FAST FACTS:

Hybrid Composite Beam

PROJECT LOCATION: Reynolds County, MO

PROJECT NAME: B0478

BRIDGE MATERIAL DESIGN OPTION: Hybrid Composite Beam (HCB)

UNIQUE FEATURE: Beams were erected empty, with self-consolidating concrete placed afterward. Beams had "wings" designed such that no additional forming for the slab was required between the girders.

PROJECT DESCRIPTION: This project replaced a deficient 20' wide, "33', 33', 33'" steel bridge over Ottery Creek Overflow with a new 24' wide (2@48.5') Hybrid Composite Beam bridge.

PURPOSE AND NEED:	The existing bridge was listed in serious condition, so a new, wider bridge was constructed.
CONTRACT AMOUNT:	N/A
ENGINEER'S ESTIMATE:	N/A
BID AMOUNT:	N/A
FINAL CONTRACT VALUE:	N/A
WHAT WAS UNIQUE ABOUT THIS PROJECT?	This project demonstrates the light weight of the Hybrid Composite Beam. Each beam was erected empty, so that it weighed only 3,100 lbs. for transport and placement. The arches were then filled with self consolidating concrete after erection.
TRADITIONAL APPROACH:	Use a two-span prestressed concrete girder bridge. At erection, bridge beams would weigh 15,500 lbs. each.
NEW APPROACH:	Using Hybrid Composite Beams, the contractor was able to deploy smaller equipment to reach the remote location and erect this bridge, minimizing impacts to the surrounding farmland.

BRIDGE DETAILS:

Span:	(3@ 48.5)
Rise:	2' deep beams
Width:	24' Roadway
Skew:	Square
Arch:	N/A
Headwall:	N/A

BENEFITS REALIZED/EXPECTED:	Unlike traditional members, Hybrid Composite Beams are anticipated to be maintenance free, requiring no paint and not subject to corrosion from chlorides.
DURATION OF ACTIVITY:	45 days
OWNER:	Missouri Department of Transportation
TEAM/AFFILIATIONS:	KTU Constructors (as part of Missouri's Safe & Sound Bridge Improvement Project); Missouri Department of Transportation
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