE TILES ARE INSTALLED AT A 6 TO 7.5-INCH (152 TO 191-mm) EXPOSURE. EACH TILE WILL BE FASTENED WITH (2) NAILS LOCATED IN THE DESIGNATED NAIL TARGET AREAS. HIP AND RIDGE TILES MUST BE SECURED WITH THE SAME TYPE AND NUMBER OF FASTENERS AS THE FIELD TILES.

ALL OTHER DAVINCI ROOFING:

ONE PIECE: TILE SHOULD BE INSTALLED AT 12" EXPOSURE. TILE SHOULD BE NAILED ONCE ON EACH SIDE ABOUT ¾" FROM OUTSIDE EDGE WITH APPROVED FASTENER LONG ENOUGH TO PENETRATE THROUGH ROOF DECK AND EXCEED IT BY 3/16". HIP AND RIDGE SHOULD BE NAILED APPROXIMATELY 12½" FROM BUFF OF TILE AND ½" TO ¾" FROM OUTSIDE EDGE.

TWO PIECE: BOTTOM PIECE OF HIP AND RIDGE SHOULD BE CUT SO TIP DOES NOT EXTEND PAST THE BUTT OF SECOND COURSE. ROOFING THAT MAKES UP A HIP AND RIDGE UNIT SHOULD BE 6" SHAKES OR 7" SLATES AND INSTALLED WITH A TEN-INCH EXPOSURE. USING A CHALK LINE TO ASSURE STRAIGHTNESS, HIP AND RIDGE SHOULD BE INSTALLED ONE PIECE AT A TIME SO THAT THE BUTTS OF TWO SHINGLES ARE ADJACENT AND THE INSIDE EDGES TOUCH.

VALLEYS

A FULL SHEET OF ASTM D1970 SELF-ADHERING UNDERLAYMENT SHOULD BE CENTERED IN VALLEY WITH MINIMUM 16" WIDE, 28 GAUGE VALLEY METAL NAILED AT 4" O.C. AND 1" FROM EDGE OF METAL. AN 18" STRIP OF ASTM D1970 SELF-ADHERING UNDERLAYMENT SHOULD BE PLACED OVER THE OF THE VALLEY METAL.

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CLIENT	PROJECT	TITLE
WESTLAKE DAVINCI ROOFSCAPES, LLC	DAVINCI SHAKE AND SLATE ROOFING	DAVINCI ROOFING GENERAL NOTES

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APPENDIX E: DISCUSSION OF ALTERNATIVE SOLUTIONS

Acceptable Solutions

Once the material properties of DaVinci roofing have been established, design to prescribed performance criteria in the Code can be conducted. From the perspective of meeting the requisite acceptable solutions of the in-use performance required by the Code for roof covering materials, much of this design evaluation fits the acceptable solution methodology of Part 3/4/5 and of Part 9, where the specific Code performance requirements are shown to meet the code as-written.

Alternative Solutions – Polymeric Based Roof Coverings

The polymer composite material based shingle-style roof coverings do not fit within a code-referenced material standard specification. An alternative solution design evaluation method is applied in accordance with 2025 NBCC Div A 1.2.1.1.(1)(b) to assesses if the material, as installed, can satisfy the minimum level of performance required by the Code.

Roof covering materials that are used for the same purpose as the DaVinci products that are acceptable solutions with code-referenced materials standards are listed in NBCC Articles 5.9.1.1 and 9.26.2.1. The alternative solution considers the closest standards to compare the DaVinci products to are CSA A123.5-16 "*Asphalt Shingles made from glass felt and surfaced with mineral granules",* and ASTM D6878-21, "*Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing*", etc. However, the list of referenced standards is not exhaustive and permits flexibility, Article A-5.9.1.1(1) states that "*As long as the selected material meets the performance requirements stated elsewhere in Part 5, the material may be used to serve the required function*". It could be argued that Part 5 permits an engineered solution to Article 5.9.1.1 prescriptively, and therefore engineered compliance to Part 5 becomes an acceptable solution. It is regarded as prudent to carry forth with the alternative solution to Part 9.26.2.1

Upon reviewing the above-mentioned standards, the physical and testing requirements are generally in common with the purpose of demonstrating the roofing material of having sufficient properties to serve the intended purpose of an exterior layer environmental separator, namely the standards test the material for: dimensional stability, breaking strength and elongation, resistance to water transmission, fastener pull-through, and resistance to accelerated weathering (heat aging, hot-cold cycling, UV and ozone). These known material properties requirements are combined with the performance requirements in NBCC Article 5.1.4 *Resistance to Loads and Deterioration* for the complete assessment of alternative solution.

Although no specific testing requirements for plastic roof shingles are referenced in NBCC, appropriate standards published by organizations, i.e. ASTM International, UL Standards & Engagement, that are accredited by Standards Council of Canada have been used to complete the alternative solutions testing.

The standard TAS 110 – *Testing Requirements for Physical Properties of Roof Membranes, Insulation, Coatings and Other Roofing Components,* cited in 2026 Florida Building Code (FBC) covers non-rigid plastic roof tiles/shingles and provides for a prescriptive material specification pathway for compliance to the 2026 FBC. It is convincing when conducting an alternative solution study to view solutions for the application found in neighbouring building code compliance jurisdictions. South Florida is known to have a severe weathering environment imparted on to roof covering materials and compliance to codes in that region helps support this case. The FBC standard TAS100 is referenced in the *National Research Council Canada (NRC) – Test Procedure for the Wind Resistance of Asphalt Shingle Roofing Systems for Canadian Climate Conditions* as a commonly used and acceptable test method.

DaVinci roof coverings have been tested to an extended range of physical and performance properties and are proven to meet the requirements in the referenced standards and criteria, as summarized in Table D1. Based on the extensive database of testing performed on DaVinci roofing system, the applicable objectives and functional statements from NBCC Div B Part 5, Part 9 taken from the referenced Div B acceptable solutions, that DaVinci roof coverings have been verified to satisfy are:

- Material/Physical properties
- Physical integrity over exposure to accelerated weathering
- Tensile and flexural strength before and after accelerated weathering/heat aging
- Roof assembly wind performance (wind resistance, wind uplift resistance)
- Roof assembly wind driven rain resistance, water infiltration resistance
- Roof assembly impact resistance
- Fire Classification
- Fire/flammability material properties

Table E 1. Physical/Performance requirements met by DaVinci Roof Coverings

Physical/Performance Requirement	Test Requirement	Tested
Physical	Density	ASTM D792
	Water Absorption	ASTM D570
	Ozone Resistance	ASTM D1149
	Hardness	ASTM D2583
	High-pressure oxidative induction time (HP-OIT)	ASTM D5885
	Outdoor Exposure Xenon Arc[1]	ASTM G155
	Tensile Test[1]	ASTM D638
	Flexural Test[2]	ASTM D790
Performance	Wind Driven Rain Resistance[1]	TAS 100
	Wind Uplift Performance[1]	TAS125 – UL580
	Impact Resistance	UL 2218
	Acid Rain	RILEM TC 127/MS
	Dynamic Impact	CGSB 37-GP-56M
	Traffic Load	ASTM E661
	Nail pull-through	ASTM D1037
Fire	Self Ignition[1]	ASTM D1929
	Smoke Density Rating[1]	ASTM E84, ASTM 2843
	Rate of Burning[1]	ASTM D635
	Fire classification[3]	CAN/ULC S107

1. Test requirement and test standard is referenced in TAS110.
2. Flexural test requirement in TAS110 referred to ASTM C158, DaVinci roof coverings are tested to ASTM D790.
3. Fire classification requirement and CAN/ULC S107 is directly referenced in NBCC.

APPENDIX F: DISCUSSION OF LIMIT STATES DESIGN PROCEDURE

Load Combinations, Load and Resistance Factors, Test Factors

Design of configured structural systems by strength testing of assemblies with a test load (safety) factor in limit states design necessitates the computation of a test load factor for the respective stress and failure type due to the various loading types of roof shingles. Deflection limits are measured at the service-level load combinations. In roofing system ultimate pressure tests of mechanically fastened roof coverings, members are typically stressed to ultimate states in bending, fastener withdrawal or pull-through, depending on the placement of the test load with respect to the connection/support of the member.

Test Load Factors are computed by:

$$\text{Test Load Factor} = \frac{Combined\ Ultimate\ Load\ Factor}{Resistance\ Factor}$$

With load combinations, the combined load factor is equal to:

$$\text{Combined Ultimate Load Factor} = \frac{Total\ Combined\ Ultimate\ (Factored)\ Load}{Total\ Combined\ Service\ Load}$$

The test load becomes:

$$\text{Test Load} = (\text{Test Load Factor}) \times (\text{Total Combined Service Load})$$

In 2025 NBCC Article 4.1.3, the wind load combination factor for Ultimate Limit States and Serviceability design is 1.0, while the importance factor I_w for wind load is 1.0 for ULS design and 0.6 for SLS design (Article 4.1.7.3), the combined load factor is 1.0/0.6 = 1.67. Similarly, in ASCE/SEI-7-22, a load factor of 1.0 for strength design and a factor of 0.6 for allowable stress design is applied to wind loads.

The resistance factor is taken from the materials standard for the respective failure type. As DaVinci roof shingles are made of proprietary composite material, and wind load on roof cladding is typically taken as acting as an isolated and independent force on the cladding component and its attachment into framing, there is no published resistance factor for the systematic behavior. In this evaluation report, a resistance factor of 0.8 is taken as the consideration of shingle bending, tearing, nail pull-through and nail withdrawal failure modes.

In addition, the calculation of maximum design pressure in Appendices C1-C6 uses an importance factor of 1.0 instead of 0.6, this results in additional conservative design pressure (by factor of 1.67) for the serviceability design.

Summarized in Table F.1, the appropriate system test load factor of 2.0 is used in this evaluation report to the service-level design loads.

Table F. 1. Load and Resistance Factors and Test Load Factor

2025 NBCC			**ASCE 7-22**	
Load Factor	Ultimate Limit State	Serviceability	LRFD	ASD
	1.0W	0.6W	1.0W	0.6W
Combined Load factor	1.67		1.67	
Resistance Factor	0.8		0.8	
Test Load (Safety) Factor	2.0		2.0	

2025 NBCC Wind Load Factors in Comparison to 2020 NBCC and Provincial Codes

The 2025 Wind Load Factors have been changed from the 2020 and earlier editions of the Code and are now more in line the ASCE 7 standard.

Provincial codes (BC, Alberta, Ontario) are currently still based on the 2020 NBCC.

The most notable difference in the 2025 NBCC is that the reference wind velocity pressure q is the $q_{1/500}$ value rather than the $q_{1/50}$ value as is used in the 2020 NBCC and earlier editions. As well, the SLS factor has reduced to 0.6 from 0.75.

Upon inspection of the $q_{1/500}$ and $q_{1/50}$ values as published in Appendix C of the NBCC, it is observed that the $q_{1/500}$ values are approximately 1.4 times higher than the $q_{1/50}$ values (e.g. West Vancouver $q_{1/500}$ 0.75 / $q_{1/50}$ 0.53 = 1.4). The resulting conclusions of ultimate wind pressure design in accordance with Article 4.1.7.3 in the 2025 NBCC vs. the 2020 NBCC remains relatively unchanged. Because of this, the wind pressure design values published in this report are acceptable for use in all the Code editions as referred to in the scope.

APPENDIX G: NATIONAL TO PROVINCIAL CODE CROSS-REFERENCES

Table G 1. British Columbia: 2024 BCBC to NBCC Cross-referenced Sections

NBCC Div.B Section	BCBC Div.B Section	Description	BCBC Referenced Standard or Code Section[1]	Year	BCBC Comparison to NBCC
Part 3, 4, 5					
3.1.5.3.(1)	3.1.5.3.(1)	Combustible Roofing Materials	Article 3.1.15	-	Article content same as NBCC
3.1.12	3.1.12	Flame-Spread Rating and Smoke Developed Classification	CAN/ULC-S102	2018	Article content same as NBCC
3.1.15.1.(1)	3.1.15.1.(1)	Roof Covering Classification	CAN/ULC-S107	2019	Article content same as NBCC
3.1.15.2.(1)	3.1.15.2.(1)	Roof Coverings	Article 3.1.15.1	-	Article content same as NBCC
4.1.7.1.(5)(a)	4.1.7.1.(5)(a)	Specified Wind Load	Article 4.1.7.3	-	Article content same as NBCC, reference $q_{1/50}$ wind pressure
5.1.4.1	5.1.4.1	Resistance to Structural and Environmental Loads	Article 5.2.1 Article 5.2.2	-	Article content same as NBCC
5.1.4.2	5.1.4.2	Resistance to Deterioration	-	-	Article content same as NBCC
5.2.1.1	5.2.1.1	Exterior Environmental Loads	Article 1.1.3	-	Article content same as NBCC
5.2.1.3.(3)	5.2.1.3.(3)	Environmental (Wind) Load and Transfer Calculations	Article 4.1.7	-	Article content same as NBCC
5.2.2.2.(4)	5.2.2.2.(4)	Determination of Wind Load	CAN/CSA-A123.21	2020	Article content same as NBCC
5.6.1.1.(1)	5.6.1.1.(1)	Required Protection from Precipitation	-	-	Article content same as NBCC
Part 9					
9.4.1.1.(1)(c)	9.4.1.1.(1)(c)	Structural Design Requirements and Application Limitations	Part 4	-	Article content same as NBCC
9.10.3.2	9.10.3.2	Flame-Spread Ratings	Part 3	-	Article content same as NBCC
9.26.1.2	9.26.1.2	Required Protection	Part 5	-	Article content same as NBCC
9.26.2.1.(2)	9.26.2.1.(2)	Roofing Materials	-	-	Article content same as NBCC
9.26.2.2	9.26.2.2	Installation of Materials	-	-	Article content same as NBCC
9.26.2.3	9.26.2.3	Nails	-	-	Article content same as NBCC
9.26.3.1	9.26.3.1	Slope	-	-	Article content same as NBCC
9.26.4	9.26.4	Flashing at Intersections	-	-	Article content same as NBCC
9.26.6	9.26.6	Underlay beneath Shingles	-	-	Article content same as NBCC

1. Only the applicable reference standards and code sections in the main body text are listed. (-) indicates the main body text covers the full explanation of the objective.

Table G 2. Ontario: 2024 OBC to NBCC Cross-referenced Sections

NBCC Div.B Section	OBC Div.B Section	Description	OBC Referenced Standard or Code Section[1]	Year	OBC Comparison to NBCC
Part 3, 4, 5					

3.1.5.3.(1)	3.1.5.3.(1)	Combustible Roofing Materials	Article 3.1.15	-	Article content same as NBCC
3.1.12	3.1.12	Flame-Spread Rating and Smoke Developed Classification	CAN/ULC-S102	2018	Article content same as NBCC
3.1.15.1.(1)	3.1.15.1.(1)	Roof Covering Classification	CAN/ULC-S107	2019	Article content same as NBCC
3.1.15.2.(1)	3.1.15.2.(1)	Roof Coverings	Article 3.1.15.1	-	Article content same as NBCC
4.1.7.1.(5)(a)	4.1.7.1.(5)(a)	Specified Wind Load	Article 4.1.7.3	-	Article content same as NBCC, reference $q_{1/50}$ wind pressure
5.1.4.1	5.1.4.1	Resistance to Structural and Environmental Loads	Article 5.2.1 Article 5.2.2	-	Article content same as NBCC
5.1.4.2	5.1.4.2	Resistance to Deterioration	-	-	Article content same as NBCC
5.2.1.1	5.2.1.1	Exterior Environmental Loads	MMAH Supplementary Standard SB-1	-	Article content same as NBCC, reference to different Standard for climate data[2]
5.2.1.3.(3)	5.2.1.3.(3)	Environmental (Wind) Load and Transfer Calculations	Article 4.1.7	-	Article content same as NBCC
5.2.2.2.(4)	5.2.2.2.(4)	Determination of Wind Load	CAN/CSA-A123.21	2014	Article content same as NBCC, Referenced standard year differs
5.6.1.1.(1)	5.6.1.1.(1)	Required Protection from Precipitation	-	-	Article content same as NBCC
Part 9					
9.4.1.1.(1)(c)	9.4.1.1.(1)(c)	Structural Design Requirements and Application Limitations	Part 4	-	Article content same as NBCC
9.10.3.2	9.10.3.2	Flame-Spread Ratings	Part 3	-	Article content same as NBCC
9.26.1.2	9.26.1.2	Required Protection	Part 5	-	Article content same as NBCC
9.26.2.1.(2)	9.26.2.1.(2)	Roofing Materials	-	-	Article content same as NBCC
9.26.2.2	9.26.2.2	Installation of Materials	-	-	Article content same as NBCC
9.26.2.3	9.26.2.3	Nails	-	-	Article content same as NBCC
9.26.3.1	9.26.3.1	Slope	-	-	Article content same as NBCC
9.26.4	9.26.4	Flashing at Intersections	-	-	Article content same as NBCC
9.26.6	9.26.6	Underlay beneath Shingles	-	-	Article content same as NBCC

1. Only the applicable reference standards and code sections in the main body text are listed. (-) indicates the main body text covers the full explanation of the objective.
2. Climate Design Data in *Table 2* MMAH OBC contains different factors compared to *Table C-2* 2025 NBCC. For example, 1/50 Hourly Wind Pressure: Mississauga (0.48kPa in NBCC, 0.44kPa in OBC); Ottawa (0.45kPa in NBCC, 0.41kPa in OBC); Toronto (City Hall) (0.48kPa in NBCC, 0.44kPa in OBC).

Table G 3. Alberta: 2023 NBC (AE) to NBCC Cross-referenced Sections

NBCC Div.B Section	NBC (AE) Div.B Section	Description	NBC (AE) Referenced Standard or Code Section[1]	Year	NBC (AE) Comparison to NBCC
Part 3, 4, 5					
3.1.5.3.(1)	3.1.5.3.(1)	Combustible Roofing Materials	Article 3.1.15	-	Article content same as NBCC
3.1.12	3.1.12	Flame-Spread Rating and Smoke Developed Classification	CAN/ULC-S102	2018	Article content same as NBCC

3.1.15.1.(1)	3.1.15.1.(1)	Roof Covering Classification	CAN/ULC-S107	2019	Article content same as NBCC
3.1.15.2.(1)	3.1.15.2.(1)	Roof Coverings	Article 3.1.15.1	-	Article content same as NBCC
4.1.7.1.(5)(a)	4.1.7.1.(5)(a)	Specified Wind Load	Article 4.1.7.3	-	Article content same as NBCC, reference $q_{1/50}$ wind pressure
5.1.4.1	5.1.4.1	Resistance to Structural and Environmental Loads	Article 5.2.1 Article 5.2.2	-	Article content same as NBCC
5.1.4.2	5.1.4.2	Resistance to Deterioration	-	-	Article content same as NBCC
5.2.1.1	5.2.1.1	Exterior Environmental Loads	Article 1.1.3	-	Article content same as NBCC
5.2.1.3.(3)	5.2.1.3.(3)	Environmental (Wind) Load and Transfer Calculations	Article 4.1.7	-	Article content same as NBCC
5.2.2.2.(4)	5.2.2.2.(4)	Determination of Wind Load	CAN/CSA-A123.21	2014	Article content same as NBCC, Referenced standard year differs
5.6.1.1.(1)	5.6.1.1.(1)	Required Protection from Precipitation	-	-	Article content same as NBCC
Part 9					
9.4.1.1.(1)(c)	9.4.1.1.(1)(c)	Structural Design Requirements and Application Limitations	Part 4	-	Article content same as NBCC
9.10.3.2	9.10.3.2	Flame-Spread Ratings	Part 3	-	Article content same as NBCC
9.26.1.2	9.26.1.2	Required Protection	Part 5	-	Article content same as NBCC
9.26.2.1.(2)	9.26.2.1.(2)	Roofing Materials	-	-	Article content same as NBCC
9.26.2.2	9.26.2.2	Installation of Materials	-	-	Article content same as NBCC
9.26.2.3	9.26.2.3	Nails	-	-	Article content same as NBCC
9.26.3.1	9.26.3.1	Slope	-	-	Article content same as NBCC
9.26.4	9.26.4	Flashing at Intersections	-	-	Article content same as NBCC, additional section on Roof Penetrations
9.26.6	9.26.6	Underlay beneath Shingles	-	-	Article content same as NBCC

1. Only the applicable reference standards and code sections in the main body text are listed. (-) indicates the main body text covers the full explanation of the objective.