

onCENTER® LVL is available in a broad range of sizes to meet the varying demands of today's designers, builders, and homeowners. It's the natural choice when you need stable dimensions, consistent performance, and superior strength. With design properties far surpassing those of ordinary dimension lumber, shallower depths, longer clear spans, and fewer intermediate supports are all feasible. Typical applications include door and window headers, floor beams, ridge beams, and hip and valley beams. Quality is monitored by the third-party inspection services of APA-EWS® and backed by a lifetime limited warranty.

- 2.1E grade
- 1¾" width
- Various depths from 7¼" to 24"
- Straighter wood that resists warping and shrinking
- Greater design flexibility than ordinary lumber
- Factory-sealed coating to protect against the elements during construction
- Lifetime limited warranty*



* Visit www.builtonCENTER.com or call 877-914-7770 for terms, conditions, and limitations of limited warranty.

Edgewise Design Values

Width	Design Property	Depth								
		7¼"	9¼"	9½"	11¼"	11½"	14"	16"	18"	24"
1¾"	Allowable Moment (ft-lbs)	4218	6660	7002	9613	10639	14320	18210	22511	37782
	Allowable Shear (lbs)	2411	3076	3159	3741	3948	4655	5320	5985	7980
	Moment of Inertia (in ⁴)	55.6	115	125	208	244	400	597	851	2016
	Weight (plf)	3.3	4.3	4.4	5.2	5.5	6.5	7.4	8.3	11.1

- Design values are limited to conditions in which the moisture content of solid sawn lumber is less than 16%.
- Allowable moment and shear values are for normal load duration (LDF = 100%) and may be adjusted for other load durations.
- Allowable moment may be increased 4% for repetitive members as defined in the National Design Specification (NDS).
- Compression edge of member must have continuous lateral support and ends at the points of bearing must have lateral support to prevent rotation.
- 1¾" wide onCENTER LVL 16" and deeper must only be used in multiple-ply members, unless lateral stability calculations are performed by a design professional.
- For onCENTER LVL made of southern pine (Mill #1125), increase weight by 10%.
- Not all grades and depths may be available in all locations. Contact BlueLinX or your local provider of BlueLinX products for availability.
- For information regarding storage, handling, and installation, please refer to BlueLinX Engineered Products Residential Floor & Roof Systems Specifier's Guide #OCLPG.

Allowable Edgewise Design Stresses ^{a,b}

E_{sf} (Shear-Free Modulus of Elasticity) ^c	2.1 x 10 ⁶ psi
E_{app} (Apparent Modulus of Elasticity) ^c	2.0 x 10 ⁶ psi
E_{min} (Modulus of Elasticity for Stability) ^c	1.1 x 10 ⁶ psi
F_b (Flexural Stress) ^{d,e}	3100 psi
F_v (Horizontal Shear)	285 psi
$F_{c\perp}$ (Compression Perpendicular to Grain) ^c	750 psi
$F_{c\parallel}$ (Compression Parallel to Grain)	2750 psi
F_t (Tension Parallel to Grain) ^f	1700 psi
ESG (Equivalent Specific Gravity) ^g	0.50

- Allowable design stresses are limited to conditions in which the moisture content of solid sawn lumber is less than 16%.
- Allowable design stresses apply to depths as small as 3½" ripped from any depth of beam.
- No increase is allowed to E_{sf} , E_{app} , E_{min} , or $F_{c\perp}$ for duration of load.
- A factor of 1.04 may be applied for repetitive members as defined in the NDS.
- For depth (d) of 12". For 3.5" ≤ d < 12", multiply F_b by (12/d)^{0.125}. For d > 12", multiply F_b by (12/d)^{0.2}.
- F_t has been adjusted for a length effect suitable for most common applications.
- For calculating lateral load capacity of bolts, lag screws, nails, and wood screws in the wide face.

$$\text{Deflection (inches)} = \frac{270wL^4}{E_{sf}bd^3} + \frac{28.8wL^2}{E_{sf}bd}$$

$$\text{or} = \frac{270wL^4}{E_{app}bd^3}$$

- w = uniform load (plf)
 L = span (feet)
 E_{sf} = shear-free modulus of elasticity (psi)
 b = beam width (inches)
 d = beam depth (inches)
 E_{app} = apparent modulus of elasticity (psi)