

7/18/2023

HDC-23-12

Historic District Certificate of Appropriateness

Status: Active

Submitted On: 6/7/2023

Primary Location

207 W CAMERON AVE CHAPEL HILL. NC 27516

Owner

SIG EP HOUSING OF NORTH CAROLINA DELTA LLC 310 S ARTHUR ASHE BLVD RICHMOND, VA 23220 **Applicant**

Chris Cook

J 919-606-9209

@ ccook@bakerroofing.com

♠ 1401 Moring St.Raleigh, NC 27603

Certificate of Appropriateness Form

Historic District

Cameron-McCauley

Application Type Check all that apply

Minor Work is exterior work that does not involve any substantial alterations, and do not involve additions or removals that could impair the integrity of the property and/or the district as a whole. See Chapel Hill Historic Districts Design Principles & Standards ("Principles & Standards") (p. 9-11) for a list of minor works. Please contact Town Staff to confirm if you believe the project is classified as "minor work."

Historic District Commission Review includes all exterior changes to structures and features other than minor works

Minor Work as defined by Design Standards	Historic District Commission Review
Request for Review After Previous Denial	After-the-Fact COA Application

Written Description

Describe clearly and in detail the physical changes you are proposing to make. Identify the materials to be used (siding, windows, trim, roofing, pavements, decking, fencing, light fixtures, etc.), specify their dimensions, and provide names of manufacturers, model numbers, and specifications where applicable. Consider including additional materials to illustrate your project, such as: - Photos and specifications for proposed exterior materials such as siding, trim, roof, foundation materials, windows, etc. - Renderings of the proposed work - Spec sheets

Roof: Old architectural asphalt shingles are being replaced with a similar color new shingle (CertainTeed Landmark Pro - Moire Black). New dripedge and roof flashings will be used to bring work up to current standards. Leaks are evident at the roof to wall transitions around the dormers and rear walls with siding.

Gutters: Old copper gutters will be replaced with similar color and profile aluminum gutters. One downspout will be moved or added to move water flow away from stairs in the rear. Old gutters had massive leaks, playing a significant role in the haste of scheduling, as well as the scope of work. The leaking gutters were causing damage to a large portion of the trim under the roof line.

Siding/Trim: All off the existing siding and around and below the roof line will be changed. The old materials are mostly wood based materials, and will be swapped with new non-rot materials (James Hardie fiber cement and PVC). James Hardie materials are widely used around the country to help preserve historic buildings, while maintaining their existing look. The profiles of all the trim will be maintained as close as possible. Old flashings will be replaced, as well as the addition of new flashings to enhance the durability of the structure. All windows will be rewrapped with similar colored aluminum, to ensure any water penetration is stopped.

Applicable HDC Design Standards

Page / Standard #

Topic

Section 3.6.2(e)

2. Building Materials

Brief Description of the Applicable Aspects of Your Proposal

For siding portion: existing wood and masonite trim and siding will be converted to a combination of PVC and James Hardie fiber cement board. These new materials are non rot, preserving the life of the existing structure

Page / Standard #

Topic

87/3.3. Exterior Walls, Trim, & Ornamentation

2. Building Materials

Brief Description of the Applicable Aspects of Your Proposal

3.3.5. If deterioration necessitates the replacement of an entire wall surface, replacement surfaces should match the original in material, design, dimension, pattern, detail, texture, and color. Consider a compatible substitute material only if replacement in kind is not technically feasible; if repeated deterioration is reasonably expected; or the material is in a location that is not visible from the street.

Page / Standard #

Topic

81-82/3.1 Roofs, Gutters, & Chimneys –

Brief Description of the Applicable Aspects of Your Proposal

3.1.1. Retain and preserve roof shapes, materials, and decorative and functional features that are important in defining the overall historic character of buildings within the historic districts. These include, but are not limited to, roof height, form, shape, pitch, and overhang; roof materials and functional features including shingles, flashing, vents, and gutters; and decorative features including dormers, chimneys, turrets, spires, cupolas, and balustrades.

- 3.1.5. If deterioration necessitates the replacement of an entire roof surface, replacement surfaces should match the original in material, design, dimension, pattern, detail, texture, and color. Consider a compatible substitute material (including composite shingle, synthetic slate, and wide-pan matte-finish metal roofing) only if the replacement material is compatible with the design, size, and scale of the building.
- a. Do not replace historic standing-seam, pressed metal, or asphalt-shingled roofs with multi-rib metal roofing.
- b. Do not install built-up or rubber roofing in locations that are visible from the street.
- 3.1.8. Introduce new gutters and downspouts, as needed, with care so that no architectural features are damaged or lost. Select gutters and downspouts that are painted or coated with a factory finish (unless they are copper) to match the building's trim. Replace half-round gutters and cylindrical downspouts in kind.
- 3.1.9. Do not remove or conceal character-defining roof features such as chimneys or chimney pots, dormers, built-in gutters, and vents, especially on a primary or other highly visible elevation.

Property Owner Information

Property Owner Name

SIG EP Housing of NC Delta LLC

Property Owner Signature

Ben Hutto Jul 18, 2023

Sig Ep Housing Project

207 W Cameron Ave.

Chapel Hill, NC

Summary of Siding/Trim work:

Our motivation with this project is to maintain the historic and iconic look the building has kept, since construction in 1983. Unfortunately, older trim and siding materials were made from materials that are vulnerable to rot and degradation from exposure to the elements. Modern materials provide the luxury of matching profiles, with the added benefits of weather resistant composition, with much less long-term maintenance. All of the trim and boards used to construct the cornice maintain the same profiles. The lap siding also maintains the appearance of the outdated wood siding, with the added benefits of rot resistant fiber cement board.

Photos of existing structure:

Overall rear view:

New materials will keep look of old materials.



Water damaged roof decking from leaks:

Rotten decking will be changed with like material



Rear view:



Ceiling panel under front entry. Panel will be replaced with James Hardie fiber cement panel. Vents will be replaced with similar metal vents.



Existing window wrap:

Wiindow trim will be wrapped with new aluminum, reparing any damaged/leaking metal.











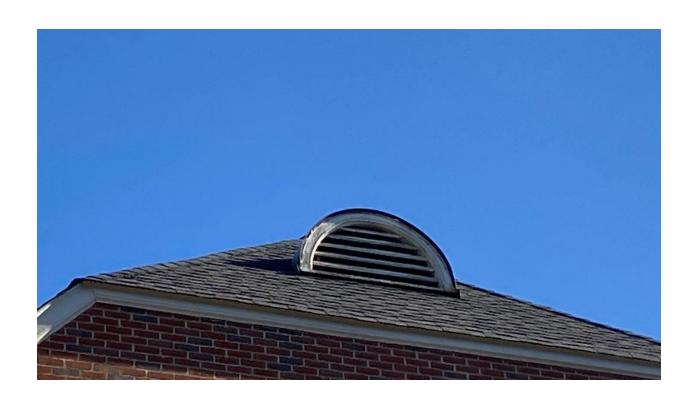




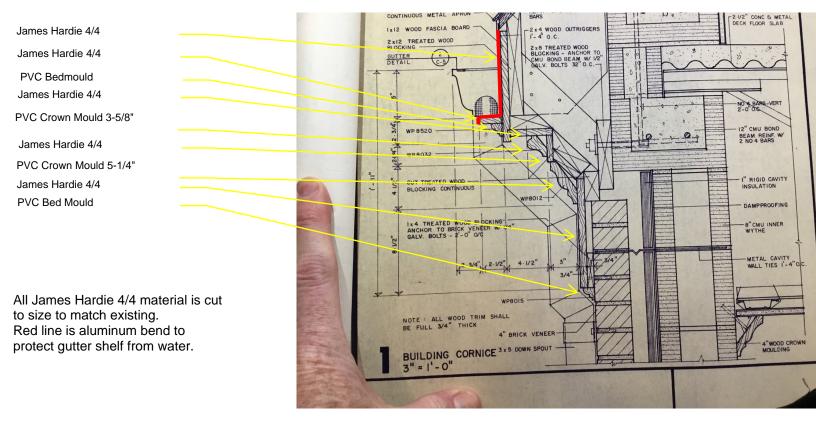














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ESR-2290

This report is subject to renewal 03/2018.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES

SECTION: 06 16 00—SHEATHING

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

SECTION: 07 46 46—FIBER-CEMENT SIDING

REPORT HOLDER:

JAMES HARDIE BUILDING PRODUCTS, INC.

10901 ELM AVENUE **FONTANA, CALIFORNIA 92337**

EVALUATION SUBJECT:

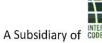
HARDIESHINGLE™ (NEW HARDIESHINGLE®) PANELS, HARDIEPLANK™ LAP SIDING. ARTISAN® LAP SIDING, AND HARDIESHINGLE™ (NEW HARDIESHINGLE®) INDIVIDUAL SHINGLES



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ICC-ES Evaluation Report

ESR-2290

Reissued March 2016 Revised November 2016

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DIVISION: 06 00 00-WOOD, PLASTICS AND

COMPOSITES

Section: 06 16 00—Sheathing

DIVISION: 07 00 00—THERMAL AND MOISTURE

PROTECTION

Section: 07 46 46—Fiber-Cement Siding

REPORT HOLDER:

JAMES HARDIE BUILDING PRODUCTS, INC. 10901 ELM AVENUE FONTANA, CALIFORNIA 92337 (800) 942-7343 www.jameshardie.com info@jameshardie.com

EVALUATION SUBJECT:

HARDIESHINGLE™ (NEW HARDIESHINGLE®) PANELS, HARDIEPLANK™ LAP SIDING, ARTISAN® LAP SIDING, AND HARDIESHINGLE™ (NEW HARDIESHINGLE®) INDIVIDUAL SHINGLES

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2015, 2012, 2009 and 2006 International Residential Code[®] (IRC)
- 2013 Abu Dhabi International Building Code (ADIBC)^T

 $^{\dagger}\text{The ADIBC}$ is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Weather protection
- Structural
- Types I, II, III, and IV (noncombustible) construction
- Fire-resistance-rated construction
- Thermal resistance

1.2 Evaluation to the following green standards:

2015, 2012 and 2008 ICC 700 National Green Building Standard™ (ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.1

2.0 USES

James Hardie fiber-cement panels, plank lap siding, and cladding shingles are used as exterior wall covering. The products comply with IBC Sections 1404.10 and IRC Section R703.10. The products may be used on exterior walls required to be of Type I, II, III or IV construction (IBC).

3.0 DESCRIPTION

3.1 General:

The exterior sidings are single-faced, cellulose fiber-reinforced cement (fiber-cement) products. Exterior sidings are identified as HardieShingle™ (New HardieShingle®)panels, HardiePlank™ (Cemplank®, Prevail™, and RFC®) lap siding, Artisan® Lap Siding, and HardieShingle™ (New HardieShingle®) individual shingles.

The products comply with ASTM C1186, as Grade II, Type A; have a flame-spread index of 0 and a smokedeveloped index of 5 when tested in accordance with ASTM E84; and are classified as noncombustible when tested in accordance with ASTM E136. Thermal conductance (K) and resistance (R) values for the products are as shown in Table 2 of this report, based on testing in accordance with ASTM C177.

The attributes of the fiber-cement sidings have been verified as conforming to the provisions of (i) ICC 700-2012 Sections 602.1.6 and 11.602.1.6 for termite-resistant materials; and (ii) ICC 700-2008 Section 602.8 for termite-resistant materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.2 Siding:

HardieShingle™ (New HardieShingle®) panels, HardiePlank™ (Cemplank®, Prevail™, and RFC®) lap siding, Artisan® Lap Siding, and HardieShingle™ (New HardieShingle®) individual shingles are supplied either unprimed or primed for subsequent application of a compatible primer and/or exterior-grade top coat. Nominal product dimensions are noted in Table 1.

The products are available in a variety of finish textures. HardieShingle™ panels are offered in three configurations: half-round, staggered-edge, and square-edge. New HardieShingle® individual shingles are offered in two configurations: staggered-edge and square-edge.



3.3 Fasteners:

Fastener type, size, spacing and installation method must be as shown in the tables of this report. Fasteners must be made from corrosion-resistant steel.

4.0 DESIGN AND INSTALLATION

4.1 Design:

Walls: The maximum basic wind speeds for positive or negative transverse load resistance of HardieShingle™ (New HardieShingle®) panels, HardiePlank™ (Cemplank®, Prevail™, and RFC®) lap siding, Artisan® Lap Siding, and HardieShingle™ (New HardieShingle®) individual shingles are presented in Tables 3 through 13.

4.2 Installation:

- 4.2.1 General: Installation must comply with this report, and a copy of this report must be available at all times on the jobsite during installation. All products may be cut to shape on-site by the score-and-snap method using a score-and-snap knife, a hand guillotine or a handsaw utilizing a carbide blade. A clear distance of 6 inches (152 mm) must be maintained between the siding and the earth. Unless otherwise noted in this report, the products must be installed in accordance with 2015 and 2012 IBC Section 1405.16; 2015 and 2012 IRC Section R703.10; 2009 IBC Sections 1405.16; ; 2009 IRC Section R703.10; 2006 IBC Sections 1405.15 and 1405.16; or 2006 IRC Section R703.10, as applicable.
- 4.2.2 HardieShingle™ (New HardieShingle®) Panels: When installation is on wood or metal framing members, with or without wood structural panel sheathing, a water-resistive barrier must be applied over the wood or metal framing members or wood structural panel sheathing in accordance with the applicable code. The panels must be fastened in accordance with the provisions of Table 4 of this report.

A ¹/₈-inch (3.2 mm) gap must be left at locations where the siding butts against door and window trim and at internal or external corners; such gaps must be flashed in accordance with the applicable code, then caulked. Vertical joints must occur over framing members and must be sealed with caulking or covered with battens. Horizontal joints must be flashed with metal Z-flashing and occur over solid blocking or wood structural panel sheathing.

4.2.3 HardiePlank™ (Cemplank®, Prevail™, and RFC®) Lap Siding: When installation is on wood or metal framing members, with or without wood structural panel sheathing, the lap siding must be fastened either through the overlapping planks (face nailed) or through the top edge of single planks (blind nailed) in accordance with the provisions of Table 4 of this report. A water-resistive barrier must be applied over wood or metal framing members or wood structural panel sheathing in accordance with the applicable code. Lap siding installed over walls constructed of concrete masonry units complying with ASTM C90 must be applied in accordance with Tables 5 through 10. The lap siding requires the use of a starter strip to set the first course on the proper angle and to create a drip edge.

Vertical joints must occur over studs, except where the "off-stud splice device" is installed or where the planks are installed to wood structural panel sheathing complying with the applicable code, and must be staggered on subsequent courses. Where the "off-stud splice device" is installed, the splice device's bottom lip must be placed over the adjacent solid course of planks. The plank must then be fastened to the framing with corrosion-resistant fasteners. The abutting plank must be positioned and fastened into place ensuring that the lower edges of the two planks align. The metal device must be located centrally over the vertical joint.

Vertical joints between planks must be lightly butted or gapped and must be protected by one of the following methods: (a) sealed with caulking in accordance with the caulk manufacturer's published gapping requirements and caulking application instructions; or (b) covered with an H-section joint cover; or (c) located over a strip of non-perforated flashing complying with ASTM D226, Type I felt, or other approved flashing. Trim and corners must be installed and the siding must be finished in accordance with the manufacturer's application instructions. A ¹/₈-inch (3.2 mm) gap must be left at locations where the siding butts against door and window trim and at internal or external corners; such gaps must be flashed in accordance with the applicable code, then caulked, Horizontal joints must be flashed with Z-flashing and occur over solid blocking or wood structural panel sheathing.

4.2.4 Artisan® Lap Siding: When installation is on wood or metal framing members, with or without wood structural panel sheathing, the lap siding must be fastened through the top edge of single planks (blind nailed) in accordance with the provisions of Table 4 of this report. A water-resistive barrier must be applied over wood or metal framing or wood structural panel sheathing in accordance with the applicable code. Lap siding installed over walls constructed of concrete masonry units complying with ASTM C90 must be applied in accordance with Tables 5 through 10. The lap siding requires the use of a starter strip to set the first course on the proper angle and to create a drip edge.

Vertical joints must be made off-stud by means of the tongue and groove joint. Tongue and groove joints may be located centrally between studs but no closer than 4 inches (102 mm) from the edge of a stud. Nails must not be placed within 2 inches (51 mm) of the tongue and groove at the end of the planks. Vertical joints must be staggered on subsequent courses. The plank must then be fastened to the framing with corrosion-resistant fasteners.

Vertical joints between planks must be lightly butted and must be located over a strip of non-perforated flashing complying with ASTM D226, Type I felt, or other approved flashing. Trim and corners must be installed and the siding must be finished in accordance with the manufacturer's application instructions. A ¹/₈-inch (3.2 mm) gap must be left at the locations where the siding butts against door and window trim and at internal or external corners; such gaps must be flashed in accordance with the applicable code, then caulked. Horizontal joints must be flashed with Z-flashing and must occur over solid blocking or wood structural panel sheathing.

4.2.5 HardieShingle™ (New HardieShingle®) Individual Shingles: When installed on wood structural panel sheathing, the cladding shingles are fastened in accordance with the provisions of either Table 11, 12, or 13 of this report. A water-resistive barrier in accordance with the applicable code must be applied over the wood-based sheathing substrate to which the shingles are attached.

The individual shingles require the use of a starter strip to set the first course on the proper angle and to create a drip edge. The nominally $1^1/_4$ -inch-wide-by- $1/_4$ -inch-thick starter strip and a minimum $8^1/_4$ -inch-wide (210 mm) HardiePlank $^{\rm IM}$ (Cemplank $^{\rm IM}$, Prevail $^{\rm IM}$, and RFC $^{\rm IM}$) lap siding starter course are installed over the water-resistive barrier with the bottom of the starter strip and starter course even with the bottom of the bottom plate. Shingles are spaced a maximum of $^1/_4$ inch (6.4 mm) apart, leaving a minimum side lap of $1^1/_2$ inches (38 mm) between the joints of successive courses. Fasteners must be spaced a minimum of $^3/_4$ inch (19 mm) and a maximum of 1 inch

(25.4 mm) from shingle edges and must be positioned to be covered a nominal $1^1/_4$ inches by the succeeding shingle course; for 12-inch-wide (305 mm) shingles, the third nail (see Table 14) must be installed mid-span of the shingle. Nails must secure shingles but must not be over-driven. Trim_and corners_must be installed and the shingles must be finished in accordance with the manufacturer's application instructions. A $^1/_8$ -inch (3.2 mm) gap must be left at locations where the shingle butts against door and window trim and at internal or external corners; such gaps must be flashed in accordance with the applicable code, then caulked. Horizontal joints must be flashed with Z-flashing.

4.3 Fire-resistance-rated Wall Assembly (HardiePlank™ Lap Siding):

The asymmetrical, load-bearing, one-hour fire-resistancerated wall assembly must consist of nominally 2-by-4 wood studs spaced a maximum of 24 inches (610 mm) on center, with two top plates and a single bottom plate. One layer of 5/8-inch-thick (15.9), Type X, gypsum wallboard complying with ASTM C36 or ASTM C1396, 48 inches (1219 mm) wide, must be applied vertically to the interior face of the studs and secured with minimum 13/4-inch-long (44 mm) cup-head gypsum wallboard nails, spaced 7 inches (178 mm) on center at board edges and intermediate framing members. All board joints must be backed by framing. The 5/8-inch-thick (15.9 mm), Type X, gypsum wallboard joints and nail heads must be finished in accordance with ASTM C840 or GA216. The exterior face of the wall must be covered with one layer of 1/2-inch-thick (12.7 mm), Type X, water-resistant core treated gypsum sheathing complying with ASTM C36 or ASTM C1396 and one layer of maximum 12-inch-wide (305 mm) HardiePlank™ (Cemplank®, Prevail™, and RFC®) lap siding lapped a minimum of 11/4 inches (32 mm). The 1/2-inch-thick (12.7 mm), Type X, water-resistant coretreated gypsum sheathing must be applied vertically to the exterior side of the framing members with vertical edges staggered 24 inches (610 mm) from the joints on the opposite side. All board joints must be backed by framing. The 1/2-inch-thick (12.7 mm), Type X, water-resistant core-treated gypsum sheathing must be fastened to the framing members with 13/4-inch-long (44 mm) roofing nails spaced 7 inches (178 mm) on center in the field and 4 inches (102 mm) on center along the perimeter of each board. The outer layer of 5/16-inch-thick (7.5 mm), minimum 12-inch-wide (305 mm) HardiePlank™ (Cemplank®, PrevailTM, and RFC[®]) lap siding must be applied over the 1/2-inch-thick (12.7 mm), Type X, water-resistant core-treated gypsum sheathing by attaching 1¹/₂-inch-wide (38 mm) HardiePlank™ (Cemplank®, Prevail™, and RFC®) starter strips through the gypsum sheathing into the bottom plate and 12-inch-wide (305 mm) HardiePlank™ (Cemplank®, Prevail™, and RFC®) lap siding applied horizontally with a minimum nominally 11/4-inch head lap, and fastening with a single 6d corrosion-resistant common nail driven through the lapped planks into each stud.

The axial load must be the lesser of the following, provided structural consideration for axial, flexural and bearing perpendicular-to-grain stresses is in accordance with ANSI/AWC NDS-2015 for the 2015 IBC and IRC; ANSI/AF&PA NDS-2010 for the 2012 IBC or IRC (-2005 for the 2009 and 2006 IBC or IRC):

- Maximum 100 percent of full allowable axial compressive design load permitted for the wood species.
- Maximum allowable wood axial stress of 0.78 F'_c, which
 must not exceed 0.78 F'_c at a slenderness ratio I_b/d
 of 33.

5.0 CONDITIONS OF USE

The HardieShingle™ (New HardieShingle®) panels, HardiePlank™ (Cemplank®, Prevail™, and RFC®) lap siding, Artisan® Lap Siding, and HardieShingle™ (New HardieShingle®) individual shingles described in this report comply—with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 James Hardie[®] Building Products, Inc, products listed in this report must be installed in accordance with this report and the manufacturer's published installation instructions. In the event of a conflict between this report and the manufacturer's instructions, this report governs.
- 5.2 HardieShingle™ (New HardieShingle®) panels, HardiePlank™ (Cemplank®, Prevail™, and RFC®) lap siding, Artisan® Lap Siding, and HardieShingle™ (New HardieShingle®) individual shingles must be installed on exterior walls braced in accordance the applicable code.
- 5.3 Design wind speeds applied to James Hardie[®] sidings described in this report must be determined in accordance with the applicable code and must be less than those shown in the wind speed tables in this report.
- 5.4 The sidings must be installed over a code-complying water-resistive barrier and as noted in this report.
- **5.5** For use in fire-resistance-rated construction, installation must be in accordance with Section 4.3.
- 5.6 Flashing must be installed at all penetrations and terminations in accordance with the applicable code.
- 5.7 Under the 2015 or 2012 IBC, Section 1403.5, installation on exterior walls of buildings of Type I, II, III, and IV construction is limited to buildings that are not greater than 40 feet in height above grade plane and that feature a combustible water-resistive barrier.
- 5.8 The products are manufactured at the following locations, with quality control inspections by ICC-ES:
 - Cleburne, Texas
 - · Peru, Illinois
 - · Plant City, Florida
 - Pulaski, Virginia
 - Sparks, Nevada
 - Tacoma, Washington
 - Waxahachie, Texas
 - · Fontana, California

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Fiber Cement Siding Used as Exterior Wall Siding (AC90), dated June 2012 (editorially revised September 2015).

7.0 IDENTIFICATION

Pallets of the JamesHardie[®] Building Products, Inc., HardieShingle[™] (New HardieShingle[®]) panels, HardiePlank[™] (Cemplank[®], Prevail[™], and RFC[®]) lap siding, Artisan[®] Lap Siding, and HardieShingle[™] (New HardieShingle[®]) individual shingles must carry a label bearing the manufacturer's name and telephone number, the product name, the name of the inspection agency, ICC-ES, and the evaluation report number (ESR-2290).

TABLE 1—STANDARD NOMINAL PANEL, PLANK AND SHINGLE DIMENSIONS

PRODUCT	WIDTH (INCHES)	LENGTH	THICKNESSES (INCHES)
HardiePlank [®] lap siding	4, $5^{1}/_{4}$, 6, $6^{1}/_{4}$, $7^{1}/_{4}$, $7^{1}/_{2}$, 8, $8^{1}/_{4}$, $9^{1}/_{4}$, $9^{1}/_{2}$ & 12	12, 14 feet	5/16
Artisan [®] lap siding,	5 ¹ / ₄ , 7 ¹ / ₄ ,8 ¹ / ₄	12, 14 feet	⁵ / ₈
Cemplank [®] lap siding	5 ¹ / ₄ , 6, 6 ¹ / ₄ , 7 ¹ / ₄ , 7 ¹ / ₂ , 8, 8 ¹ / ₄ , 9 ¹ / ₂ & 12	12, 14 feet	⁵ / ₁₆
Prevail [™] lap siding	5 ¹ / ₄ , 6, 6 ¹ / ₄ , 7 ¹ / ₄ , 7 ¹ / ₂ , 8, 8 ¹ / ₄ , 9 ¹ / ₂ & 12	12, 14 feet	5/16
RFC [®] lap siding	$6^{1}/_{4}$, $7^{1}/_{2}$, $8^{1}/_{4}$, $9^{1}/_{2}$ & 12	12, 14 feet	⁵ / ₁₆
New HardieShingle [®] 5-inch exposure (square & staggered edge)	48	14 inches	1/4
New HardieShingle® 7-inch exposure (square & staggered edge)	48	15 ¹ / ₄ , 15 ⁷ / ₈ inches	1/4
HardieShingle™ panel (square & staggered edge)	48	16 inches	1/4
HardieShingle™ panel (half round)	48	16, 19 inches	1/4
New HardieShingle [®] individual shingles 5-inch exposure	3 ¹ / ₂ , 4 ¹ / ₂ , 5 ¹ / ₂ , 7, 8 ³ / ₄	14 inches	1/4
New HardieShingle [®] individual shingles 7-inch exposure	$4^{3}/_{16}$, $5^{1}/_{2}$, $6^{3}/_{4}$, $7^{1}/_{4}$, 10,	15 ¹ / ₄ inches	1/4
HardieShingle™ individual shingles	6, 8, & 12	18 inches	1/4

For SI: 1 inch = 25.4 mm, 1 ft = 305 mm.

TABLE 2—"K" and "R" VALUES FOR FIBER-CEMENT PRODUCTS

PRODUCT THICKNESS ³ (INCH)	THERMAL CONDUCTANCE ¹ K _{EFF} = (BTU/HR-FT ² -°F)/INCH	THERMAL RESISTANCE ¹ R = 1/K _{EFF}	ACTUAL THERMAL CONDUCTANCE ² (K _{EFF})	ACTUAL THERMAL RESISTANCE ² (R)
1/4	1.95	0.51	7.80	0.13
⁵ / ₁₆	2.07	0.48	6.62	0.15

For SI: 1 inch = 25.4 mm, 1 Btu/h-ft²-°F = 5.678 W/m²-K.

¹Based on 1 inch of panel thickness. ²Actual value for panel thickness shown.

TABLE 3-MAXIMUM BASIC WIND SPEED (3-second gust) (mph)

							IBC (Ba	IRC, 2 /IRC, 2 /IRC, 2 /IBC/IRC asic Wi ed, V _{asd}	006 nd	2 (Ultin	IBC/IRC 012 IBC nate De nd Spe V _{ult} ^{7,8})) sign
								POSUF		1,7755	POSUR	
PRODUCT	THICK (IN.)	FASTENER TYPE	FASTENER SPACING (IN.)	FRAME TYPE ¹	STUD SPACING (IN.)	BLDG. HEIGHT (FT.)	В	С	D	В	С	D
HardieShingle™		0.083"		Attached to 7/16"		0-15	126	85		163	110	-
(New	1,	shank '0.187" HD	12.75	wood structural	7/16" WSP attached to	20	121	85	=	156	110	-
HardieShingle®) Panel (straight or half	1/4	x 1 ¹ / ₂ " long ring shank	13.75	panel	framing per code	40	105	85	-	136	110	-
round installation)		nail ⁵		sheathing only	(3.5.5.5)	60	95	-	à	123	-	-
_		0.083"		13.75 wood structural panel sheathing only Attached		0-15	105	85	-	136	110	-
HardieShingle™ (New HardieShingle®)		shank '0,187" HD			7/16" WSP attached to	20	105	-	-	136	-	-
Panel (staggered	1/4	x 1 ¹ / ₂ " long ring shank	13.75		framing per	40	95	-	-	123	-	-
installation)		nail ⁵			Code	60	85	-	-	110	-	-
		0.090"		Attached		0-15	158	143	130	204	185	168
HardieShingle™		shank '0.215" HD		to ⁷ / ₁₆ " wood	7/16" WSP attached to	20	158	139	127	204	179	164
(New HardieShingle®)	1/4	x 1 ¹ / ₂ " long	8	structural panel	framing per	40	152	130	120	196	168	155
Panel		ring shank nail ⁵		sheathing only	code	60	143	124	115	185	160	148
		0.090"		Attached		0-15	172	156	142	222	201	183
HardieShingle™		shank '0.215" HD		to ⁷ / ₁₆ " wood	7/16" WSP attached to	20	172	151	138	222	195	178
(New HardieShingle®)	1/4	x 1 ¹ / ₂ " long	6	structural panel	framing per	40	165	141	130	213	182	168
Panel		ring shank nail⁵		sheathing only	code	60	156	135	126	201	174	163
		20022000		Nominal		0-15	168	137	116	217	177	150
HardieShingle™		0.083" shank	5.	2x4 ¹ or Min. No.		20	168	137	116	217	177	150
(New HardieShingle®)	1/4	'0.187" HD x 1 ¹ / ₂ " long	at each stud ³	20 ga. x 3,62" x	16	40	168	126	105	217	163	136
Panel		ring shank nail ²		3.62" x 1.375" Metal C-stud Nominal 2x41 or Min. No. 20 ga. x 3.62" x 1.375" Metal C-stud		60	158	116	105	204	150	136
		0.083"				0-15	147	105	85	190	136	110
HardieShingle™		shank				20	137	100	85	177	129	110
(New HardieShingle®)	1/4	'0.187" HD x 1 ¹ / ₂ " long	at each stud ³		24	40	126	95	-	163	123	32=3
Panel		ring shank nail ²				60	116	89	-	150	115	-

For SI: 1 foot = 305 mm, 1 inch = 25.4 mm, 1 mph -0.44 m/s.

¹Values are for species of wood having a specific gravity of 0.40 or greater.

²For application to metal framing members, fasteners must be ET & F Fastening Systems, Inc. ET&F Panelfast[®] nail, ET & F No. AGS-100-0150, head diameter = 0.313 in., shank diameter = 0.100 in., length = 1,5 in. Metal studs must be maximum Fy = 33 ksi.

³For application to ASTM C90 concrete masonry unit wall, fasteners must be either ET & F Fastening Systems, Inc. ET&F block nail (ET & F No. ASM-144-0125, head dia. = 0.30 in., shank dia. = 0.14 in., length = 1.25 in.), Max System block nail (CP-C 832 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.15 in., length = 1.3 in.), Aerosmith SurePin block nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.25 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.145 in., length = 1.25 in.) applied at the equivalent fastener or stud spacing.

⁴Wind speed design assumptions per Section 6.5, Method 2, of ASCE 7-05: I = 1.0, K_{xt} = 1, K_d = 0.85, GC_{pi} = 0.18., GC_p=-1.4.

⁵For application to wood framing or wood-based sheathing, the minimum fastener penetration must be 1 inch into framing or the sheathing thickness as applicable.

⁷V_{valt} = ultimate design wind speed.

 $^{^{7}}V_{\text{ult}} = \text{ultimate design wind speed.}$

 $V_{\rm ult}$ – ultimate design with speed. •Wind speed design assumptions per Section 30.4, of ASCE 7-10: Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4. •2015 and 2012 IBC Section 1609,3.1, Eqn. 16-33, $V_{\rm asd} = V_{\rm ult} \sqrt{0.6}$

TABLE 4-MAXIMUM BASIC WIND SPEED (mph)³

				2				IBC/IR (Basi	12 IRC, 2 C, 2006 c Wind S V _{asd} 3,9,12	BC/IRC Speed.	(Ultin	IBC/IRC 2012 IBC nate De nd Spec V _{ult} ^{10,11})	C esign
	PROD DIMENS		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSU			(POSUF	
PRODUCT	тніск.	WIDTH	TYPE ⁴	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	С	D	В	С	D
					Min. No.		0-15	168	168	147	217	217	190
	5.		ET&F pin		20 ga. x 3.62" '		20	168	168	147	217	217	190
HardiePlank [®]	⁵ / ₁₆	4	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1.375" Metal	16	40	168	158	137	217	204	177
					C-stud		60	168	147	126	217	190	163
					Min. No.		0-15	168	168	147	217	217	190
	5.		ET&F pin		20 ga. x 3.62" '		20	168	168	147	217	217	190
HardiePlank [®]	⁵ / ₁₆	6	0.100" ´ 1.5" x 0.25" HD	Face Nailed	1.375" Metal	16	40	168	158	137	217	204	177
					C-stud		60	168	147	126	217	190	163
					Min. No.		0-15	168	168	147	217	217	190
	5,	6 ¹ / ₄	ET&F pin	FN-9	ailed 20 ga, x 3.62" 1.375" Metal C-stud Min. No. 20 ga, x 3.62" 1.375" Metal C-stud	40	20	168	168	137	217	217	177
HardiePlank [®]	⁵ / ₁₆	674	0.100" 1.5" x 0.25" HD	Face Nailed		16	40	168	158	137	217	204	177
							60	168	147	126	217	190	163
							0-15	168	158	126	217	204	163
5	5,	7 ¹ / ₄ or	ET&F pin				20	168	147	126	217	190	163
HardiePlank®	⁵ / ₁₆	7 ¹ / ₄ or 7 ¹ / ₂	0.100" ´ 1.5" x 0.25" HD	Face Nailed		16	40	168	137	121	217	177	156
							60	168	126	116	217	163	150
					Min. No.		0-15	168	147	126	217	190	163
	5.		ET&F pin		20 ga. x 3.62"		20	168	147	126	217	190	163
HardiePlank [®]	⁵ / ₁₆	8	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1.375" Metal	16	40	168	137	116	217	177	150
					C-stud		60	168	126	105	217	163	136
					Min, No.		0-15	168	147	126	217	190	163
	5.	-1,	ET&F pin		20 ga, x 3,62" '		20	168	147	116	217	190	150
HardiePlank [®]	⁵ / ₁₆	8 ¹ / ₄	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1.375" Metal	16	40	168	131	116	217	169	150
					C-stud		60	158	126	105	204	163	136
					Min. No.		0-15	168	137	116	217	177	150
	5.	9 ¹ / ₄ or	ET&F pin		20 ga. x 3.62" ´		20	168	137	116	217	177	150
HardiePlank [®]	⁵ / ₁₆	9 ¹ / ₄ or 9 ¹ / ₂	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1.375" Metal	16	40	158	126	105	204	163	136
					C-stud		60	147	116	105	190	150	136
					Min. No.		0-15	145	131	119	187	169	154
=	5.		ET&F pin		20 ga. x 3.62" '		20	145	127	116	187	164	150
HardiePlank®	⁵ / ₁₆	12	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1,375" Metal	16	40	139	119	110	179	154	142
					C-stud		60	131	114	106	169	147	137
					Min, No.		0-15	160	137	116	207	177	150
	5.		ET&F pin		20 ga. x 3.62" ' 1.375" Metal C-stud Min. No. 20 ga. x		20	160	137	116	207	177	150
HardiePlank [®]	⁵ / ₁₆	4	0,100" ′ 1,5" x 0.25" HD	Face Nailed		24	40	154	121	105	199	156	136
							60	145	116	100	187	150	129
							0-15	160	137	116	207	177	150
		5000	ET&F pin				20	160	137	116	207	177	150
HardiePlank [®]	⁵ / ₁₆	6	0.100" 1.5" x 0.25" HD	Face Nailed	1.375"	24	40	154	121	105	199	156	136
					3.62" ′		60	145	116	100	187	150	129

								IBC/IR	12 IRC, 2 C, 2006 c Wind S V _{asd} 3,9,12	IBC/IRC	(Ultin	IBC/IRC 2012 IBC mate De nd Spe V _{ult} 10,11)	C esign
	PROD		FACTENER	FACTELING	FDAME	STUD	BUILDING		XPOSU		E	(POSUI	RE
PRODUCT	DIMENSI THICK,	WIDTH	FASTENER TYPE ⁴	FASTENING METHOD ²	FRAME TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	ATEGO C	D	В	C	D
					Min, No.		0-15	160	137	116	207	177	150
			ET&F pin		20 ga. x 3.62" '	1000000	20	160	126	110	207	163	142
HardiePlank [®]	⁵ / ₁₆	6 ¹ / ₄	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1,375" Metal	24	40	147	121	105	190	156	136
					C-stud		60	137	116	95	177	150	123
					Min. No.		0-15	160	116	100	207	150	129
	_	7 ¹ /4 or	ET&F pin		20 ga. x 3.62" '		20	158	116	95	204	150	123
HardiePlank [®]	⁵ / ₁₆	7 ¹ / ₄ or 7 ¹ / ₂	0.100" 1.5" x 0.25" HD	Face Nailed	1.375" Metal	24	40	137	105	89	177	136	115
					C-stud		60	126	95	89	163	123	115
					Min. No.		0-15	160	116	95	207	150	123
	5.		ET&F pin		20 ga, x 3.62" '		20	158	116	95	204	150	123
HardiePlank [®]	⁵ / ₁₆	8	0.100" 1.5" x 0.25" HD	Face Nailed	1,375" Metal	24	40	137	105	89	177	136	115
					C-stud		60	126	95	85	163	123	110
					Min. No.		0-15	158	116	95	204	150	123
	5,	014	ET&F pin	- N. 11 1	20 ga. x 3.62" '	24	20	158	105	95	204	136	123
HardiePlank [®]	⁵ / ₁₆	8 ¹ / ₄	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1.375"	3.62" ′	40	137	100	85	177	129	110
							60	126	95	85	163	123	110
					Min. No.		0-15	147	105	85	190	136	110
	5.	9 ¹ / ₄ or	ET&F pin		20 ga. x 3.62" '	0.4	20	147	105	85	190	136	110
HardiePlank [®]	⁵ / ₁₆	91/2	0.100" ′ 1.5" x 0.25" HD	Face Nailed	1.375" Metal	24	40	126	95	85	163	123	110
					C-stud		60	126	95	-	163	123	
					Min. No.		0-15	106	96	87	137	124	112
	5,	40	ET&F pin		20 ga. x 3,62" '	0.4	20	106	93	85	137	120	110
HardiePlank [®]	⁵ / ₁₆	12	0.100" ´ 1.5" x 0.25" HD	Face Nailed	1.375" Metal	24	40	102	87	-	132	112	-
					C-stud		60	96	-	-	124	-	
							0-15	158	126	105	204	163	136
	5,		ET&F pin	Divd Nailed	Min. No. 20 ga. x	16	20	158	121	100	204	156	129
HardiePlank [®]	⁵ / ₁₆	4	0.100" 1.5" x 0.313" HD	Blind Nailed	3.62" ′ 1.375"	16	40	147	110	95	190	142	123
							60	137	105	95	177	136	123
							0-15	158	126	105	204	163	136
	5,		ET&F pin	Diad Mailed	Min. No. 20 ga. x	10	20	158	121	100	204	156	129
HardiePlank [®]	5/16	6	0,100" 1.5" x 0,313" HD	Blind Nailed	3.62" ´ 1.375"	16	40	147	110	95	190	142	123
							60	137	105	95	177	136	123
					2000		0-15	168	116	100	217	150	129
HeadiaDiL®	5,	61,	ET&F pin	Blind Nailed	Min. No. 20 ga. x 3.62" 1.375"	20	158	116	95	204	150	123	
HardiePlank [®]	5/16	61/4	0.100" 1.5" x 0.313" HD	bling Natied		16	40	137	105	89	177	136	115
				programmer comments			60	126	100	85	163	129	110
							0-15	147	105	85	190	136	110
	5,	7 ¹ /₄ or	ET&F pin	in Min. No.	F pin 20 mm v	10	20	137	100	85	177	129	110
HardiePlank [®]	⁵ / ₁₆	7 ¹ / ₄ or 7 ¹ / ₂	0.100" 1.5" x 0.313" HD	Blind Nailed	3.62" ´ 1.375"	16	40	121	89	-	156	115	
							60	110	85		142	110	1775

								IBC/IR (Basi	12 IRC, 2 C, 2006 ic Wind S V _{asd} 3,9,12	IBC/IRC Speed,)	(Ultir Wi	IBC/IR 2012 IB mate Do nd Spe V _{ult}	C esign ed,)								
PRODUCT	PROI DIMENS		FASTENER TYPE ⁴	FASTENING METHOD ²	FRAME TYPE ^{1,8}	STUD SPACING	BUILDING HEIGHT		XPOSUI			(POSU ATEGO									
	THICK.	WIDTH	IIFE	WETHOD	TIPE	(IN.)	(FT.)	В	С	D	В	С	D								
					Min, No,		0-15	137	95	85	177	123	110								
HardiePlank [®]	⁵ / ₁₆	8	ET&F pin 0.100" ' 1.5"	Blind Nailed	20 ga. x	16	20	126	95	j.	163	123	-								
	2.52		x 0.313" HD		3.62" ´ 1.375"		40	116	85	-	150	110	-								
							60	105	85	•	136	110	-								
					Min. No.		0-15	137	95	•	177	123	-								
HardiePlank [®]	⁵ / ₁₆	8 ¹ / ₄	ET&F pin 0.100" ' 1.5"	Blind Nailed	20 ga. x 3.62" ′	16	20	126	95	-	163	123	-								
	1.50	81	x 0.313" HD		1.375"		40	116	85	-	150	110	-								
							60	105	-	-	136	-	-								
					Min, No.		0-15	158	110	95	204	142	123								
HardiePlank [®]	⁵ / ₁₆	4	ET&F pin 0,100" ' 1,5"	Blind Nailed	20 ga. x	24	20	147	105	85	190	136	110								
			x 0.313" HD		3.62" ′ 1.375"		40	126	95	85	163	123	110								
							60	121	95	(2)	156	123	-								
					Min, No,		0-15	158	110	95	204	142	123								
HardiePlank [®]	⁵ / ₁₆	6	ET&F pin 0.100" ' 1.5"	00" 1.5" Blind Nailed 20 ga. x	24	20	147	105	85	190	136	110									
	10		x 0.313" HD			40	126	95	85	163	123	110									
							60	121	95	-	156	123	1 5								
					Min. No.		0-15	147	105	85	190	136	110								
HardiePlank [®]	⁵ / ₁₆	6 ¹ / ₄	ET&F pin 0.100" ´ 1.5"	Blind Nailed	20 ga. x	24	20	137	100	85	177	129	110								
		200,000	x 0.313" HD	100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3.62" ´ 1.375"		40	126	95	-	163	123	-								
							60	105	89		136	115	-								
					Min, No.		0-15	137	95	85	177	123	110								
HardiePlank [®]	⁵ / ₁₆	7 ¹ / ₄ or 7 ¹ / ₂	ET&F pin 0,100" ' 1,5"	Blind Nailed	20 ga. x	24	20	126	95	-	163	123	-								
A COLUMN ERRORSON ARTICLES AND CONTRA SA		11/2	x 0.313" HD		3.62" ′ 1.375"		40	116	85	-	150	110	-								
							60	105	85	-	136	110	-								
					Min No		0-15	126	85	-	163	110	-								
HardiePlank [®]	⁵ / ₁₆	8	ET&F pin 0.100" ´ 1.5"	Blind Nailed	Min. No. 20 ga. x 3.62" '	24	20	116	85	-	150	110	-								
	210		x 0.313" HD		1.375"		40	100	-	-	129	-	_								
							60	95	-	-	123	-	-								
					Nai- Ni-		0-15	116	-	-	150	-	-								
HardiePlank [®]	5/16	81/4	ET&F pin 0.100" ′ 1.5"	Blind Nailed	Min. No. 20 ga. x 3.62" '	24	20	105	-	-	136	-	-								
	7.10	- 14	x 0.313" HD		3.62" ⁷ 1.375"		40	95	-	-	123	-	-								
							60	85	-	-	110	-	-								
							0-15	170	170	158	219	219	204								
HardiePlank [®]	⁵ / ₁₆	5.25	6d common	Face Nailed Through	rough 2X4	16	20	170	169	154	219	218	199								
radio jank	/16	0.20	Ju common	plank overlap				boow		'0	40	170	157	145	219	203	187				
							60	170	151	140	219	194	180								
							0-15	170	155	141	219	200	182								
HardiePlank [®]	⁵ / ₁₆	6.25	6d common	Face Nailed	2X4	2X4	2X4	2X4	2X4	2X4	2X4	2X4	2X4	16	20	170	151	138	219	195	178
I I GI GI GI IK	/16	0.20	ou common	plank overlap		10	40	164	140	130	218	181	167								
				mon Inrough wood		60	155	135	125	207	174	161									

								IBC/IR	12 IRC, 2 C, 2006 c Wind S V _{asd} ^{3,9,12}	IBC/IRC	2 (Ultir	IBC/IRC 2012 IBC mate De nd Spec V _{ult} ^{10,11})	C esign
	PROD		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSUI			(POSUF ATEGOR	
PRODUCT	DIMENSI THICK,	WIDTH	TYPE4	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	C	D	В	С	D
							0-15	156	142	129	202	183	166
_	_	per la de la constante.		Face Nailed	2X4	200100	20	156	138	126	202	178	162
HardiePlank [®]	⁵ / ₁₆	7.25	6d common	Through plank overlap	wood	16	40	150	128	118	193	165	153
							60	142	123	114	183	159	147
							0-15	153	139	126	197	179	163
		60.65150	0.5357504	Face Nailed	2X4		20	153	135	123	197	174	159
HardiePlank [®]	⁵ / ₁₆	7.5	6d common	Through plank overlap	wood	16	40	147	125	116	190	162	150
							60	139	120	112	179	155	144
							0-15	147	134	121	190	172	157
				Face Nailed	2X4	40	20	147	130	118	190	168	153
HardiePlank [®]	⁵ / ₁₆	8	6d common	Through plank overlap wood Face Nailed 274	16	40	141	121	111	182	156	144	
							60	134	116	108	172	150	139
							0-15	145	131	119	187	169	154
					2X4		20	145	127	116	187	165	150
HardiePlank [®]	⁵ / ₁₆	8.25	6d common		16	40	139	1 1 9	110	179	153	141	
				18 202			60	131	114	106	169	147	136
-							0-15	135	123	111	175	158	144
	120			Face Nailed	2X4		20	135	1 1 9	109	175	154	141
HardiePlank [®]	⁵ / ₁₆	9.25	6d common	Through plank overlap	wood	16	40	130	111	102	168	143	132
				8 62			60	123	106	99	158	137	128
							0-15	133	121	110	172	156	142
	_			Face Nailed	2X4	,	20	133	117	107	172	152	138
HardiePlank [®]	⁵ / ₁₆	9,5	6d common	Through plank overlap	wood	16	40	128	109	101	165	141	130
				, s			60	121	105	97	156	135	126
							0-15	156	142	129	201	183	166
				Face Nailed	2X4		20	156	138	126	201	178	162
HardiePlank [®]	⁵ / ₁₆	5.25	6d common	Through plank overlap	wood	24	40	150	128	118	193	165	153
							60	142	123	114	183	159	147
							0-15	140	127	115	180	164	149
	-			Face Nailed	2X4		20	140	123	112	180	159	145
HardiePlank [®]	⁵ / ₁₆	6,25	6d common	Through plank overlap	wood	24	40	134	115	106	173	148	137
							60	127	110	102	164	142	132
							0-15	127	116	105	165	149	136
_	£			Face Nailed	2X4 wood		20	127	112	103	165	145	132
HardiePlank [®]	5/16	7.25	6d common	Through plank overlap		24	40	122	105	97	158	135	125
			ріалк övenap			60	116	100	93	149	130	120	
							0-15	125	113	103	161	146	133
	_			Face Nailed	2X4 wood		20	125	110	100	161	142	130
HardiePlank [®]	⁵ / ₁₆	7.5	6d common	Through plank overlap		24	40	120	102	95	155	132	122
							60	113	98	91	146	127	118

								IBC/IR	12 IRC, 2 C, 2006 ic Wind S V _{asd} 3,9,12	IBC/IRC	(Ultin	IBC/IR 2012 IB mate Do nd Spe V _{ult} 10,111	C esign
PROPUCT	PROD DIMENS		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSU			KPOSU ATEGO	
PRODUCT	THICK.	WIDTH	TYPE⁴	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	C	D	В	C	D
							0-15	120	109	99	155	141	128
HardiePlank [®]	⁵ / ₁₆	8	6d common	Face Nailed	2X4	24	20	120	106	97	155	137	125
naidierialik	/16	•	od common	Through plank overlap	wood	24	40	115	99	91	149	127	117
							60	109	95	88	141	122	113
							0-15	118	107	97	152	138	126
HardiePlank [®]	⁵ / ₁₆	8.25	6d common	Face Nailed Through	2X4	24	20	118	104	95	152	134	123
rialuler lalik	/16	0.23	od common	plank overlap	wood	24	40	113	97	89	146	125	115
							60	107	93	86	138	120	111
							0-15	110	100	91	142	129	117
HardiePlank [®]	⁵ / ₁₆	9.25	6d common	Face Nailed Through	2X4	24	20	110	97	89	142	126	115
riardier jank	/16	3.20	od common	plank overlap	wood	24	40	106	91	-	137	117	-
							60	100	87	-	129	112	-
							0-15	109	99	90	140	127	116
HardiePlank [®]	⁵ / ₁₆	9.5	6d common	Face Nailed Through	2X4	24	20	109	96	87	140	124	113
Tididioi idiik	/16	0.0	ou common	plank overlap	wood	24	40	104	89	-	135	115	-
							60	99	85	-	127	110	-
							0-15	170	170	170	219	219	219
HardiePlank [®]	5/ ₁₆	5.25	8d common	Face Nailed Through	2X4	16	20	170	170	170	219	219	219
riaraior iaine	7.16	0.20	ou common	plank overlap	wood	10	40	170	170	170	219	219	219
							60	170	170	170	219	219	219
							0-15	170	170	170	219	219	219
HardiePlank [®]	⁵ / ₁₆	6,25	8d common	Face Nailed Through	2X4	16	20	170	170	170	219	219	219
71010101101	, 16	0.20		plank overlap	wood		40	170	170	161	219	219	208
							60	170	168	156	219	217	201
							0-15	170	170	160	219	219	207
HardiePlank®	⁵ / ₁₆	7.25	8d common	Face Nailed Through	2X4	16	20	170	170	157	219	219	203
	- 10			plank overlap	wood		40	170	160	147	219	207	190
			-				60	170	153	142	219	198	183
							0-15	170	170	157	219	219	203
HardiePlank®	⁵ / ₁₆	7.5	8d common	Face Nailed Through	2X4	16	20	170	168	154	219	217	199
	. 10	33,23		plank overlap	wood		40	170	157	145	219	203	187
							60	170	150	139	219	194	179
							0-15	170	167	151	219	216	195
HardiePlank [®]	⁵ / ₁₆	8	8d common	Face Nailed Through	gh 2X4	16	20	170	162	148	219	209	191
	Silve			plank overlap			40	170	151	139	219	195	179
							60	167	144	134	216	186	173
							0-15	170	164	149	219	212	192
HardiePlank [®]	⁵ / ₁₆	8.25	8d common	Face Nailed Through	wood 2X4	16	20	170	159	145	219	205	187
	2010.			plank overlap	wood		40	170	148	137	219	191	177
							60	164	142	132	212	183	170

								IBC/IR	12 IRC, 2 C, 2006 c Wind S V _{asd} 3,9,12	BC/IRC	2 (Ultir Wi	IBC/IRC 012 IBC nate De nd Spec V _{ult} ^{10,11})	S esign ed,	
PROPUST	PROD DIMENS		FASTENER	FASTENING	FRAME	STUD SPACING	BUILDING HEIGHT		XPOSUI ATEGOI			POSUF		
PRODUCT	THICK.	WIDTH	TYPE⁴	METHOD ²	TYPE ^{1,8}	(IN.)	(FT.)	В	С	D	В	С	D	
							0-15	169	153	139	218	198	179	
	5.	2.05	0.1	Face Nailed	2X4	16	20	169	149	136	218	192	176	
HardiePlank [®]	⁵ / ₁₆	9,25	8d common	Through plank overlap	wood	10	40	162	138	128	209	178	165	
							60	153	133	123	198	172	159	
							0-15	166	151	137	214	195	177	
	5,	0.5	0.1	Face Nailed	2X4	16	20	166	146	134	214	188	173	
HardiePlank [®]	⁵ / ₁₆	9.5	8d common	Through plank overlap	wood	10	40	159	136	126	205	176	163	
							60	151	131	121	195	169	156	
							0-15	160	145	132	207	187	170	
	5,	5.05	0.1	Face Nailed	2X4	24	20	160	141	129	207	182	167	
HardiePlank [®]	⁵ / ₁₆	5,25	8d common	Through plank overlap	wood	24	40	154	131	121	199	169	156	
							60	145	126	117	187	163	151	
							0-15	160	145	132	207	187	170	
	5,	0.05	0.1	Face Nailed	2X4	24	20	160	141	129	207	182	167	
HardiePlank [®]	⁵ / ₁₆	6.25	8d common	on Through 2X4	wood	24	40	154	131	121	199	169	156	
							60	145	126	117	187	163	151	
							0-15	159	144	131	205	186	169	
	5.	7.05		Face Nailed	2X4	24	20	159	140	128	205	181	165	
HardiePlank [®]	⁵ / ₁₆	7.25	8d common	Through plank overlap	wood	24	40	153	130	120	198	168	155	
							60	144	125	116	186	161	150	
							0-15	156	141	128	201	182	165	
	5.			Face Nailed		2X4	24	20	156	137	125	201	177	161
HardiePlank [®]	⁵ / ₁₆	7.5	8d common	Through plank overlap	wood	24	40	150	128	118	194	165	152	
							60	141	123	114	182	159	147	
							0-15	150	136	123	194	176	159	
	5.			Face Nailed	2X4	24	20	150	132	121	194	170	156	
HardiePlank [®]	⁵ / ₁₆	8	8d common	Through plank overlap	wood	24	40	144	123	113	186	159	146	
							60	136	118	109	176	152	141	
							0-15	147	134	121	190	173	156	
				Face Nailed	2X4		20	147	130	118	190	168	152	
HardiePlank [®]	5/16	8,25	8d common	Through plank overlap	wood	24	40	141	121	111	182	156	143	
							60	134	116	108	173	150	139	
							0-15	138	125	113	178	161	146	
	5.		0.1	Face Nailed	2X4	24	20	138	121	111	178	156	143	
HardiePlank [®]	5/16	9.25	8d common	Through plank overlap		24	40	132	113	104	170	146	134	
							60	125	108	101	161	139	130	
							0-15	136	123	112	176	159	145	
		Parameter.	(4)	Face Nailed	2X4		20	136	120	109	176	155	141	
HardiePlank [®]	⁵ / ₁₆	9.5	8d common	Through plank overlap	wood	24	40	130	111	103	168	143	133	
				Through wood		60	123	107	99	159	138	128		

								IBC/IR	12 IRC, 2 C, 2006 ic Wind S V _{asd} 3,9,12	IBC/IRC	(Ultin	IBC/IR 2012 IB mate De nd Spe V _{ult} 10,111	C esian
PRODUCT	PROI DIMENS		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSU			KPOSU	
PRODUCT	THICK.	WIDTH	TYPE⁴	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	С	D	В	С	D
			No. 8-18,		Min. No.		0-15	168	168	137	217	217	177
HardiePlank [®]	⁵ / ₁₆	4	1- ⁵ / ₈ " long x 0,323" HD	Face	20 ga. x 3.62" '	16	20	168	158	137	217	204	177
Traffice falls	/16	7	ribbed bugle head screw	Screwed	1,375" Metal C-	10	40	168	147	131	217	190	169
			nead screw		stud		60	168	137	126	217	177	163
			No. 8-18,				0-15	168	168	137	217	217	177
HardiePlank [®]	⁵ / ₁₆	6	1- ⁵ / ₈ " long x 0.323" HD	Face	Min. No. 20 ga. x	16	20	168	158	137	217	204	177
riaraior iaim	716		ribbed bugle head screw	Screwed	3.62" [*] 1.375"	10	40	168	147	131	217	190	169
			nead screw				60	168	137	126	217	177	163
			No. 8-18,		N. N.	+	0-15	168	168	137	217	217	177
HardiePlank [®]	⁵ / ₁₆	6 ¹ / ₄	1- ⁵ / ₈ " long x 0.323" HD	Face	Min. No. 20 ga. x	16	20	168	158	137	217	204	177
rial alor jank	716	0 72	ribbed bugle head screw	Screwed	3,62" ⁷ 1,375"	"	40	168	147	126	217	190	163
			nead screw				60	168	137	121	217	177	156
			No. 8-18,		NA NI		0-15	168	147	126	217	190	163
HardiePlank [®]	⁵ / ₁₆	7 ¹ / ₄ or 7 ¹ / ₂	1- ⁵ / ₈ " long x 0.323" HD	Face	Min. No. 20 ga. x	16	20	168	147	121	217	190	156
	. 10	71/2	ribbed bugle head screw	Screwed	3.62" / 16 1.375"	40	168	131	116	217	169	150	
			nead screw				60	168	126	105	217	163	136
			No. 8-18,		N.C. NI		0-15	168	147	126	217	190	163
HardiePlank [®]	⁵ / ₁₆	8	1- ⁵ / ₈ " long x 0.323" HD	Face	Min. No. 20 ga. x	16	20	168	147	121	217	190	156
	7.16		ribbed bugle head screw	Screwed	3.62" ['] 1.375"	,,,	40	168	131	116	217	169	150
			ilead Sciew				60	158	126	105	204	163	136
			No. 8-18,		NA: NI		0-15	168	147	126	217	190	163
HardiePlank [®]	⁵ / ₁₆	8 ¹ / ₄	1- ⁵ / ₈ " long x 0,323" HD	Face	Min. No. 20 ga. x	16	20	168	137	121	217	177	156
	1,0	,	ribbed bugle head screw	Screwed	3.62" ´ 1.375"		40	168	131	116	217	169	150
			nead solew				60	158	121	105	204	156	136
			No. 8-18,		N. C. N.		0-15	168	137	116	217	177	150
HardiePlank [®]	⁵ / ₁₆	9 ¹ / ₄ or 9 ¹ / ₂	1- ⁵ / ₈ " long x 0.323" HD	Face	Min. No. 20 ga. x	16	20	168	131	110	217	169	142
	. 16	9'/2	ribbed bugle head screw	Screwed	3.62" ⁷ 1.375"	,,,	40	158	121	105	204	156	136
			nead screw				60	147	116	100	190	150	129
			No. 8-18,		N. 41 NI		0-15	168	126	105	217	163	136
HardiePlank [®]	⁵ / ₁₆	12	1- ⁵ / ₈ " long x 0,323" HD	Face	Min. No. 20 ga. x 3,62" '	16	20	168	121	95	217	156	123
	. 16		ribbed bugle head screw	Screwed	3.62" ⁷ 1.375"		40	137	110	95	177	142	123
			nead screw				60	137	105	89	177	136	115
			No. 8-18,				0-15	160	137	116	207	177	150
HardiePlank [®]	⁵ / ₁₆	4	1- ⁵ / ₈ " long x 0.323" HD	Face	Min, No. 20 ga. x	24	20	160	137	116	207	177	150
		10.00	ribbed bugle head screw	Screwed	3,62" ['] 1.375"		40	155	126	110	200	163	142
			nead solew		1.375"		60	145	116	105	187	150	136
			No. 8-18,		The state of the s		0-15	160	137	116	207	177	150
HardiePlank [®]	⁵ / ₁₆	6	1- ⁵ / ₈ " long x 0.323" HD	Face	Min, No. 20 ga. x	24	20	160	137	116	207	177	150
	. 16		ribbed bugle head screw	Screwed	3.62" [*] 1.375"	-	40	154	126	110	199	163	142
			nead sciew				60	145	116	105	187	150	136

_								IBC/IR (Basi	12 IRC, 2 C, 2006 c Wind S V _{asd}	BC/IRC Speed,	2 (Ultir Wi	IBC/IRC 012 IBC nate De nd Spe V _{ult} ^{10,11})	C esign ed,
-	PROE DIMENS		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSUI ATEGOI			POSUF	
PRODUCT	THICK.	WIDTH	TYPE ⁴	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	С	D	В	С	D
							0-15	160	145	116	207	187	150
			No. 8-18, 1- ⁵ / ₈ " long x	Face	Min. No. 20 ga. x	0.4	20	160	141	110	207	182	142
HardiePlank [®]	⁵ / ₁₆	6 ¹ / ₄	0.323" HD ribbed bugle	Screwed	3.62" ′ 1.375"	24	40	154	131	105	199	169	136
			head screw		1.010		60	145	126	100	187	163	129
			N- 040 4				0-15	160	126	105	207	163	136
	5.	7 ¹ /4 or	No. 8-18, 1- 5/8" long x	Face	Min. No. 20 ga. x	0.4	20	160	121	105	207	156	136
HardiePlank [®]	⁵ / ₁₆	7 ¹ / ₄ or 7 ¹ / ₂	0.323" HD ribbed bugle	Screwed	3.62" ⁻ 1.375"	24	40	147	110	95	190	142	123
			head screw		1.070		60	137	105	95	177	136	123
			N= 0.40.4				0-15	160	126	105	207	163	136
			No. 8-18, 1- ⁵ / ₈ " long x	Face	Min. No. 20 ga. x		20	160	121	100	207	156	129
HardiePlank [®]	⁵ / ₁₆	8	0,323" HD ribbed bugle	10 Screwed 3.62" 1.375" 1.375" Min. No.	24	40	147	110	95	190	142	123	
			head screw		1,070		60	137	105	89	177	136	115
			N= 0.40.4				0-15	160	121	105	207	156	136
	5.	_1,	No. 8-18, 1- ⁵ / ₈ " long x	Face	Min. No. 20 ga. x	24	20	160	121	100	207	156	129
HardiePlank [®]	⁵ / ₁₆	8 ¹ / ₄	0.323" HD ribbed bugle	Screwed	3.62" ′ 1.375"	24	40	137	105	95	177	136	123
			head screw		1.070		60	131	100	89	169	129	115
			N= 0.10.1				0-15	158	116	95	204	150	123
	5.	9 ¹ / ₄ or	No. 8-18, 1- ⁵ / ₈ " long x	Face	Min. No. 20 ga. x	74	20	158	110	95	204	142	123
HardiePlank [®]	5/16	91/2	0.323" HD ribbed bugle	Screwed	3.62" ´ 1.375"	24	40	137	100	89	177	129	115
			head screw				60	126	95	85	163	123	110
							0-15	163	148	134	210	191	173
	5.		No. 11 gauge,	Blind Nailed	0 1	16	20	163	143	131	210	185	169
HardiePlank [®]	⁵ / ₁₆	5,25	1.25" long roofing nail	Through top edge of plank	2 x 4	16	40	156	133	123	202	172	159
			Tooling nai				60	148	128	119	191	165	154
							0-15	146	132	120	188	171	155
	5.		No. 11 gauge,	Blind Nailed	24	16	20	146	128	117	188	166	151
HardiePlank [®]	⁵ / ₁₆	6.25	1.25" long roofing nail	Through top edge of plank	2 x 4	16	40	140	119	110	180	154	142
			100mig riam				60	132	115	106	171	148	137
							0-15	133	121	110	172	156	142
	5.	7.05	No. 11 gauge,	Blind Nailed	2 4 4	16	20	133	117	107	172	151	138
HardiePlank [®]	⁵ / ₁₆	7,25	1.25" long roofing nail	Through top edge of plank	2 x 4	10	40	128	109	101	165	141	130
			100mig rian				60	121	105	97	156	135	126
							0-15	130	118	107	168	152	138
11 By	5.	7.5	No. 11 gauge,	Blind Nailed	ough top 2 x 4	16	20	130	115	105	168	148	135
HardiePlank®	⁵ / ₁₆	7.5	1.25" long roofing nail	Through top edge of plank		10	40	125	107	99	161	138	127
							60	118	102	95	152	132	123
							0-15	125	114	103	162	147	133
gru gua 10000 100 4 01	5	120	No. 11 gauge,	Blind Nailed		40	20	125	110	101	162	143	130
HardiePlank [®]	⁵ / ₁₆	8	1.25" long roofing nail	Through top edge of plank	2 x 4	16	40	120	103	95	155	133	122
			Tooling Hall	GF (550)			60	114	99	91	147	127	118

PRODUCT DIM								IBC/IR	12 IRC, 2 C, 2006 ic Wind S V _{asd} 3,9,12	IBC/IRC	(Ultin	IBC/IRG 2012 IBC mate De nd Spe V _{ult} ^{10,11})	C esian
	PROI DIMENS	500500 Tellis	FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSU			(POSUI	
PRODUCT	THICK.	WIDTH	TYPE ⁴	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	C	D	В	C	D
							0-15	123	112	101	159	144	131
	5.		No. 11 gauge,	Blind Nailed			20	123	108	99	159	140	128
HardiePlank [®]	⁵ / ₁₆	8.25	1,25" long roofing nail	Through top edge of plank	2 x 4	16	40	118	101	93	152	130	120
			100mg nan				60	112	97	90	144	125	116
			199200 00 00				0-15	115	104	95	148	135	122
HardiePlank [®]	5,	0.05	No. 11 gauge,	Blind Nailed		40	20	115	101	93	148	131	119
nardiePlank	⁵ / ₁₆	9.25	1.25" long roofing nail	Through top edge of plank	2 x 4	16	40	110	94	87	142	122	112
			i reemig nam				60	104	90	-	135	117	21
			NewWY MAGAZO				0-15	113	103	93	146	133	121
HardiePlank [®]	⁵ / ₁₆	0.5	No. 11 gauge, '	Blind Nailed	2 4	40	20	113	100	91	146	129	118
i iaiuiePjank*	/16	9,5	1.25" long roofing nail	Through top edge of plank	2 x 4	16	40	109	93	86	140	120	111
							60	103	89	-	133	115	107
		⁵ / ₁₈ 5.25	No. 11 gauge, 1.25" long roofing nail	Blind Nailed Through top edge of plank	2 x 4		0-15	133	121	110	172	156	141
HardiePlank [®]	5,					24	20	133	117	107	172	151	138
HardiePlank ^s 7 ₁₆	/16						40	128	109	101	165	141	130
			100mg nam				60	121	105	97	156	135	125
				Blind Nailed Through top edge of plank	2 x 4		0-15	119	108	98	153	139	126
HardiePlank [®]	5,	0.05	No. 11 gauge, 1.25" long roofing nail			24	20	119	105	96	153	135	124
nardiePlank	⁵ / ₁₆	5/16 6.25				24	40	114	98	90	147	126	116
			Tooming nam				60	108	94	87	139	121	112
			No. 11 gauge, 1.25" long roofing nail	Blind Nailed Through top edge of plank	2 x 4	24	0-15	108	98	89	140	127	115
	5,	7.05					20	108	96	87	140	123	113
HardiePlank [®]	⁵ / ₁₆	7,25					40	104	89	-	134	115	-
							60	98	85	-	127	110	-
		7.5		Blind Nailed Through top edge of plank	2 x 4	24	0-15	106	96	88	137	125	113
HardiePlank [®]	⁵ / ₁₆		No. 11 gauge, 1.25" long roofing nail				20	106	94	86	137	121	110
nardieriank	716	7.5					40	102	87	-	132	113	-
							60	96		-	125	108	-
70							0-15	102	93	-	132	120	-
HardiePlank [®]	5,		No. 11 gauge,	Blind Nailed	0 4		20	102	90	-	132	116	-
HardiePlank	⁵ / ₁₆	8	1.25" long roofing nail	Through top edge of plank	2 x 4	24	40	98	-	-	127	-	-
			Tooming man				60	93	-	-	120	-	1=0
							0-15	100	91	-	129	117	-
Llordio Di1.®	5,	0.05	No. 11 gauge,	Blind Nailed	0.1	6.	20	100	88	-	129	114	-
HardiePlank [®]	⁵ / ₁₆	8.25	gauge, 1.25" long roofing nail	Through top edge of plank	2 x 4	24	40	96	-	-	124	-	
			Tooling half				60	91	-	-	117		-
							0-15	94	85	-	121	110	2 - 2
Llasdi-Di- 1.0	5,	0.05	No. 11 gauge,	Blind Nailed	2 x 4	- Spinster	20	94		-	121	107	-
HardiePlank [®]	⁵ / ₁₆	9.25	1.25" long roofing nail	Through top edge of plank		24	40	90	-	-	116	-	(-)
			, soming fruit				60	85	-		110	-	

								IBC/IR (Basi	12 IRC, 2 C, 2006 c Wind S V _{asd} 3,9,12	BC/IRC Speed.	(Ultin	IBC/IRC 2012 IBC mate De nd Spe V _{ult} ^{10,11})	C esian	
PRODUCT _		PRODUCT DIMENSION (IN.)		FASTENING	FRAME	STUD SPACING	BUILDING HEIGHT	EXPOSURE CATEGORY			EXPOSURE CATEGORY			
PRODUCT	THICK.	WIDTH	TYPE⁴	METHOD ²	TYPE ^{1,8}	(IN.)	(FT.)	В	С	D	В	С	D	
			10000				0-15	93	-	-	119	-	-	
	5,	0.5	No. 11 gauge,	Blind Nailed	2 x 4	24	20	93	2	1	119	-	-	
HardiePlank [®]	716	9.5	1.25" long roofing nail	Through top edge of plank	2 X 4	24	40	89	-	-	115	-	-	
(4)			Tooming men				60	2	-	1	-	-	-	
							0-15	170	170	166	219	219	214	
	5.	5.05	No. 11 guage, 1.75	Blind Nailed	2 4 4	16	20	170	170	162	219	219	209	
HardiePlank [®]	9/16	5.25	inch long roofing Nail	Through top edge of plank	2 x 4	16	40	170	165	153	219	213	197	
			rooming riam				60	170	158	147	219	205	190	
							0-15	170	164	149	219	211	192	
=	5.		No. 11 guage, 1.75	Blind Nailed	2 4	10	20	170	159	145	219	205	187	
HardiePlank [®]	3/16	6,25	inch long roofing Nail	Through top edge of plank	2 x 4	16	40	170	148	137	219	191	176	
			Tooling Ivan	VANO. 1995.			60	164	142	132	211	183	170	
	5						0-15	164	149	136	212	193	175	
		No. 11 guage, 1.75	Blind Nailed	04	40	20	164	145	132	212	187	171		
HardiePlank®	3/16	5/16 7.25	inch long roofing Nail	Through top edge of plank	2 x 4	16	40	158	135	125	204	174	161	
			100ling Ivan				60	149	129	120	193	167	155	
				Blind Nailed Through top edge of plank			0-15	161	146	133	208	189	172	
	-		No. 11 guage, 1.75		2 x 4		20	161	142	130	208	183	167	
HardiePlank [®]	⁵ / ₁₆	⁵ / ₁₆ 7.5	inch long roofing Nail			16	40	155	132	122	200	171	158	
			100ling Ivan	#20 W			60	146	127	118	189	164	152	
				Blind Nailed Through top edge of plank	2 x 4		0-15	155	141	128	200	182	165	
	_		No. 11 guage, 1.75 inch long roofing Nail				20	155	137	125	200	176	161	
HardiePlank®	³/ ₁₆	8				16	40	149	127	117	192	164	152	
			Tooling Ivan				60	141	122	113	182	157	146	
				Blind Nailed Through top edge of plank	2 x 4	16	0-15	152	138	126	197	178	162	
			No. 11 guage, 1.75				20	152	134	123	197	173	158	
HardiePlank [®]	°/ ₁₆	8.25	inch long roofing Nail				40	146	125	115	189	161	149	
		roofing	rooming Ivan				60	138	120	111	178	155	144	
	Plank® 5/16 5. Plank® 5/16 7. Plank® 5/16 7. Plank® 5/16 8. Plank® 5/16 8.						0-15	142	129	117	184	167	152	
	_		No. 11 guage, 1.75	Blind Nailed			20	142	126	115	184	162	148	
HardiePlank [®]	5/16	9,25	inch long roofing Nail	Through top edge of plank	2 x 4	16	40	137	117	108	176	151	139	
			rooming Ivan				60	129	112	104	167	145	134	
							0-15	140	127	116	181	164	149	
100			No. 11 guage, 1.75	Blind Nailed	- 8	850	20	140	124	113	181	160	146	
HardiePlank [®]	5/16	9.5	inch long	Through top edge of plank	2 x 4	16	40	135	115	106	174	148	137	
			roofing Nail	, , , , , , , , , , , , , , , , , , ,			60	127	110	102	164	142	132	
							0-15	164	149	136	212	193	175	
	20		No. 11 guage, 1.75	Blind Nailed			20	164	145	132	212	187	171	
HardiePlank [®]	5/16	5.25	inch long	Through top edge of plank	2 x 4	24	40	158	135	125	204	147	161	
			roofing Nail	- Annual Control			60	149	129	120	193	167	155	

								IBC/IR	12 IRC, 2 C, 2006 ic Wind S V _{asd} 3,9,12	IBC/IRC Speed.	(Ultin	IBC/IRC 2012 IBC mate De nd Spe V _{ult}	C esign
PRODUCT	PROD DIMENS		FASTENER TYPE ⁴	FASTENING METHOD ²	FRAME	STUD SPACING	BUILDING HEIGHT	EXPOSURE CATEGORY			EXPOSURE CATEGORY		
	THICK.	WIDTH	TIFE	· WETHOD	TYPE ^{1,8}	(IN.)	(FT.)	В	С	D	В	С	D
			No. 11				0-15	147	134	121	190	172	157
HardiePlank®	⁵ / ₁₆	6.25	guage, 1.75	Blind Nailed Through top	2 x 4	24	20	147	130	118	190	168	153
			inch long roofing Nail	edge of plank	=	10000	40	141	121	111	182	156	144
							60	134	116	108	172	150	139
			No. 11	COMMON NAMES AND ARTS			0-15	134	122	111	173	157	143
HardiePlank [®]	⁵ / ₁₆	7.25	guage, 1.75 inch long	Blind Nailed Through top	2 x 4	24	20	134	118	108	173	153	140
	20150540	000000000000000000000000000000000000000	roofing Nail	edge of plank	(50,000,000)	3555	40	129	110	102	166	142	131
							60	122	106	98	157	136	127
			No. 11				0-15	132	119	109	170	154	140
HardiePlank [®]	⁵ / ₁₆	7,5	guage, 1.75 inch long	Blind Nailed Through top	2 x 4	24	20	132	116	106	170	150	137
50,000	0.3828	- 2	roofing Nail	edge of plank			40	126	108	100	163	139	129
							60	119	104	96	154	134	124
		⁵ / ₁₆ 8	No. 11 guage, 1.75 inch long roofing Nail	Blind Nailed Through top edge of plank	2 x 4	24	0-15	127	115	104	163	148	135
HardiePlank [®] ⁵ / ₁₆	⁵ / ₁₆						20	127	112	102	163	144	132
	3526						40	122	104	96	157	134	124
							60	115	100	93	148	129	120
			No. 11 guage, 1.75 inch long roofing Nail	Blind Nailed Through top edge of plank	2 x 4		0-15	124	113	102	161	146	132
HardiePlank [®]	⁵ / ₁₆	8.25				24	20	124	110	100	161	142	129
	350.17	501					40	119	102	94	154	132	122
							60	113	98	91	146	126	117
			No. 11 guage, 1.75 inch long roofing Nail	Blind Nailed Through top edge of plank	2 x 4	24	0-15	116	106	96	150	136	124
HardiePlank [®]	⁵ / ₁₆	9,25					20	116	103	94	150	133	121
	320						40	112	95	88	144	123	114
							60	106	92	85	136	118	110
		9.5	No. 11		2 x 4	24	0-15	114	104	94	148	134	122
HardiePlank [®]	⁵ / ₁₆		No. 11 guage, 1.75 inch long roofing Nail	Blind Nailed Through top			20	114	101	92	148	130	119
	55%			edge of plank			40	110	94	87	142	121	112
							60	104	90	-	134	116	-
			No. 8 x 1 ¹ / ₄ in. long x		Min. No. 20 ga. x		0-15	168	168	137	217	217	177
HardiePlank [®]	⁵ / ₁₆	4	0.375 in. HD ribbed	Blind Screwed	3.62" x 1.375"	16	20	168	158	137	217	204	177
			waferhead	Screwed	Metal C-		40	168	147	126	217	190	163
			screws		stud		60	168	137	121	217	177	156
			No, 8 x 1 ¹ / ₄ in, long x		Min, No, 20 ga, x		0-15	168	168	137	217	217	177
HardiePlank [®]	⁵ / ₁₆	6	0.375 in.	Blind	3.62" x	16	20	168	158	137	217	204	177
	j. 100		HD ribbed waferhead	Screwed	1,375" Metal C-		40	168	147	126	217	190	163
			screws		stud		60	168	137	121	217	177	156
			No. 8 x 1 ¹ / ₄ in, long x		Min. No. 20 ga. x		0-15	168	158	142	217	204	183
HardiePlank [®]	⁵ / ₁₆	6 ¹ / ₄	0.375 in.	Blind	3.62" x	16	20	168	158	131	217	204	169
		3	HD ribbed waferhead	Screwed	1.375" Metal C-		40	168	147	126	217	190	163
			screws		stud		60	158	137	121	204	177	156

								IBC/IR (Basi	12 IRC, 2 C, 2006 c Wind S V _{asd} 3,9,12	IBC/IRC Speed,)	2 (Ultir Wi	IBC/IRC 2012 IBC mate De nd Spe V _{ult} ^{10,11})	C esign ed,	
PRODUCT PRODUCT	OUCT	FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSUI			POSUI			
PRODUCT	THICK.	WIDTH	TYPE4	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	С	D	В	С	D	
			No. 8 x 1 ¹ / ₄		Min, No.	77 102	0-15	168	152	126	217	196	163	
		7 ¹ / ₄ or	in, long x 0.375 in,	Blind	20 ga. x 3.62" x		20	168	147	116	217	190	150	
HardiePlank [®]	⁵ / ₁₆	71/2	HD ribbed waferhead	Screwed	1,375" Metal C-	16	40	168	137	116	217	177	150	
			screws		stud		60	158	126	110	204	163	142	
			No. 8 x 1 ¹ / ₄		Min. No.		0-15	168	147	116	217	190	150	
	5.		in. long x 0,375 in.	Blind	20 ga. x 3.62" x	40	20	168	137	116	217	177	150	
HardiePlank®	⁵ / ₁₆	8	HD ribbed waferhead	Screwed	1.375" Metal C-	16	40	158	126	105	204	163	136	
			screws		stud		60	147	121	105	190	156	136	
			No. 8 x 1 ¹ / ₄		Min. No.		0-15	168	142	121	217	183	156	
	5.	at.	in, long x 0,375 in,	Blind	20 ga, x 3.62" x	40	20	168	137	116	217	177	150	
HardiePlank [®]	⁵ / ₁₆	8 ¹ / ₄	HD ribbed waferhead	Screwed	1,375" Metal C-	16	40	158	126	110	204	163	142	
			screws		stud		60	147	116	105	190	150	136	
		⁵ / ₁₆ 9 ¹ / ₄ or 9 ¹ / ₂		No. 8 x 1 ¹ / ₄		Min. No.		0-15	168	137	116	217	177	150
–	5.		in. long x 0,375 in. HD ribbed waferhead	Blind Screwed	20 ga, X 3.62" x 1.375" Metal C- stud	16	20	168	126	105	217	163	136	
HardiePlank [®] ⁵ / ₁₆	9/16						40	158	116	105	204	150	136	
			screws				60	137	110	100	177	142	129	
			No. 8 x 1 ¹ / ₄	Blind Screwed	Min. No. 20 ga. x 3.62" x 1.375" Metal C-	24	0-15	160	137	116	207	177	150	
	5.		in. long x 0.375 in.				20	160	131	110	207	169	142	
HardiePlank [®]	⁵ / ₁₆	5/16 4	HD ribbed waferhead			24	40	152	121	105	196	156	136	
			screws		stud		60	145	116	100	187	150	129	
			No. 8 x 1 ¹ / ₄		Min. No. 20 ga. x 3,62" x 1.375" Metal C- stud	24	0-15	160	137	116	207	177	150	
=	5.		in, long x 0,375 in, HD ribbed waferhead	Blind Screwed			20	160	131	110	207	169	142	
HardiePlank [®]	⁵ / ₁₆	6					40	152	121	105	196	156	136	
			screws				60	145	116	100	187	150	129	
			No. 8 x 1 ¹ / ₄		Min. No. 20 ga. x 3.62" x 1.375" Metal C- stud	24	0-15	160	137	116	207	177	150	
	5.	-11	in. long x 0.375 in.	Blind			20	160	131	105	207	169	136	
HardiePlank [®]	⁵ / ₁₆	61/4	HD ribbed waferhead	Screwed		24	40	154	121	105	199	156	136	
			screws				60	145	116	100	187	150	129	
			No. 8 x 1 ¹ / ₄		Min. No.		0-15	160	126	105	207	163	136	
	5.	7 ¹ / ₄ or	in. long x 0,375 in.	Blind	20 ga. x 3,62" x		20	160	116	100	207	150	129	
HardiePlank [®]	5/16	7 ¹ / ₄ or 7 ¹ / ₂	HD ribbed waferhead	Screwed	1.375" Metal C-	24	40	147	105	89	190	136	115	
			screws		stud		60	137	89	89	177	115	115	
			No. 8 x 1 ¹ / ₄		Min. No.		0-15	160	121	100	207	156	129	
	5.	_	in, long x 0,375 in.	Blind	20 ga. x 3.62" x	24	20	158	116	100	204	150	129	
HardiePlank [®]	5/16	8	HD ribbed waferhead screws	Screwed	1.375" Metal C-	24	40	142	105	89	183	136	115	
					stud		60	131	100	89	169	129	115	
			No. 8 x 1 ¹ / ₄		Min. No.		0-15	160	121	100	207	156	129	
	5.	61.	in, long x 0.375 in.	Blind	20 ga. x 3.62" x	0.4	20	158	116	100	204	150	129	
HardiePlank [®]	5/16	81/4	HD ribbed waferhead	Screwed	1.375" Metal C-	24	40	142	105	89	183	136	115	
			screws		stud		60	126	100	89	163	129	115	

TABLE 4—MAXIMUM BASIC WIND SPEED (mph)³ (Continued)

								IBC/IR	12 IRC, 2 C, 2006 ic Wind S V _{asd} 3,9,12	IBC/IRC Speed.	(Ultin	IBC/IR0 2012 IB0 mate De nd Spe V _{ult}	C esian
PRODUCT	PROE DIMENS		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSUI			POSU	
PRODUCT	тніск.	WIDTH	TYPE⁴	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	С	D	В	С	D
			No. 8 x 1 ¹ / ₄		Min. No.		0-15	158	116	95	204	150	123
HardiePlank [®]	⁵ / ₁₆	9 ¹ / ₄ or	in, long x 0.375 in.	Blind	20 ga, x 3.62" x	24	20	147	105	89	190	136	115
natulerlank	/16	91/2	HD ribbed waferhead	Screwed	1,375" Metal C-	24	40	131	95	85	169	123	110
			screws		stud		60	121	89	85	156	115	110
			6d-2 inch long X				0-15	141	128	116	182	165	150
D	5,	5.05	0.093 inch shank X	Blind Nailed	2 x 4		20	141	124	114	182	160	147
HardiePlank [®]	⁵ / ₁₆	5.25	0.222 inch head	Through top edge of plank	wood	16	40	135	116	107	174	150	138
			diameter siding nail				60	128	111	103	165	143	133
			6d-2 inch				0-15	126	114	104	163	147	134
			long X 0,093 inch	Blind Nailed	0.4		20	126	111	102	163	143	132
HardiePlank [®] ⁵ / ₁₆	⁵ / ₁₆	⁵ / ₁₆ 6.25	shank X 0.222 inch	Through top edge of plank	2 x 4 wood	16	40	121	103	96	156	133	124
			head diameter	ouge of plant			60	114	99	92	147	128	119
			siding nail 6d-2 inch				0-15	115	104	95	148	134	123
HardiePlank® ⁵ / ₁₆			long X 0.093 inch shank X 0.222 inch head diameter	Blind Nailed Through top edge of plank	2 x 4 wood	16	20	115	102	93	148	132	120
	⁵ / ₁₆	7.25					40	110	94	87	142	121	112
			siding nail 6d-2 inch				60	104	91	-	134	117	-
			long X 0.093 inch shank X	Blind Nailed Through top	2 x 4 wood	16	0-15	113	102	93	146	132	120
HardiePlank [®]	⁵ / ₁₆	7.5					20	113	99	91	146	128	117
	,0		0,222 inch head	edge of plank			40	108	93	85	139	120	110
			diameter siding nail				60	102	89	-	132	115	-
			6d-2 inch long X				0-15	109	99	90	141	128	116
—	⁵ / ₁₆	⁵ / ₁₆ 8	0.093 inch shank X	Blind Nailed Through top edge of plank	2 x 4 wood	16	20	109	96	87	141	124	112
HardiePlank [®]			0.222 inch head diameter siding nail				40	104	89	-	134	115	-
							60	99	85	-	128	110	-
			6d-2 inch				0-15	107	97	88	138	125	114
			long X 0.093 inch	Blind Nailed			20	107	94	86	138	121	111
HardiePlank [®]	⁵ / ₁₆		shank X 0.222 inch	Through top edge of plank	2 x 4 wood		40	102	88	-	132	114	-
			head diameter	ougo or plank			60	97	-	_	125	-	_
			siding nail 6d-2 inch				0-15	100	90		ļ		-
			long X 0.093 inch				20	100	88	-	129	116	1.50
HardiePlank [®]	⁵ / ₁₆	9.25	shank X 0,222 inch	Blind Nailed Through top	2 x 4 wood	16	40	96		-	129	114	-
			head diameter	edge of plank	wood		60	90	-	-	116	-	
			siding nail 6d-2 inch				0-15	98	89	-	127	115	-
			long X 0.093 inch	Blind Nailed	2 x 4 wood	16	20	98	87	-	127	112	-
HardiePlank [®]	⁵ / ₁₆	9.5	shank X 0.222 inch	Through top edge of plank			40	94	-	-	121	-	-
			head diameter siding nail	Suge of plank			60	89	-		115	-	-

								IBC/IR (Basi	12 IRC, 2 C, 2006 I c Wind S V _{asd} ^{3,9,12}	BC/IRC Speed.	2 (Ultir Wi	IBC/IR0 2012 IB0 mate De nd Spe V _{ult} ^{10,11})	C esign ed.
PRODUCT	PROE DIMENS		FASTENER	FASTENING	FRAME	STUD SPACING	BUILDING HEIGHT		XPOSUI ATEGOI			(POSUI	
PRODUCT	THICK.	WIDTH	TYPE ⁴	METHOD ²	TYPE ^{1,8}	(IN.)	(FT.)	В	С	D	В	С	D
			6d-2 inch long X				0-15	115	104	95	148	134	123
			0.093 inch	Blind Nailed	2 x 4		20	115	102	93	148	132	120
HardiePlank [®]	⁵ / ₁₆	5.25	0.222 inch	Through top edge of plank	wood	24	40	110	94	87	142	121	112
			head diameter siding nail	,			60	104	91	-	134	117	•
			6d-2 inch long X				0-15	103	93	-	133	120	-
			0.093 inch shank X	Blind Nailed	2 x 4		20	103	91	-	133	117	-
HardiePlank [®]	⁵ / ₁₆	6,25	0.222 inch head	Through top edge of plank	wood	24	40	99	•	-	128	-	-
			diameter siding nail				60	93		-	120	-	-
			6d-2 inch long X				0-15	94	85	-	121	110	
200			0.093 inch shank X	Blind Nailed	2 x 4	100000	20	94		-	121	-	-
HardiePlank [®]	⁵ / ₁₆	7.25	0.222 inch	Through top edge of plank	wood	24	40	90	-	-	116	-	17.0
			head diameter siding nail	ougo of plank			60	85	l s t.	-	110	-	-
			6d-2 inch long X				0-15	92	•	-	119	-	-
			0.093 inch shank X	Blind Nailed	2 x 4		20	92	-	-	119	-	-
HardiePlank [®]	⁵ / ₁₆	7.5	0.222 inch	Blind Nailed Through top edge of plank	wood	24	40	88	-	-	114	-	-
			diameter siding nail				60	٠	-	-	-	-	-
			6d-2 inch long X				0-15	89	-	-	115	-	-
	_		0.093 inch shank X	Blind Nailed	2 x 4		20	89	-	-	1 1 5	-	-
HardiePlank [®]	⁵ / ₁₆	8	0.222 inch	Through top edge of plank	wood	24	40	85	-	-	110	-	-
			diameter siding nail				60	-	-	-	-	-	-
			6d-2 inch long X				0-15	87	(-)	-	112	= 1	1.50
			0.093 inch shank X	Blind Nailed	2 x 4		20	87		.e.)	112	-	-
HardiePlank [®]	⁵ / ₁₆	8.25	0,222 inch head	Through top edge of plank	wood	24	40	-	:-:		-	•	(-)
			diameter siding nail				60	(-)	:=:		-	•	•
			0.092"				0-15	153	138	126	198	178	163
HardiePlank®	⁵ / ₁₆	-0 DE	shank X 0.222" HD X	face nailed	2 x 4	16	20	153	135	123	198	174	159
HardiePlank®	/16	≤8.25	2.5" long	through plank overlap	wood		40	146	125	116	188	161	150
			galv. nail				60	138	120	112	178	155	145
			0.092"				0-15	143	130	118	185	168	152
Hdi-Bii-C	5,	0.05	shank X	face nailed	2 x 4	16	20	143	126	115	185	163	148
HardiePlank®	⁵ / ₁₆	9.25	0.222" HD X 2.5" long	through plank overlap	wood	16	40	137	117	108	177	151	139
			galv, nail				60	130	113	105	168	146	136

								IBC/IR (Basi	12 IRC, 2 C, 2006 ic Wind S V _{asd} 3,9,12	IBC/IRC Speed,)	2 (Ultir Wi	IBC/IR0 012 IB0 nate De nd Spe V _{ult} 10,11	esign ed,
PRODUCT	DIMENS	ION (IN.)	FASTENER TYPE ⁴	FASTENING METHOD ²	FRAME TYPE ^{1,8}	STUD SPACING	BUILDING HEIGHT		ATEGO	RY	C.A	TEGO	RY
	THICK.	WIDTH				(IN.)	(FT.)	В	С	D	В	С	D
			0.092"	f			0-15	141	128	116	182	165	150
HardiePlank®	⁵ / ₁₆	9.5	shank X 0.222" HD X	face nailed through plank	2 x 4 wood	16	20	141	124	113	182	160	146
			2.5" long galv, nail	overlap	3113,313		40	135	116	107	174	150	138
							60	128	111	103	165	143	133
			0.092" shank X	face nailed	2.35		0-15 20	123	112	101	159	144	131
HardiePlank®	⁵ / ₁₆	12	0.222" HD X	through plank	2 x 4 wood	16	3000	N/2007-04	108	99	159	140	128
			2.5" long galv. nail	overlap	1000 V 1000 V		60	118	101 97	934	152 144	130	120
							0-15	203	184	(Many	10.000	125	116
			8d ring shank box	face nailed			20	203	179	167 163	262	238	216
HardiePlank®	⁵ / ₁₆	≤8,25	nail, 0.113" shank X	through plank	2 x 4 wood ⁶	16	40	194	166	153	262 250	231	210
			0,260" HD X 2,375" L	overlap	33000000000		60	184	159	148	238	205	198
		-					0-15	166	151	137	214	195	177
			8d ring shank box	face nailed	NO.5 80		20	166	146	134	214	188	177
HardiePlank®	⁵ / ₁₆	≤8.25	nail, 0,113" shank X	through plank overlap	2 x 4 wood ⁶	24	40	159	136	126	205	176	163
			0.260" HD X 2.375" L				60	151	131	121	195	169	156
							0-15	151	137	125	195	177	161
			0.092" shank X	face nailed			20	151	133	122	195	172	158
HardiePlank®	⁵ / ₁₆	≤8.25	0.222" HD X 2" long galv.	face nailed through plank overlap	2 x 4 wood ⁶	16	40	145	124	115	187	160	148
			nail	Overlap			60	137	119	111	177	154	143
							0-15	187	170	154	241	219	199
			0.092" shank X	face nailed	04		20	187	165	151	241	213	195
HardiePlank®	⁵ / ₁₆	≤8,25	0,222" HD X 2,5" long	through plank overlap	2 x 4 wood ⁶	16	40	180	154	142	232	199	183
			galv. nail	1818097189. 0 0			60	170	147	137	219	190	177
			TOTAL MERCANINA		Attached		0-15	207	188	171	267	243	221
	_	20020000	No. 8 X 1- 5/8" long X	blind screw through top	to 7/16" wood	7/16" WSP	20	207	183	167	267	236	216
HardiePlank®	⁵ / ₁₆	5.25	0.375" HD ribbed wafer	edge of plank at 12 in. on	structural panel	attached per code	40	199	170	157	257	219	203
			head screw ⁵	center	sheathin g only		60	188	163	152	243	210	196
			N OVA	1.0-1	Attached		0-15	183	166	151	236	214	195
100 000 0000 0000	5		No. 8 X 1- 5/8" long X	blind screw through top	to 7/16" wood	7/16" WSP	20	183	161	147	236	208	190
HardiePlank®	⁵ / ₁₆	6.25	0.375" HD ribbed wafer	edge of plank at 12 in, on	structural panel	attached per code	40	176	150	139	227	194	179
			head screw ⁵	center	sheathin g only		60	166	144	134	214	186	173
			N= 0 V d	Lu-J	Attached		0-15	165	150	136	213	194	176
10 Mg Cost 2000	5.		No. 8 X 1- 5/8" long X	blind screw through top	to 7/16" wood	7/16" WSP	20	165	145	133	213	187	172
HardiePlank®	⁵ / ₁₆	7.25	0.375" HD ribbed wafer	edge of plank at 12 in. on	structural panel	attached per code	40	158	135	125	204	174	161
			head screw ⁵		sheathin g only		60	150	130	120	194	168	155
			No 9 V 1	blind	Attached		0-15	150	136	124	194	176	160
	5.		No. 8 X 1- 5/8" long X	blind screw through top	to 7/16" wood	7/16" WSP	20	150	133	121	194	172	156
HardiePlank®	⁵ / ₁₆	8.25	0.375" HD ribbed wafer	edge of plank at 12 in. on	structural panel	attached per code	40	144	123	114	186	159	147
			head screw⁵	center	sheathin g only		60	136	118	110	176	152	142

								IBC/IR (Basi	12 IRC, 2 C, 2006 c Wind S V _{asd} 3,9,12	IBC/IRC Speed.	2 (Ultir Wi	IBC/IRC 2012 IBC mate De nd Spec V _{ult} ^{10,11})	c esign ed.
	PROD DIMENS		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSU			POSUF	
PRODUCT	THICK.	WIDTH	TYPE4	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	С	D	В	С	D
	3,000				Attached		0-15	139	126	114	179	163	147
			No, 8 X 1- 5/8" long X	blind screw through top	to 7/16" wood	7/16" WSP	20	139	122	112	179	158	145
HardiePlank®	⁵ / ₁₆	9.25	0.375" HD ribbed wafer	edge of plank at 12 in, on	structural panel	attached per code	40	133	114	105	172	147	136
			head screw ⁵	center	sheathin g only		60	126	109	101	163	141	130
			0.090"	blind nail	Attached to 7/16"		0-15	145	132	120	187	170	155
Hdi-Dil-0	5,	<0.0F	shank X 0.215" HD X	through top	wood	7/16" WSP attached	20	145	128	117	187	165	151
HardiePlank®	⁵ / ₁₆	≤8.25	1.5" long ring shank	edge of plank at 8 in. on	structural panel	per code	40	139	119	110	179	154	142
			nail ⁵	center	sheathin g only		60	132	114	106	170	147	137
			0.090"	blind nail	Attached to 7/16"		0-15	166	150	137	214	194	177
Usedia Diank®	⁵ / ₁₆	<0.2E	shank X 0,215" HD X	through top edge of plank	wood structural	7/16" WSP attached	20	166	146	133	214	188	172
HardiePlank®	/16	≤8,25	1,5" long ring shank	at 6 in. on	panel	per code	40	159	136	125	205	176	161
			nail ⁵	center	sheathin g only		60	150	130	121	194	168	156
			0.091"	Carrier Manager	Attached to 7/16"		0-15	100	91	-	129	117	-
HardiePlank [®]	⁵ / ₁₆	< 9 ¹ / ₂	shank, 0.221" HD,	Face Nailed through the	wood structural	7/16" WSP attached	20	100	88	-	129	114	-
naidierialik	/16	372	1.5" long ring shank	overlap at 12" o.c.	panel	per code	40	96	-	-	124	-	-
			nail ⁵	\$20 (C. S.C.)	sheathin g only		60	91	-	-	117	-	H)
			0.092"				0-15	184	167	152	238	216	196
Artisan® Lap	⁵ / ₈	5.25	shank X 0.225" HD X	blind nail through top	2X4 ,	16	20	184	162	148	238	209	191
Artisario Lap	/8	3.23	2.25" long galv. Nail	edge of plank	Wood'	10	40	177	151	140	229	195	181
			gaiv. Ivaii				60	167	145	135	216	187	174
			0,092"				0-15	135	122	111	174	158	143
Artisan® Lap	⁵ / ₈	7,25	shank X 0,225" HD X	blind nail through top	2X4	16	20	135	119	108	174	154	139
7 ii iiodiiio Lap	/*		2.25" long galv. Nail	edge of plank	Wood'		40	129	111	102	167	143	132
			gaiv. Ivaii				60	122	106	98	158	137	127
			0.092"				0-15	117	106	96	151	137	124
Artisan® Lap	5/8	8.25	shank X 0.225" HD X	blind nail through top	2X4 Wood ⁷	16	20	117	103	94	151	133	121
1.5.75.70.50.70.40			2.25" long galv. Nail	edge of plank	vvood		40	112	96	88	145	124	114
			J				60	106	92	85	137	119	110
			0.092"	=			0-15	132	119	109	170	154	141
Artisan® Lap	5/8	5,25	shank X 0,225" HD X	blind nail through top	2X4 Wood ⁷	24	20	132	116	106	170	150	137
		200	2.25" long galv, nail	edge of plank	Wood		40	126	108	100	163	139	129
			J=111.11=11				60	119	104	96	154	134	124
			0.092"				0-15	99	90	-	128	116	-
Artisan® Lap	5/8	7.25	shank X 0.225" HD X	blind nail through top	2X4 Wood ⁷	24	20	99	87		128	112	-
HONERS ET LOUISIEUR D'ET HER	godije		2.25" long galv. nail	edge of plank	***************************************		40	95	-	-	123	-	1.0
							60	90	-	-	116	-	.=0
			0.092"	ran en			0-15	88	-	-	114	-	186
Artisan® Lap	5/8	8.25	shank X 0.225" HD X	blind nail through top	2X4 Wood ⁷	24	20	88	-	-0	114	-	
CONTRACTOR OF THE	Young		2.25" long galv. nail	edge of plank	11000		40	-	-	,=0	-	-	(.)
							60	-	.=:	(= 0)	-		-

								IBC/IR	12 IRC, 2 C, 2006 c Wind S V _{asd} 3,9,12	BC/IRC	2 (Ultir	IBC/IRG 2012 IBG mate De nd Spe V _{ult} ^{10,11})	C esian
DD OD UGT	PROE DIMENSI		FASTENER	FASTENING	FRAME	STUD	BUILDING		XPOSUI			(POSUI	
PRODUCT	THICK.	WIDTH	TYPE⁴	METHOD ²	TYPE ^{1,8}	SPACING (IN.)	HEIGHT (FT.)	В	С	D	В	С	D
			No. 8 X 1-		Min. No.		0-15	181	164	149	234	212	192
Articon D Los	⁵ / ₈	5.25	5/8" long X 0.323" HD	blind screw	20 ga. x 3.62" x	46	20	181	159	146	234	205	188
Artisan® Lap	78	5.25	ribbed bugle	through top edge of plank	1.375" Metal C-	16	40	174	148	137	225	191	177
			head screw		stud		60	164	142	132	212	183	170
			No. 8 X 1-		Min. No.		0-15	157	142	129	203	183	167
Artisan® Lap	⁵ /8	7.25	5/8" long X 0.323" HD	blind screw through top	20 ga. x 3.62" x	16	20	157	138	126	203	178	163
Artisario Lap	/8	7.25	ribbed bugle	edge of plank	1,375" Metal C-	10	40	150	128	119	194	165	154
			head screw		stud		60	142	123	114	183	159	147
			No. 8 X 1-	Min. No. 20 ga. x		0-15	149	135	123	192	174	159	
Artisan® Lap	⁵ /8	8.25	5/8" long X 0.323" HD	blind screw 20 ga. x 3.62" x	16	20	149	131	120	192	169	155	
Altisalie Lap	/8	0.25	ribbed bugle	edge of plank	1.375" Metal C-	10	40	143	122	113	185	158	146
			head screw		stud		60	135	117	109	174	151	141
			No. 8 X 1-		Min. No.		0-15	180	163	148	232	210	191
Artisan® Lap	5/ ₈	5.25	5/8" long X 0.323" HD	blind screw through top	20 ga. x 3.62" x	24	20	180	158	145	232	204	187
/ IIIodiio Edp	18	0.20	ribbed bugle head screw	edge of plank	1.375" Metal C-	24	40	172	147	136	222	190	176
			nead screw		stud		60	163	141	131	210	182	169
			No. 8 X 1-		Min. No.		0-15	144	130	118	186	168	152
Artisan® Lap	⁵ /8	7.25	5/8" long X 0.323" HD	blind screw through top	20 ga. x 3.62" x	24	20	144	127	116	186	164	150
/ II dodno zap	78	1.20	ribbed bugle head screw	edge of plank	1.375" Metal C-	2-	40	138	118	109	178	152	141
			ricad sciew		Metal C- stud		60	130	113	105	168	146	136
			No. 8 X 1-		Min. No.		0-15	132	119	108	170	154	139
Artisan® Lap	5/ ₈	8.25	5/8" long X 0.323" HD	blind screw through top	20 ga. x 3,62" x	24	20	132	116	106	170	150	137
одно дар	18	0.20	ribbed bugle head screw	edge of plank	1.375" Metal C-		40	126	108	100	163	139	129
			neau solew		stud		60	119	104	96	154	134	124

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.44 m/s.

¹Values are for species of wood having a specific gravity of 0.42 or greater, unless otherwise noted.

²Face = Fastened through the overlapping plank. Blind = Fastened through the top edge of single plank.

³Wind speed design assumptions per Section 30.4, Method 2, of ASCE 7-10: I = 1.0, Kzt = 1, Kd = 0.85, GC_{pi} = 0.18, GC_p = -1.4.

⁴ET&F pin fasteners have knurled shanks

⁵Fastener length shall be sufficient to penetrate back side of the minimum 7/16" WSP sheathing by at least ¼" for nails or 3 full threads for screws.

Values are for species of wood having a specific gravity of 0.50 or greater

Values are for species of wood having a specific gravity of 0.40 or greater

Metal studs must be minimum Fy = 33 ksi.

 $^{^{10}}$ V_{ult} = ultimate design wind speed. 10 V_{ult} = ultimate design wind speed. 11 Wind speed design assumptions per Section 30.4, of ASCE 7-10: Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4. 12 2015 and 2012 IBC Section 1609.3.1, Eqn. 16-33, $V_{asd} = V_{ult} \sqrt{0.6}$

TABLE 5—(V_{asd} 100 MPH; V_{ult} 129 MPH)³ ALLOWABLE FASTENER SPACING (IN.) JAMES HARDIE LAP SIDING FASTENED TO ASTM C90 CONCRETE MASONRY UNIT WALL^{1,2,4,5}

Building	≤6	1/2-inch wi	de	71/4- 8	& 7 ¹ / ₂ -inch	wide	8-&	81/4-inch	wide	91/4- 8	& 9¹/₂-inch	wide
Height (feet)		Exposure			Exposure	9		Exposure			Exposure	
	В	С	D	В	С	D	В	С	D	В	С	D
0-15	24	24	24	24	24	24	24	24	21	24	23	19
20	24	24	24	24	24	23	24	24	20	24	21	18
30	24	24	24	24	24	21	24	22	19	24	20	17
40	24	24	23	24	24	20	24	21	18	24	19	16
50	24	24	22	24	22	19	24	20	17	24	18	15
60	24	24	22	24	22	19	24	19	17	23	17	15

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.44 m/s.

¹HardiePlank[®] Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-125, head diameter. = 0.30 in., shank diameter. = 0.144 in., length = 1.25-in. long), Max System block Nail (CP-C 832 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.35 in.), Aerosmith SurePin block nail (head diameter = 0.30 in., shank diameter. = 0.30 in., shank diameter.

shank diameter = 0.145 in., length = 1.25 in.).

Artisan® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-150, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5-in. long), Max System block Nail (CP-C 838 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.145 in.), Aerosmith SurePin block Nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.5 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.145 in., length = 1.5 in.).

Administration of the control of the co

Interpolation of spacing to address building height and other plank widths is permitted.

⁵The lap conceals the fasteners of the previous course (Blind Nailed).

TABLE 6—(V_{asd} 110 MPH; V_{ult} 142 MPH)³ ALLOWABLE FASTENER SPACING (IN.) JAMES HARDIE LAP SIDING FASTENED TO ASTM C90 CONCRETE MASONRY UNIT WALL^{1,2,4,5}

Building	≤6	1/2-inch wi	de	71/4-	& 7 ¹ / ₂ -inch	wide	8-8	8 ¹ / ₄ -inch	wide	91/4-	& 9¹/₂-inch	wide
Height (feet)		Exposure			Exposure	Y		Exposure			Exposure	
	В	С	D	В	С	D	В	С	D	В	С	D
0-15	24	24	22	24	24	19	24	21	17	23	19	15
20	24	24	21	24	22	18	24	20	16	23	18	15
30	24	24	20	24	20	17	24	18	15	23	16	14
40	24	22	19	24	19	16	24	17	15	21	15	13
50	24	21	18	24	18	16	22	16	14	20	14	12
60	24	20	18	23	18	15	21	16	14	19	14	12

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.44 m/s.

¹HardiePlank[®] Lap Siding fasteners must be ET&F Fastening Systems, Inc, ET&F block Nail (ET & F No. ASM-144-125, head diameter. = 0.30 in., shank diameter. = 0.144 in., length = 1.25-in. long), Max System block Nail (CP-C 832 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.3 in.), Aerosmith SurePin block nail (head diameter = 0.30 in., shank diameter = 0.30 in.), or Jacco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.30 in.)

Aerosmith SurePin block hall (head diameter = 0.30 in., shank diameter = 0.145 in., length = 1.25 in.), or Jaaco Nail Pio (kit 1455 head diameter = 0.30 in., shank diameter. = 0.145 in., length = 1.25 in.).

Artisan® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-150, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5-in. long), Max System block Nail (CP-C 838 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5-in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.30 in., shank diameter = 0.145 in., length = 1.5-in.).

Maximum nominal design wind speed (V_{ast}) shall be 110 mph Maximum ultimate design wind speed (V_{ult)} shall be 142 mph.

⁴Interpolation to address building height and other plank widths is permitted.

⁵The lap conceals the fasteners of the previous course (Blind Nailed).

TABLE 7—(V_{asd} 120 MPH; V_{ult} 155 MPH)³ ALLOWABLE FASTENER SPACING (IN.) JAMES HARDIE LAP SIDING FASTENED TO ASTM C90 CONCRETE MASONRY UNIT WALL^{1,3,4}

Building	≤6	1/2-inch wi	de	71/4-	& 7 ¹ / ₂ -inch	wide	8-8	8 ¹ / ₄ -inch	wide	91/4-	& 9 ¹ / ₂ -inch	wide
Height (feet)		Exposure			Exposure			Exposure	10		Exposure	
	В	С	D	В	С	D	В	С	D	В	С	D
0-15	24	23	19	24	20	17	21	18	15	19	16	13
20	24	22	18	24	19	16	21	17	14	19	15	12
30	24	20	17	24	17	15	21	15	13	19	14	12
40	24	19	16	22	16	14	20	14	12	18	13	11
50	24	18	16	21	16	13	18	14	12	17	12	11
60	23	17	15	20	15	13	18	13	11	16	12	10

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.44 m/s.

HardiePlank® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-125, head diameter. = 0.30 in., shank diameter. = 0.144 in., length = 1.25-in. long), Max System block Nail (CP-C 832 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.15 in., length = 1.3 in.). Aerosmith SurePin block nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.25 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.145 in., length = 1.25 in.).

2Artisan® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-150, head diameter. = 0.30 in., shank diameter. = 0.30 in.

²Artisan⁹ Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-150, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5-in. long), Max System block Nail (CP-C 838 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5 in.), Aerosmith SurePin block Nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.5 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.145 in., length = 1.5 in.). ³Maximum nominal design wind speed (V_{ast}) shall be 120 mph. Maximum ultimate design wind speed (V_{ullt)} shall be 155 mph.

⁴Interpolation to address building height and other plank widths is permitted. ⁵The lap conceals the fasteners of the previous course (Blind Nailed).

TABLE 8—(V_{asd} 130 MPH; V_{ult} 168 MPH)³ ALLOWABLE FASTENER SPACING (IN.)

JAMES HARDIE LAP SIDING FASTENED TO ASTM C90 CONCRETE MASONRY UNIT WALL 1,2,4,5

Building	<u><</u> €	3¹/₂-inch wi	de	71/4-	& 7 ¹ / ₂ -inch	wide	8-&	81/4-inch	wide	91/4-	& 9¹/₂-inch	wide
Height (feet)		Exposure			Exposure			Exposure	i.		Exposure	
	В	С	D	В	С	D	В	С	D	В	С	D
0-15	24	20	16	21	17	14	18	15	12	16	14	11
20	24	19	15	21	16	13	18	14	12	16	13	11
30	24	17	14	21	15	12	18	13	11	16	12	10
40	22	16	14	19	14	12	17	12	11	15	11	9
50	21	15	13	18	13	11	16	12	10	14	11	9
60	20	15	13	17	13	11	15	11	10	13	10	9

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.44 m/s.

1HardiePlank® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-125, head dia. = 0.30 in., shank dia. = 0.144 in., length = 1.25-in. long), Max System block Nail (CP-C 832 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.3 in.), Aerosmith SurePin block nail (head diameter = 0.30 in., shank diameter = 0.44 in., length = 1.25 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter

SurePin block nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.25 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.145 in., length = 1.25 in.).

Artisan® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-150, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5-in. long), Max System block Nail (CP-C 838 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5 in.), Aerosmith SurePin block Nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.5 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter = 0.145 in., length = 1.5 in.).

Maximum nominal design wind speed shall be 130 mph. Maximum ultimate design wind speed (Vull) shall be 168 mph.

⁴Interpolation to address building height and other plank widths is permitted.

⁵The lap conceals the fasteners of the previous course (Blind Nailed).

TABLE 9—(V_{asd} 140 MPH; V_{ult} 181 MPH)³ ALLOWABLE FASTENER SPACING (IN.)

JAMES HARDIE LAP SIDING FASTENED TO ASTM C90 CONCRETE MASONRY UNIT WALL 1,2,4,5

Building	≤6	1/2-inch wi	de	71/4-	& 7¹/ ₂ -inch	wide	8-8	8 ¹ / ₄ -inch	wide	91/4-	& 9¹/₂-inch	wide
Height (feet)		Exposure			Exposure			Exposure			Exposure	17.
	В	С	D	В	С	D	В	С	D	В	С	D
0-15	21	17	14	18	15	12	16	13	11	14	12	10
20	21	16	13	18	14	12	16	12	10	14	11	9
30	21	15	12	18	13	11	16	11	10	14	10	9
40	19	14	12	16	12	10	15	11	9	13	9	8
50	18	13	11	15	11	10	14	10	9	12	9	8
60	17	13	11	15	11	10	13	10	9	12	9	8

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.44 m/s.

¹HardiePlank[®] Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-125, head diameter. = 0.30 in., shank diameter. = 0.15 in., length = 1.25-in. long), Max System block Nail (CP-C 832 W7-ICC, head diameter. = 0.30 in., shank diameter. = 0.15 in., length = 1.3 in.), Aerosmith SurePin block nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.25 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter. = 0.30 in., shank diameter.

Actisant diameter = 0.145 in., length = 1.25 in.), and the limit of th

⁴Interpolation to address building height and other plank widths is permitted.

⁵The lap conceals the fasteners of the previous course (Blind Nailed).

TABLE 10—(V_{asd} 150 MPH; V_{ult} 194 MPH)³ ALLOWABLE FASTENER SPACING (IN.) JAMES HARDIE LAP SIDING FASTENED TO ASTM C90 CONCRÈTÉ MASONRY UNIT WALL 1,2,4,5

Building	≤6	¹ / ₂ -inch wi	de	71/4-8	ፄ 7¹/₂-inch	wide	8-&	8 ¹ / ₄ -inch	wide	91/4-	& 9 ¹ / ₂ -inch	wide
Height (feet)		Exposure			Exposure			Exposure)		Exposure	
	В	С	D	В	С	D	В	С	D	В	С	D
0-15	18	15	12	16	13	11	14	11	9	12	10	8
20	18	14	12	16	12	10	14	11	9	12	10	8
30	18	13	11	16	11	9	14	10	8	12	9	7
40	16	12	10	14	10	9	13	9	8	l 11	8	7
50	15	12	10	13	10	9	12	9	8	1 11	8	7
60	15	11	10	13	10	8	11	8	7	10	8	7

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.44 m/s.

¹HardiePlank® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-125, head diameter. = 0.30 in., shank diameter. = 0.144 in., length = 1.25-in. long), Max System block Nail (CP-C 832 W7-ICC, head dia. = 0.30 in., shank dia. = 0.145 in., length = 1.3 in.), Aerosmith SurePin block nail (head diameter = 0.30 in., shank diameter = 0.144 in., length = 1.25 in.), or Jaaco Nail Pro (NP145S head diameter = 0.30 in., shank diameter

2.145 in., length = 1.25 in.).

Artisan® Lap Siding fasteners must be ET&F Fastening Systems, Inc. ET&F block Nail (ET & F No. ASM-144-150, head diameter. = 0.30 in., shank diameter. = 0.30 in., shank diameter. = 0.30 in., shank diameter. = 0.145 in., length = 1.5 in.), Aerosmith SurePin block Nail (head diameter = 0.30 in., shank diameter = 0 diameter = 0.145 in., length = 1.5 in.).

³Maximum nominal design wind speed shall be 150 mph. Maximum ultimate design wind speed (V_{ult} shall be 194 mph.

Interpolation to address building height and other plank widths is permitted.

⁵The lap conceals the fasteners of the previous course (Blind Nailed).

TABLE 11—ALLOWABLE BASIC WIND SPEEDS (mph) FOR HARDIESHINGLE™ (NEW HARDIESHINGLE™) INDIVIDUAL SHINGLE EXTERIOR WALL FINISH

				2012 IRC, 2009 IBC/ (Basic Wind S	IRC		and 2012 IBC yn Wind Speed, ^{3,4})
		Weather Exposure and	Height of	Exposure	Category	Exposure	Category
Sheathing Type	Siding Fastener Type	Fastener Location	Building (feet)	В	С	В	С
		0.1	0-15	126	110	163	142
		8 inch exposure	20	126	105	163	136
		2 roofing nails 9 inches from	40	126	95	163	123
		butt edge	60	126	89	163	115
			0-15	126	126	163	163
		7 inch exposure	20	126	121	163	156
	Min. 0.121 in. shank x	2 roofing nails 8 inches from	40	126	110	163	142
Minimum 15/32 inch thick	0.371 in, HD x 1 ¹ / ₄ in, long	butt edge	60	126	105	163	136
plywood complying with DOC	corrosion resistant roofing	o: I	0-15	126	126	163	163
PS 1-95	Nail	6 inch exposure	20	126	126	163	163
	1:000120*	2 roofing nails 7 inches from	40	126	121	163	156
	1	butt edge	60	126	116	163	150
	1	E2001000 (A cro) to control to the	0-15	126	126	163	163
	1	5 inch exposure	20	126	126	163	163
	1	2 roofing nails 6 inches from	40	126	121	163	156
	1	butt edge	60	126	116	163	150

For SI: 1 foot = 305 mm, 1 inch = 25.4 mm, 1 mph = 0.44 m/s.

TABLE 12—ALLOWABLE BASIC WIND SPEEDS (MPH) FOR HARDIESHINGLE™ (NEW HARDIESHINGLE™) INDIVIDUAL SHINGLE EXTERIOR WALL FINISH

				2012 IRC, 2009 IBC/ (Basic Wind S	IRC	(Ultimate Design	and 2012 IBC gn Wind Speed ^{3,4})
		Marthau Francisco and	Height of	Exposure	Category	Exposure	Category
Sheathing Type	Siding Fastener Type	Weather Exposure and Fastener Location	Building (feet)	В	С	В	С
		0.100	0-15	126	89	163	115
		8 inch exposure	20	126	89	163	115
		2 siding nails 9 inches from	40	105	85	136	110
		butt edge	60	100		129	
			0-15	126	105	163	136
		7 inch exposure	20	126	100	163	129
_	Min, 0.091 in, shank x	2 siding nails 8 inches from	40	121	95	156	123
Minimum ⁷ / ₁₆ inch thick OSB	0.221 in. HD x 1 1/2 in. long	butt edge	60	1 1 6	89	150	115
sheathing complying with	corrosion resistant siding	52771 17	0-15	126	116	163	150
DOC-PS 2-95	Nail	6 inch exposure	20	126	110	163	142
		2 siding nails 7 inches from	40	126	105	163	136
	1	butt edge	60	126	95	163	123
	1		0-15	126	116	163	150
	1	5 inch exposure	20	126	110	163	142
		2 siding nails 6 inches from	40	126	105	163	136
		butt edge	60	126	95	163	123

For SI: 1 foot = 305 mm, 1 inch = 25.4 mm, 1 mph = 0.44 m/s.

TABLE 13—ALLOWABLE BASIC WIND SPEEDS (MPH) FOR HARDIESHINGLE™ (NEW HARDIESHINGLE™)
INDIVIDUAL SHINGLE EXTERIOR WALL FINISH

				IBC	9 IBC/IRC, 2006 /IRC Speed, V _{asd} ^{1,2,5})	(Ultimate Desi	and 2012 IBC gn Wind Speed, it ^{3,4})
		Weather Exposure and Fastener Location	Height of Building (feet)	Exposure Category		Exposure Category	
Sheathing Type	Siding Fastener Type			В	С	В	С
	Min. 0,091 in. shank x 0,221 in, HD x $^{1}I_{2}$ in, long corrosion resistant siding Nail	8 inch exposure, 3 nails for shingles greater than 8 in, wide, 2 nails for shingles 8 in, wide and narrower, 9 inches from drip edge	0-15	116	116	150	150
			20	110	110	142	142
			40	100	100	129	129
			60	95	95	123	123
		7 inch exposure 3 nails for shingles greater than 8 in, wide, 2 nails for shingles 8 in, wide and narrower, 8 inches from drip edge 6 inch exposure 3 nails for shingles greater than 8 in, wide, 2 nails for shingles 8 in, wide and narrower, 7 inches from drip edge	0-15	126	126	163	163
			20	121	121	156	156
Minimum 7/16 inch thick OSB			40	110	110	142	142
sheathing complying with			60	105	105	136	136
DOC-PS 2-95			0-15	126	126	163	163
			20	126	126	163	163
			40	126	126	163	163
			60	121	121	156	156
		5 inch exposure	0-15	126	126	163	163
		3 nails for shingles greater than 8 in.	20	126	126	163	163
		wide, 2 nails for shingles 8 in. wide and	40	126	126	163	163
		narrower, 6 inches from drip edge	60	121	121	156	156

For SI: 1 foot = 305 mm, 1 inch = 25.4 mm, 1 mph = 0.44 m/s.

 $^{^{1}}$ Wind speed design assumptions per Section 6.5, Method 2, of ASCE 7-05: I = 1.0, Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4. 2 V _{and} = nominal design wind speed. 3 V _{ult} = ultimate design wind speed.

Wind speed design assumptions per Section 30.4, of ASCE 7-10: Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4.

 $^{^{5}}$ 2015 and 2012 IBC Section 1609.3.1, Eqn. 16-33, $V_{asd} = V_{ult} \sqrt{0.6}$

Wind speed design assumptions per Section 6.5, Method 2, of ASCE 7-05: I = 1.0, Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4.

 $^{^2}V_{add}$ = nominal design wind speed. $^3V_{ell}$ = ultimate design wind speed. $^4W_{int}$ = ultimate design assumptions per Section 30.4, of ASCE 7-10: Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4.

 $^{^5}$ 2015 and 2012 IBC Section 1609.3.1, Eqn. 16-33, $\rm\,V_{asd} = V_{ult}\,\sqrt{0.6}$

Wind speed design assumptions per Section 6.5, Method 2, of ASCE 7-05: I = 1.0, Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4.

 $^{^{2}}V_{add}$ = nominal design wind speed. $^{3}V_{ull}$ = ultimate design wind speed. $^{4}W_{ind}$ = ultimate design assumptions per Section 30.4, of ASCE 7-10: Kzt = 1, Kd = 0.85, GCpi = 0.18, GCp = -1.4.

 $^{^5}$ 2015 and 2012 IBC Section 1609,3.1, Eqn. 16-33, $\rm\,V_{asd}=V_{ult}\,\sqrt{0.6}$



ICC-ES Evaluation Report

ESR-2290 CBC and CRC Supplement

Reissued March 2016 Revised November 2016 This report is subject to renewal March 2018.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 06 00 00-WOOD, PLASTICS AND COMPOSITES

Section: 06 16 00—Sheathing

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 46 46—Fiber-Cement Siding

REPORT HOLDER:

JAMES HARDIE BUILDING PRODUCTS, INC. 10901 ELM AVENUE FONTANA, CALIFORNIA 92337 (800) 942-7343 www.jameshardie.com info@jameshardie.com

EVALUATION SUBJECT:

 $\mbox{HARDIESHINGLE}^{\mbox{\scriptsize TM}} \ (\mbox{NEW HARDIESHINGLE}^{\mbox{\tiny M}}) \ \mbox{PANELS, HARDIEPLANK}^{\mbox{\tiny TM}} \ \mbox{LAP SIDING, ARTISAN}^{\mbox{\tiny B}} \ \mbox{LAP SIDING, AND HARDIESHINGLE}^{\mbox{\tiny TM}}) \ \mbox{INDIVIDUAL SHINGLES}$

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that HARDIESHINGLE™ (NEW HARDIESHINGLE®) PANELS, HARDIEPLANK™ LAP SIDING, ARTISAN® LAP SIDING, AND HARDIESHINGLE™ (NEW HARDIESHINGLE®) INDIVIDUAL SHINGLES, recognized in ICC-ES master evaluation report ESR-2290, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2016 California Building Code® (CBC)
- 2016 California Residential Code® (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The HARDIESHINGLE™ (NEW HARDIESHINGLE®) PANELS, HARDIEPLANK™ LAP SIDING, ARTISAN® LAP SIDING, and HARDIESHINGLE™ (NEW HARDIESHINGLE®) INDIVIDUAL SHINGLES described in Sections 2.0 through 7.0 of the master evaluation report ESR-2290, comply with CBC Chapter 14, provided the design and installation are in accordance with the 2015 *International Building Code*® (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 14, 17, and 17A, as applicable.

The use of the products in construction of noncombustible or ignition-resistant exterior walls of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Area requires installation in accordance with the 2015 *International Building Code* (IBC) provisions of the master report and the additional requirements of CBC Sections 701A.3, 704A.3 and 707A.3, as applicable.

2.2 CRC:

The HARDIESHINGLE™ (NEW HARDIESHINGLE®) PANELS, HARDIEPLANK™ LAP SIDING, ARTISAN® LAP SIDING, and HARDIESHINGLE™ (NEW HARDIESHINGLE®) INDIVIDUAL SHINGLES, described in Sections 2.0 through 7.0 of the



master evaluation report ESR-2290, comply with CRC Chapter 7, provided the design and installation are in accordance with the 2015 *International Residential Code*® (IRC) provisions noted in the master report.

The use of the products in construction of noncombustible or ignition-resistant exterior walls of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Area requires installation in accordance with the 2015 *International Residential Code* (IRC) provisions of the master report and the additional requirements of CRC Sections R337.1.3.1 and R337.7, as applicable.

The products recognized in this supplement have not been evaluated for compliance with the *International Wildland–Urban Interface Code*®.

This supplement expires concurrently with the master report reissued March 2016, and revised November 2016.

United States Department of the Interior
National Park Service / National Register of Historic Places Registration Form
NPS Form 10-900
OMB No. 1024-0018

West Chapel Hill Historic District (Boundary Increase)

Name of Property

Orange County, North Carolina
County and State

The building appears on the 1932 Sanborn map and is listed in the 1935 directory as the Kappa Sigma House. In 1944 however, the fraternity is listed on Old Fraternity Road and the building, then called King Hall, is occupied by the U. S. Navy V-12 Unit. However, with the close of the war, by 1946, the fraternity once again occupied the building.

207 W. Cameron Avenue – Sigma Phi Epsilon Fraternity House – c. 1983 Non-Contributing Building

Located at the southwest corner of West Cameron Avenue and Pittsboro Street, this two-and-a-half-story, clipped-side-gabled, Colonial Revival-style building is seven bays wide with a brick veneer, projecting brick watertable, and wide molded wood cornice. Vinyl windows throughout have flat-arch brick headers and brick sills. The entrance, centered on the façade, is a six-panel door with three-light-over-one-panel sidelights. The center three bays of the façade, including the entrance, are sheltered by a shallow, two-story, flat-roofed portico supported by Doric columns. There are six gabled dormers on the façade, each with a single vinyl window and fiber cement siding. A five-bay-wide, shed-roofed wall dormer on the rear (southeast) elevation has a brick veneer with fiber cement siding on the sides. The northeast and southwest elevations each feature a single entrance at the first-floor level, a single window each at the second-floor level and in the gable, and a barrel-roofed dormer with louvered vent. The building is accessed by a brick walkway and brick steps with metal railings. A low stone wall extends along the sidewalk and there is parking at the east side of the building.

A building in this location appears on the 1932 Sanborn map and the Sigma Phi Epsilon Fraternity is listed at this address as early as the 1950 directory. However, tax records date the current building, which has a slightly different footprint, to 1983.

209 W. Cameron Avenue VACANT LOT

416 W. Cameron Avenue – Apartments – c. 1957 Contributing Building

The eight-unit apartment building is arranged as a U shape with the main side-gabled form facing West Cameron Avenue and rear gabled wings with a central courtyard at the rear (northwest). The building has a brick veneer, flush eaves and louvered vents in the gables, overhangs on the other elevations, and two interior brick chimneys. Vinyl windows throughout have brick sills and there are replacement four-light-over-four-panel doors on the southeast, southwest, and northeast elevations. The center bay of the seven-bay façade projects slightly under a shed roof with a paired window centered on the bay. On each side of this bay is an entrance flanked by paired windows and accessed by an uncovered stoop. The side elevations each feature a pair of windows in the gable of the main building and an entrance flanked by paired windows for each of the three units in the rear wings, resulting in a ten-bay-wide side elevation. Within the U shape, secondary entrances to each apartment are three-light-over-three-panel doors and are accessed by concrete steps with metal railings. County tax records date the building to 1957 and it appears as eight apartments in the 1957 city directory.

Orange County North Carolina

207 W CAMERON AVE

JANUARY 1ST OWNER MAILING ADDRESS SIG EP HOUSING OF NORTH CAROLINA DELTA LLC 310 S ARTHUR ASHE BLVD RICHMOND VA 23220Total Assessed Value \$1,350,200

KEY INFORMATION

Tax Year	2023			
Parcel ID	9788364013 Township 7 - CHAPEL HILL			
Land Size	0.32 Land Units AC			
Rate Code	22			
District Codes	CH CHSchoolDst., G0 County, G2 Chapel Hill			
Property LUC	Residential- Improved			
Neighborhood	L006 - 7W CAMERON			
Legal Description	S/W INT CAMERON AVE & PITTSBORO ST			
Exempt Type	-			

APPRAISAL DETAILS

Total Land	\$167,300
Ag Credit	-
Land	\$167,300
Building	\$1,182,900
Yard Items	\$0
Market Total	\$1,350,200
Total Assessed	\$1,350,200

RESIDENTIAL

BUILDING (1)					
Туре	Single Fam	Total Value	\$1,182,900	Finished Sq Ft	9,583 sf
Style	-	Quality	Grade A+30	Condition	Average
Year Built	1983	Exterior Walls	Masonry	Full Bath	3
Roof Cover	Shingle	Half Bath	0	HVAC	Combo H&A
Bedrooms	40		Garage Type	-	
Fireplace Count	0				

MISC IMPROVEMENTS

IMPROVEMENT TYPE	UNITS/SQ FT	EST YEAR BUILT	APPRAISED VALUE
No items to display			

SALES

SALE DATE	SALE PRICE	DEED BOOK	DEED PAGE	INSTRUMENT TYPE	GRANTOR
11/04/2019	\$0	6633	730		-
02/01/1973	\$19,000	240	1005		-

YARD ITEMS

DESCRIPTION	TOTAL UNITS	YEAR BUILT	LENGTH	WIDTH	HEIGHT
No items to display					

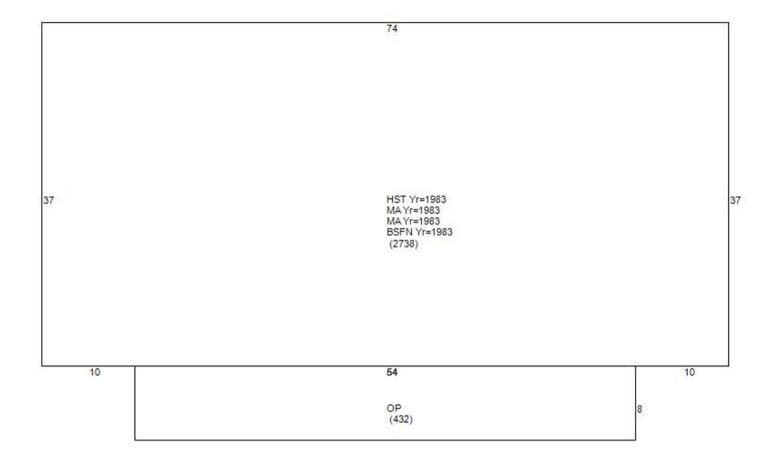
LAND

UNIT / SOIL TYPE	DESCRIPTION	USE CODE	ACRES / LOTS	VALUE
SF	Square Ft	SITE	13939	\$167,300

VALUE HISTORY

YEAR	TOTAL MARKET VALUE
2023	\$1,350,200
2022	\$1,350,200
2021	\$1,350,200
2020	\$1,255,800
2019	\$1,255,800
2018	\$1,255,800
2017	\$1,255,800
2016	\$1,198,112
2015	\$1,198,112
2014	\$1,198,112
2013	\$1,198,112





Disclaimer

Orange County Assessor's Office makes every effort to produce the most accurate information possible. **No warranties, expressed or implied, are provided for the data herein, its use or interpretation**.