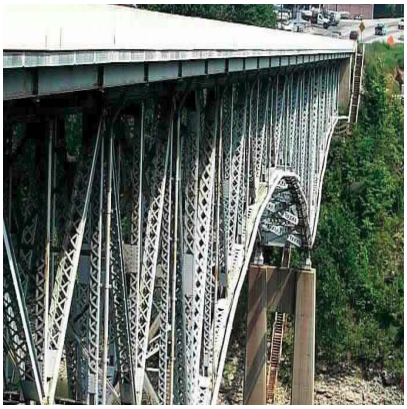

1993 â?? US 27 Bridge over Pitman Creek

Description

Meta Fields

Contact Us | Phone: (305) 348-0110 | Email: abc@fiu.edu | 10555 W. Flagler Street, EC 3680 Miami, FL 33174

Contact Us | Phone: (305) 348-0110 | Email: abc@fiu.edu | 10555 W. Flagler Street, EC 3680 Miami, FL 33174

Contact Us | Phone: (305) 348-0110 | Email: abc@fiu.edu | 10555 W. Flagler Street, EC 3680 Miami, FL 33174

Project Summary : exodermic replacement deck
Project Location : Somerset, in Southern Kentucky
Mobility Impact Time :

- ABC: overnight deck replacement over multiple nights with one of two lanes kept open
- Conventional: months

Impact Category : Tier 1 (within 1 day)
Dimensions : 700-ft long and 36.3-ft wide three-span continuous deck truss bridge (200 ft â?? 300 ft â?? 200 ft)
Average Daily Traffic At Time Of Construction : 25000
Traffic Management : extended detour
Existing Bridge Description : The two-lane bridge is heavily used by vehicular and truck traffic and provides a major north-south road for the area. Its deck was deteriorated and required replacement.
Replacement Or New Bridge : Deteriorated deck was replaced with exodermic deck.
Construction Method : The exodermic replacement deck consists of a 4.25-inch-thick steel grid with 4-inch-thick precast reinforced concrete composite topping. The plans required that the grid be produced by a member of the Bridge Grid Flooring Manufacturers Association licensed to produce exodermic bridge decks. The steel grid was galvanized in accordance with ASTM A123, and the steel reinforcement was epoxy coated. The concrete was cast on the steel grid and fully cured prior to placement of the grid deck. The Kentucky Transportation Cabinet opted to replace the existing 33.2-ft wide bridge deck during nighttime hours, keeping both lanes open during the day and one lane open at night. Traffic was routed to one lane at 6:00 pm and opened back to both lanes at 6:00 am. The slab between floor beams (spaced at 25 ft) was removed and replaced with the full-depth deck panels. Using high-early-strength concrete allowed the joints between deck panels to be poured and opened to traffic the next morning. Precast New Jersey barrier railing was attached, and a latex-modified concrete overlay was placed.
Contacts : Owner: Mark Hite, P.E. Director, Division of Structural Design Kentucky Transportation Cabinet Email: Mark.Hite@ky.gov Phone: 502-564-4560
Costs : Not available.
Funding Source : Other
Contract Plans : 1
Year Abc Built : 1993
State : KY
Owner : State
Location : Urban
Spans : Three-span
Beam Material : Steel
Max Span Length Ft : 300
Total Bridge Length Ft : 700
Construction Equipment : Conventional
State Id # : 10000027B00032
Latitude : 37.003333
Longitude : -84.615000
Project Delivery : design-bid-build
Prefabricated Bridge Elements : exodermic deck
Miscellaneous Prefabricated : CIP reinforced closure joint, prefabricated railing, latex-modified overlay
Abc Construction Equipment : Conventional

Contact Us | Phone: (305) 348-0110 | Email: abc@fiu.edu | 10555 W. Flagler Street, EC 3680 Miami, FL 33174

Contact Us | Phone: (305) 348-0110 | Email: abc@fiu.edu | 10555 W. Flagler Street, EC 3680 Miami, FL 33174