



GLULAM BEAMS AND THE NEW HOME

GLULAM IS A VERSATILE ENGINEERED WOOD PRODUCT THAT HAS THE STRENGTH, STABILITY, AND LONG SPAN CAPABILITIES TO MAKE IT AN IDEAL OPTION FOR TODAY'S OPEN FLOOR PLANS, EXPANSIVE WINDOW AND DOOR OPENINGS, AND TALL WALLS.

Stronger on the same weight basis than steel, boasting greater strength and stiffness than comparable dimension lumber, and capable of spanning long distances, glulam beams provide designers and builders virtually unlimited design flexibility.

In residential construction, APA trademarked glulam beams are often chosen for their beauty in exposed designs, such as rafters in vaulted ceilings or long clear-span ridge beams. But they're also ideal for hidden structural applications, such as floor beams and headers.



Stock beams, readily available from distributors throughout North America, are manufactured in widths of 3-1/8, 3-1/2, 5-1/8, 5-1/2, and 6-3/4 inches with depths ranging from 9 to 36 inches.

The most common uses for stock glulam beams in residential construction are described below.

GARAGE DOOR HEADERS

Garage door headers are the most popular application for glulam beams, thanks to their ability to span distances long enough for two- and three-car-wide garage doors. The dimensional stability of glulam also ensures the garage door frame is straight and true.

A common width of glulam garage door headers is 3-1/2 inches, which fits conventional 2x4 wall construction. For 2x6 wall construction, a 5-1/2-inch-wide glulam beam provides the perfect fit. Beams with other widths are also used for these applications, but may require shimming.



Glulam ridge beams are ideal for the dramatic roof lines and open spans popular in today's home.



Glulam garage door header extends over adjacent narrow shear wall.

GARAGE PORTAL FRAMES

One of the most challenging design areas of the home is the narrow wall adjacent to the garage door opening. This short wall section must withstand the same lateral forces that bear on other, larger walls of the house. Being able to extend the glulam garage door header over these narrow walls combined with the nailing of the wood structural wall sheathing to the header creates a highly structurally efficient portal frame.

RIDGE & RAFTER BEAMS

The open, airy designs and high ceilings common in today's homes make glulam the perfect choice for ridge beam applications. They can span long distances and carry virtually any design load. Sloping glulam rafter beams are the perfect complement to ridge beams in exposed applications.



FLOOR BEAMS

Framers find that glulam floor beams are easier to work with than comparable steel beams. They are lighter in weight and easy to connect with other wood floor components because the wood-to-wood connections can be made with standard carpentry tools and fasteners. Glulam is manufactured from kiln-dried lumber at a moisture content of 16 percent or less, so shrinkage and warping are minimized. They also have excellent fastener-holding capabilities, which means a firm subfloor with minimal nail pops or squeaks when combined with an APA recommended glued floor system.

Glulam is available in I-joist-compatible depths to easily permit flush framing without special furring. I-joist-compatible beams are supplied in depths of 9-1/2, 11-7/8, 14, and 16 inches to match the depths of I-joists used in residential construction.



Glulam in I-joist compatible depths is commonly used in residential floor framing.

COLUMNS

Glulam columns are straight and dimensionally true, making them ideal for today's tall walls, including those with large window openings. Glulam's stability ensures the walls stay straight and stable. Because they're available in long lengths and wide widths, glulam members don't have to be spliced together, which is often necessary with sawn lumber. What's more, architectural-grade columns can be left exposed as an architectural feature.

WINDOW HEADERS

For window and door openings and large openings, such as patio doors, glulam headers provide added stability versus dimension lumber, helping to prevent movement of the window or door frame and minimizing wall cracks.

For more information on these and other uses, visit www.glulambeams.org.

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