

March 18, 2019

TO: Boise Cascade EWP Distributors and Dealers

FROM: Boise Cascade EWP Engineering

RE: Versa-Lam® LVL with New Grade Names

Boise Cascade has recently updated Versa-Lam® LVL grade names by referencing their true modulus of elasticity (MOE) design values. The following table provides the existing and corresponding new Versa-Lam® LVL grade names:

Existing	New	Widths
VERSA-LAM 1.4 1800 DF	Versa-Lam LVL 1.5E 1800 DF	1 5/16"
VERSA-LAM 1.7 2400 DF	Versa-Lam LVL 1.8E 2400 DF	1 1/2", 1 3/4"
VERSA-LAM 1.7 2650 DF	Versa-Lam LVL 1.8E 2650 DF	3 1/2", 5 1/4", 7"
VERSA-LAM 1.7 2650 SP	Versa-Lam LVL 1.8E 2650 SP	1 1/2", 1 3/4", 3 1/2", 5 1/4"
VERSA-LAM 1.8 2750 SP	Versa-Lam LVL 1.8E 2650 SP	3 1/2", 5 1/4"
VERSA-LAM 2.0 2800 DF	Versa-Lam LVL 2.1E 2800 DF	1 1/2", 1 3/4", 2 5/8"
VERSA-LAM 2.0 3100 DF	Versa-Lam LVL 2.1E 3100 DF	3 1/2", 5 1/4", 7"
VERSA-LAM 2.0 3100 SP	Versa-Lam LVL 2.1E 3100 SP	1 1/2", 1 3/4", 3 1/2", 5 1/4"
VERSA-LAM 2.2 3100 DF	Versa-Lam LVL 2.3E 3100 DF	3 1/2", 5 1/4", 7"

Note: "DF" product available in the western US, "SP" product available in the eastern US.

True MOE corresponds to only the bending portion of beam deflection and thus is considered "shear-free". True MOE is approximately 5% greater than the apparent MOE, which was referenced in the previous Versa-Lam® LVL grade names. For example, the true MOE of Versa-Lam® LVL 2.1E 3100 is 2,100,000 psi and the apparent MOE is 2,000,000 psi.

All corresponding previous and new grades shown, with the exception of Versa-Lam® 1.8 SP columns, are the same products having equal design values and thus may be directly substituted for each other. Existing plans, drawings and design reports will remain valid if designed properly; however all should be eventually updated to the new grade names. This will reduce questions from building officials regarding the new product grade stamps. Evaluation report ICC-ES® ESR-1040, revised 03/2019, contains both the previous and new grade names, along with both MOE value types. ESR-1040 may be submitted to building officials and project design professionals of record. In addition to the true MOE and bending design values, all 1 1/2" thick Versa-Lam® LVL products will be stamped with their corresponding allowable tension values.

When comparing design reports and allowable load tables of previous and new Versa-Lam® LVL beams, there will be slight differences in deflection results. For longer span applications, new Versa-Lam® grade calculated deflections will be slightly less. For shorter span applications, deflection values may be slightly greater. In these instances, if an original application was designed very close to the deflection limit, there is a chance that the design may be slightly over 100% allowable with the new grade. The new Versa-Lam® LVL product is structurally adequate in this condition, if the original product passed all design controls. Please contact Boise Cascade EWP Engineering for any questions regarding such a condition.

Boise Cascade EWP software will be updated to contain the new Versa-Lam® LVL grades and will be available on or near April 1st, 2019, while technical literature will be published on May 1st, 2019. In the interim, the current Versa-Lam® LVL beam grades may be used for analysis. For new Versa-Lam® LVL 1.8E SP columns, please refer to Boise Cascade Technical Note LVL-21 for axial load capacities. If using Boise Cascade software to design these columns prior to release of the new database, Versa-Lam® LVL 1.8 2750 SP designs shall not exceed 95% of allowable in axial compression-bending and deflection.

For any further questions regarding substitution, please feel free to contact Boise Cascade EWP Engineering at 800.232.0788.