



Strong GLULAM BEAMS for Catholic School of Fairbanks

GLULAM Highlights

- 86' length, 12' depth
- Engineered for heavy snow
- Barge transport to Alaska

In 2021, multiple beam failures caused by heavy snowfall and wetter, heavier snow necessitated urgent structural reinforcement at the Catholic School of Fairbanks.

Western Wood Structures and Zip-O-Laminators collaborated on the project, with Zip-O fabricating the massive glulam beams, each measuring 86 feet in length with an overall offset of 12 feet (beam depth plus camber).

Engineered to withstand heavy snow loads and harsh weather, each beam was 3' 7-13/16" deep at the ends and 7' 9" deep at the midsection.

Western Wood Structures provided both structural integrity and a striking architectural statement.

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Western Wood Structures are the best partner you can have. They aren't a vendor or a customer in a transaction. They are a team member helping you accomplish your goal.

– Kyle Gillings, Zip-O-Laminators

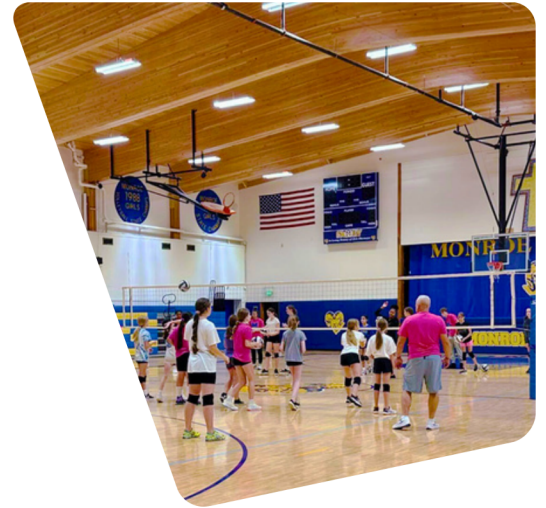


WWS chose the Peak and Camber beams for their aesthetic appeal.

WWS designed the reinforced roof, incorporating sister Peak and Camber beams, developed the column-to-beam connections, and integrated 4x6 Lock Deck panels to span between beams.

Complex logistics were required to transport the massive beams by barge from Washington state to Alaska.

Fortunately, Zip-O Laminators could finish and glue the beams quickly, hitting the short build season.



Design Challenges

The primary challenge was ensuring the new roof structure could endure heavy snowfall. This required unusually large beams and meticulous planning for their transport from Washington to Alaska.

WWS collaborated with Zip-O to provide finished glulams with radial reinforcement, delivering the beams just five weeks after production began.



Beam Specs

The project featured glulam beams, each 86 feet long and 12 feet deep (beam depth plus camber).

Beams were engineered to withstand heavy snow loads and harsh weather conditions, providing a strong and aesthetically pleasing structure.

Results

The project successfully reinforced the school's roof, combining structural durability with architectural elegance.

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