

Serpentine Joists Hit the Drawing Boards Again!

Designers achieved architecture reminiscent of waves, snakes and even fish in the marina environment of the Haverstraw Marina Restaurant along New York's Hudson River with architecturally exposed serpentine joists.

It is Canam's second request during the past few years—[Lindhout Associates'](#) headquarters in Brighton, MI was the first request in 2003 for fabrication of this [shape](#). Increased technical capabilities due to advances in design software and detailing abilities for more complex projects meant the [Haverstraw](#) project was easily achievable in Canam's complex shop.

Fabrication involved seven 32-foot-long joists, 4' 9" deep at their deepest point, with a top chord radius of 38'-0" and a reverse radius of 40'-0", and a bottom chord radius of 56'-0". To achieve the "wave" design, the pairs of angles were spliced so they could be fabricated to face the inner and outer sides of the joists, forming the rolling wave. Shop welding was carefully controlled, requiring simultaneous welding of both sides of the "wave" for equal heat to achieve maximum strength throughout the joists.