



## SOUTHERN PINE INSPECTION BUREAU, INC.

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### Proposed Design Values for Visually Graded Southern Pine

Design values for structural lumber go through a rigorous approval process. All testing must be completed in accordance with approved standards, as well as all data analysis. Furthermore, upon submittal to the American Lumber Standards Board of Review for approval, the proposed values are carefully reviewed by the US Forest Products Laboratory. In 1991, the Southern Pine Inspection Bureau published design values for dimension lumber based on the newly approved ASTM D1990 Standard, "Establishing Allowable Properties for Visually-Graded Dimension Lumber from In-Grade Tests of Full-Size Specimens". Section 13 of this standard requires reassessment of the design values if there is "cause to believe there has been a significant change in the raw material resource or product mix." Since 1994, SPIB has participated in an annual resource monitoring program which included stiffness testing on the size-grade combination most likely to see a change in design values. This monitoring program was established with the assistance of the Forest Products Laboratory and included obtaining a transverse vibration E value on approximately 400 pieces of Southern Pine #2 2x4 annually, representative of the entire Southern Pine producing region.

Over the seventeen years that this monitoring program was in place, overall trends began to develop. While there was never a large enough decrease in the measured Modulus of Elasticity (E) to warrant additional testing, it was evident that a shift was occurring in the resource mix. This shift, along with anecdotal external information, convinced the SPIB Board of Governors to direct additional testing. Therefore, in 2010, the Southern Pine Inspection Bureau and Timber Products Inspection agreed to work collaboratively in performing stiffness and bending and tension strength tests on a representative sample of #2 2x4 Southern Pine Lumber. Because the test data indicated a significant reduction in stiffness and bending and tension strength compared to published design values, SPIB proposed to adjust the design values for dimension sizes of visually graded Southern Pine lumber based on the test data collected. Further testing is underway to confirm adjustments being made to sizes and grades of lumber not tested in 2010.

Proposed allowable design values have been submitted to the American Lumber Standard Committee and Forest Products Laboratory for review. The Board of Review of the American Lumber Standard will rule on the proposed designed values at their meeting on October 20, 2011.

Design values will be lowered for all grades and sizes by approximately 25-30%. The dense designation for all grades of dimension products will no longer provide an increase design value over non-dense grades and the "Mixed Southern Pine" classification will carry the same design value as the major species.

We will continue to keep you apprised of further development regarding design values for Southern Pine.

Please feel free to call us if you have questions regarding this issue.

James E. Loy, President  
Southern Pine Inspection Bureau

October 6, 2011