

STRUCTURAL WOOD SYSTEMS

DIVISION OF HARRISON INDUSTRIES, INC.



CUSTOM GLUED LAMINATED TIMBER MANUFACTURER

SUCCESSFULLY SERVING OUR CUSTOMERS WITH QUALITY MATERIAL & WORKMANSHIP SINCE 1972

Forest History Society - Durham, NC



ABOUT OUR COMPANY

Structural Wood Systems has earned the distinction of being the leading custom manufacturer of top quality structural glued laminated timber. We have been told our products are the best in the business. Regardless of the size or complexity of your application, Structural Wood Systems can meet your requirements. Our manufacturing, engineering, and sales facilities are strategically located in Greenville, Alabama - the heart of southern pine country.

A MESSAGE FROM OUR PRESIDENT

"We would like for you to make us a member of your team of design professionals. We often begin as a consultant to the project architect. Then as a specified glulam supplier, we continue working along-side the contractor until the timber portion of the project is completed."

-Wayne Lee,
President, Structural Wood Systems



Pictured on Cover: First Christian Church - Owensboro, KY

THE ARK ENCOUNTER



Structural Wood Systems provided the laminated materials for the full-size replica of Noah's Ark. The ark is located in Williamstown, Kentucky. Projects of this size and complexity require great precision, which Structural Wood Systems was happy to bring to the project.

The completed ark is 510 feet long, 85 feet wide, and 51 feet high. One-hundred sixty-six glulam ribs were used to build the bents required to frame the ark. The Ark is said to be the largest wooden structure in the United States.

ADVANTAGES OF LAMINATED TIMBER

Engineered laminated timber offers many advantages. Carefully selected kiln-dried southern pine, precise engineering, and experienced production crews come together at Structural Wood Systems to give your designs beauty and longevity. We have been satisfying customers for several decades with quality products and services.

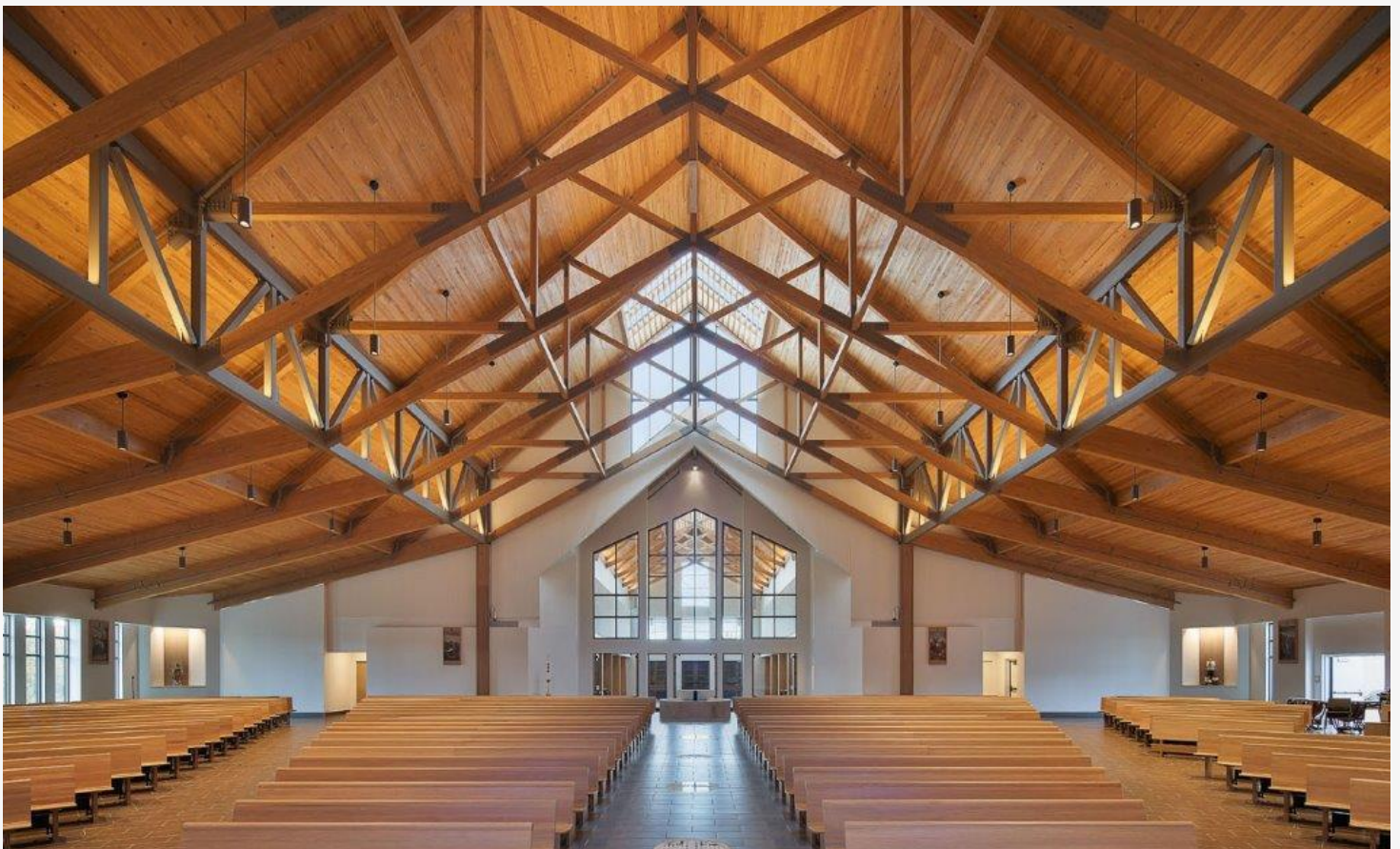
Our engineered timbers have become hallmarks in some of America's most impressive architectural achievements. Undoubtedly, they offer expanded possibilities for creative expression. Custom made to your exact specifications, laminated timbers are also particularly appropriate when you have specific structural or budgetary considerations.

Laminated timbers provide long, clear spans without interior support. False ceilings and other framing cover-ups are eliminated, thus giving laminated timbers a cost advantage over steel and brick and mortar construction.

Laminated timbers offer excellent stress levels, thermal and electrical insulating qualities, and a superior ability to absorb shocks. They are less affected by thermal expansion and contraction than other popular building materials.

Laminated timbers are naturally resistant to corrosion, and may be pressure treated with preservatives for wet use conditions. Properly installed and utilized, the strength and beauty will last indefinitely.

Laminated timbers may be factory-finished in a variety of decorative textures and colors, then wrapped in a protective covering and transported to your project site.



St. James Catholic Church - Liberty, MO

OUR CAPABILITIES

Structural Wood Systems is a full-service single source capable of satisfying all your requirements for glued laminated timber, from your initial inquiry through delivery of the finished product. For almost 50 years, our facility has been providing quality products and services. The comprehensive services we offer to you include:



- Precise custom engineering of structural glue laminated timbers and connectors
- Cost effective estimating
- Quality fabrication by our experienced production crews
- On-time delivery to the site
- Personal handling of your inquiries at every step of the way



ENGINEERING

State of the art design and engineering with registered in-house professional engineers. Detailed shop drawings of laminated wood and steel connections, prepared for customer approval before manufacturing begins.



Haslet Elementary School - Haslet, TX



Riverways Federal Credit Union - Cuba, MO

ESTIMATING & SALES

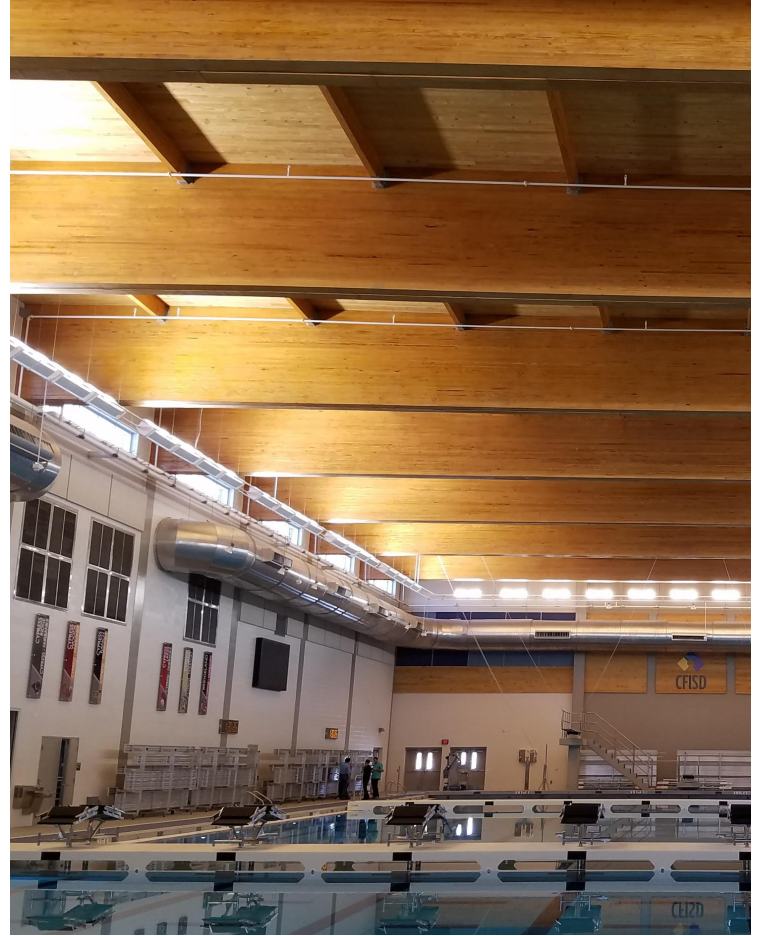
Assistance from the development stage of a project, through the pricing of materials, as finalized on construction drawings. Timely and accurate quotes, from a staff with thousands of past projects experience.



St. Louis Science Center - St. Louis, MO



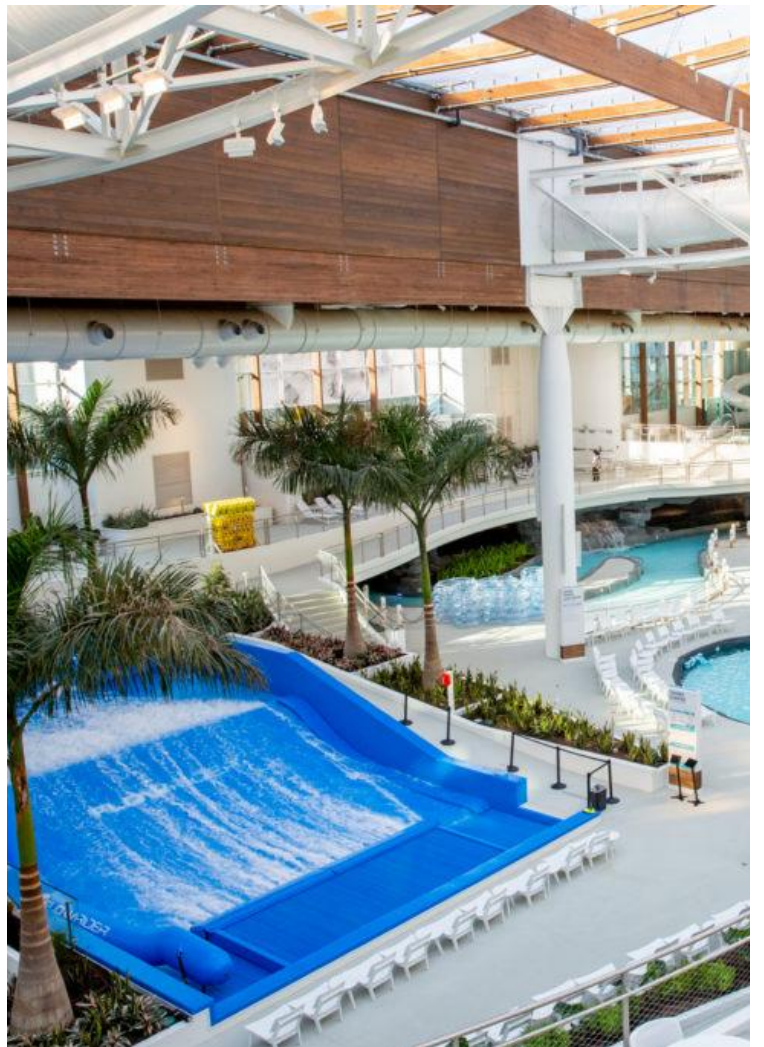
Watson's Furniture Store - Cincinnati, OH



Prigdeon Natatorium - Cypress, TX



Camp Aldersgate - Little Rock, AR



Soundwave Opryland Water Park - Nashville, TN

GLULAM MANUFACTURING & FABRICATION



Complete manufacturing under one roof, including lumber selection, gluing, fabrication cuts, and hole drilling with pre-fitting.



Custom connecting steel, fabricated at the same location to ensure quality and fit.

STEEL FABRICATION



Anakeesta Chair Lift Cover - Gatlinburg, TN



Riverlights Boat House - Wilmington, NC



St. George Catholic Church - Baton Rouge, LA



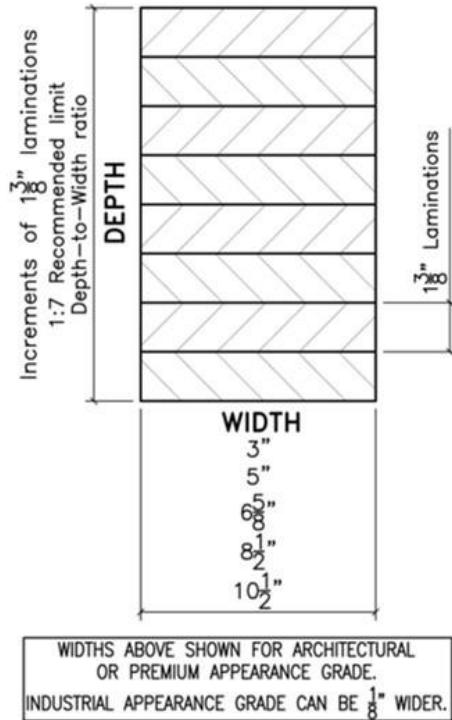
Alamo Colleges DSO - San Antonio, TX

SWS Glulam Standards

MATERIALS

Structural Wood Systems glulam members are Southern Pine, manufactured in accordance with ANSI A190.1-2012 and ANSI 117-2015. Copies can be provided upon request.

STANDARD SIZES



- *Straight members can be cambered from 1/2" - 6"
- **Members can be curved. Custom lamination thicknesses are used for radii less than 16'.
- ***Custom sizes are available upon request.

STANDARD DESIGN VALUES

Stress Class - 24F - 1.8E

2,400	psi in Bending
300	psi in Shear Parallel to grain
740	psi in Compression Perpendicular to grain
1,800,000	psi in Modulus of Elasticity
1,150	psi in Tension Parallel to Grain
1,650	psi in Compression Parallel to Grain

Combination

- 24F-V3 SP/SP - Unbalanced Lay-up**
- 24F-V8 SP/SP - Balanced Lay-up**
- #49 Lay-up for primarily axially loaded members.**

Reference ANSI 117-2015 or The National Design Specification (NDS) for Wood Construction for a more comprehensive list and explanation of design values. Copies can be provided upon request.

ADHESIVES

Adhesives are waterproof complying with ANSI A190.1-2012 and contain no Urea Formaldehyde.

PRESERVATIVE TREATMENT

When preservative treatment is necessary, pressure treat prior to gluing per AWPA U1 standards with pentachlorophenol in mineral spirits. (.3 pcf) above ground, (.6 pcf) ground contact.

SPECIFICATIONS

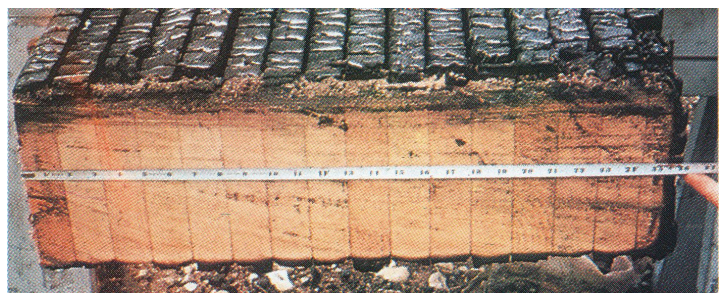
A complete set of our recommended specifications can be provided upon request.

HEAVY TIMBER CONSTRUCTION - FIRE PERFORMANCE



ABOVE: Equivalent strength steel beam and glulam beam following fire test under full load. Steel beam collapsed after only 30 minutes exposure, while glulam member remained straight and true, charring only 3/4" on exposed surfaces.

BELOW: Typical glulam beam following test. Note the outer surface of the beam had charred, while inner areas remain unburned. The charred outer material acts as an insulator during a fire, reducing the rate at which the inner material will burn.



Glulam and SWS T&G Decking Stain Selection Chart



Standard one coat semi-transparent oil based wood stain options shown below.
Samples are on smooth surfaced glued-laminated southern yellow pine.

Contact Structural Wood Systems for inquiries on custom finish options.

Minor blemishes and field touch-up should be anticipated on factory finishes.
Field finishing is recommended due to marring during transportation and erection.



The colors shown are for reference purposes only. They have been reproduced using digital production techniques.
These samples are from actual production, but color variation can occur due to light, age, and different textures of wood.
Request an actual sample of color selection for final approval.

PARTNERSHIPS & COLLABORATIONS



14" x 85" x 104' Indianapolis Zoo Waters Building - Indianapolis, IN



WE ARE PROUD TO BE ACTIVE MEMBERS AND HOLD SEVERAL CERTIFICATIONS TO ENSURE OUR CUSTOMERS RECEIVE ONLY THE HIGHEST QUALITY AND MOST ENVIRONMENTALLY FRIENDLY PRODUCTS.



St. Paul Evangelical Lutheran Church - Lake Mills, WI



St George Catholic Church - Baton Rouge, LA

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