



STRONG GLULAM BEAMS FOR CATHOLIC SCHOOL OF FAIRBANKS

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

Zip-O-Laminators and Western Wood Structures 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.

Built to Western Wood Structures' precise specifications, they provided both structural integrity and a striking architectural statement.

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“Zipo received our shop drawings and quickly turned around a beautiful product ahead of schedule, allowing the gym to be opened up early.”

– Dan Herr, Western Wood Structures

GLULAM HIGHLIGHTS

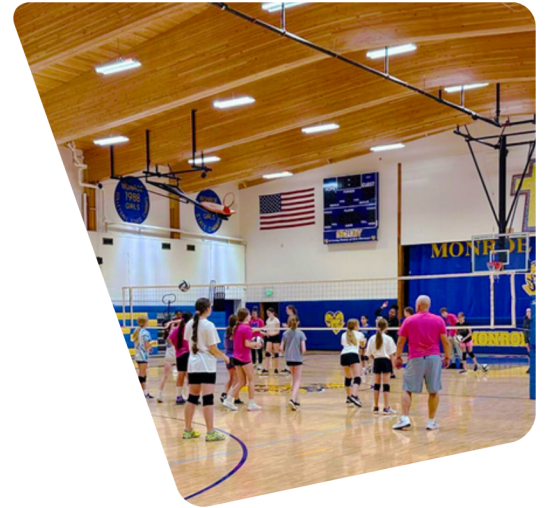
- 86' length, 12' depth
- Engineered for heavy snow
- Barge transport to Alaska



The client 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.

Zip-O provided 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).

Fabricated by Zip-O-Laminators to meet WWS's specifications, these beams were engineered to withstand heavy snow loads and harsh weather conditions, providing a strong and aesthetically pleasing structure.

RESULTS

Zip-O received approved shop drawings and quickly turned around a beautiful product ahead of schedule, allowing the gym to open early.

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

