



Riding arena for Box Elder County, Utah, was constructed using the TrussFrame open web rafter system.

New Open Web Rafter Framing System Comes on Line

Nucor Building Systems, the industry's leading manufacturer of custom-engineered metal building systems, has introduced a significant new product within the construction market.

The company recently announced the expansion of its framing system product line to include Nucor TrussFrame, a hybrid metal building open web rafter system. This unique product combines the stability of a rigid frame with the versatility and architectural aesthetic of open web trusses, and results in a highly flexible system that allows for much larger clearspans than typically achieved with a solid web system. Nucor TrussFrame allows for unobstructed, column-free interior space in excess of 250 ft. With the ability to withstand heavy roof loading conditions, it is an extremely efficient and economical system ideal for large clearspan building applications. Unlike solid web framing systems, TrussFrame can incorporate HVAC systems, electrical wiring and sprinkler systems into the open trusses. This feature can reduce the required building height, allow for greater dispersal of light and increase overall cost efficiency.

Upon its launch earlier this summer, the product did not go unnoticed. Nucor Building Systems immediately sold its first TrussFrame open web rafter system to Box Elder County in Tremonton, Utah. Planning a new horse riding arena to be located at the community fairgrounds, Box Elder County wanted a high-performance riding arena that was flexible, easy to maintain, well-lit, cost-effective and long-lasting. It also had a tight schedule in order for the facility to be completed on time to host the upcoming annual fair.

Given the inherent requirements of a riding arena, the county wanted a large building with open interior space free from interior column obstructions, as well as a high overhead clearance that would not interfere or obstruct events. In

addition, Box Elder County wanted to support the local community by having the building fabricated and erected by local businesses.

Nucor Building System's new TrussFrame open web product was selected as the optimal design solution for this 175 ft x 240 ft project for several reasons. These included providing a large column-free space and a bright, well-lit interior that, combined with translucent panels along the perimeter of the structure, helped reduce lighting and energy costs. In addition, incorporating lighting and wiring between the open trusses allowed for a cost-saving reduction in building height.

Teamed with Nucor Building Systems' sister division, Vulcraft, located in Box Elder County, the project was manufactured, fabricated and installed by businesses within the community with minimal challenges. The erector for the project, J&M Steel Solutions, was very well prepared and informed and reports that the job was extremely smooth from start to finish.

The erector built the TrussFrame sections on the ground, which helped from a safety standpoint for the crews, by allowing them to have less time in the air. The other benefit was saving assembly time. The TrussFrame sections were lifted, bolted together and filled in within two days. This reduced the erection time by 25% of the time previously scheduled and helped reach the expected completion date of the building.

The project proved that partnering with Nucor Building Systems and using Nucor TrussFrame can provide an extremely efficient and economical solution for owners—in addition to delivering superior functionality and versatility. ■

For more information, please visit:
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