



## UFP Ventures II, Inc. Deck Boards and Stair Treads

Initial Acceptance Date: August 23, 2018

Expiration Date: August 23, 2021

Revision Date: February 4, 2021

**TYPE OF ACCEPTANCE:**

**Product Material – Wood and Plastics**

CSI Specification Division Section 065000 (Structural Plastics) and 065300 (Plastic Decking)

**MANUFACTURER IDENTIFICATION:**

UFP Ventures II, Inc.  
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**RESEARCH REPORT SUBJECT:**

Deck Boards and Stair Treads for Exterior Applications  
Installation on construction complying with the International Residential Code® (IRC) or with the International Building Code® (IBC).

**DESCRIPTION OF BUILDING COMPONENTS:**

**A. Deck Boards**

UFP Ventures II deck boards are wood thermoplastic composite lumber (WTCL) products consisting of high-density polyethylene, wood flour filler plus additives and color. The product specifications are listed in the approved quality control manual. The UFP Ventures II deck boards are manufactured by an extrusion process (mono-extruded or coextruded) in several colors. All deck boards can be used as stair treads except where noted. See Drawings Table 1.

**1. Deck Boards: Solid**

- (a) The **Latitudes Wave-Solid** deck board is rectangular in shape, has rounded edges and is completely solid. See attached drawing in Table 1 Section A. This deck board is also named **Everex VE Reversible-Solid**.
- (b) The **Latitudes Captiva-Solid** deck board is rectangular in shape, has rounded edges, is completely solid, and has a proprietary plastic cap on top of the board. See attached drawing in Table 1 Section A. This deck board is also named **Latitudes Capricorn-Solid**.
- (c) The **DecKorators Classic-Solid** deck board is rectangular in shape, has rounded edges, is completely solid and has a proprietary plastic cap on top of the board. See attached drawing in Table 1 Section A. This deck board is also named **DecKorators Vista-Solid**, **DecKorators Heritage-Solid**, **Captiva Plus-Solid**, **Terrace Collection-Solid** and **Carolina Stair Deck**.

- (d) The **Latitudes Marine Board-Solid** deck board is rectangular in shape, has rounded edges and is completely solid. See attached drawing in Table 1 Section A. This deck board is also named **Veranda Marine Board-Solid**.
- (e) The **Latitudes Intrepid** deck board is rectangular in shape, has rounded edges and is completely solid. See attached drawing in Table 1 Section A.
- (f) The **DeckKorators 4"-Solid** deck board is rectangular in shape, has rounded edges, is completely solid and has a proprietary plastic cap on top of the board. This deck board cannot be used as a stair tread. See attached drawing in Table 1 Section A.
- (g) The **DeckKorator Stair Tread** deck board is rectangular in shape, has rounded edges, is completely solid and has a proprietary plastic cap on top of the board. This deck board can only be used as a stair tread. See attached drawing in Table 1 Section A.
- (h) The **DeckKorators Fire Rated-Solid** deck board is rectangular in shape, has rounded edges, is completely solid and has a proprietary plastic cap on top of the board. See attached drawing in Table 1 Section A.

## 2. Deck Boards: Solid with Lobes

- (a) The **EverX 4 Lobed-Solid** deck board is rectangular in shape, has rounded edges, is completely solid and has four (4) lobes on the bottom of the board. See attached drawing in Table 1 Section B.
- (b) The **Style Selections-Solid** deck board with three (3) lobes is rectangular in shape, has rounded edges, is completely solid and has a proprietary plastic cap on the top of the board. See attached drawing in Table 1 Section B. This board is also named **Tropics-Solid, DeckKorators Tropics-Solid and DeckKorators Distressed-Solid**.
- (c) The **Latitudes Captiva Contour-Solid Edge** deck board is rectangular in shape, has rounded edges, is completely solid, has four (4) lobes on the bottom of the board and has a proprietary plastic cap on the top of the board. See attached drawing in Table 1 Section B. This deck board is also named **Latitudes Capricorn Contour-Solid Edge**.
- (d) The **Veranda-Solid** deck board is rectangular in shape, has rounded edges, is completely solid and has three (3) lobes on the bottom of the board. This deck board has a proprietary plastic cap on the top of the deck board. See attached drawing in Table 1 Section B. This deck board is also named **Veranda Elite-Solid, Veranda HP-Solid, Pacific Collection-Solid, Veranda Tropics-Solid, Veranda Vintage-Solid, DeckKorail Vintage-Solid and Composite E 3 Lobed-Solid**.

## 3. Deck Boards: Solid with Side Grooves

- (a) The **Latitudes Serrated Intrepid-Slotted** deck board is rectangular in shape, has rounded edges, is completely solid, has a groove on each side of the board. See attached drawing in Table 1 Section C. This deck board is also named **Intrepid Slotted Reversible**
- (b) The **DeckKorators Classic-Slotted** deck board is rectangular in shape, has rounded edges, is completely solid, has a groove on each side of the board and has a proprietary plastic cap on the top of the board. See attached drawing in Table 1 Section C. This deck board is also named **DeckKorators Vista-Slotted, DeckKorators Heritage-Slotted, Terrace Collection-Slotted and Capitiva Plus-Slotted**.
- (c) The **DeckKorators Fire Rated-Slotted** deck board is rectangular in shape, has rounded edges, is completely solid, has a groove on each side of the board and has a proprietary plastic cap on top of the board.
- (d) The **DeckKorators 4" Slotted** deck board is rectangular in shape, has rounded edges, is completely solid, has a groove on each side of the board and has a proprietary plastic cap on the top of the board. This deck board cannot be used as a stair tread. See attached drawing in Table 1 Section C.

## 4. Deck Boards: Solid with Side Grooves and Lobes (Oval and Square)

- (a) The **Style Selections-Slotted** deck board with three (3) lobes is rectangular in shape, has rounded edges, is solid, has a groove on each side of the board and has a proprietary plastic cap on the top of the board.

See attached drawing in Table 1 Section D. This board is also named ***Tropic-Slotted, DeckKorators Tropics-Slotted and DeckKorators Distressed-Slotted.***

- (b) The ***Latitudes Wave-Slotted*** deck board is rectangular in shape, has rounded edges, is solid, has a groove on each side of the board and has four (4) lobes on the bottom of the board. This board is also named ***Veranda Contour- Slotted.*** See attached drawing in Table 1 Section D.
- (c) The ***Latitudes Captiva-Slotted*** deck board is rectangular in shape, has rounded edges, is solid, has a groove on each side of the board, has four (4) lobes on the bottom of the board and has a proprietary plastic cap on the top of the board. See attached drawing in Table 1 Section D. This deck board is also named ***Latitudes Capricorn-Slotted, Decking- Slotted*** and ***Captiva Contour-Slotted.***
- (d) The ***Veranda Vintage-Slotted*** deck board is rectangular in shape, has rounded edges, is solid, has a groove on each side of the board and has three (3) lobes on the bottom of the board. See attached drawing in Table 1 Section D. This deck board is also named ***Veranda Elite-Slotted/Rainure'e, Veranda HP-Slotted, Pacific Collection-Slotted, Veranda Tropic-Slotted, DeckKorators Vintage-Slotted*** and ***Composite E 3 Lobed-Slotted.***

#### **APPLICABLE CODES:**

- *International Building Code (IBC) - 2012, 2015, and 2018 editions*
- *International Residential Code (IRC) - 2012, 2015, and 2018 editions*

#### **APPLICABLE CHARACTERISTICS REVIEWED:**

**B. Deck Board(s)** – See Section A - 1 thru 4 above for list of all the names and descriptions of the deck boards reviewed.

##### **1. Deck Board: Structural Performance**

- (a) The deck boards have been reviewed for uniform load, maximum span and deck board direction when installed on support framing members. See attached Table 1.
- (b) The deck boards have been reviewed for wind uplift resistance and have an uplift load rating when installed as indicated in Table 1 in this Report.
- (c) The deck boards used as stair treads meet the code prescribed load requirements including the concentrated load of 300 lbf when installed in accordance with the manufacturers' installation instructions and Table 1 in this Report. Figure 1 provides a typical installation for the 3 Lobed Deck Board

##### **2. Deck Board: Fastening**

- (a) The deck boards must be fastened to the structural supporting members in accordance with the manufacturer's installation instructions and Table 1 of this Report. When manufacturer's installation instructions differ from this Report, this Report governs.
- (b) Solid Deck Boards with side grooves and Solid Deck Boards with side grooves and lobes can be installed with the Equator Hidden Fastener, Trex Hideaway Hidden Fastener, FastenDry Hidden Fastener or the Stowaway Hidden Fastener. These fasteners must be installed in accordance with manufacturer's installation instructions and Table 1 of this report. When manufacturer's installation instructions differ from this report, this report governs.
- (c) The deck board attachment to rim and floor joist is outlined in the manufacturers' installation instructions and Table 1 of this Report. When the manufacturer's installation instructions differ from this Report, this Report governs
- (d) When deck boards are used as stair treads, they must be installed in accordance with the manufacturer's installation instructions and Table 1 in this Report. When the manufacturer's installation instructions differ from this Report, this Report governs.

**3. Deck Board Durability: Temperature**

- (a) The deck boards have been reviewed for the temperature range of -20 to 125 °F (-29 to 52 °C).

**4. Deck Board Flame Spread Index:**

- (a) UFP Ventures II deck boards meet the requirements for Class C classification, except **DeckKorators Fire Rated-Solid** and **DeckKorators Fire Rated-Slotted** meet the requirements for Class B classification for the Flame Spread and Smoke Development Index when tested in accordance with the ASTM E84 *Standard Test Method for Surface Burning Characteristics of Building Materials*.

**5. Deck Board Decay Resistance:**

- (a) The deck boards reviewed for this Report have been deemed comparable to naturally durable wood for resistance to fungal decay.

**6. Deck Board Termite Resistance:**

- (a) The deck boards reviewed for this Report have been deemed comparable to preservative-treated wood for resistance to termite attack.

**7. UV Testing:**

- (a) The UV testing was conducted, and an appropriate adjustment factor was applied in accordance with ASTM D7032 *Standard for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails)*.

**APPLICABLE USES:**

The UFP Ventures II deck boards evaluated in this Report are limited to exterior applications for balconies, porches, stair treads, walking surfaces and decks.

**LIMITATIONS OF ACCEPTANCE:**

The UFP Ventures II deck boards described in this Report comply with those codes listed in Applicable Codes section above and are subject to the following conditions:

1. The deck boards are limited to the "Applicable Uses" indicated above.
2. Installation of the deck board must comply with this Report; the manufacturer's published installation instructions (dated 8/2014 and/or 11/ 2014) and the applicable code. When the deck board manufacturer's installation instructions differ from this Report, this Report governs.
3. The fasteners described in this Report must be used for the installation of the UFP Ventures II deck boards only. Compatibility of the fasteners to treated supporting construction has not been evaluated.
4. The UFP Ventures II deck boards indicated in this Report must be fastened to the supporting construction as indicated in the manufacturer's installation manual and outlined in this Report. When the deck board manufacturer's fastening instructions differ from this Report, this Report governs.
5. When required, the structural deck board layout must be designed by a design professional and submitted to the authority having jurisdiction for final acceptance.
6. The UFP Ventures II deck boards have not been evaluated as a member of a fire-resistance-rated assembly.
7. UFP Ventures II has a Third-Party inspections program provided by PFS Corporation (AA 652).
8. Solid and 4 lobed deck boards used as stair treads require a minimum of two-span installation conditions. All 3 lobed deck boards used as stair treads are to be supported full length continuously over all stringers by minimum 5/4" x 6" pressure preservative treated (or equivalent resistant species) boards having a specific gravity not less than 0.42. See Figure 1.
9. The structural design for code compliance of supporting members for the deck boards has not been evaluated and is not part of this Research Report.

**DOCUMENTATION SUBMITTED:**

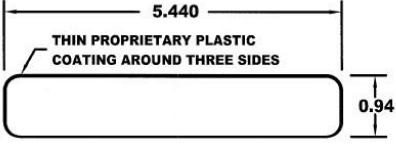
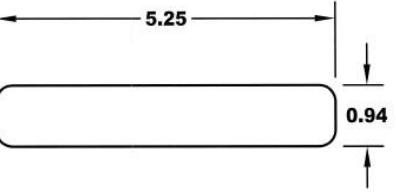
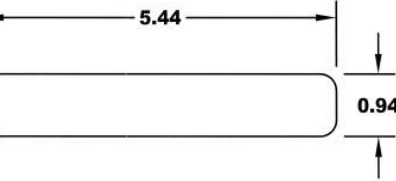
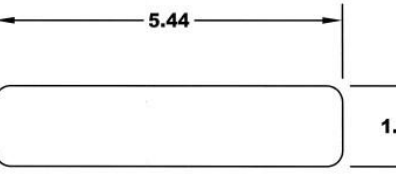
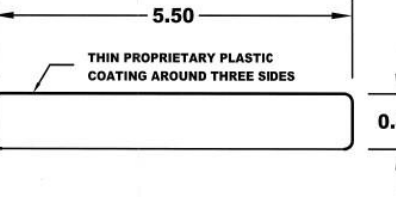
Submitted data was provided in accordance with PFS TECO 1601 (Quality control manual, Specifications, Manufacturer's installation instructions, Test data and Descriptive information). The tests were done in accordance with ICC-ES AC174, *Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails)*.

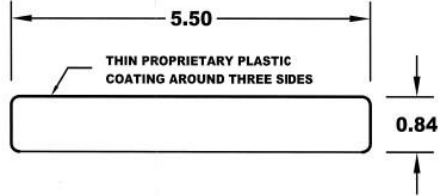
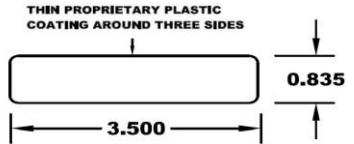
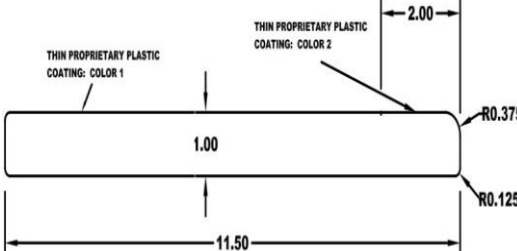
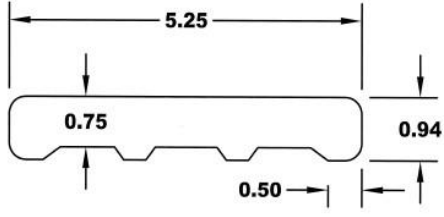
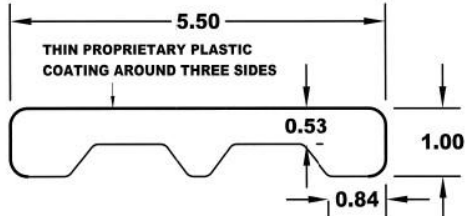
**PRODUCT IDENTIFICATION:**

The UFP Ventures II deck boards evaluated in this Research Report must be identified with a label, stamp, or laser imprint on every deck board. The information that is required is as follows: UFP Ventures II, Inc., product identification, compliance to ASTM D7032 including the maximum deck board span (inches on center spacing of supports) and loading (psf), the Research Report number (RR 0100), and PFS Certification Mark for use in the United States (see image below). Deck boards without this information are not covered under this Report.



Table 1: Span Table and Fastening Schedule for Deck Boards

Deck Board ID	Deck Board Profile	Maximum Span Rating (in/psf) with Deck Board Orientation to Support Joists		Fastening Schedule <sup>1</sup> and Uplift Values	Maximum Stair Tread Span <sup>2</sup> (in)
		90°	45°		
<b>A. Solid Deck Board</b>					
Latitudes Captiva-Solid Latitudes Capricorn-Solid		16/100	12/100	296 lbf per #8 x 3-in Deck Screw	8 in
Latitudes Wave-Solid Everex VE Reversible-Solid		16/100	12/100	296 lbf per #8 x 3-in Deck Screw	8 in
Latitudes Intrepid		16/100	12/100	296 lbf per #8 x 3-in Deck Screw	8 in
Latitudes Marine Board-Solid Veranda Marine Board-Solid		24/100	16/100	296 lbf per #8 x 3-in Deck Screw	12 in
DecKorators Classic-Solid DecKorators Vista-Solid DecKorators Heritage-Solid Captiva Plus-Solid Terrace Collection-Solid Carolina Stair Deck		16/100	12/100	296 lbf per #8 x 3-in Deck Screw	8 in

<p>DeckKorators Fire Rated - Solid</p>		<p>16/100</p>	<p>12/100</p>	<p>296 lbf per #8 x 3-in Deck Screw</p>	<p>8 in</p>
<p>DeckKorators 4" Solid</p>		<p>16/100</p>	<p>12/100</p>	<p>296 lbf per #8 x 3-in Deck Screw</p>	<p>- n/a -</p>
<p>DeckKorator Stair Tread</p>		<p>- n/a -</p>	<p>- n/a -</p>	<p>296 lbf per #8 x 3-in Deck Screw</p>	<p>12 in</p>
<p><b>B. Solid Deck Board with Lobes on Bottom</b></p>					
<p>EverX 4 Lobed-Solid</p>		<p>16/100</p>	<p>12/100</p>	<p>296 lbf per #8 x 3-in Deck Screw</p>	<p>8 in</p>
<p>* Style Selections-Solid                  * Tropics-Solid                  * DeckKorators Tropics- Solid                  * DeckKorators Distressed- Solid</p>		<p>16/100</p>	<p>12/100</p>	<p>212 lbf per #8 x 3-in Deck Screw</p>	<p>16 in Fully Supported (Fig. 1)</p>

<ul style="list-style-type: none"> <li>* Veranda-Solid</li> <li>* Veranda Elite-Solid</li> <li>* Veranda HP-Solid</li> <li>* Pacific Collection-Solid</li> <li>* Veranda Tropics-Solid</li> <li>* Veranda Vintage-Solid</li> <li>* Composite E 3 Lobed-Solid *</li> <li>DeckKorail Vintage-Solid</li> </ul>		16/100	12/100	212 lbf per #8 x 3-in Deck Screw	16 in Fully Supported (Fig. 1)
<p>Latitudes Captiva Contour-Solid Edge</p> <p>Latitudes Capricorn Contour-Solid Edge</p>		16/100	12/100	296 lbf per #8 x 3-in Deck Screw	8 in
<b>C. Solid Deck Board with Side Grooves</b>					
<p>Latitudes Serrated Intrepid-Slotted</p> <p>Intrepid Slotted Reversible</p>		16/100	12/100	80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)	8 in
<p>DeckKorators Classic-Slotted</p> <p>DeckKorators Vista-Slotted</p> <p>DeckKorators Heritage-Slotted</p> <p>Captiva Plus-Slotted</p> <p>Terrace Collection- Slotted</p>		16/100	12/100	80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)	8 in
<p>DeckKorators 4" Slotted</p>		16/100	12/100	80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)	- n/a -



<p>DeckKorators Fire Rated - Slotted</p>		<p>16/100</p>	<p>12/100</p>	<p>80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)</p>	<p>8 in</p>
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<p><b>D. Solid Deck Board with Lobes on Bottom and Side Grooves</b></p>					
<p>Latitudes Captiva-Slotted Latitudes Capricorn-Slotted Captiva Contour-Slotted</p>		<p>16/100</p>	<p>12/100</p>	<p>80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)</p>	<p>8 in</p>
<p>Latitudes Wave-Slotted Veranda Contour-Slotted</p>		<p>16/100</p>	<p>12/100</p>	<p>80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)</p>	<p>8 in</p>
<p>* Style Selections-Slotted * Tropics-Slotted * DeckKorators Tropics-Slotted * DeckKorators Distressed-Slotted</p>		<p>16/100</p>	<p>12/100</p>	<p>80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)</p>	<p>16 in Fully Supported (Fig. 1)</p>
<p>* Veranda Elite-Slotted/Rainure'e * Veranda HP-Slotted * Pacific Collection-Slotted * Veranda Tropics-Slotted * Veranda Vintage-Slotted * DeckKorail Vintage-Slotted * Composite E 3 Lobed-Slotted</p>		<p>16/100</p>	<p>12/100</p>	<p>80 psf - Equator (Fig. 2), 100 psf - Trex (Fig. 3) and Stowaway (Fig. 4)</p>	<p>16 in Fully Supported (Fig. 1)</p>

for SI conversion: 1 in = 25.4 mm, 1 psf = 47.9 Pa, 1 lbf = 0.0044 kN

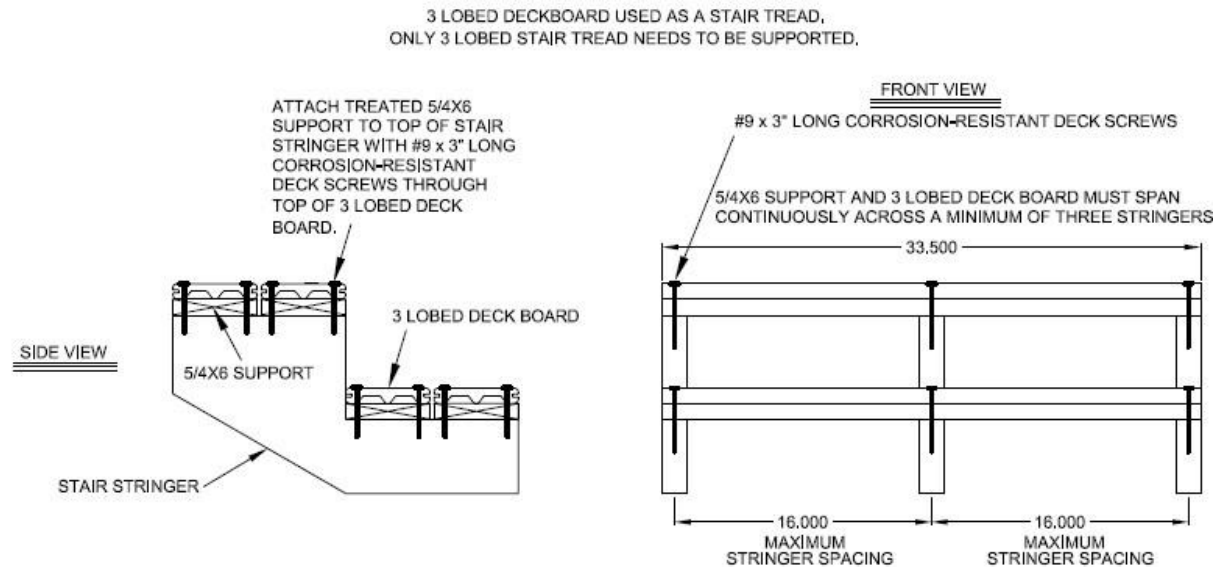
<sup>1</sup> Deck boards installed with screws must be attached to each joist with 2 #8 x 3-in. deck screws with a minimum end/edge distance of 1-1/2 in. All fasteners installed with an end/edge distance closer than 1-1/2 in. must be predrilled. Deck boards with side grooves installed with hidden fasteners (Equator, Stowaway, or Trex) must be attached to each joist with a fastener as per manufacturer's installation instructions.

<sup>2</sup> Deck boards installed as stair tread must be supported over 3 or more supports.

The joist to which the deck boards are attached must have a minimum specific gravity of 0.50 or better (such as Southern Pine) or the fastening must be designed.

No duration of load increase is allowed for the uplift values noted in Table 1 in this Report.

\* Denotes that deck board used as a stair tread must be fully supported, see Figure 1.



**Figure 1: Typical Installation Schematics for a Fully Supported Stair Tread Applicable to Only 3 Lobed Deck Boards Marked with a \***



Figure 2: Equator Clip



Figure 3: Trex Clip



Figure 4: Stowaway Clip