

File: 11-0349
Date: 22 September 2011

Attn: Al Huber
Louisiana Pacific Corporation
Suite 2000
414 Union Street
NASHVILLE TN 37219

Ref: LPI Series 53-T I-Beam Characteristic Values - 2011

Dear Al,

Please find attached below as an appendix to this letter, the final values for the new series LPI 53-T I-Beams. This work has been carried out by us in conjunction with the test results from APA testing carried out in August, 2011, at Red Buff, California.

The resulting test data has been first analysed by your engineering department, and then we have now completed a check of this analysis, with application of the data to the following codes:

- Reference US and International (ISO) specifications for evaluation of test methods
- AS/NZS 4063.1-2010 Characterization of structural timber - Test methods"
- AS/NZS 4063.2-2010 Characterization of structural timber - Determination of characteristic values"
- ASTM D 5055-08a "Standard Specification for Establishing and Monitoring Structural Capabilities of Prefabricated Wood I-Joists"
- ISO TC165/CD 22389 "Timber Structures – Bending Applications of I-Beams – Part 1: Structural Testing, Evaluation and Characterization"

The use of the ISO standard for this work was due to the fact that we do not have a standard for I-Joists in Australia. This work has been carried out by my staff, and under my supervision, and I am satisfied that the resulting I-Beam characteristic values are in accordance with all relevant requirements for Australia, and are suitable for use in all forms of construction in accordance with the Building Code of Australia.

Should you require any further information, please do not hesitate to contact my office.

Yours faithfully,
HR DESIGN GROUP P/L
Stephen Hunt BEng (Civil), CPEng



(MIEAust #368737), (RPEQ #3731), NPER
Dated: 23 September 2011

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| LPI™ 53-T | DESIGN CHARACTERISTIC VALUES | | | | |
|--------------|------------------------------|--------|-------|--------------------------|--------------------------|
| | Depth | Moment | Shear | Elxx x10 ⁹ | GwAw x10 ⁶ |
| | (mm) | (kNm) | (kN) | (N-mm ²) | (N) |
| 200 | 9.1 | 11.0 | 367 | 2.68 | |
| 225 | 10.5 | 12.4 | 488 | 2.99 | |
| 241 | 11.4 | 13.3 | 574 | 3.19 | |
| 302 | 14.7 | 15.7 | 967 | 3.94 | |
| 356 | 17.4 | 17.7 | 1412 | 4.62 | |
| 406 | 19.9 | 19.7 | 1911 | 5.26 | |

| LPI™ 53-T | END REACTION & BEARING CHARACTERISTIC VALUES | | | | | | | |
|------------|----------------------------------------------|----------------------------|-------------------------------|----------------------------|--------------------------------|-----------------------------|--------------------------------|-----------------------------|
| | Without Stiffeners 35mm | With Stiffeners 35mm | Without Stiffeners 90mm | With Stiffeners 90mm | Without Stiffeners 102mm | With Stiffeners 102mm | Without Stiffeners 140mm | With Stiffeners 140mm |
| 200 | 8.6 | 11.0 | 10.7 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| 225 | 8.6 | 11.0 | 10.8 | 12.2 | 11.2 | 12.4 | 12.3 | 12.9 |
| 241 | 8.6 | 11.0 | 10.9 | 13.0 | 11.3 | 13.3 | 12.5 | 14.1 |
| 302 | 8.6 | 12.1 | 11.1 | 15.1 | 11.6 | 15.7 | 13.0 | 17.2 |
| 356 | 8.6 | 13.1 | 11.4 | 17.0 | 11.9 | 17.7 | 13.5 | 19.8 |
| 406 | 8.6 | 14.1 | 11.6 | 18.8 | 12.2 | 19.7 | 14.0 | 22.4 |

| LPI™ 53-T | INTERMEDIATE REACTION & BEARING CHARACTERISTIC VALUES | | | | | | | |
|------------|-------------------------------------------------------|----------------------------|-------------------------------|----------------------------|--------------------------------|-----------------------------|--------------------------------|-----------------------------|
| | Without Stiffeners 63mm | With Stiffeners 63mm | Without Stiffeners 90mm | With Stiffeners 90mm | Without Stiffeners 120mm | With Stiffeners 120mm | Without Stiffeners 140mm | With Stiffeners 140mm |
| 200 | 20.7 | 22.0 | 21.4 | 22.9 | 22.3 | 24.0 | 22.9 | 24.7 |
| 225 | 20.7 | 22.6 | 21.6 | 23.6 | 22.8 | 24.8 | 23.5 | 25.6 |
| 241 | 20.7 | 23.0 | 21.8 | 24.0 | 23.1 | 25.4 | 23.9 | 26.1 |
| 302 | 20.9 | 24.5 | 22.3 | 25.8 | 24.2 | 27.4 | 25.3 | 28.4 |
| 356 | 20.9 | 25.8 | 22.8 | 27.3 | 25.2 | 29.2 | 26.6 | 30.3 |
| 406 | 21.0 | 27.1 | 23.3 | 28.8 | 26.1 | 30.9 | 27.8 | 32.2 |