



FLORIDA BUILDING CODE ENGINEERING EVALUATION REPORT

Date	Sept 22, 2020
File No.	0064-22-2
For	Davinci Roofscapes, LLC
Address	13890 W 101 St, Lenexa, KS 66215

Subject

Davinci Handsplit Shake Siding

Evaluation Scope

This report is provided to assist registered design professionals and building officials in the United States for 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 46 33 Plastic Siding

FBC CATEGORY: Panel Walls
SUB-CATEGORY: Siding

CODE SECTIONS AND STANDARDS:

<u>FBC Section</u>	<u>Description</u>	<u>Referenced Standard or Code Section¹</u>	<u>Year</u>
1403.2	Weather Protection	ASTM E331	2009
1403.3	Structural	FBC Ch 16	2020
1404.12	Polypropylene Siding	ASTM D7254	2017
1404.12.1	Flame Spread Index	ASTM E84	2016
1405.1	Installation of Wall Coverings, General (HVHZ)	TAS 202, 203	1994
1405.18	Polypropylene Siding	FBC Ch 16	2020
1609.1.1	Determination of Wind Loads	ASCE 7	2016
1609.1.3	Testing to Allowable or Nominal Loads	ASCE 7	2016
1625.2	Load Tests, Testing Method (HVHZ)	TAS 202	1994
1625.4	Fatigue Load Testing (HVHZ)	TAS 203	1994
1626.4	Construction Assemblies Deemed to Comply with Section 1626 (HVHZ)	FBC Ch 22, 23	2020
1709.2	Load Test Procedures Specified	ASTM D7254	2017
2606.4	Burning Rate	ASTM D635	2014
2606.4	Self-Ignition Temperature	ASTM D1929	2016
2606.4	Smoke Density	ASTM E84	2016
2615.2	Weathering (HVHZ)	ASTM G155	2013
2615.2	Tensile Strength after Weathering (HVHZ)	ASTM D638	2003



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<u>FBC-R Section</u>	<u>Description</u>	<u>Referenced Standard or Code Section¹</u>	<u>Year</u>
R703.1.1	Water Resistance	ASTM E331	2009
R703.1.2	Wind Resistance	ASTM E330	2014
R703.1.2	Wind Resistance	Tables R301.2(2) & R301.2(3)	2020
Table R703.3(1)	Siding Minimum Attachment and Minimum Thickness	R703.14.1	2020
R703.14	Polypropylene Siding	ASTM D7254	2017
703.14.3	Flame Spread Index	ASTM E84	2016
R4401.1	High Velocity Hurricane Zone – Exterior Wall Coverings (HVHZ)	FBC Ch 14	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.

Compliance Statement: Davinci Handsplit Shake Siding, installed as described in this report, has demonstrated compliance with the listed sections of the 2020 Florida Building Code (FBC) and Residential Code (FBC-R), inclusive of the requirements for High Velocity Hurricane Zone (HVHZ), in accordance with the code-referenced Standards. Design and performance information can be found in Section 2 of this report.

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

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

2020-09-22

Date



Evaluation

1.0 PRODUCT DESCRIPTION:

Davinci Handsplit Shake Siding is manufactured by injection molding of a polymer blend in to individual shakes. The shakes are 8 or 10 inches wide by 18 inches long, thickness at head end is 0.3125 inches and at the butt end 0.625 inches, and each weigh 680g or 850g. Shakes are nailed to wood sheathing or straps of exterior wall construction in overlapping courses with an exposed face of 6, 7 or 8 inches, and serve as exterior wall cladding.

2.0 TECHNICAL EVALUATION:

2.1 INSTALLATION

- 2.1.1 Davinci Handsplit Shake Siding shall be installed in accordance with the Florida Building Code and this report, subject to the Limitations in Section 3.
- 2.1.2 Wall framing construction and water resistive barrier 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 attachment 1 of this report, Tables 1 and 2 and assembly diagrams.



2.2 CODE SECTIONS REVIEW:

<u>FBC Section</u>	<u>Description</u>
1403.2	Weather Protection A representative wall construction assembly with Handsplit Shake siding installed on wood frame construction with a water-resistive barrier and flashing as described in this evaluation report has been tested to ASTM E331, under the conditions of FBC 1403.2 Exception 2. The tested assembly meets the criteria and conforms to this code section.
1403.3	Structural The structural design loads described in this report are in accordance with Ch 16 of the FBC.
1404.12	Polypropylene Siding Davinci Handsplit Shake Siding has been tested and certified and is labeled as conforming with ASTM D7254 by an approved quality agency, see Section 5 of this report.
1404.12.1	Flame Spread Index The ASTM E84 flame spread test report cited in Section 9 states that the test specimen ahead of the flame front remained in position during the test.
1405.1	Installation of Wall Coverings, General (HVHZ) General installation instructions comply with the provisions of this section, and HVHZ assemblies comply with TAS 202 and 203, see this report commentary to FBC 1625 & 1626.
1405.18	Polypropylene Siding Tests and calculations to FBC Ch 16 have been conducted with the siding installation details presented in this report, for allowance per FBC 1405.18 to be permitted for use in installations where basic wind speed exceeds 100 mph and building height exceeds 40 ft. See attachment 1, Tables 1 and 2, of this report.
1609.1.1	Determination of Wind Loads Wind load pressure (psf) applied to the cladding for use with the design values published in this report are determined in accordance with Chapter 30 of ASCE 7.
1609.1.3	Testing to Allowable or Nominal Loads The ASD conversion factor of tested allowable loads has been applied in accordance with this code section.
1625.2	Load Tests, Testing Method (HVHZ) The representative test assembly for HVHZ applications was tested to FBC standard TAS 202 and achieved an allowable pressure rating of 90 psf. See attachment 1, Table 1, of this report.
1625.4	Fatigue Load Testing (HVHZ) The representative test assembly for HVHZ applications was tested to FBC standard TAS 203 following the load sequencing of FBC 1625.4 and achieved an allowable pressure rating of 90



psf. See attachment 1, Table 1, of this report.

- 1626.4 Construction Assemblies Deemed to Comply with Section 1626 (HVHZ)**
Exterior wall sheathing of wall assemblies with Davinci Handsplit Shake Siding in the HVHZ is specified as minimum of 19/32-inch (15 mm) CD exposure 1 plywood with an approved water-resistant barrier, and are found to satisfy this code section and TAS 203.
- 1709.2 Load Test Procedures Specified**
The load test procedure and load factors in FBC referenced standards ASTM D7254 and ASTM E330 were used.
- 2606.4 Burning Rate**
Handsplit Shake Siding materials have been tested to ASTM D635 and qualify as a Class CC2.
- 2606.4 Self-Ignition Temperature**
Handsplit Shake Siding materials have been tested to ASTM D1929 and have a self-ignition temperature of greater than 650°F.
- 2606.4 Smoke Density**
Handsplit Shake Siding materials have been tested to ASTM E84 in the manner intended for use and found to have a smoke density of less than 450.
- 2615.2 Weathering (HVHZ)**
Handsplit Shake Siding materials 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, Handsplit Shake Siding material tested to ASTM D638 loss of tensile strength yield does not exceed 10%.
- FBC-R Section Description**
- R703.1.1 Water Resistance**
Same as this report commentary to FBC 1403.2.
- R703.1.2 Wind Resistance**
The load test procedure and load factors in FBC referenced standards ASTM D7254 and ASTM E330 were used to determine allowable wind pressure.
- R703.1.2 Wind Resistance**
Allowable wind pressure values published in this report may be used with Tables R301.2(2) and R301.2(3) for walls using an effective wind area of 10 square feet.
- Table R703.3(1) Siding Minimum Attachment and Minimum Thickness**
Directs to FBC R703.14 and manufacturer's testing reports for details of attachment.



- R703.14 Polypropylene Siding**
Same as this report commentary to FBC 1404.12.
- 703.14.3 Flame Spread Index**
Same as this report commentary to FBC 1404.12.1.
- R4401.1 High Velocity Hurricane Zone – Exterior Wall Coverings (HVHZ)**
Refers user to FBC Ch 14. See this report commentary to FBC 1405.1.
- R4412.1 Plastics (HVHZ)**
Refers user to FBC Ch 26. See this report commentary to applicable FBC Ch 26 sections.

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 Wall assemblies with Davinci Handsplit Shake siding, to achieve the wall assembly performance standards as stated in this report, must be constructed with the components of water-resistive barrier per FBC 1404.2 or R703.2, and flashing per FBC 1405.4 or R703.4.
Water-resistive barrier is not required for exterior concrete or masonry wall construction.
- 3.4 Handsplit Shake siding used in light-framed wall construction, non-HVHZ, shall be installed over and attached to wood structural panel sheathing with minimum thickness of 7/16 inch.
- 3.4 Handsplit Shake siding used in light-framed wall construction, HVHZ, shall be installed over minimum 19/32-inch (15 mm) CD exposure 1 plywood, and framing shall be in accordance with the HVHZ sections of FBC Ch 22 or 23.
- 3.5 Where wall construction is concrete or masonry, siding shall be nailed to wood straps that are securely fastened to the solid wall to transfer all loads back to the primary structure.
- 3.6 Scope of evaluation does not include siding applications where interior or exterior wall Fire Resistance rating is required.
- 3.7 Installations are limited to Type VB construction, in accordance with FBC 1405.18.
- 3.8 In accordance with FBC 1404.12.2, the fire separation distance between a building with Handsplit Shake siding and the adjacent building shall be not less than 10 feet, for applications under the FBC.
- 3.9 In accordance with FBC R703.14.2, Handsplit Shake siding shall not be installed on walls with a fire separation distance of less than 5 feet (1524 mm) and walls closer than 10 feet (3048 mm) to a building on another lot, for applications under the FBC-Residential.
- 3.10 Clearance between exterior wall coverings and final earth grade on the exterior of a building shall not be less than 6 inches, in accordance with FBC 1403.8.

4.0 FIRE CLASSIFICATION:

Summary of fire performance classifications found by testing to code referenced standards:

ASTM E84: Flame Spread Index (FSI): < 200, Smoke Developed Index (SDI): < 450, Class C

ASTM D635: Burning Rate: < 2.5 in/min, Class CC2

ASTM D1929: Self-Ignition Temperature: > 650 °F



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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, Inc.

6.0 MANUFACTURING PLANTS:

Lenexa, KS

7.0 LABELING:

Labeling shall be in accordance with the requirements of the 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:

<u>Entity</u>	<u>Entity Accreditation</u> ¹	<u>Standards</u>	<u>Report No.</u>	<u>Issued Date</u>
Intertek	IAS TL-274	ASTM E331	104048986COQ-001	2020-02-10
QAI	IAS TL-220	ASTM D7254	RJ6566P-5	2019-05-17
QAI	IAS TL-220	ASTM E84	RJ6566F-1	2018-10-09
QAI	IAS TL-220	TAS 202	RJ6566P-7	2019-10-28
QAI	IAS TL-220	TAS 203	RJ6566P-7	2019-10-28
Intertek	IAS TL-274	ASTM E330	104048986COQ-003(A-E)	2020-02-12
Intertek	IAS TL-274	ASTM D5206	104048986COQ-003(F-J)	2020-02-21
Intertek	IAS TL-274	ASTM D635	104011548-004 RO	2019-10-16
Intertek	IAS TL-274	ASTM D1929	104011548-003 RO	2019-10-15
Intertek	IAS TL-274	ASTM G155	104011548-001	2019-08-21
PRI	IAS TL-189	ASTM D638	DRM-156-02-01	2015-12-02
QAI	IAS AA-723	Quality Assurance	B0150-2	2019-10-29

1. Testing, certification, evaluation, and inspection agencies referenced have been verified to be accredited by the International Accreditation Service (www.iasonline.org) for the applicable scope, in good standing on the date of the evaluation, in accordance with ISO 17025 and ISO 17020 international standards for testing and inspection bodies.

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.

ATTACHMENTS: 1. Wind Assembly Tables and Diagrams (6 pages)



ATTACHMENT 1: USER'S GUIDE TO DAVINCI SIDING WIND PRESSURE TABLES

The DaVinci siding wind pressures and wind speed conversion tables have been developed to assist users in determining appropriate installation details for a range of wall 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 1-15 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 1 & 2, 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: $GC_p = -1.4$, $GC_{pi} = 0.18$, $K_{zt} = 1$, $K_d = 0.85$, $K_e = 1$, $I_w = 1.0$.
- 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 5 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) Wood framing species SPF No. 2 or better. Members may be substituted with i) any larger section dimension of the same material, and/or, ii) any species/grade of 0.42 specific gravity or greater.
- 6) Steel framing dimensions 1-5/8 x 3-5/8, with minimum yield strength of 33 ksi and 18 ga (43 mil) thickness. The framing members may be substituted with i) any larger section dimension of the same material, and/or, ii) any greater yield strength and/or gauge thickness.
- 7) Plywood Sheathing: Min. 15/32, 0.42 SG, 4-ply Exposure 1, complying with NIST DOC PS 2. Plywood sheathing may be substituted with thicker profile of up to nominal 1-inch, and any specific gravity greater than 0.42.
- 8) OSB Sheathing: Min. 7/16, Exposure 1, complying with NIST DOC PS 2. OSB sheathing may be substituted with thicker profile of up to nominal 1-inch.
- 9) Gypsum sheathing must comply with ASTM C1396 and be rated by the manufacturer for exterior use; gypsum thickness may not be increased.
- 10) All fasteners are to be corrosion resistant. Nails must comply with ASTM F1667 and are to be of common or box type. Siding nail to have minimum head diameter of ¼-inch, roofing nail to have minimum diameter of 3/8-inch.
- 11) Allowable pressure (psf) (ASD) for assemblies in HVHZ determined in accordance with TAS 202 and 203.
- 12) Further assembly details provided in diagrams 0064-22-1 to 0064-22-4 are to be followed.
- 13) Wind exposure categories as defined in ASCE7-16, section 26.7.
- 14) Interpolation not permitted. For heights in between those listed, use next highest height column.
- 15) NA indicates that the installation condition is not acceptable within the design limits of the table.



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Table 1: HVHZ Maximum Wind Speeds of Wall Cladding Installed at Various Building Heights and Exposure Categories - 2020 FBC High Velocity Hurricane Zone (HVHZ)^{1,11,12}

Framing ^{5,6}	Sheathing	Fastener ¹⁰	Allowable Pressure ^{2,4} (psf)(ASD)	Exposure Category ¹³	Maximum Wind Speed V _{ult} (mph) ^{3,15}						
					Building Height (ft) ¹⁴						
					15	20	25	30	40	50	60
Nom. 2 x 4 wood stud @ 16-in o/c	5/8 D-Fir 5-ply Ext plywood	2x, 11ga 1.75-inch galv. ring-shank roofing nail	90	B	210	210	210	210	210	210	210
				C	210	210	210	210	205	200	196
				D	206	201	197	194	189	185	182

Table 2: Maximum Wind Speeds of Wall Cladding Installed at Various Building Heights and Exposure Categories - 2020 FBC Non-HVHZ^{1,12}

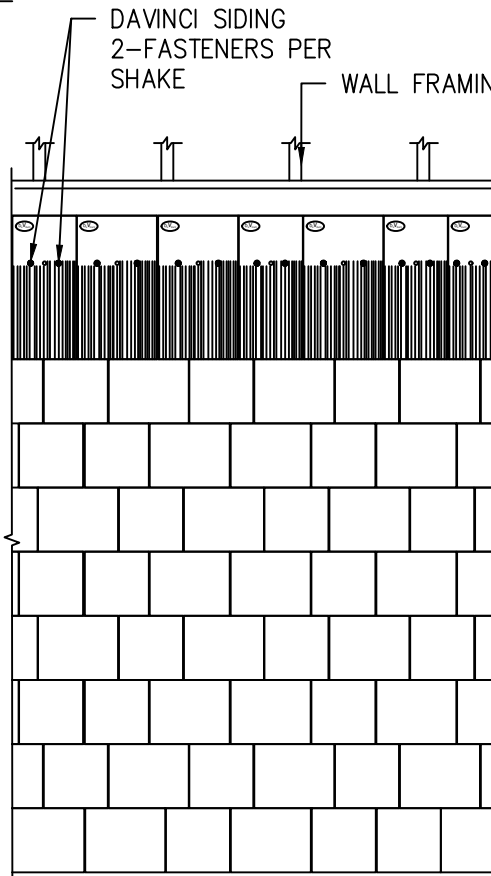
Framing ^{5,6}	Sheathing ^{7,8}	Fastener ¹⁰	Allowable Pressure ^{2,4} (psf)(ASD)	Exposure Category ¹³	Maximum Wind Speed V _{ult} (mph) ^{3,15}						
					Building Height (ft) ¹⁴						
					15	20	25	30	40	50	60
Nom. 2 x 4 wood stud or steel stud @ 16-in o/c	15/32 Plywood	2x, 5d 1.75-inch galv. siding nail	57.5	B	210	210	206	200	192	186	181
				C	181	176	172	169	164	160	158
				D	165	161	158	155	151	148	146
Nom. 2 x 4 wood stud or steel stud @ 16-in o/c	7/16 OSB	2x, 5d 1.75-inch galv. siding nail	43	B	191	183	178	173	166	160	157
				C	157	152	149	146	142	138	136
				D	142	139	136	134	131	128	126
Nom. 2 x 4 wood stud or steel stud @ 16-in o/c	15/32 Plywood	2x, 11ga 1.75-inch galv. ring-shank roofing nail	104.5	B	210	210	210	210	210	210	210
				C	210	210	210	210	210	210	210
				D	210	210	210	209	204	200	197
Nom. 2 x 4 wood stud or steel stud @ 16-in o/c	7/16 OSB	2x, 11ga 1.75-inch galv. ring-shank roofing nail	90	B	210	210	210	210	210	210	210
				C	210	210	210	210	205	200	197
				D	206	201	197	194	189	185	182
Nom. 2 x 4 wood stud or steel stud @ 16-in o/c	15/32 Plywood w/ mesh rainscreen	2x, 6d 2-inch galv. siding nail	55	B	210	207	201	195	187	181	177
				C	177	172	168	165	160	156	154
				D	161	157	154	152	148	145	143
Nom. 2 x 4 wood stud or steel stud @ 16-in o/c	7/16 OSB w/ mesh rainscreen	2x, 6d 2-inch galv. siding nail	41	B	187	179	174	169	162	157	153
				C	153	149	145	142	138	135	133
				D	139	136	133	131	128	125	123
Nom. 2 x 4 wood stud or steel stud @ 16-in o/c	7/16 OSB w/ 5/8 ext. gypsum ⁹	2x, 6d 2-inch galv. siding nail	71	B	210	210	210	210	210	206	201
				C	201	196	191	187	182	178	175
				D	183	179	175	172	168	165	162
CMU Block or Solid Concrete Wall	Nom. 1 x 3 P.T. SPF No. 2 straps	2x, 5d 1.75-inch galv. siding nail	69	B	210	210	210	210	210	203	198
				C	198	193	189	185	179	175	173
				D	180	176	173	170	166	162	160

See page 7 for User's Guide and Table Notes 1-15.

ASSEMBLY DIAGRAMS BEGIN NEXT PAGE



DAVINCI SIDING
SECTIONS AND NOTES FOR WIND LOAD RESISTANCE ASSEMBLIES



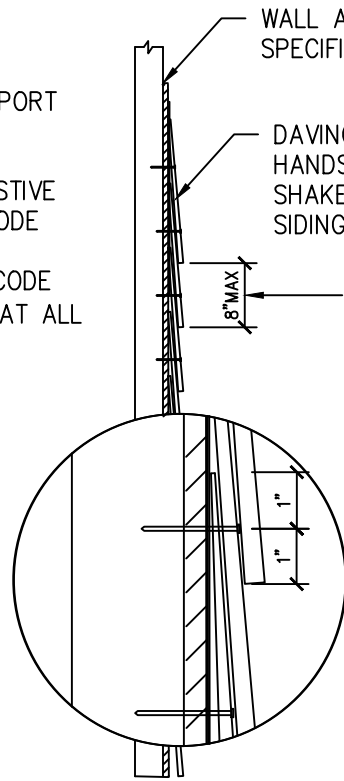
DAVINCI SIDING
 2-FASTENERS PER
 SHAKE

WALL FRAMING AS SPECIFIED

SHEATHING AS
 PRESCRIBED IN
 EVALUATION REPORT

WEATHER RESISTIVE
 BARRIER TO CODE

FLASHING TO CODE
 (NOT SHOWN) AT ALL
 PENETRATIONS



WALL ASSEMBLY AS
 SPECIFIED

DAVINCI
 HANDSPLIT
 SHAKE
 SIDING

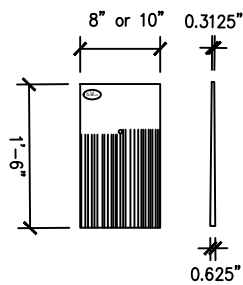
8" MAX

EXPOSURE OF
 6", 7" OR 8"

*POSITION SHINGLE
 NAILS TO PENETRATE
 THROUGH TOP OF
 SHINGLE OF COURSE
 BELOW WITH 1"
 CLEARANCE. NAIL
 MARKERS ARE FOR 6"
 EXPOSURE. ADJUST NAIL
 POSITION BELOW
 MARKERS FOR 7" AND
 8" EXPOSURE

A
 1 GENERAL SIDING INSTALLATION
 ELEVATION VIEW NOT-TO-SCALE

B
 1 SIDING INSTALLATION
 SECTION VIEW NOT-TO-SCALE



PROPERTY	HANDSPLIT SHAKE
LENGTH	18" ± 0.062"
WIDTH	8", 10" ± 0.062"
THICKNESS	HEAD END = 0.3125" BUTT END = 0.625"
WEIGHT	8" - 680 ± 50g 10" - 850 ± 50g

C
 1 HANDSPLIT SHAKE
 ELEVATION NOT-TO-SCALE

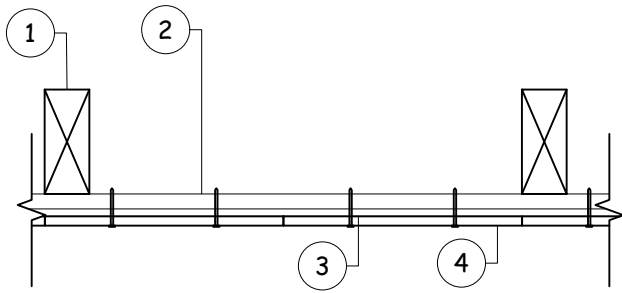
DRAWING FOR DAVINCI SIDING
 ENGINEERING EVALUATION
 REPORT - NOT FOR USE AS
 CONSTRUCTION DESIGN
 DOCUMENTS

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CLIENT: DAVINCI ROOFSCAPES, LLC	PROJECT: DAVINCI SIDING	TITLE: DAVINCI HANDSPLIT SHAKE SIDING WIND LOAD INSTALLATION DETAILS	REV 0	DATE 2020/09/21	ISSUE FOR PUBLICATION	APP CB
			DRAWING NO. 0064-22-1		DES CB	
			DATE SEPTEMBER 21, 2020		DRN LI	
					CHK CB	

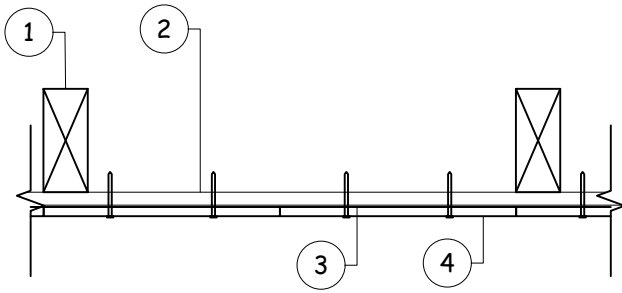


DAVINCI HANDSPLIT SHAKE SIDING
DETAILS FOR STRENGTH ATTACHMENT OF SIDING FOR WIND LOAD RESISTANCE



LIGHT-FRAMED STUD & PLYWOOD SHEATHING ASSEMBLY INTERIOR TO EXTERIOR	
1	MIN. 2x4 WOOD OR STEEL STUDS @ 16" O.C., SEE ENGINEERING EVALUATION REPORT
2	PLYWOOD SHEATHING FASTENED TO STUDS PER CODE, SEE ENGINEERING EVALUATION REPORT
3	WATER RESISTIVE BARRIER TO CODE
4	DAVINCI SIDING @ 8" EXPOSURE FASTENING PER ENGINEERING EVALUATION REPORT

A
2
HANDSPLIT SHAKES OVER STUD WALL & PLYWOOD SHEATHING
NOT-TO-SCALE



LIGHT-FRAMED STUD WALL W/OSB INSTALLATION INTERIOR TO EXTERIOR	
1	MIN. 2x4 WOOD OR STEEL STUDS @ 16" O.C., SEE ENGINEERING EVALUATION REPORT
2	OSB SHEATHING FASTENED TO STUDS PER CODE, SEE ENGINEERING EVALUATION REPORT
3	WATER RESISTIVE BARRIER TO CODE
4	DAVINCI SIDING @ 8" EXPOSURE FASTENING PER ENGINEERING EVALUATION REPORT

B
2
HANDSPLIT SHAKES OVER EXT. OSB SHEATHING
NOT-TO-SCALE

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, INTERIOR INSULATION, INTERIOR FINISH.

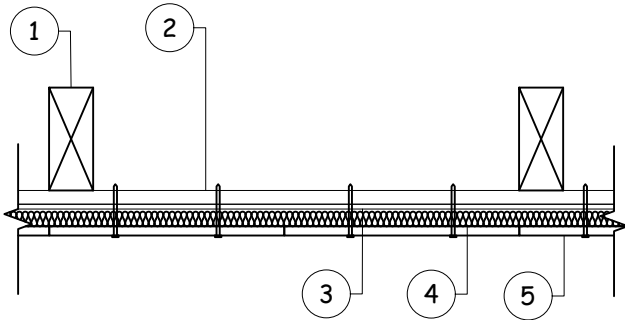
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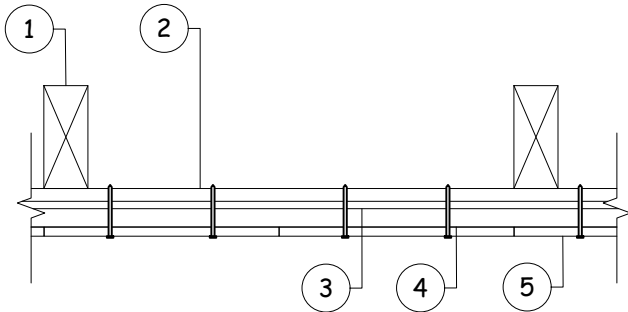


**DAVINCI HANDSPLIT SHAKE SIDING
DETAILS FOR STRENGTH ATTACHMENT OF SIDING FOR WIND LOAD RESISTANCE**



A
3
HANDSPLIT SHAKES OVER MESH RAINSCREEN
W/PLYWOOD SHEATHING NOT-TO-SCALE

EXTERIOR MESH RAINSCREEN INTALLATION INTERIOR TO EXTERIOR	
1	MIN. 2x4 WOOD OR STEEL STUDS @ 16" O.C., SEE ENGINEERING EVALUATION REPORT
2	PLYWOOD SHEATHING FASTENED TO STUDS PER CODE, SEE ENGINEERING EVALUATION REPORT
3	WATER RESISTIVE BARRIER TO CODE
4	KEENE DRIWALL 10mm MESH RAINSCREEN INSTALLED PER MANUFACTURER'S INSTRUCTIONS
5	DAVINCI SIDING @ 8" EXPOSURE FASTENING PER ENGINEERING EVALUATION REPORT



B
3
HANDSPLIT SHAKES OVER EXT. GYPSUM W/OSB
NOT-TO-SCALE

LIGHT-FRAMED STUD WALL W/GYPSUM AND OSB INSTALLATION INTERIOR TO EXTERIOR	
1	MIN. 2x4 WOOD OR STEEL STUDS @ 16" O.C., SEE ENGINEERING EVALUATION REPORT
2	OSB SHEATHING FASTENED TO STUDS PER CODE, SEE ENGINEERING EVALUATION REPORT
3	WATER RESISTIVE BARRIER TO CODE
4	EXTERIOR GYPSUM FASTENED TO STUDS PER CODE, SEE ENGINEERING EVALUATION REPORT
5	DAVINCI SIDING @ 8" EXPOSURE FASTENING PER ENGINEERING EVALUATION REPORT

NOTES:

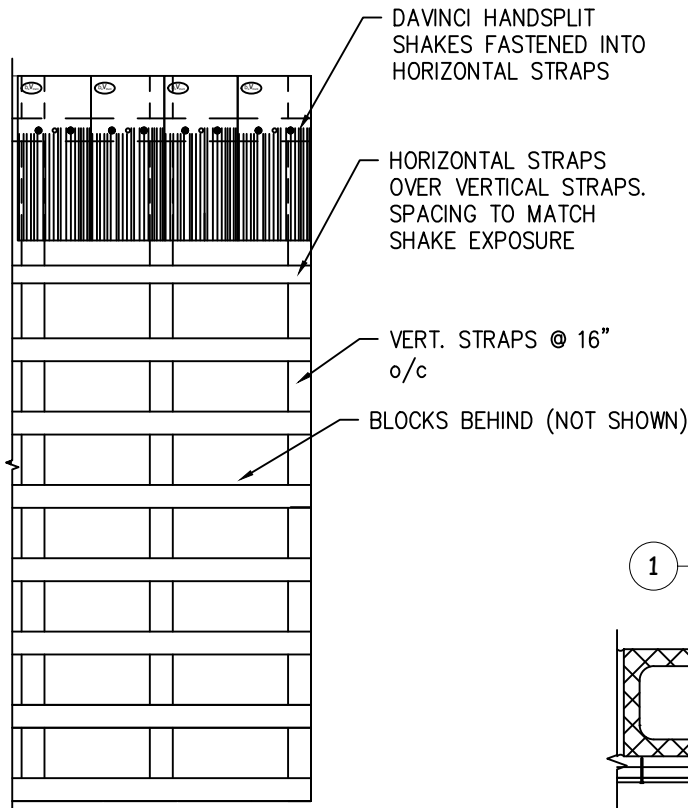
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2. THE STRUCTURAL FRAMING AND SHEATHING SHALL BE DESIGNED AND ANCHORED TO PROVIDE LATERAL BRACING AND PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. FRAMING DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
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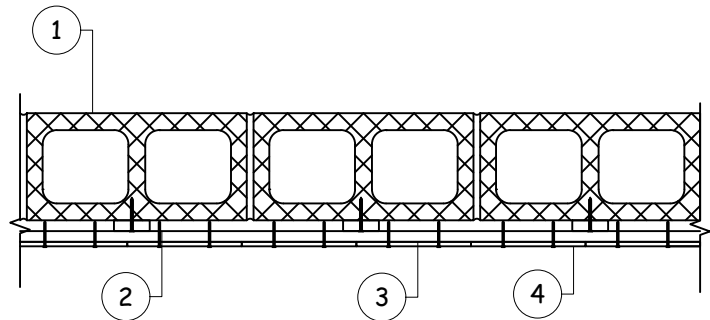
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			DATE	DRN	
			SEPTEMBER 21, 2020	LI	
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DAVINCI HANDSPLIT SHAKE SIDING DETAILS FOR STRENGTH ATTACHMENT OF SIDING FOR WIND LOAD RESISTANCE



CMU/CONCRETE WALL ASSEMBLY INTERIOR TO EXTERIOR	
1	CMU BLOCKS MIN. 1500 PSI, OR SOLID CONCRETE MIN 2500 PSI
2	VERT 1X3 P.T. SPF No.2 STRAPS @ 16" O.C. W/ $\frac{3}{16}$ " ITW TAPCON CONCRETE ANCHOR SCREWS W/MIN. $1\frac{1}{4}$ " EMBEDMENT @ 16" O.C.
3	HOR. 1X3 P.T. SPF No.2 STRAPS @ 8" O.C. W/#8 $1\frac{1}{2}$ " GALV. WOOD SCREWS INTO EVERY STRAP INTERSECTION
4	DAVINCI SIDING @ 8" EXPOSURE W/(2)- $1\frac{1}{2}$ "x $\frac{1}{4}$ " HEAD & 0.092" SHANK GALVANIZED SIDING NAILS PER SHAKE



A
4
HANDSPLIT SHAKES OVER CMU OR CONCRE WALL
ELEVATION VIEW NOT-TO-SCALE

B
4
HANDSPLIT SHAKES OVER CMU OR CONCRETE WALL
PLAN VIEW NOT-TO-SCALE

NOTES:

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