Project Spotlight: Parkwood Road Bridge Replacement

Location: Bessemer, Alabama

valmont STRUCTURES

BUILDING STRENGTH FOR BESSEMER

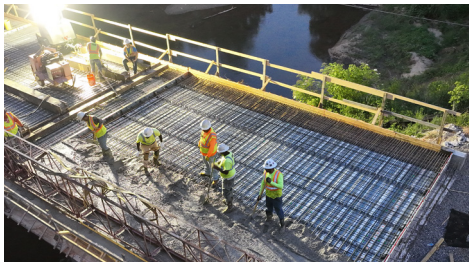
Bessemer, Alabama, often called "The Marvel City," is a vibrant community of about 27,000. Founded by a famous industrialist and named in honor of a pioneer in the steel industry, Bessemer has been a hub for industry and innovation since its beginnings. As part of Jefferson County, home to more bridges than any other county in Alabama, the city continues to grow and innovate into the 21st century.

"VALMONT IS A GLOBAL LEADER IN ADDRESSING TODAY'S INFRASTRUCTURE CHALLENGES WHILE PREPARING FOR TOMORROW'S DEMANDS. OUR U-BEAM™ BRIDGE SOLUTION DELIVERS DURABLE, LOW-MAINTENANCE INFRASTRUCTURE THAT ENHANCES SAFETY AND REDUCES LONG-TERM COSTS. WE'RE PROUD TO USE OUR EXPERTISE AS A PARTNER FOR PROJECTS LIKE THE PARKWOOD ROAD BRIDGE TO CONSERVE RESOURCES AND IMPROVE THE QUALITY OF LIFE FOR COMMUNITIES LIKE BESSEMER"

KAY JIMISON, NATIONAL SALES DIRECTOR, VALMONT

One key example of this growth is the recent upgrade to the Parkwood Road Bridge, a vital connector for nearby neighborhoods. The bridge spans Shades Creek and has seen over eight decades of daily use by hundreds of vehicles. The years of wear and tear resulted in a concrete deck that was heavily deteriorated, prompting the Jefferson County Roads & Transportation Department to launch a $1.5 million improvement project in 2022. Part of a more significant effort to enhance the county's traffic infrastructure, this project plan included replacing the concrete superstructure, performing approach work, and installing new guardrails — all while ensuring the surrounding environment remained protected by using fencing to avoid erosion.

Valmont was tapped to partner with the county, the project contractor, The Bridge Builders of Alabama, LLC, and the project's engineering team at Barge Design Solutions to develop the new bridge. Together, they implemented Valmont's innovative U-BEAM™ solution, marking the company's first four-span bridge project.



The U-BEAM solution created for the Parkwood Road Bridge included 12 custom-fabricated U-18 press brake steel tub girders tailored to fit the bridge's slight skew. These ensured structural integrity while adding an extra foot of width on both sides of the bridge for a safer road shoulder.

Valmont's U-BEAM provided several critical advantages, including hot-dip galvanization, which provides over 60 years of maintenance-free protection against corrosion. The lightweight design reduced the weight, or dead load, on the existing substructure and required fewer augmentations to the substructure making the U-BEAM the more affordable option. The system's efficient installation also accelerated the construction timeline, enabling the project to be completed in just three months—from June to August 2024.

Valmont's custom U-BEAM bridge solution resulted in a modern 133-foot, two-lane bridge that conserves resources and improves the lives of Bessemer residents today and tomorrow. The new bridge is more than a single infrastructure improvement — it perfectly reflects Bessemer's forward-thinking approach and ongoing commitment to growth.

PROFILE: After over 80 years of wear from daily traffic, the Parkwood Road Bridge in Bessemer, Alabama, underwent a much-needed upgrade to enhance safety and reliability for future residents. Valmont's advanced U-BEAM™ system delivered a durable, low-maintenance solution that streamlined construction and strengthened bridge infrastructure.

CHALLENGES: Replace the deteriorating Parkwood Road Bridge with a safer, more reliable structure while minimizing costs and environmental impact.

SOLUTION: Valmont delivered its first-ever four-span U-BEAM™ bridge, custom-built to meet the unique design needs, providing a durable, low-maintenance solution that enhanced safety and streamlined construction.

valmont STRUCTURES

VALMONTSTRUCTURES.COM

For more information, contact:
bridgesales@valmont.com
(402) 359-2201
valmontstructures.com/bridge