

Lafarge Mine Quarries

Calera, Alabama

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Mining

Project Team Members:

Owner:
Shelby County

Engineer:
Burk-Kleinpeter, Inc.

Contractor:
Alabama Bridge Builders, Inc.

Technical Description:

- Width: 30 ft
 - Span: 242 ft
 - Style: Cambridge
 - Finish: Galvanized
 - Decking: Asphalt
- Installation Date:** March 2009



Lafarge North America - the largest U.S. and Canadian diversified supplier of construction materials including cement, gypsum, aggregates and concrete for residential, commercial and public works projects - was faced with a dilemma regarding transportation between two rock quarries. CAT 777D construction trucks, each with a GVW of 360,000 lbs, were making numerous trips daily between two Lafarge quarries, crossing Shelby County Road 16.

The route was used so frequently that Lafarge North America employed full time flaggers to ensure safe crossing of the county road. This was not an ideal situation, given the potential damage to the county road itself, let alone any liability ramifications from the possibility of an accident involving one of their construction trucks.

Instead of constructing two 170' x 30' one way bridges over the county road as per the customers' proposed solution, it was recommended that Lafarge and Shelby County construct one two way 242' x 30' U.S. Bridge® Vehicular truss over the construction route, thus maintaining the continuity of County Road 16. This solution not only resulted in a significant reduction in construction time and cost for Lafarge / Shelby County but also eliminated the liability issue of debris falling from overhead construction vehicles onto County Road 16.

The proposal was adopted and Lafarge excavated a 90' deep construction road path to go under the newly proposed bridge. The all-bolted, galvanized 242' x 30' U.S. Bridge Cambridge style vehicular truss bridge was assembled on site by Alabama Bridge. Utility hangers were added to the superstructure to accommodate Shelby County services.

"We have an excellent relationship with Lafarge," stated Randy Cole, Shelby County Engineer. "The bridge that was built over the construction roadway between the two quarries has worked out to everyone's satisfaction. I have worked with U.S. Bridge for more than a decade and have found them to be responsible and responsive to the County's needs. They do what they say, which is very unusual in today's market."

