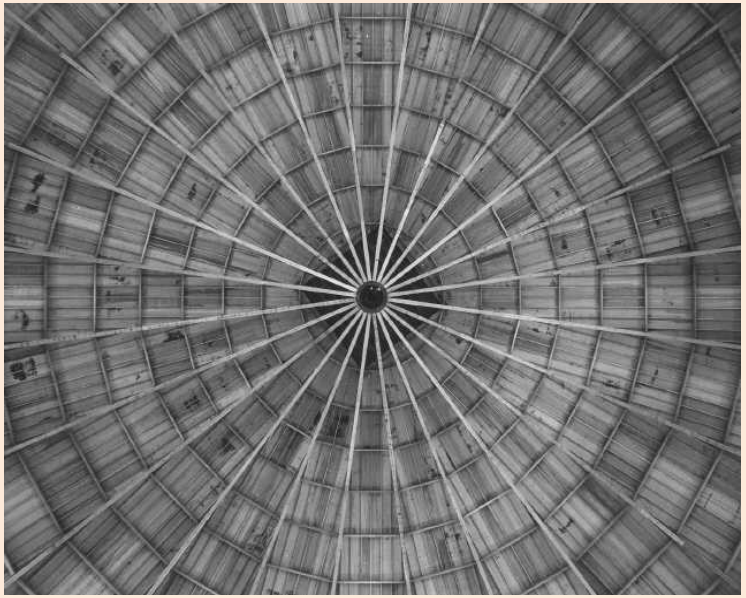
UNIVERSAL TIMBER DESING

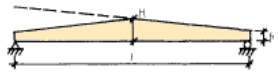
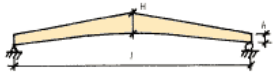
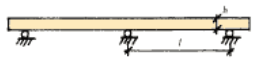
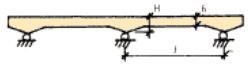
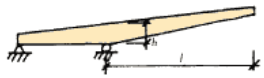
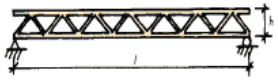
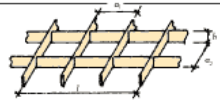
Grupo Palmadera
arquitectura tropical
ecology

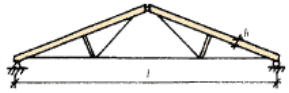
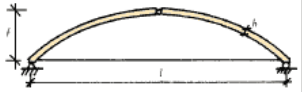
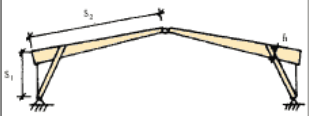
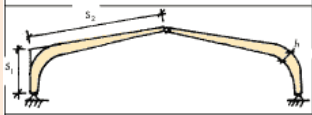
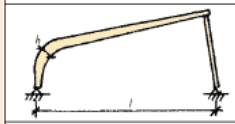
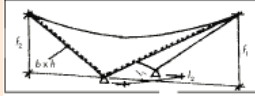
Representante Comercial e Instalador Autorizado

Glulam: Versatility of Design

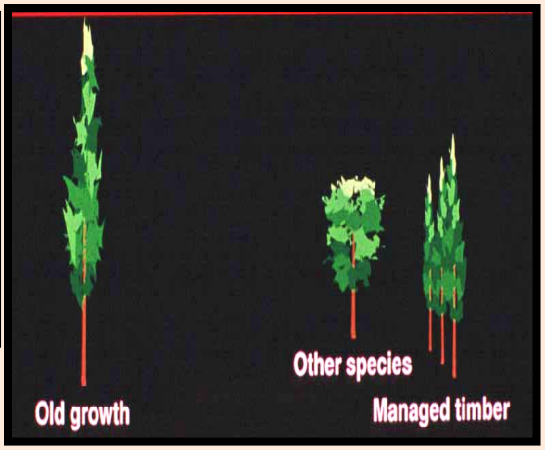


Glulam: Versatility of Design

SYSTEM SKETCH	NAME	SUITABLE SLOPE	SUITABLE SPAN	DEPTH
	Straight beam on two supports	• 3•	< 30	$h \sim \frac{l}{17}$
	Straight braced beam on two supports	3-30•	< 50	$h \sim \frac{l}{40}$ $H \sim \frac{l}{12}$
	Symmetrical double pitched beam	3-10•	10-30	$h \sim \frac{l}{30}$ $H \sim \frac{l}{16}$
	Symmetrical double pitched beam with curved underside	3-15•	10-20	$h \sim \frac{l}{30}$ $H \sim \frac{l}{16}$
	Straight continous beam on several supports	• 3•	< 25	$h \sim \frac{l}{20}$
	Haunched continous beam on several supports	• 3•	< 25	$h \sim \frac{l}{24}$ $H \sim \frac{l}{16}$
	Cantilevered beam on two supports	< 10•	< 15	$h \sim \frac{l}{10}$
	Straight trussed beam on two supports	• 3•	30-85	$h \sim \frac{l}{10}$
	Grid	• 3•	12-25	$h \sim \frac{l}{20}$ (a = 2,4 – 7,2 m)

SYSTEM SKETCH	NAME	SUITABLE SLOPE	SUITABLE SPAN	DEPTH
	Three-pin frame with or without a tie	• 14•	15 - 50	$h \sim \frac{l}{30}$
	Three-pin frame with tie and braced struts	• 14•	20 - 100	$h \sim \frac{l}{40}$
	Three-pin (two-pin) arch with or without a tie	$\frac{f}{l}$ • 0,14	20 - 100	$h \sim \frac{l}{50}$
	Three-pin portal frame with finger-jointed haunches	• 14•	15 - 25	$h \sim \frac{s_1+s_2}{13}$
	Knee braced portal frame	• 14•	10 - 35	$h \sim \frac{s_1+s_2}{15}$
	Three-pin portal frame with curved haunches	• 14•	15 - 50	$h \sim \frac{s_1+s_2}{15}$
	Propped half portal frame	• 20•	10 - 25	$h \sim \frac{l}{25}$
	Hyperbolic paraboloid shell (HP shell)	$\frac{f_1+f_2}{l_1+l_2}$ • 0,2	$l_1 \sim l_2$ 15 - 60	$h \sim b \sim \frac{l}{70}$ (kantbalkar)

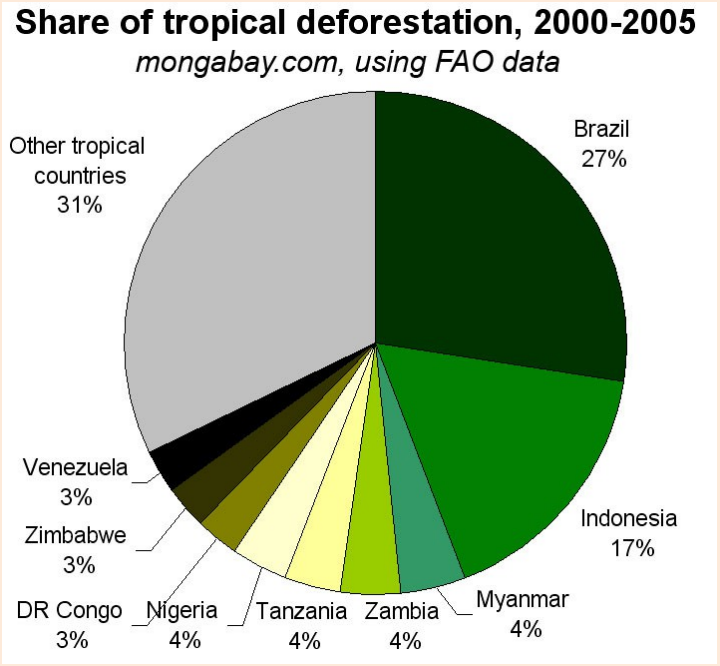
Sustainable U.S. Softwood Species



Not All Wood Products Are Green

Illegally-logged forests;

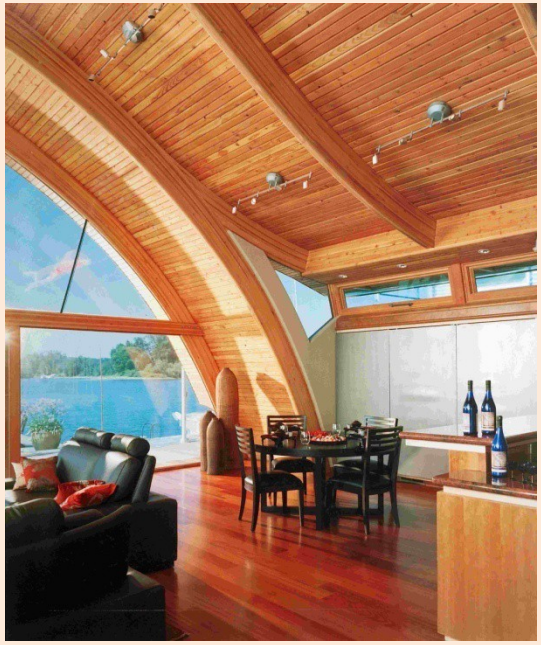
- **Non-sustainable tropical and boreal forests.**



Glulam for Housing, California

Glulam for Housing

(Robert Harvey Oshatz, Architect)



Glulam for Housing

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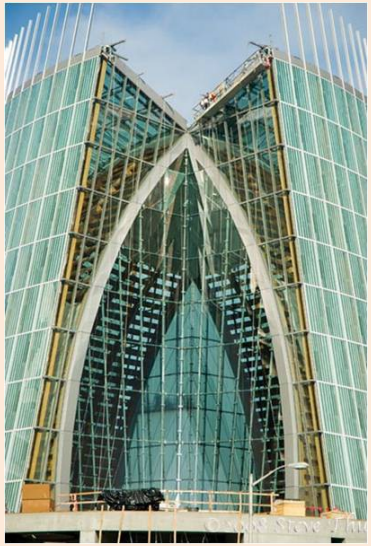
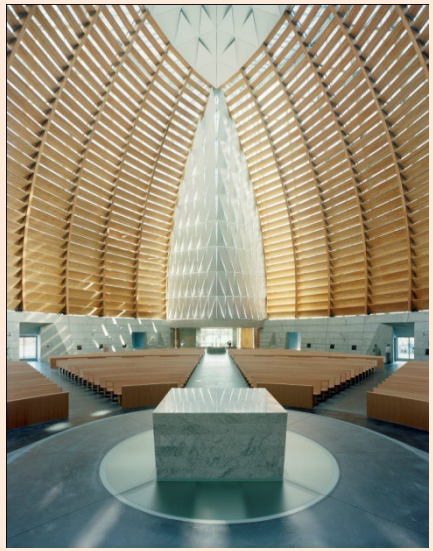
Glulam for Housing

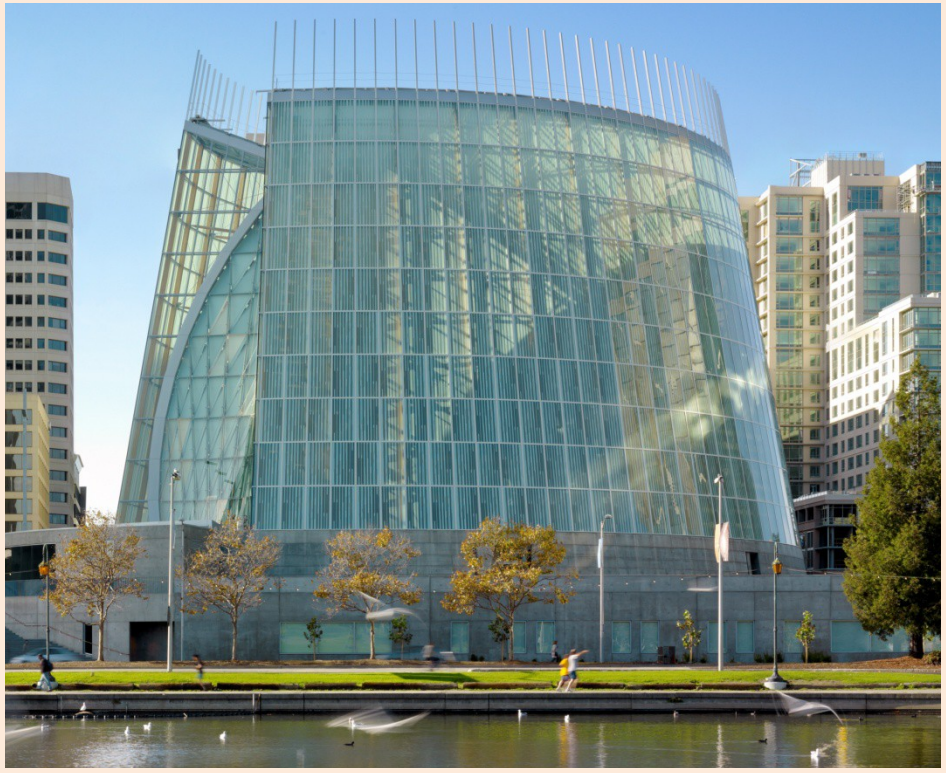
Glulam for Religious Structures

Sustaining Human Spir
Through
Innovative Design

Glulam for Religious Structures

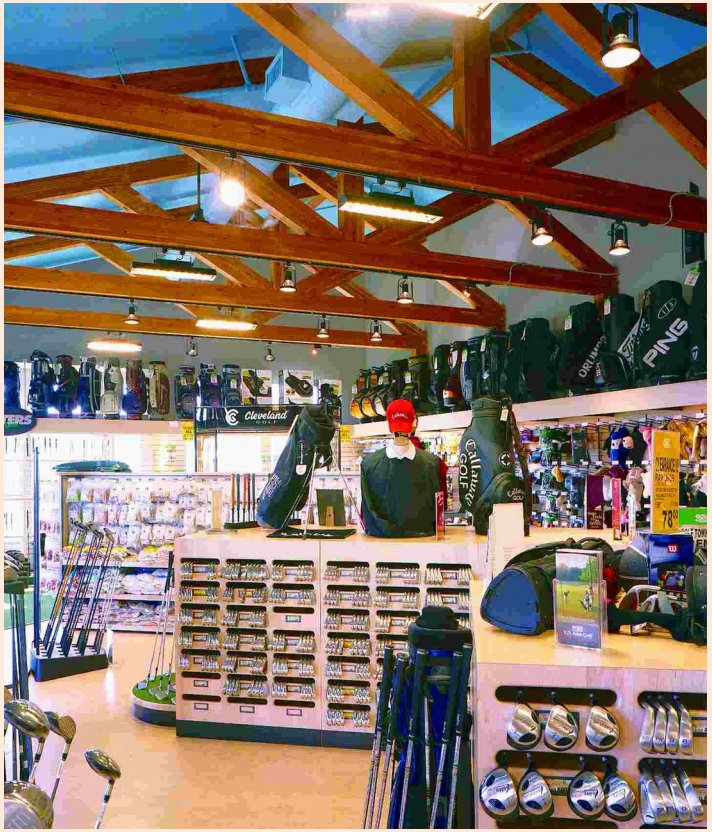






Glulam for Municipal Buildings

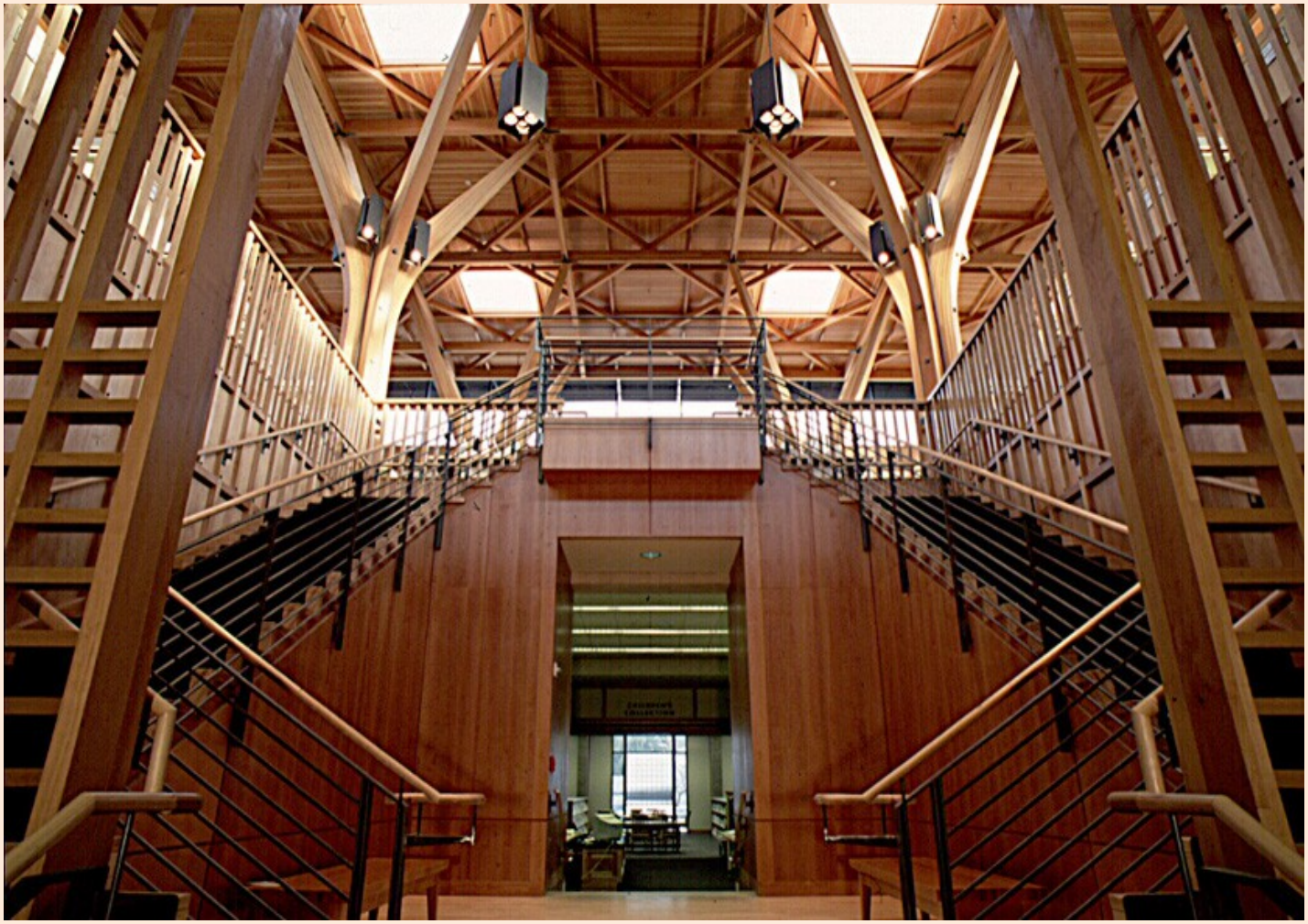
Glulam for Golf Clubhouse Buildings and Facilities



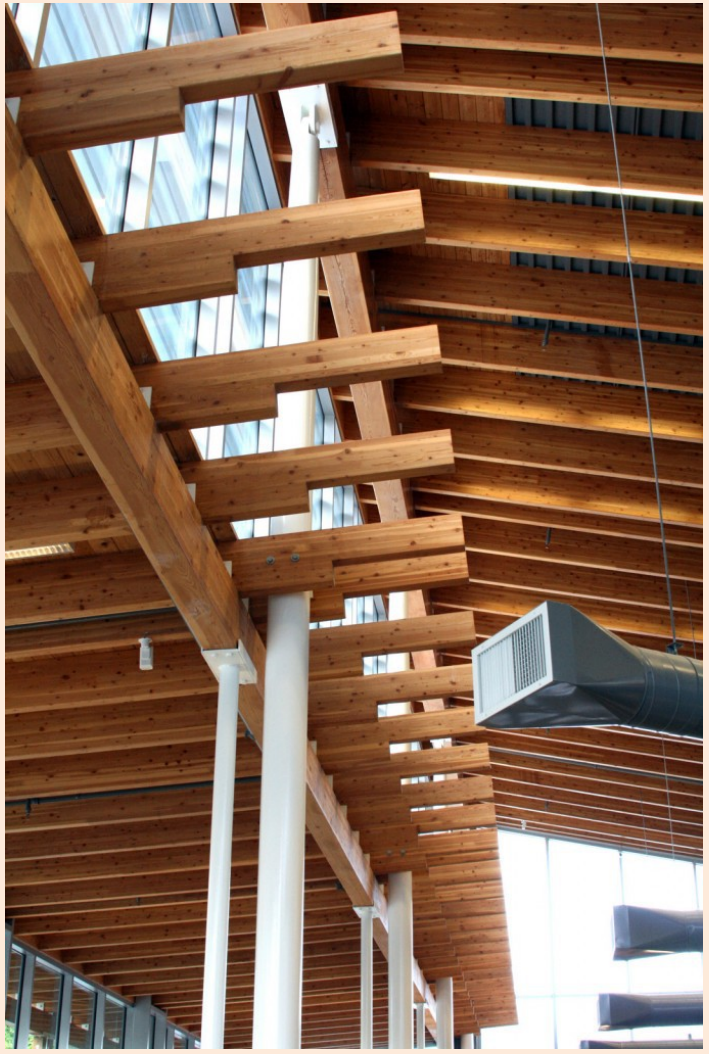
Glulam for Golf Clubhouse Lounges, Driving Ranges and Course Bridges

Glulam for Conference Centers, Restaurants, etc.

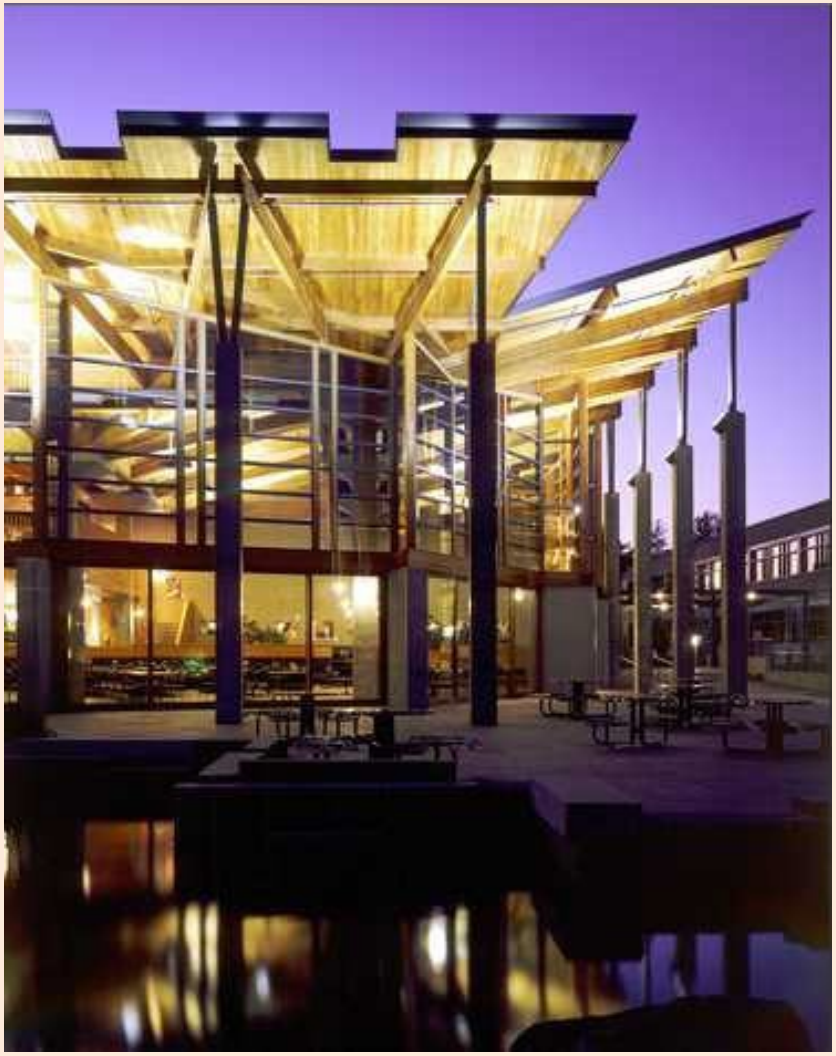
Glulam for Libraries



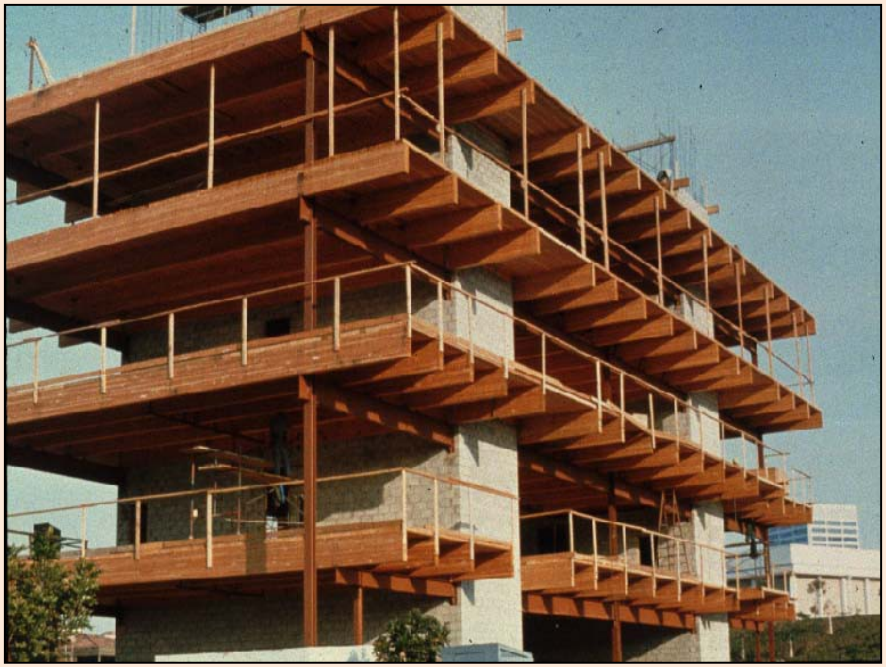
Glulam for Libraries



Glulam for Office Buildings



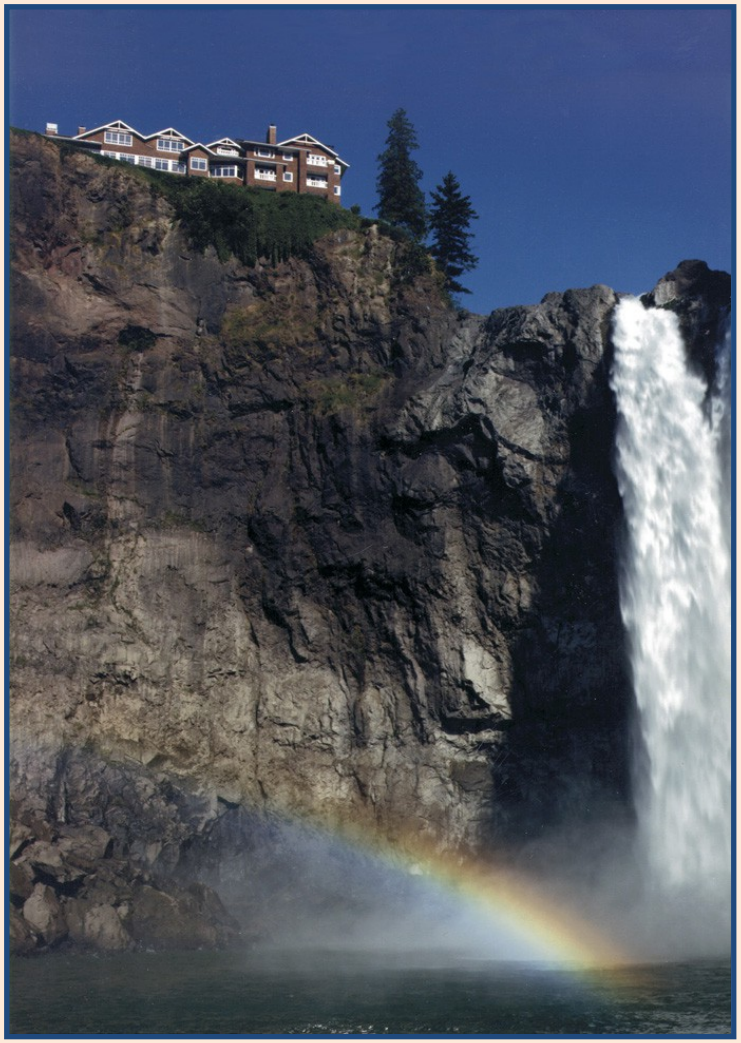
Microsoft Campus



Glulam for Indoor Pools

Glulam for Indoor Pools

Glulam for Hotels and Resorts

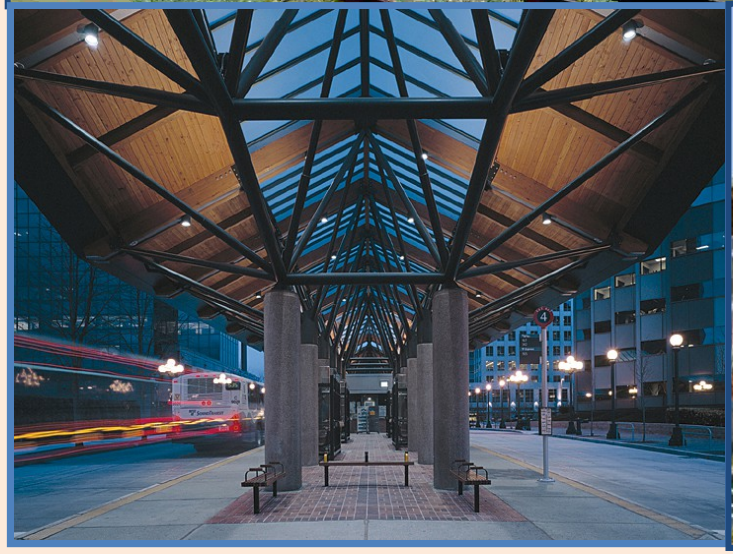


Glulam for Stores and Retail Shops

Glulam for Schools

Glulam for Schools

Glulam for Bus, Train and Transit Centers

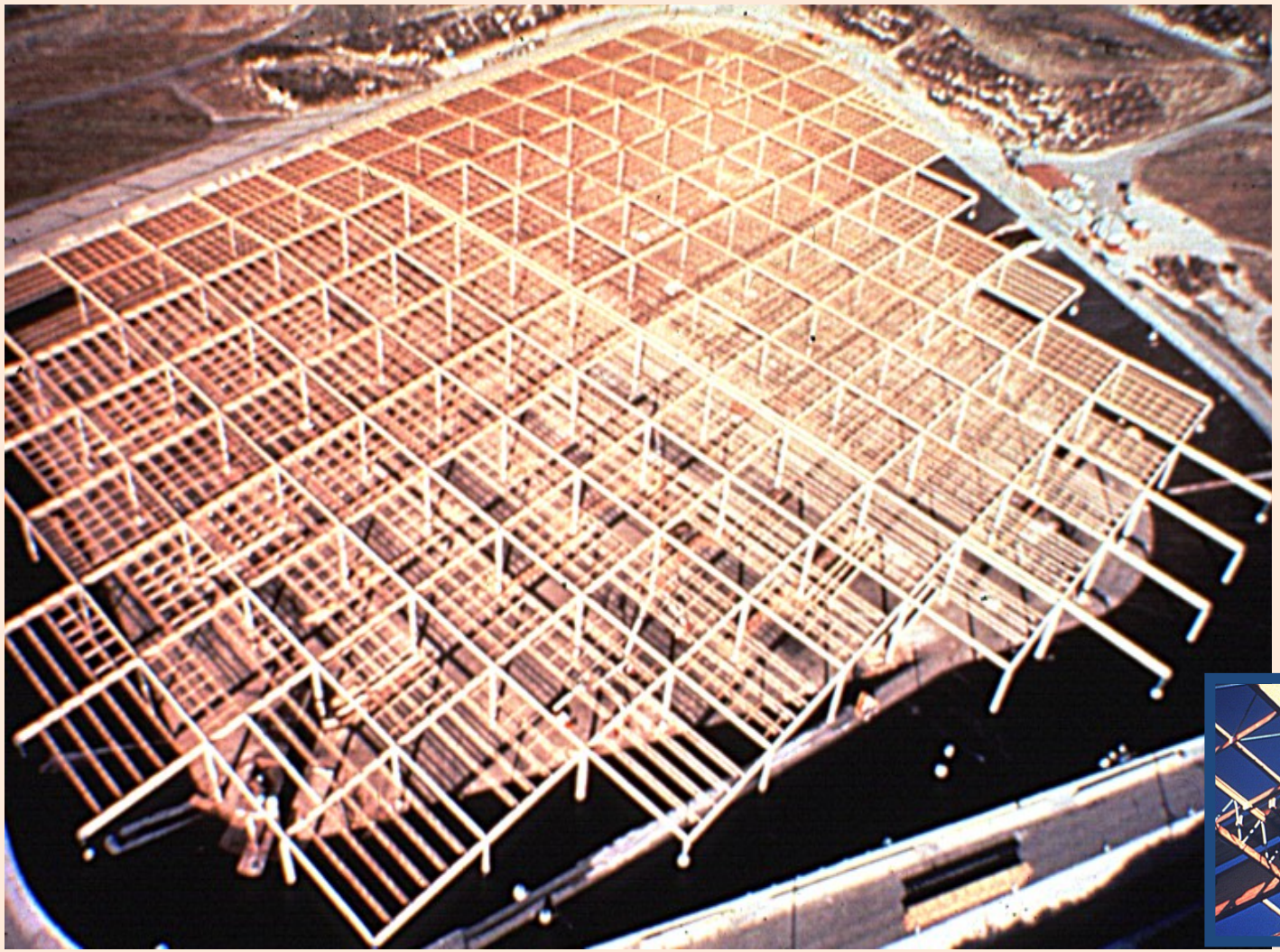


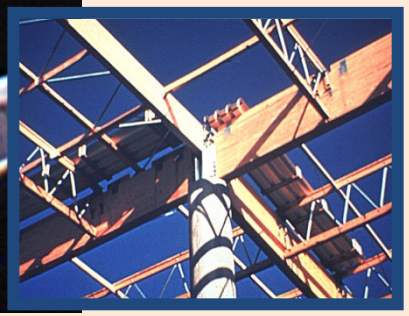
Glulam for Airport Buildings

Glulam for Sports Facilities

Glulam for Entertainment Facilities

Glulam for Drinking Water Reservoir Covers





Help Us Take the World of Glulam to New Heights !