# **TROPICAL**

### TECHNICAL BULLETIN

Tropical Forest Products Deck and Stringer Material Spans Structural Review & Calculations

#### Scope:

Structural engineering calculations have been prepared which evaluate the performance of the product based on comparative and/or rational analysis to qualify the following design criteria:

- Maximum allowable stringer span and decking span.
- Maximum allowable beam spans based on various combinations of dead, live, wind / snow loads for decking applications
- Note: evaluation is for spans of product only. No connections or designs of any systems are included in this evaluation and shall be performed by others on a site-specific basis using these base criteria as a guide.

#### **Material Sizes:**

The TROPICAL FOREST PRODUCTS decking system is a variety of tropical hardwoods that can be used with the following sizes:

Deck Thickness:

- 0.75"
- 0 1"
- 0 1.5"
- 0 2.5"



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Beam and Stinger Sizes (Actual):

- 1.5" X 5.5", 1.5" X 7.25", 1.5" X 9.25", 1.5" X 11.15"
- 2.5" X 5.5", 2.5" X 7.25", 2.5" X 9.25", 2.5" X 11.15"
- 3.5" X 5.5", 3.5" X 7.25", 3.5" X 9.25", 3.5" X 11.15"
- 5.5" X 5.5", 5.5" X 7.25", 5.5" X 9.25", 5.5" X 11.15"

#### **General Notes:**

- 1) This system has been designed and shall be fabricated in accordance with the definitions and requirements of the 2015 International Residential Code and International Building Code including considerations pertaining to the use of Naturally Durable Wood.
- 2) This document has been developed specifically to address the technical performance of TROPICAL FOREST PRODUCTS brand products only and should not be relied on for products which cannot be verified as carrying the TROPICAL FOREST PRODUCTS brand through confirming documentation.
- 3) Engineering express is not certifying any wood species parameters without applicable testing proof. The minimum required thresholds are shown below. These thresholds must be verified separately and are by others, and assuming all the parameters can be proven by the manufacturer, only then can we confirm these span charts valid for the intent of the Code.
- 4) TROPICAL FOREST PRODUCTS Naturally Durable Hardwoods Species shall meet the following minimum technical standards.
  - Material shall be graded as per TROPICAL FOREST PRODUCTS Grading Standards defined as Premium Select, FEQ, COM SEL/ FAS
  - · Shall be tested to NFPA class B or better Fire Rating as per ASTM E84 testing standards

