

LV SERIES KIT HOME CONSTRUCTION BINDER

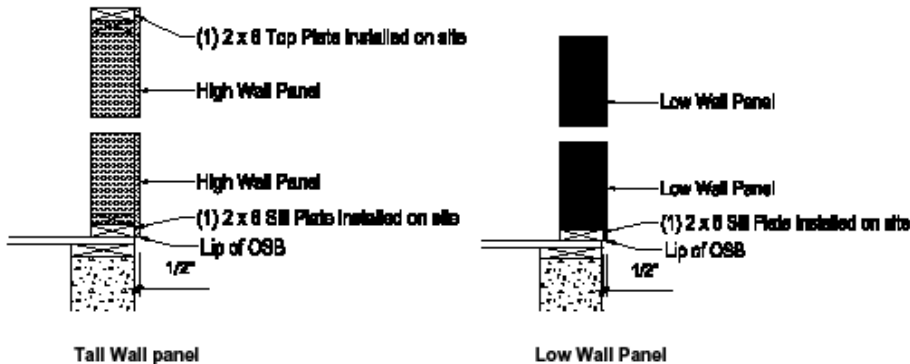
The LV Series Kit Home Construction Binder is included in your LVS Kit home purchase. It includes the following: Construction Manual, Materials List, Construction Schedule, and Product Specifications. The Construction Manual instructs your General Contractor how to build the Kit Home and consists of instructions and illustrations that outline all the steps required to properly build your home. Below is an excerpt from the manual:

3.2.2 Installation of Wall Panels

All wall panels are labeled and correspond to the Wall Panel Layout. The Wall Panel Layout is included within the Client package that you receive when your kit home is delivered to your site. You can build the wall panels in any order, so long as you install the wall panels as indicated on the layout. We do, however, recommend that you do it in numerical order as labeled, for example start with EP1 (Exterior Panel #1) and then move onto EP2 (Exterior Panel #2), as it will be less confusing.

Steps for installing Wall Panel:

- First install 2x6 sill plates between the posts. You will need to cut sill plates to allow clearance for the bolts of the thread rods of the posts. Apply a generous bead of glue to the top of the first floor deck and then place sill plate. Make sure that the sill plate sits flush with floor deck.
- When installing the sill plates make sure to stagger the sill plates, so that the end of the sill plate does not coincide with the end of the wall panel. You want the middle portion of the sill plate to coincide with the end/start of the wall panel; this way the sill plate and wall panel connection will be more structural. Refer to the Structural Set for nail sizes and spacing.
- Remove temporary blocking along the edge of the 1 1/2" lip of OSB of your wall panels. This blocking is for shipping purposes only, so that your OSB lip will not be damaged during shipping.



- Then install wall panels. To prevent air infiltration and to better secure your wall panels, apply a generous bead of glue to the top and side of the sill plate as well as the side of the previously installed wall panel and/or post. Since the wall panels have a 1 1/2" lip, your OSB will actually sit off the edge of your floor deck, by 1/2". This is what we want, as the OSB can be nailed and glued to your sill plate as well as posts, making these wall panels have better shear strength.
- Check for plumbness and levelness as you install each and every wall panel.
- Nail wall panel to sill plate and floor deck as well as to the other wall panels and posts. Refer to Structural set for different connections, nail sizes and spacing.
- Then install 2x6 top plates on top of all the tall shear wall panels. Stagger the top plates, so that the end of the top plate does not coincide with the end of the wall panel. You want the middle portion of the sill plate to coincide with the end/start of the wall panel, this way the top plate and wall panel connection will be more structural. Refer to Structural set for nail sizes and spacing.
- Note: the short 7' wall panels do not get a top plate installed on top.

The Materials List is a list of all the materials for all the different construction phases. This list will come in handy for your General Contractor when ordering the materials for items that are not included in the Kit.

Below is an excerpt from the Materials List:

MATERIALS BELOW ARE <i>NOT</i> INCLUDED IN THE LVL KIT HOME			LV SERIES HOMES	
FOUNDATION			ROOFING AND ROOF MATERIALS	
CONCRETE & STRUCTURAL REBAR			MATERIALS LIST BELOW IS FOR GUIDANCE. FINAL MATERIALS LIST TO BE DETERMINED BY ROOFING CONTRACTOR	
- See structural set for specifications. Amount to be determined by concrete contractor.			ROOFING MATERIALS AS SEEN IN PERRYVILLE.	
HARDWARE THAT IS PLACED IN WET CONCRETE			RIGID INSULATION BOARD BY FIRESTONE SEE INSULATION BOARD DIAGRAM IN ROOFING APPENDIX FOR QUANTITY.	
QTY	TYPE MARK	DESCRIPTION	EPDM RUBBER BY FIRESTONE	
14	Simps. SSTB28L, Typ.	Simpson SSTB28L Anchor used with Simpson HDUB	EPDM RUBBER, 600 - 10' X 60' ROLLS (4) 10' X 60' EPDM ROLLS	
42	5/8" A.B.	5/8" Dia. x 14" Mudall Anchor Bolt & Nuts & Washers	ADHESIVE BONDING BY FIRESTONE ADHESIVE BONDING (5 GALLONS) (8) 5 GALLONS OF BONDING	
ALL QUANTITIES ABOVE ARE EXACT LINEAR SQFT. ADDITIONAL BOARDS MAY BE REQUIRED FOR COMPLETE ASSEMBLY			ADHESIVE SPlicing BY FIRESTONE ADHESIVE SPlicing (3 GALLONS) (2) 3 GALLONS OF SPlicing	
PVC MOLDS TO BE PLACED IN WET CONCRETE			QUICK PRIME PLUS BY FIRESTONE QUICK PRIME PLUS (1 GALLONS) (2) 1 GALLON OF QUICK PRIME	
- Cut PVC pipes as molds to be placed in wet concrete for utilities such as: For water in, Water out, Electrical, Cable, Vents for dryers, Vents for ranges, etc.			O.S. UNIVERSAL BOOT BY FIRESTONE (FOR VENT STACKS) (3) UNIVERSAL BOOT	
DRAINAGE AT FOOTING OF STEM WALL			O.S. CORNER FLASHING BY FIRESTONE (4) CORNER FLASHING	
- Contractor to determine sizing and amount of drains at footing required to properly drain house as mandated by soils analysis as well as local codes.			SEALANT LAP BY FIRESTONE (TUBES) (1) 3 TUBES	
FLOOR FRAMING - IF APPLICABLE			FLAT BAR TERMINATION OLYMPIC (10) BAR TERMINATION	
APPLY SILL SEAL BEFORE BUILDING FLOOR FRAMING			SCREWS, 5", OLYMPIC .1 M. OR AS REQ'D	
SILL SEAL - SEE QUANTITY OF SILL PLATES BELOW AND CALCULATE ACCORDINGLY			SCREWS, 7", OLYMPIC .2 M. OR AS REQ'D	
WOOD FOR FLOOR FRAMING			SCREWS, 9", OLYMPIC .1 M. OR AS REQ'D	
QTY	TYPE MARK	DESCRIPTION	FIRESTONE QUICK SEAM 9" FLASHING 170' QUICK SEAM FLASHING	
14	Sill Plate (3x10 Treated)	3x10 @ 12" SP #2, Treated	PLATES STEEL 3" OLYMPIC (1000/BOX) 4 BX. OR AS REQ'D	
51	CDX Ply	Floor Sheathing, 4' x 8' x 7/8" CDX Plywood T&G	DOWNSPOUT AS SEEN IN PERRYVILLE.	
4	I-Joist Blocking	Blocking, LPI 42 - 14" @ 24"	PORTALS PLUS SCUPPER DRAIN 2 (OR MORE IF REQUIRED)	
47	LPI 42, 14" @ 16" o.c.	Floor Joist (I-Joist Louisiana-Pacific LPI 42 - 14") @ 24"	RUBBER NO HUB CONNECTOR 2 (OR MORE IF REQUIRED)	
ALL QUANTITIES ABOVE ARE EXACT LINEAR SQFT. ADDITIONAL BOARDS MAY BE REQUIRED FOR COMPLETE ASSEMBLY			PVC, 4" DIAMETER @ 10' LENGTH 3 (OR MORE IF REQUIRED)	
HARDWARE			PVC 45° STREET ELBOW, 4" DIAMETER 2 (OR MORE IF REQUIRED)	
GENERAL HARDWARE			PVC, 4"x 4" DIAMETER COUPLER 2 (OR MORE IF REQUIRED)	
QTY	TYPE MARK	DESCRIPTION	PVC CLEANER, 8 OZ. 1	
96	Simps. BA3.56/14, typ.	Simpson I-Joist Hanger (Floor)	PVC CEMENT, 8 OZ. 1	
NOT ALL HARDWARE AND FASTENERS FOR STRUCTURE ARE MENTIONED ABOVE. SEE STRUCTURAL SET FOR QUANTITIES OF ALL NAILS AND MSG. CONNECTORS. REFER TO APPENDIX FOR NAILS,BOLTS,LAG OPTIONS ON SIMPSON CONNECTORS			AC GRANULAR ICE & WATERSEAL 1	
BASEMENT			PERFORATED HANGER IRON STRAPS 30, OR AS REQ'D	
STAIR WOOD AND HARDWARE SEE K.01 (IF APPLICABLE)			MISCELLANEOUS TOOLS	
BASEMENT INTERIOR WALL PANEL - IF APPLICABLE			ROLLERS, BRUSHES TO APPLY BONDING AND SPlicing	
QTY	TYPE MARK	DESCRIPTION	WOODEN ROLLER TO APPLY PRESSURE WHEN BONDING	
2	Simps. HDUB	Simpson HDUB Holdown	GLOVES	
6	5/8" Threaded Rod	5/8" Dia. Threaded Rod set in XP Adhesive for Basement Shear Wall		

**LV
SERIES
HOMES**

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LVL
Owner
5/2/11

**NOT FOR
CONSTRUCTION**

Materials List Not
Included in Kit
Scale:
K0.2

The Construction Schedule outlines the timeline of the construction of the LV with all of the different subcontractors.

The Product Specifications contain technical data with respect to the materials and products used in the LV Series. The product technical data includes the following: evaluation reports, product installation instructions and diagrams, product maintenance, and general product data. Below and on the following page are excerpts for product installation instructions and diagrams:

Concrete Connectors & Anchors

SSTB® Anchor Bolts

The SSTB is designed for maximum performance as an anchor bolt for holdowns and Strong-Wall shearnails. Extensive SSTB testing has been done to determine the design load capacity at a common application, the garage slab wall. Design loads are based on a series of tests, with a three-times reduction factor. SSTB14 is a 3/4" diameter anchor bolt designed and tested specifically for shallow foundation installations.

SPECIAL FEATURES – Raised threads for higher tensile capacity:

- Offset angle reduces side-bursting, provides more concrete cover.
- Shaped embedment line aids installation.
- Configuration results in minimum rear interference.

MATERIAL: ASTM A36

FINISH: None. May be ordered HDG, contact Simpson Strong-Tie.

INSTALLATION: SSTB is used for monoPile® and two-pile installations.

- Nuts and washers are not supplied with the SSTB; install standard nuts, couplers and/or washers as required. On HDG SSTB anchors, check the threads to use standard nuts or couplers or use overlapped products in accordance with ASTM A563 (Simpson NUT®-OS, NUT®-OS, CHW®-NUT, CHW®-NUT).

REINFORCED CONCRETE FOUNDATION

- Install SSTB before the concrete pour using AnchorMate® (see page 26).
- Install the SSTB per plan view detail shown on page 29. Install one #4 rebar 2" to 3" (may be foundation rebar not post-tension cable) from the top of the foundation.
- The SSTB does not need to be tied to the rebar.
- Minimum concrete compression strength is 2500 psi. Unless noted otherwise, no special inspection is required for foundation concrete when the structural design is based on concrete no greater than 2500 psi (ACI Section 1704.4).
- Unless otherwise noted, do NOT install where: (a) a horizontal cold joint exists within the embedment depth between the slab and foundation wall or footing beneath, unless provisions are made to transfer the load, or the slab is designed to resist the load imposed by the anchor; or (b) slabs are poured over concrete block foundation walls.

REINFORCED CONCRETE BLOCK

- Before concrete pour, install diagonally at approx. 45° in the cell per plan view detail shown on page 29.
- Horizontal #4 rebar minimum 5/8" long centered about the anchor foot – approximately one rebar 12" from the top and two rebars approximately 28" from the top. Vertical #4 rebar (minimum 24" long) install with maximum 24" o.c. spacing.
- Grout all cells with minimum 2000 psi concrete. Vibrate the grout per the ACI, Section 214.1.

CODES: See page 12 for Code Reference Key Chart.

IDENTIFICATION: Identification on the bolt head showing embedment angle and model.

SEE PAGE 27 FOR ADDITIONAL INSTALLATION DETAILS.

TYPICAL PLAN VIEWS OF REBAR INSTALLATION

SELECTION GUIDE (Per Anchor Bolt Diameter)

Model No.	2x, 2x1, 2-2x Sill Plates	Model No.	Embedment Depth (in.)	Length (in.)	Min. Embedment (in.)	Concrete Comp. (psi)	Concrete Cover (in.)
HDQ, HECA, LTT19, LTT20, LTT21	SSTB16P	SSTB20	16	11	2852*	4420	478
HT116	SSTB16	SSTB20	16	11	2852*	4420	478
HD14, HD3P	SSTB16	SSTB20	16	11	2852*	4420	478
HT22P, HDQ52, HDQ54, HD19P, T40	SSTB24	SSTB28P	24	19	3214*	5175	478
HD14, HDQ54, HDQ52, HDQ54, HDQ52	SSTB24	SSTB28	24	19	3214*	5175	478
HDQ54, HDQ52	SSTB24	SSTB28	24	19	3214*	5175	478

NOTES:

- SSTB models are recommended for HDQ, HDQ52, and HDQ54 holdowns on 2x and 3x sill plates. Where SSTB16 is specified for these products, use SSTB16P.
- Do not cut into embedment depth unless provisions are made to transfer the load.
- The design engineer may specify an alternate anchorage system, provided the anchor diameter is the same.
- Remove the embedment depth 2" to accommodate 3/8" HDG embedment block.
- Where noted the allowable load for the application is limited to 4000 lbs, which is less than the published load for the holddown.
- Where noted the allowable load for single pile is limited to 1700 lbs, which is less than the published load for three holdowns.
- SSTB can be used for the application with 2" embedment wall.
- Where noted SSTB20 may be used on 1 1/2", 2" and 3" post-tension cables. Refer to page 19 for (a) post-tension cable embedment details, (b) for (a) and (b) and member thickness info.
- Where noted SSTB16 may be used on 3" post-tension cable embedment details.
- Loads may not be increased for short-term loading. Loads apply to earthquake.
- Minimum anchor center-to-center spacing is 2x for anchors acting in tension.
- The SSTB was tested in a stem wall with a minimum amount of concrete cover.
- Use full table load when installed 2P from the end or installed in a corner condition. When used 2P from the end of a concrete foundation (see end and grade) allow load is 80% of table load for SSTB20, 80% of table load for SSTB24 and 90 bolts, and table load (three loads are not both used) – contact Simpson Strong-Tie for test data.
- SDU and HTT minimum end distance is 4d.
- Order the SSTB model (see SSTB14L) for longer embedment length (16" + 5/8", 20", SSTB16, and SSTB20) loads are the same. Not available on SSTB14L.
- SSTB24 has 4" of thread and SSTB28 has 5/8". These two models are not on this table.
- Minimum end distance required to achieve table loads is 4d.
- Allowable load for SSTB14 is 2000 lbs, when f_c = 2800 psi.
- Minimum end distance required to achieve table loads is 4d.
- Testing to new ICCES acceptance criteria to be completed in 2009. Reference for latest loads and information.

Holdowns & Tension Ties

HDQ5/HHDQ Holdowns

The HDQ series of holdowns combines low deflection and high loads with ease of installation. The unique seat design of the HDQ5 greatly minimizes deflection under load. Both styles of holdown employ the Simpson Strong-Tie® Strong-Chief® screws (SDS) which install easily, reduce fastener slip and provide a greater net section area of the post when compared to bolts. They may be installed either flush or raised off the masonry without a reduction in load value.

SPECIAL FEATURES:

- Use SDS screws which install easily, reduce fastener slip, and provide a greater net section area of the post compared to bolts.
- SDS screws are supplied with the holdowns to ensure proper fasteners are used.
- No stud bolts to countersink at openings.

MATERIAL: HDQ5—7 gauge; HHDQ—6 body; 1/2" plate

FINISH: HDQ5—Galvalume; HHDQ—Simpson Strong-Tie® gray paint

INSTALLATION: Use all specified fasteners. See General Notes.

- For use in vertical and horizontal applications.
- No additional washer is required.
- To multiple 2x members together, the Designer must determine the fasteners required to join members to act as one unit without splitting the wood. See page 20 for SDS values.
- See SB and SSTB Anchor Bolts on pages 27-29 for anchorage options.
- SDS screws install best with a low speed high torque drill with a 3/8" hex head driver.
- Refer to technical bulletin T-ANCHORSPEC for post-installed anchorage solutions (see page 19 for details).

HDQ5:

- 1/4" of adjustability perpendicular to the wall.
- See SSTB Anchor Bolts, page 28-29, for anchorage options.
- For 2-2x and 3x sill plates use SSTB16 models. The Designer may specify any alternate anchorage calculated to resist the tension load for a specific job. Anchorage length should take the bearing plate/washer height into account, to ensure adequate length of threads to engage the nut.

HHDQ:

- No additional washer is required.
- HHDQ14 requires a heavy hex anchor nut (branded with holdown).
- See SB Anchor Bolts, page 27, for anchorage options.

CODES: See page 12 for Code Reference Key Chart.

Model No.	Dimensions (in.)					Fasteners	Minimum Wood Member Thickness (in.)	Allowable Tension Loads (lbs.)			Code Ref.		
	Ca	W	H	B	℄			DF/SP	SP/NF	Deflection at Allowable Load ⁶ (in.)			
HDQ5-SDS	7	2 1/2	14	2 1/2	1 1/4	2%	3	20-SDS 1/2x3"	5715	4116	0.064	HL, L24, FS	
								20-SDS 1/2x2"	216	7630	5495		0.094
								20-SDS 1/2x1"	416	9238	6145		0.095
HHDQ11-SDS2.5	7	3	19 1/2	2 1/2	1 1/4	1%	1	24-SDS 1/2x2 1/2"	516	11910	9505	0.131	
								30-SDS 1/2x2 1/2"	714	13015*	9070*	0.107	
HHDQ14-SDS2.5	7	3	19 1/2	2 1/2	1 1/4	1%	1	30-SDS 1/2x2 1/2"	516*	13710*	10745*	0.107	

NOTES:

- Allowable loads have been increased for earthquake or wind load durations with no further increase allowed where other load duration governs.
- The Designer must specify anchor bolt type, length and embedment.
- See SB and SSTB Anchor Bolts (pages 27-29). Refer to technical bulletin T-ANCHORSPEC for retrofit anchor solutions (see page 19 for details).
- Structural composite lumber columns have sides that show either the wide face or the edge of the lumber end/narrowness. Values in the table reflect installation into the wide face. See technical bulletin T-SC-COLUMN for values on the narrow face based on 3" wide post minimum.
- Post design by Specifier. Allowable load values are based on a minimum wood member thickness in the direction of the fastener penetration. Posts may consist of multiple 2x members provided they are designed to act as one unit independently of the holdown fasteners. Holdowns shall be installed centered along the width of the attached post.
- Tension values are valid for holdowns flush or raised off of all sides.
- Deflection at Highest Allowable Tension Load includes fastener slip, holdown elongation, and anchor bolt elongation (L - ℄). Additional elongation of anchor bolts shall be accounted for by the Designer when holdowns are raised higher than 1/2".
- Tabulated loads may be doubled when the HDQ5 is installed on opposite sides of the wood member provided either the post is large enough to prevent opposing holdown screw interference or the holdowns are offset to alternate screw interference.
- Note: HHDQ14 allowable loads are based on a 3 1/2" wide post minimum.
- All other loads are based on 3" wide post minimum.
- Requires heavy hex anchor nut to achieve tabulated loads (supplied with holdown).
- HHDQ holdowns installed horizontally can achieve compression loads with the addition of a standard nut on the underside of the lead transfer plate. Refer to SSTB 2201 for design values. Design of anchorage rods for the compression force shall be per the Designer.

Below are excerpts for product evaluation reports and general product data relating to structural performance tables:

ES REPORT™ ER-5263
Reissued June 1, 2001

ICBO Evaluation Service, Inc. • 5360 Workman Mill Road, Whittier, California 90601 • www.icboes.org

Filing Category: DESIGN—Wood (038)

ANTHONY POWER BEAMS
ANTHONY FOREST PRODUCTS COMPANY
 309 NORTH WASHINGTON
 EL DORADO, ARKANSAS 71730

1.0 SUBJECT

Anthony Power Beams.

2.0 DESCRIPTION

2.1 General:

Anthony Power Beams comply with the requirements noted in Section 2303, Item 2, of the 1997 *Uniform Building Code*™ (UBC) and Section 2303.1.3 of the 2000 *International Building Code*® (IBC).

Anthony Power Beams are glue-laminated timber members fabricated to combinations 28F-E 1, 28F-E 2, 30F-E 1 and 30F-E 2. The beams consist of southern pine lumber that is E-rated and/or visually graded before laminating into rectangular cross sections meeting industry standards for depth, width and appearance. Individual laminations are 2 inches (51 mm) or less in net thickness. Beams having widths of 3 1/2 and 5 1/2 inches (89 and 140 mm) are available with a maximum depth of 24 3/4 inches (620 mm). Seven-inch-wide (178 mm) beams have a maximum depth of 28 7/8 inches (733 mm).

Quality control for lumber grading and beam fabrication is monitored by the American Institute of Timber Construction (AITC) (AA-670) in accordance with the approved quality control manual. Beams meet the requirements of ANSI/AITC A190.1-92 and the additional requirements of evaluation report ER-5745 and AITC's quality control procedures applicable to these lay-up combinations.

2.2 Materials:

2.2.1 Adhesives: Face and end-joint bonding adhesives comply with ASTM D 2559 for exterior or wet use.

2.2.2 End Joints: End joints comply with ANSI/AITC A190.1-92 and AITC quality control requirements.

2.2.3 Lumber: Grade requirements are set forth in Table 2 for lumber used in various laminations associated with combinations listed in this report. Grade specifications are in-

cluded in the Standard Specifications for Structural Glue-laminated Timber of Softwood Species and the supplemental requirements of AITC for these layup combinations.

2.2.4 Layout: Manufacturing grade and layout requirements for the grade combination are noted in Table 2. Manufacturing details are provided by AITC and are included in the plant production procedures manual. Lamination grades and zones are as defined in the AITC Standard Specification for Structural Glue-laminated Timber of Softwood Species.

2.3 Design:

Design values are noted in Table 1. The design and installation requirements for structural glue-laminated beams and connections must comply with the code.

2.4 Identification:

Anthony Power Beams are identified by a stamp bearing the name of the Anthony Forest Products Company, the plant location, the lumber combination, the evaluation report number (ICBO ES ER-5263), and the logo of the quality control agency (American Institute of Timber Construction, or AITC). Additionally, the 28F-E1 and 30F-E1 unbalanced grades of beams are marked with a "TOP" stamp.

3.0 EVIDENCE SUBMITTED

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4.0 FINDINGS

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This report is

Anthony Power Beam® SCUF
Performance Comparison Tables 3000 F_b - 2.1 E - 290F_v

POWER BEAM® Comparisons						
Clear Span	Allowable PLF Load (L/L/T/L)	Beam Application	Anthony 30F Power Beams*	Multiple Lumber #1 Southern Pine†	Multiple Lumber #1 Douglas Fir Larch‡	Timber #1 Douglas Fir§
8'	600/900	Floor	3-1/2" x 7-1/4"	3 ply - 2 x 12	3 ply - 2 x 12	6 x 12, 8 x 10
16'	450/650	Floor	3-1/2" x 11-1/4"	6 ply - 2 x 12	4 ply - 2 x 12	8 x 14, 12 x 12
24'	170/250	Floor	3-1/2" x 14"	6 ply - 2 x 12	7 ply - 2 x 12	8 x 14, 10 x 12
6'	4425/4625	Roof (L15)	3-1/2" x 9-1/4"	7 ply - 2 x 12	7 ply - 2 x 12	10 x 16, 12 x 14
16'	530/700	Roof (L15)	3-1/2" x 11-7/8"	6 ply - 2 x 12	7 ply - 2 x 12	8 x 14, 10 x 12
18'	480/640	Roof (L15)	3-1/2" x 11-1/4"	7 ply - 2 x 12	8 ply - 2 x 12	8 x 14, 10 x 12

Clear Span	Allowable PLF Load (L/L/T/L)	Beam Application	Anthony 30F Power Beams*	LVL†	Paralam®‡	Steel§
8'	600/900	Floor	3-1/2" x 7-1/4"	2 ply - 1-3/4" x 7-1/4"	3-1/2" x 7-1/4"	W6 x 9, W8 x 10
16'	450/650	Floor	3-1/2" x 11-1/4"	3 ply - 1-3/4" x 11-7/8"	3-1/2" x 11-7/8"	W10 x 12, W12 x 15
24'	170/250	Floor	3-1/2" x 14"	2 ply - 1-3/4" x 16"	3-1/2" x 16"	W10 x 12, W12 x 14
6'	4425/4625	Roof (L15)	3-1/2" x 9-1/4"	2 ply - 1-3/4" x 9-1/2"	3-1/2" x 9-1/2"	W10 x 12, W8 x 15
16'	530/700	Roof (L15)	3-1/2" x 11-7/8"	2 ply - 1-3/4" x 14"	3-1/2" x 14"	W8 x 15, W12 x 14
18'	480/640	Roof (L15)	3-1/2" x 11-1/4"	3 ply - 1-3/4" x 11-7/8"	3-1/2" x 11-7/8"	W10x15, W12 x 14

Design values used for this table follow:
 *Southern Pine #1 from NDS Supplement Table 4B
 †Douglas Fir Larch #1 from NDS Supplement Table 4A
 ‡Douglas Fir Larch #1 from NDS Supplement Table 4D
 §LVL Design Values: F_b=2925 psi, F_v=283 psi, MOE=2,000,000 psi
 ¶Paralams Design Values: F_b=2900 psi, F_v=290 psi, MOE=2,000,000 psi. Footnotes copyright trademark of Paralams, a Woodmaster Division.
 ††Steel Design Values are based on 36 ksi steel using the Seventh Edition of the Steel Construction Manual.

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Power Beam Substitution for PSL or LVL

Design Span	9'-1/4"	9'-1/2"	Convert from PSL or LVL 3-1/2" by 11-1/4" to	14"	16"	18"
Replace with 30F Power Beams 3-1/2" by						
4' to 30'	9'-1/4"	9'-1/2"	11-1/4"	11-7/8"	14"	16"
Convert from PSL or LVL 3-1/4" by 11-7/8" to						
Replace with 30F Power Beams 3-1/2" by						
4' to 30'	9'-1/4"	9'-1/2"	11-1/4"	11-7/8"	14"	16"

- Notes:**
- Comparisons are based on uniform loads and the most restrictive of simple span and two-span continuous using equal spans. Beams are assumed to be loaded on the top edge with continuous lateral support along top edge.
 - Allowable design values used for comparisons are as follows:
- | | F _b (psi) | F _v (psi) | E (psi) |
|--------------|----------------------|----------------------|-----------------------|
| Power Beams* | 3000 | 290 | 2.1 x 10 ⁶ |
| PSL or LVL | 2925 | 280 | 2.0 x 10 ⁶ |
- PSL and LVL refer to Parallel Strand Lumber and Laminated Veneer Lumber respectively.
 - Substitution table should be used only for comparing structural capacity of 30F Power Beams with LVL or PSL. This table should not be used for stress reduction. See Allowable PLF or Size Selection Tables for appropriate design criteria and member size.
- * Refer to page 15 for R and F_v adjustments.