November 2013

ROADS & BRIDGES

Scranton Gillette Communications

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2013 TOP 10 BRIDGES

Across the top

ROADS & BRIDGES selects its top span projects in the U.S.

ALSO INSIDE:

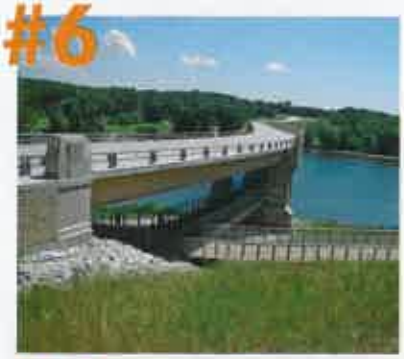
I-5 Bridge Reconstruction

Whittier Bridge in Mass.

Morgan Street Bridge in Ill.

CONCORD NH 03301-8500
53 REGIONAL DR STE 202
MCFARLAND JOHNSON INC
MICHAEL LONG - REG OFFICE MGR
NV2 RDBR1 NOV13 0002 #154 #47421
#RAB0707089 5#
#BXNRGBG ****************CAR-RT LOT**C-039

#6



RED GATE ROAD BRIDGE
St. Charles, Ill.
COST: $30 million
LENGTH: 1,140 ft
DESIGNER: Alfred Benesch & Co.
CONTRACTOR:
James McHugh Construction Co.
OWNER: City of St. Charles, Ill.

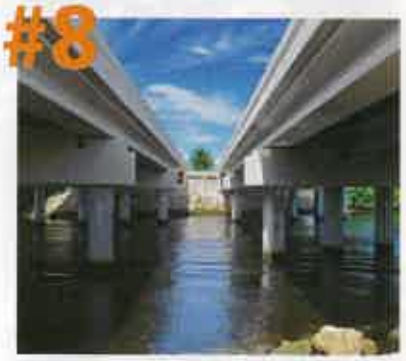
Red Gate Road Bridge proved to be a gateway to St. Charles, Ill., for thousands of vehicles a day and a life saver for the congestion-choked downtown. The eight-span bridge features a cable-stayed pedestrian bridge beneath the roadway. Using the same piers to support both structures brought a signature element to the bridg and allowed for more efficient construction with less material. Cantilever lookouts at mid-span of the trail bridge give users the feeling of floating above the water with unobstructed views over the Fox River.

#7

130TH & TORRENCE TRUSS BRIDGE
Chicago
COST: $21 million
LENGTH: 394 ft
DESIGNER: Alfred Benesch & Co.
CONTRACTOR: Walsh Construction
OWNER: Chicago DOT

Depression is no laughing matter in psychology or in bridge work. The intersection of 130th Street and Torrence Avenue is being depressed 30 ft under the Norfolk Southern Railway tracks to eliminate conflicts with the at-grade rail line. Value planning resulted in raising the Chicago South Shore & South Bend commuter and freig railroad on a new 394-ft, 4.75 million-lb, double-track, ballasted-deck, steel through-truss bridge. The project team overcame many challenges by rolling the new brid into place using self-propelled modular transporters.

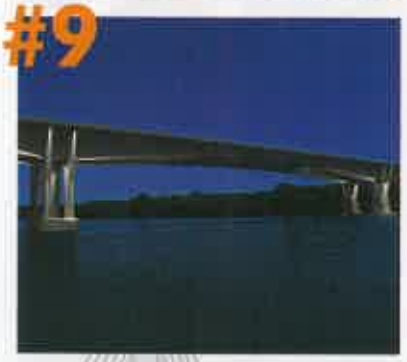
#8



U.S. 1 (S.R. 5) LOW-LEVEL BRIDGE REPLACEMENTS DESIGN-BUILD
Jupiter, Fla.
COST: $11.6 million
LENGTH: 0.6 miles
DESIGNER: BHA Engineers
CONTRACTORS:
Johnson Bros. (contractor), RS&H (CEI)
OWNER: Florida DOT, District 4

Using top-down construction methods, the U.S. 1 team replaced four low-level bridges along U.S. 1 over the Lak Worth Oxbow, which is designated an Outstanding Flor Water. The designation meant the team had to employ innovative construction methods to protect the environment of the waterway. The construction involved tempo rary work trestles at each of the four bridge locations. Th trestles were built so the cranes used to demolish the old and erect the new structures were able to move over the top of the structure with no impact to the waterway belo

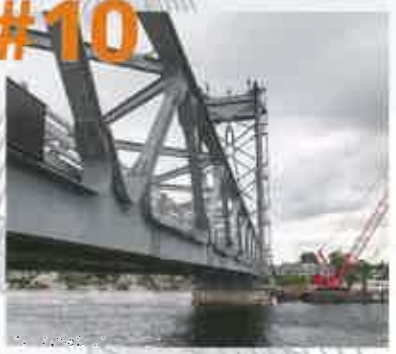
#9



I-90 OVER THE MISSISSIPPI RIVER
Dresbach, Minn.
COST: $81.5 million
LENGTH: 2,593 ft
DESIGNER: FIGG
CONTRACTOR: Ames Construction
OWNER: Minnesota DOT

Residents of La Crosse, Wis., will be crossing the Mississippi River on a modern bridge in 2017, when the new twin post-tensioned concrete segmental bridges are completed. The existing bridge is fracture-critical in addition to having shoulders and approach geometry th are not up to modern standards. The new bridge is being constructed from above with form travelers in balanced cantilever using eco-conscious construction methods wi a focus on minimizing disruption to wetlands and fishi holes of the nearby wildlife and fish refuge.

#10



MEMORIAL BRIDGE REPLACEMENT PROJECT
Portsmouth, N.H., and Kittery, Maine
COST: $88 million
LENGTH: 1,200 ft
DESIGNER: Ted Zoli, HNTB Corp.
CONTRACTORS:
Walsh Group/Archer Western Contractors
OWNER: New Hampshire DOT

A gussetless steel-truss bridge may sound like pie in the sky, but the first of its kind will soon be completed joining Portsmouth, N.H., and Kittery, Maine. As notabl for its schedule as for its lack of gussets, the new Memorial Bridge is being designed and constructed in just 18 months, including the time to demolish the old bridge. The old bridge was designed by JAL Waddell, and the design is echoed by the new bridge. Other innovations include a metalized zinc coating, using a consistent prof of three spans and cold bending of steel.