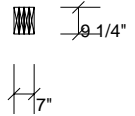
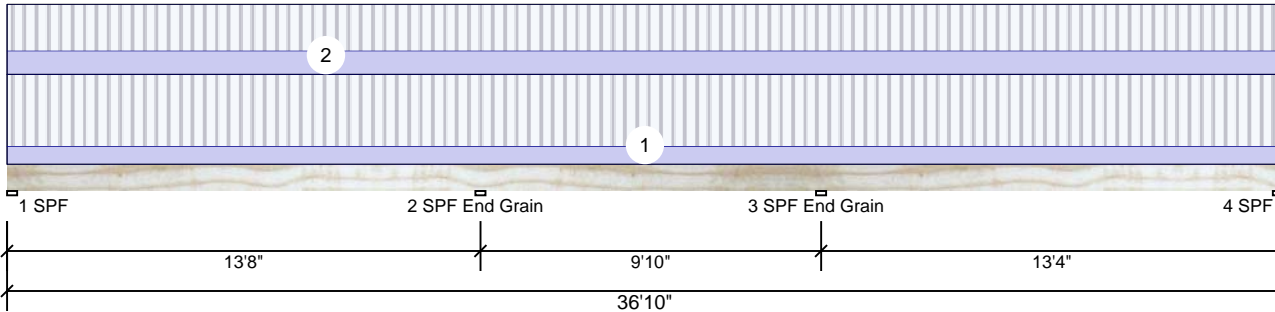


J1 2.0E EverEdge™ LVL 1.750" X 9.250" 4-Ply - PASSED

Level: Level



Member Information

| | |
|---------------------|---------------|
| Type: | Girder |
| Plies: | 4 |
| Moisture Condition: | Dry |
| Deflection LL: | 360 |
| Deflection TL: | 240 |
| Importance: | Normal |
| Temperature: | Temp <= 100°F |

| | |
|----------------|--------------|
| Application: | Floor |
| Design Method: | ASD |
| Building Code: | IBC/IRC 2015 |
| Load Sharing: | Yes |
| Deck: | Not Checked |

Reactions UNPATTERNED lb (Uplift)

| Brg | Live | Dead | Snow | Wind | Const |
|-----|------|------|------|------|-------|
| 1 | 3848 | 1451 | 0 | 0 | 0 |
| 2 | 8478 | 3197 | 0 | 0 | 0 |
| 3 | 8219 | 3099 | 0 | 0 | 0 |
| 4 | 3765 | 1420 | 0 | 0 | 0 |

Bearings

| Bearing | Length | Cap. React | D/L lb | Total | Ld. Case | Ld. Comb. |
|-----------|--------|------------|-------------|-------|----------|-----------|
| 1 - SPF | 3.500" | 53% | 1449 / 4048 | 5497 | L_L | D+L |
| 2 - SPF | 3.500" | 66% | 3200 / 9664 | 12864 | LL_ | D+L |
| End Grain | | | | | | |
| 3 - SPF | 3.500" | 64% | 3100 / 9481 | 12582 | _LL | D+L |
| End Grain | | | | | | |
| 4 - SPF | 3.500" | 52% | 1418 / 3976 | 5394 | L_L | D+L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|--------------|---------------|------------|---------------|--------------|-------|------|
| Neg Moment | -15552 ft-lb | 13'8" | 25993 ft-lb | 0.598 (60%) | D+L | LL_ |
| Unbraced | -13761 ft-lb | 13'8" | 14369 ft-lb | 0.958 (96%) | D+L | LLL |
| Pos Moment | 15388 ft-lb | 6' 9/16" | 25993 ft-lb | 0.592 (59%) | D+L | L_L |
| Unbraced | 15388 ft-lb | 6' 9/16" | 15406 ft-lb | 0.999 (100%) | D+L | L_L |
| Shear | 6563 lb | 12'10 3/4" | 12303 lb | 0.533 (53%) | D+L | LL_ |
| LL Defl inch | 0.401 (L/402) | 6'7 3/8" | 0.448 (L/360) | 0.900 (90%) | L | L_L |
| TL Defl inch | 0.531 (L/304) | 6'6 13/16" | 0.672 (L/240) | 0.790 (79%) | D+L | L_L |

Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 8'11 5/8" o.c.
- Bottom braced at bearings.
- Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|----|-------------|----------|------------|------|----------|---------|-----------|----------|-------------|------------|
| 1 | Uniform | | | Top | 100 PLF | 400 PLF | 0 PLF | 0 PLF | 0 PLF | Floor Load |
| 2 | Uniform | | | Top | 130 PLF | 260 PLF | 0 PLF | 0 PLF | 0 PLF | |
| | Self Weight | | | | 19 PLF | | | | | |

Notes
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber
 1. Dry service conditions, unless noted otherwise
 2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation
 1. LVL beams must not be cut or drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 3. Damaged Beams must not be used
 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info
 Weyerhaeuser
 Seattle, WA
www.weyerhaeuser.com/everedge/

Locust Lumber Company
 312 E. Main St., NC
 United States
 28097
 (704) 888-4411

