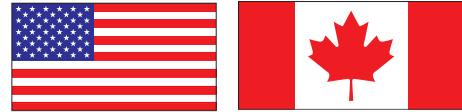


STAIR STRINGERS AND TREADS



Featuring TimberStrand[®] LSL Stair Stringers
and Weyerhaeuser SturdiStep[®] Stair Treads

- Engineered Wood Solutions for Strong, Stable Stairs
- Resists Bowing, Shrinking, and Splitting
- Straight and Consistent
- Better Nail Holding Capability
- Eliminates Adjustments for Shrinkage
- Minimizes Material Waste
- Significantly Reduces Callbacks
- Limited Product Warranty





The products in this guide are readily available through our nationwide network of distributors and dealers. For more information on other applications or other Trus Joist® products, contact your Weyerhaeuser representative.

Code Evaluations:
ICC-ES ESR-1387

Canada Code Evaluation:
CCMC 12627-R

This guide is for use with NBCC 2015 and CSA O86-14.

TABLE OF CONTENTS

| | |
|------------------|-----|
| Details | 3 |
| U.S. Design | 4-5 |
| Canadian Design | 6-7 |
| Product Warranty | 8 |



Certified Sourcing
www.sfprogram.org
SFI-00008

This guide features the following Trus Joist® engineered lumber in the following widths and depths:

TimberStrand® LSL

1.3E TimberStrand® LSL sizes:

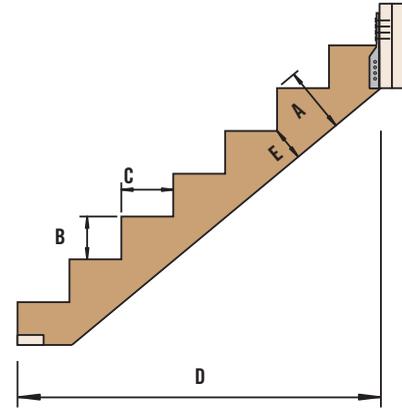
Width: 1¼"
Depths: 9½", 11⅞", and 14"

1.5E TimberStrand® LSL sizes:

Widths: 1½"
Depths: 9½", 11⅞", and 14"

1.55E TimberStrand® LSL sizes:

Widths: 1¾"
Depths: 9½", 11⅞", and 14"



Glossary of Terms

| Term | Definition |
|--------------------|--|
| (A) Material Depth | Depth of product before steps are cut. |
| (B) Step Rise | Unit rise of individual step. |
| (C) Step Run | Unit run of individual run (nosing ignored). |
| (D) Stringer Run | Horizontal span between stairway supports. |
| (E) Throat Depth | Net depth of stringer once steps are cut. Measured from step perpendicular to bottom edge of stringer. |

Combine SturdiStep® treads with TimberStrand® LSL stair stringers for a solid, stable stair system

SturdiStep® stair treads are manufactured to be flat, straight, and a precise thickness. They are also warranted against delamination. Unlike traditional pine stair treads SturdiStep® treads are knot-free and uniform throughout, so when properly installed, they won't crack or split when nailed to the stringers.

Durable enough to withstand the demands of normal construction delays, SturdiStep® treads can be installed during the framing stage of construction, saving builders on labor and other costs associated with temporary stair treads.

Suitable for use in residential and multifamily construction, SturdiStep® treads offer precision, convenience, less waste and lower costs.

SturdiStep® stair treads offer:

- **Sizes convenient for cutting to length at the jobsite:**
Eastern markets: 1" x 10¾" x 16' and 1" x 11½" x 16'
Western markets: 1" x 11½" x 12'
- **Uniform, knot-free treads that won't cup or split when properly installed**
- **Bullnosed edges that enhance appearance and save labor at the jobsite**

Installation notes

- Clear span between stringers shall not exceed 45" and fasteners and adhesives shall be as noted below.
- SturdiStep® stair treads must be supported at both front and back by a full-length, minimum 19/32" riser that is fastened with nails and subfloor adhesive that has been qualified as a Class 1/8 in., Type P/O subfloor adhesive in accordance with ASTM D3498-19.
- The back riser must extend down flush with or past the bottom of the tread.
- Treads must be glued and nailed to the front riser with 8d (0.131" x 2½") finish nails, spaced a maximum of 12" on-center.
- The nosing must not extend more than 1¼" beyond the riser. Be sure tread and riser dimensions (rise and run) comply with applicable code requirements.

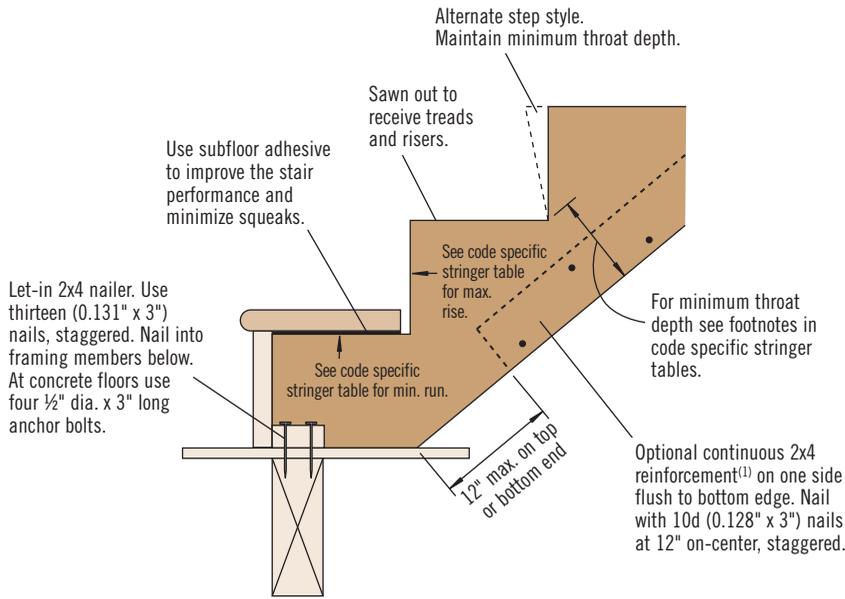


WARNING: This product can expose you to chemicals including wood dust which are known to the State of California to cause cancer, and methanol, which are known to the State of California to cause birth defects or other reproductive harm. Drilling, sawing, sanding or machining wood products can expose you to wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov and www.P65Warnings.ca.gov/wood.

TIMBERSTRAND® LSL STAIR STRINGERS

Suggested Residential Stringer Attachment Details for 40 psf Live Load Span Tables in this Guide.

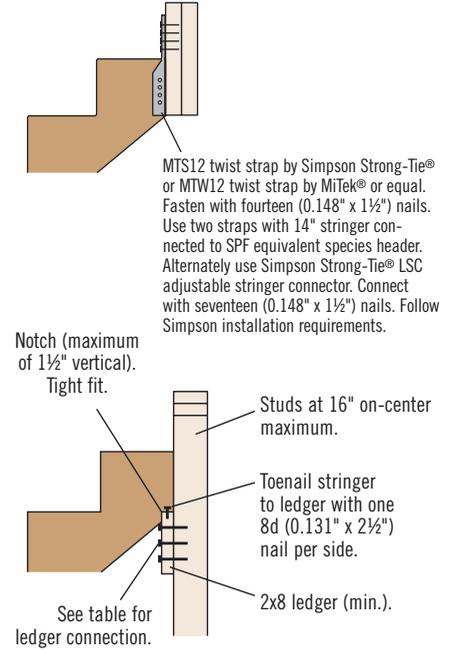
Low End



(1) Minimum No. 2 hem-fir, spruce-pine-fir or better grade.



High End

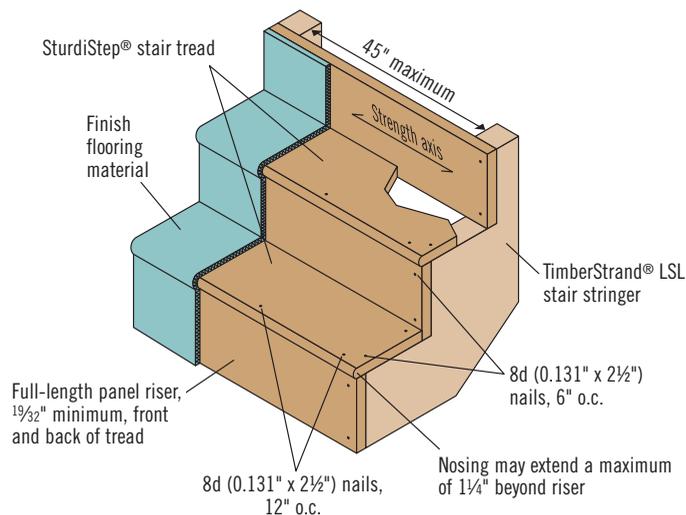


Ledger Connection Table

| Species of Ledger and Stud ⁽¹⁾ | 0.131 in. x 3 in. Nails Required Per Stringer Depth ⁽²⁾ | | |
|---|--|------|-----|
| | 9½" | 11¾" | 14" |
| DF or SP | 4 | 5 | 6 |
| SPF or HF | 4 | 6 | 7 |

(1) If ledger and stud species differ, select the larger connection value.
 (2) Table based on connection to three studs.

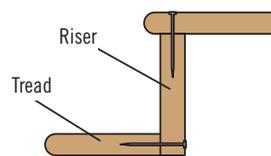
CAUTION
 Stair stringer tables and attachment details are intended for use with TimberStrand® LSL only. Consult designer for attachment details for live loads greater than 40 psf.



While Detail A below is the simplest method of nailing the riser to the tread and works well with 1" and thicker stair treads, Detail B is preferred as it eliminates end-grain nailing at the back of the riser.

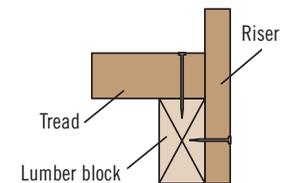
Detail A

Predrill tread end grain at mid-thickness with a 3/32" bit. Maintain at least 3/8" edge distance in riser.



Detail B (preferred)

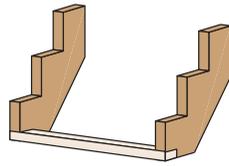
Preferred option because it eliminates end-grain nailing at the back of the riser.



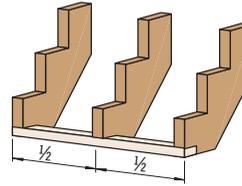
TIMBERSTRAND® LSL STAIR STRINGERS



Two Stringer Option



Three Stringer Option



1-PLY TIMBERSTRAND® LSL STRINGERS

IRC Maximum Stringer Run — 40 psf Live Load/12 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | | | 42" Tread Width | | 44" Tread Width | | 48" Tread Width | |
|-----------------------------|-------------------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|
| | | 2 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | |
| | | Without Reinforcement | With Reinforcement |
| 1¼" 1.3E TimberStrand® LSL | 9½" | 5'-0" | 5'-10" | 5'-10" | 7'-6" | 5'-10" | 6'-8" | 5'-10" | 6'-8" | 5'-0" | 6'-8" |
| | 11⅞" | 8'-4" | 10'-0" | 10'-0" | 10'-10" | 9'-2" | 10'-10" | 9'-2" | 10'-0" | 9'-2" | 10'-0" |
| | 14" | 11'-8" | 11'-8" | 13'-4" | 13'-4" | 12'-6" | 12'-6" | 12'-6" | 12'-6" | 11'-8" | 11'-8" |
| 1½" 1.5E TimberStrand® LSL | 9½" | 5'-10" | 6'-8" | 6'-8" | 7'-6" | 6'-8" | 7'-6" | 5'-10" | 7'-6" | 5'-10" | 7'-6" |
| | 11⅞" | 9'-2" | 10'-10" | 10'-10" | 12'-6" | 10'-0" | 11'-8" | 10'-0" | 11'-8" | 10'-0" | 10'-10" |
| | 14" | 13'-4" | 13'-4" | 15'-0" | 15'-0" | 14'-2" | 14'-2" | 14'-2" | 14'-2" | 13'-4" | 13'-4" |
| 1¾" 1.55E TimberStrand® LSL | 9½" | 5'-10" | 7'-6" | 6'-8" | 8'-4" | 6'-8" | 7'-6" | 6'-8" | 7'-6" | 6'-8" | 7'-6" |
| | 11⅞" | 10'-0" | 10'-10" | 11'-8" | 12'-6" | 10'-10" | 11'-8" | 10'-10" | 11'-8" | 10'-10" | 11'-8" |
| | 14" | 14'-2" | 14'-2" | 15'-0" | 15'-0" | 15'-0" | 15'-0" | 15'-0" | 15'-0" | 14'-2" | 14'-2" |

(1) Tables are based on IRC requirements: maximum riser height of 7¾" and a minimum tread depth of 10", with a max story height of 151".

(2) Minimum throat depths are as follows: 3⅜" min. at 9½" rim board, 5¼" min. at 11⅞" rim board, 7⅞" min. at 14" rim board.

IBC Maximum Stringer Run — 100 psf Live Load/12 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | | | 42" Tread Width | | 44" Tread Width | | 48" Tread Width | |
|-----------------------------|-------------------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|
| | | 2 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | |
| | | Without Reinforcement | With Reinforcement |
| 1¼" 1.3E TimberStrand® LSL | 9½" | 3'-8" | 4'-7" | 4'-7" | 5'-6" | 4'-7" | 4'-7" | 4'-7" | 4'-7" | 3'-8" | 4'-7" |
| | 11⅞" | 6'-5" | 7'-4" | 7'-4" | 8'-3" | 7'-4" | 8'-3" | 7'-4" | 8'-3" | 7'-4" | 7'-4" |
| | 14" | 9'-2" | 9'-2" | 10'-1" | 10'-1" | 10'-1" | 10'-1" | 9'-2" | 9'-2" | 9'-2" | 9'-2" |
| 1½" 1.5E TimberStrand® LSL | 9½" | 4'-7" | 5'-6" | 5'-6" | 6'-5" | 4'-7" | 5'-6" | 4'-7" | 5'-6" | 4'-7" | 5'-6" |
| | 11⅞" | 7'-4" | 8'-3" | 8'-3" | 9'-2" | 8'-3" | 9'-2" | 8'-3" | 9'-2" | 7'-4" | 8'-3" |
| | 14" | 10'-1" | 10'-1" | 11'-11" | 11'-11" | 11'-0" | 11'-0" | 11'-0" | 11'-0" | 10'-1" | 10'-1" |
| 1¾" 1.55E TimberStrand® LSL | 9½" | 4'-7" | 5'-6" | 5'-6" | 6'-5" | 5'-6" | 6'-5" | 5'-6" | 5'-6" | 5'-6" | 5'-6" |
| | 11⅞" | 8'-3" | 8'-3" | 9'-2" | 10'-1" | 8'-3" | 9'-2" | 8'-3" | 9'-2" | 8'-3" | 9'-2" |
| | 14" | 11'-0" | 11'-0" | 11'-11" | 11'-11" | 11'-11" | 11'-11" | 11'-0" | 11'-0" | 11'-0" | 11'-0" |

(1) Tables are based on IBC requirements: maximum riser height of 7" and a minimum tread depth of 11", with a max story height of 144".

(2) Minimum throat depths are as follows: 3⅝" min. at 9½" rim board, 6" min. at 11⅞" rim board, 8⅞" min. at 14" rim board.

General Notes

- Maximum stringer runs shown are more restrictive of simple or continuous span and based on Allowable Stress Design.
- Deflection criteria of L/360 live load and L/240 total load.
- For 2-ply stringers, attach together with 2 rows of 0.131" x 2½" at 12" on center. Use 0.131" x 3" nails for 1¾" stringers.
- Use subfloor adhesive to improve stair performance and minimize squeaks. See adhesive recommendations on page 2.
- Keep materials dry. Add a vapor barrier at the bottom of the stair stringer if it is in contact with concrete.

- The attachment details shown are suggestions only; alternate details are possible. Responsibility remains with the design professional of record.
- For assistance with loading conditions and stair configurations not shown, contact your Weyerhaeuser representative.

General Guidelines for Calculating Step Rise and Run

- The rise times the run should equal approximately 75".
- Two times the rise plus one run should equal approximately 25".
- Rise plus run should be 17" to 18".

2-PLY TIMBERSTRAND® LSL STRINGERS



IRC Maximum Stringer Run — 40 psf Live Load/12 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | 42" Tread Width | 44" Tread Width | 48" Tread Width |
|-----------------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | 2 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ |
| | | Without Reinforcement |
| 2 pcs 1¼" 1.3E TimberStrand® LSL | 9½" | 6'-8" | 7'-6" | 7'-6" | 6'-8" | 6'-8" |
| | 11⅞" | 10'-10" | 12'-6" | 11'-8" | 11'-8" | 11'-8" |
| | 14" | 15'-0" | 15'-0" | 15'-0" | 15'-0" | 15'-0" |
| 2 pcs 1½" 1.5E TimberStrand® LSL | 9½" | 7'-6" | 8'-4" | 8'-4" | 7'-6" | 7'-6" |
| | 11⅞" | 11'-8" | 14'-2" | 13'-4" | 13'-4" | 12'-6" |
| | 14" | 15'-0" | 15'-0" | 15'-0" | 15'-0" | 15'-0" |
| 2 pcs 1¾" 1.55E TimberStrand® LSL | 9½" | 7'-6" | 9'-2" | 8'-4" | 8'-4" | 8'-4" |
| | 11⅞" | 12'-6" | 15'-0" | 14'-2" | 14'-2" | 13'-4" |
| | 14" | 15'-0" | 15'-0" | 15'-0" | 15'-0" | 15'-0" |

(1) Tables are based on IRC requirements: maximum riser height of 7¾" and a minimum tread depth of 10", with a max story height of 151".

(2) Minimum throat depths are as follows: 3⅝" min. at 9½" rim board, 5¼" min. at 11⅞" rim board, 7⅞" min. at 14" rim board.

(3) Each stringer requires 2 pieces: 2 stringers = 4 pieces total, 3 stringers = 6 pieces total.

IBC Maximum Stringer Run — 100 psf Live Load/12 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | 42" Tread Width | 44" Tread Width | 48" Tread Width |
|-----------------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | 2 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ |
| | | Without Reinforcement |
| 2 pcs 1¼" 1.3E TimberStrand® LSL | 9½" | 5'-6" | 5'-6" | 5'-6" | 5'-6" | 5'-6" |
| | 11⅞" | 8'-3" | 10'-1" | 9'-2" | 9'-2" | 9'-2" |
| | 14" | 11'-0" | 12'-10" | 11'-11" | 11'-11" | 11'-11" |
| 2 pcs 1½" 1.5E TimberStrand® LSL | 9½" | 5'-6" | 6'-5" | 6'-5" | 6'-5" | 6'-5" |
| | 11⅞" | 9'-2" | 11'-0" | 10'-1" | 10'-1" | 10'-1" |
| | 14" | 12'-10" | 14'-8" | 13'-9" | 13'-9" | 12'-10" |
| 2 pcs 1¾" 1.55E TimberStrand® LSL | 9½" | 6'-5" | 7'-4" | 6'-5" | 6'-5" | 6'-5" |
| | 11⅞" | 10'-1" | 11'-11" | 11'-0" | 11'-0" | 10'-1" |
| | 14" | 13'-9" | 15'-7" | 14'-8" | 14'-8" | 13'-9" |

(1) Tables are based on IBC requirements: maximum riser height of 7" and a minimum tread depth of 11", with a max story height of 144".

(2) Minimum throat depths are as follows: 3⅝" min. at 9½" rim board, 6" min. at 11⅞" rim board, 8⅞" min. at 14" rim board.

(3) Each stringer requires 2 pieces: 2 stringers = 4 pieces total, 3 stringers = 6 pieces total.

U.S. Allowable Design Stresses (100% Load Duration)

| Product Grade (Joist/Beam Orientation) | G Shear Modulus of Elasticity (psi) | E Modulus of Elasticity (psi) | F _b Flexural Stress (psi) | F _{c⊥} Compression perpendicular to grain ⁽²⁾ (psi) | F _{c∥} Compression parallel to grain (psi) | F _v Horizontal shear parallel to grain (psi) |
|--|-------------------------------------|-------------------------------|--------------------------------------|---|---|---|
| 1.3E TimberStrand® LSL | 81,250 | 1.3 x 10 ⁶ | 1700 ⁽³⁾ | 710 | 1835 | 425 |
| 1.5E TimberStrand® LSL | 93,750 | 1.5 x 10 ⁶ | 2250 ⁽³⁾ | 860 | 2105 | 505 |
| 1.55E TimberStrand® LSL | 96,875 | 1.55 x 10 ⁶ | 2325 ⁽³⁾ | 900 | 2170 | 310 |

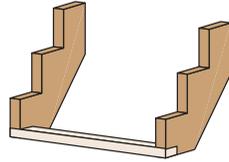
(1) When structural members qualify as repetitive members in accordance with the applicable building code, a 4% increase is permitted for F_b in addition to the increase permitted in footnote 3.

(2) F_{c⊥} may not be increased for duration of load.

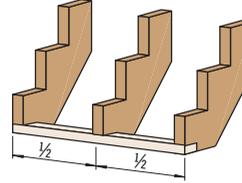
(3) For 12" depth. For other depths, multiply F_b by the appropriated factor as follows:
for TimberStrand® LSL multiply by (12/d)^{0.092}



Two Stringer Option



Three Stringer Option



1-PLY TIMBERSTRAND® LSL STRINGERS

NBCC-Private Maximum Stringer Run — 40 psf Live Load/15 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | | | 42" Tread Width | | 44" Tread Width | | 48" Tread Width | |
|-----------------------------|-------------------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|
| | | 2 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | |
| | | Without Reinforcement | With Reinforcement |
| 1½" 1.3E TimberStrand® LSL | 9½" | 5'-0" | 5'-10" | 5'-10" | 7'-6" | 5'-10" | 6'-8" | 5'-0" | 6'-8" | 5'-0" | 6'-8" |
| | 11⅞" | 8'-4" | 9'-2" | 10'-0" | 10'-11" | 9'-2" | 10'-0" | 9'-2" | 10'-0" | 9'-2" | 10'-0" |
| | 14" | 11'-9" | 11'-9" | 13'-5" | 13'-5" | 12'-7" | 12'-7" | 12'-7" | 12'-7" | 11'-9" | 11'-9" |
| 1½" 1.5E TimberStrand® LSL | 9½" | 5'-10" | 6'-8" | 6'-8" | 7'-6" | 5'-10" | 7'-6" | 5'-10" | 7'-6" | 5'-10" | 6'-8" |
| | 11⅞" | 9'-2" | 10'-0" | 10'-11" | 11'-9" | 10'-0" | 11'-9" | 10'-0" | 10'-11" | 10'-0" | 10'-11" |
| | 14" | 12'-7" | 12'-7" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 13'-5" | 13'-5" | 13'-5" | 13'-5" |
| 1½" 1.55E TimberStrand® LSL | 9½" | 5'-10" | 6'-8" | 6'-8" | 8'-4" | 6'-8" | 7'-6" | 6'-8" | 7'-6" | 6'-8" | 7'-6" |
| | 11⅞" | 10'-0" | 10'-11" | 11'-9" | 12'-7" | 10'-11" | 11'-9" | 10'-11" | 11'-9" | 10'-0" | 11'-9" |
| | 14" | 13'-5" | 13'-5" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 14'-3" |

(1) Tables are based on NBCC section 9.8.4.1 and 9.8.4.2. Private requirements: maximum riser height of 7.9"(200 mm) and a minimum tread depth of 10"(255 mm), with a max. story height of 145.7"(3.7 m).
 (2) Minimum throat depths are as follows: 3⅝" min. at 9½" rim board, 5¾" min. at 11⅞" rim board, 7⅞" min. at 14" rim board.

NBCC-Public Maximum Stringer Run — 100 psf Live Load/15 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | | | 42" Tread Width | | 44" Tread Width | | 48" Tread Width | |
|-----------------------------|-------------------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|
| | | 2 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | | 3 Stringers | |
| | | Without Reinforcement | With Reinforcement |
| 1½" 1.3E TimberStrand® LSL | 9½" | 3'-8" | 4'-7" | 4'-7" | 5'-6" | 4'-7" | 5'-6" | 4'-7" | 5'-6" | 4'-7" | 4'-7" |
| | 11⅞" | 6'-5" | 7'-4" | 7'-4" | 8'-3" | 7'-4" | 8'-3" | 7'-4" | 8'-3" | 6'-5" | 7'-4" |
| | 14" | 9'-2" | 9'-2" | 10'-1" | 10'-1" | 10'-1" | 10'-1" | 9'-2" | 9'-2" | 9'-2" | 9'-2" |
| 1½" 1.5E TimberStrand® LSL | 9½" | 4'-7" | 5'-6" | 5'-6" | 6'-5" | 4'-7" | 5'-6" | 4'-7" | 5'-6" | 4'-7" | 5'-6" |
| | 11⅞" | 7'-4" | 8'-3" | 8'-3" | 9'-2" | 8'-3" | 9'-2" | 8'-3" | 8'-3" | 7'-4" | 8'-3" |
| | 14" | 10'-1" | 10'-1" | 11'-0" | 11'-0" | 11'-0" | 11'-0" | 11'-0" | 11'-0" | 10'-1" | 10'-1" |
| 1½" 1.55E TimberStrand® LSL | 9½" | 4'-7" | 5'-6" | 5'-6" | 6'-5" | 5'-6" | 5'-6" | 5'-6" | 5'-6" | 4'-7" | 5'-6" |
| | 11⅞" | 8'-3" | 8'-3" | 9'-2" | 10'-1" | 8'-3" | 9'-2" | 8'-3" | 9'-2" | 8'-3" | 9'-2" |
| | 14" | 11'-0" | 11'-0" | 11'-11" | 11'-11" | 11'-11" | 11'-11" | 11'-0" | 11'-0" | 11'-0" | 11'-0" |

(1) Tables are based on NBCC section 9.8.4.1 and 9.8.4.2. Public requirements: maximum riser height of 7.1"(180 mm) and a minimum tread depth of 11"(280 mm), with a max. story height of 145.7"(3.7 m).
 (2) Minimum throat depths are as follows: 3⅝" min. at 9½" rim board, 6" min. at 11⅞" rim board, 8⅞" min. at 14" rim board.

General Notes

- Maximum stringer runs shown are more restrictive of simple or continuous span and based on Canadian Limit States Design.
- Deflection criteria of L/360 live load and L/240 total load.
- For 2-ply stringers, attach together with 2 rows of 0.131" x 2½" at 12" on center. Use 0.131" x 3" nails for 1¾" stringers.
- Use subfloor adhesive to improve stair performance and minimize squeaks. See adhesive recommendations on page 2.
- Keep materials dry. Add a vapor barrier at the bottom of the stair stringer if it is in contact with concrete.

- The attachment details shown are suggestions only; alternate details are possible. Responsibility remains with the design professional of record.
- For assistance with loading conditions and stair configurations not shown, contact your Weyerhaeuser representative.

General Guidelines for Calculating Step Rise and Run

- The rise times the run should equal approximately 75".
- Two times the rise plus one run should equal approximately 25".
- Rise plus run should be 17" to 18".



NBCC-Private Maximum Stringer Run — 40 psf Live Load/15 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | 42" Tread Width | 44" Tread Width | 48" Tread Width |
|-----------------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | 2 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ |
| | | Without Reinforcement |
| 2 pcs 1¼" 1.3E TimberStrand® LSL | 9½" | 6'-8" | 7'-6" | 6'-8" | 6'-8" | 6'-8" |
| | 11⅞" | 10'-11" | 12'-7" | 11'-9" | 11'-9" | 10'-11" |
| | 14" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 14'-3" |
| 2 pcs 1½" 1.5E TimberStrand® LSL | 9½" | 7'-6" | 8'-4" | 7'-6" | 7'-6" | 7'-6" |
| | 11⅞" | 11'-9" | 13'-5" | 13'-5" | 12'-7" | 12'-7" |
| | 14" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 14'-3" |
| 2 pcs 1¾" 1.55E TimberStrand® LSL | 9½" | 7'-6" | 9'-2" | 8'-4" | 8'-4" | 8'-4" |
| | 11⅞" | 12'-7" | 14'-3" | 14'-3" | 13'-5" | 13'-5" |
| | 14" | 14'-3" | 14'-3" | 14'-3" | 14'-3" | 14'-3" |

(1) Tables are based on NBCC section 9.8.4.1 and 9.8.4.2. Private requirements: maximum riser height of 7.9"(200 mm) and a minimum tread depth of 10"(255 mm), with a max. story height of 145.7"(3.7 m).

(2) Minimum throat depths are as follows: 3⅜" min. at 9½" rim board, 5¼" min. at 11⅞" rim board, 7⅞" min. at 14" rim board.

(3) Each stringer requires 2 pieces: 2 stringers = 4 pieces total, 3 stringers = 6 pieces total.

NBCC-Public Maximum Stringer Run — 100 psf Live Load/15 psf Dead Load⁽¹⁾

| Thickness Grade | Material Depth ⁽²⁾ | 36" Tread Width | | 42" Tread Width | 44" Tread Width | 48" Tread Width |
|-----------------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | 2 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ | 3 Stringers ⁽³⁾ |
| | | Without Reinforcement |
| 2 pcs 1¼" 1.3E TimberStrand® LSL | 9½" | 5'-6" | 5'-6" | 5'-6" | 5'-6" | 5'-6" |
| | 11⅞" | 8'-3" | 9'-2" | 9'-2" | 9'-2" | 8'-3" |
| | 14" | 11'-0" | 12'-10" | 11'-11" | 11'-11" | 11'-11" |
| 2 pcs 1½" 1.5E TimberStrand® LSL | 9½" | 5'-6" | 6'-5" | 6'-5" | 6'-5" | 5'-6" |
| | 11⅞" | 9'-2" | 11'-0" | 10'-1" | 10'-1" | 10'-1" |
| | 14" | 12'-10" | 14'-8" | 13'-9" | 13'-9" | 12'-10" |
| 2 pcs 1¾" 1.55E TimberStrand® LSL | 9½" | 6'-5" | 7'-4" | 6'-5" | 6'-5" | 6'-5" |
| | 11⅞" | 10'-1" | 11'-0" | 11'-0" | 11'-0" | 10'-1" |
| | 14" | 13'-9" | 15'-7" | 14'-8" | 14'-8" | 13'-9" |

(1) Tables are based on NBCC section 9.8.4.1 and 9.8.4.2. Public requirements: maximum riser height of 7.1"(180 mm) and a minimum tread depth of 11"(280 mm), with a max. story height of 145.7"(3.7 m).

(2) Minimum throat depths are as follows: 3⅝" min. at 9½" rim board, 6" min. at 11⅞" rim board, 8⅞" min. at 14" rim board.

(3) Each stringer requires 2 pieces: 2 stringers = 4 pieces total, 3 stringers = 6 pieces total.

Specified Strengths⁽¹⁾ and Moduli of Elasticity (Standard Term)

| Product Grade (Joist/Beam Orientation) | G Shear Modulus of Elasticity (psi) | E Modulus of Elasticity (psi) | f _b Flexural Stress ⁽²⁾ (psi) | f _{c⊥} Compression perpendicular to grain ⁽³⁾ (psi) | f _c Compression parallel to grain (psi) | f _v Horizontal shear parallel to grain (psi) |
|--|-------------------------------------|-------------------------------|---|---|--|---|
| 1.3E TimberStrand® LSL | 81,250 | 1.3 x 10 ⁶ | 3,140 ⁽⁴⁾ | 1295 | 2930 | 780 |
| 1.5E TimberStrand® LSL | 93,750 | 1.5 x 10 ⁶ | 4160 ⁽⁴⁾ | 1565 | 3355 | 935 |
| 1.55E TimberStrand® LSL | 96,875 | 1.55 x 10 ⁶ | 4295 ⁽⁴⁾ | 1635 | 3465 | 575 |

(1) To obtain factored resistances, apply the appropriate formulae from CSA O86 to the specified strengths shown.

(2) When structural members qualify as repetitive members in accordance with CSA O86, a 4% increase in permitted for f_b in addition to the increases permitted in footnote 4.

(3) f_{c⊥} may not be increased for duration of load.

(4) For 12" depth. For other depths, multiply f_b by the appropriated factor as follows:
for TimberStrand® LSL multiply by (12/d)^{0.092}

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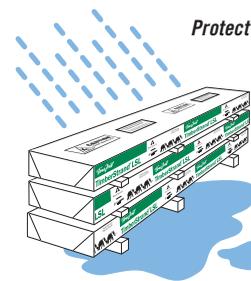
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Product Storage



Protect product from sun and water

CAUTION:
Wrap is slippery when wet or icy

*Align stickers (2x3 or larger)
directly over support blocks*

*Use support blocks (6x6 or larger) at
10' on-center to keep bundles out of
mud and water*

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