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November 28, 2017

TO: Building Design and Code Enforcement Professionals

FROM: Boise Cascade EWP Engineering

RE: Substitution of VERSA-LAM® 1.8 2750



The following letter contains comparison design values of Weyerhaeuser Parallam® PSL and Boise Cascade VERSA-LAM® LVL columns to assist in the substitution review.

VERSA-LAM® 1.8 2750 / Parallam® 1.8E

VERSA-LAM® laminated veneer lumber (LVL) manufactured by Boise Cascade Engineered Wood Products has building code product acceptance per joint evaluation report ICC ES / APA ESR-1040, dated 09/2016. Parallam® parallel strand lumber (PSL) manufactured by Weyerhaeuser has building code product acceptance per evaluation report ICC ES ESR-1387, dated 02/2017.

As shown in the table below, all allowable design values for VERSA-LAM® 1.8 2750 columns meet or exceed corresponding design values of Parallam® 1.8E grade columns.

Product	Modulus of Elasticity E (x 10 ⁶ psi)	Bending Fb (psi) (plank)	Horizontal Shear Fv (psi) (plank)	Compression Perpendicular to Grain Fc _⊥ (psi) (plank)	Compression Parallel to Grain Fc (psi)	Tension Parallel to grain Ft (psi)
Versa-Lam® 1.8 2750 LVL	1.8*	2500	190	450	3000	1825
Parallam® 1.8E PSL	1.8**	2400	190	425	2500	1755

*Boise Cascade uses an Apparent MOE

**Weyerhaeuser uses a Shear-Free MOE

For more information on Shear-Free vs. Apparent MOE, review the APA Technical Topics TT-082A and TT-104 at www.apawood.org

Thus if a Parallam® 1.8E column is designed correctly with all stresses at or below published allowable values, Boise Cascade EWP Engineering would approve the direct substitution of a same-size VERSA-LAM® 1.8 2750 column.

Please note that the project's design professional (engineer and/or architect) of record should always be notified prior to any product substitution. If there are any further questions regarding this matter, please contact Boise Cascade EWP Engineering at 800.232.0788.