

# The Mechanics of Glue Laminated Wood

Sometimes large wood members are made by gluing together many layers of thinner beams. The members made this way are called "glue-laminated" wood or "glulam" wood.



Courtesy of Okanogan Timber Frame Company. Used with permission.

Glulam wood offer a number of advantages:

- larger sections can be built up than can be obtained from trees (for instance, glulam members have been made up to 140 feet long)
- defects which reduce the strength of the wood can be cut out of the layers before they are glued together
- curved shapes, like the wood arch in the photographs, can be made by bending each layer around a mold before gluing all the layers together

At the Boston Nature Center, the wood members supporting the roof of the new building near the community gardens are all glue-laminated wood. The large arches supporting the roof of the Back Bay station are also glue-laminated wood.



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To learn more about the structural principles behind many natural materials visit the website of the MIT class that created this poster.