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ILLINOIS TOLLWAY RECOGNIZED FOR INNOVATIONS IN SUSTAINABILITY BY AMERICAN SOCIETY OF CIVIL ENGINEERS

I-90 Fox River Bridge Project highlighted for innovation and environmental sustainability

DOWNERS GROVE, IL – The Illinois Tollway will receive the Sustainability in Civil Engineering Award at the American Society of Civil Engineers (ASCE) Illinois Section awards dinner in Chicago today in recognition of the I-90 Fox River Bridge Project, a key feature of the \$2.5 billion Jane Addams Memorial Tollway (I-90) Rebuilding and Widening Project.

The ASCE Illinois Sustainability in Civil Engineering Award recognizes projects that exhibit the greatest innovation in sustainability and adhere to the principles of economic, social and environmental sustainability. The award also recognizes the promise shown by innovation to extend further developments in sustainability and the public understanding of sustainability in construction.

"The innovative building techniques and equipment the Tollway used to complete this crucial project illustrate how we are always looking for new ways to improve our road system and service to customers and communities, while also putting sustainability at the forefront of our work," said Illinois Tollway Executive Director Greg Bedalov. "We remain committed to delivering innovations in sustainability and we are honored to be recognized by ASCE Illinois."

Constructed over three years, the \$95 million Fox River Bridge Project included two new bridge structures and increased capacity from six lanes to eight lanes with full shoulders in both directions to accommodate the new, wider Jane Addams Memorial Tollway (I-90). At 1,315 feet long, it's one of the longest bridges in the Illinois Tollway system and serves up to 101,300 vehicles daily.

The project's complex set of requirements – maintain six lanes of traffic during construction, protect and enhance the forested fen, minimize impacts to the river, reduce the number of piers and expansion joints – led the Tollway to innovative construction concepts and opportunities to promote sustainability.

"The ASCE Illinois Section is proud to support and recognize engineering practices that promote the principles of economic, social and environmental sustainability," said ASCE Illinois Section President John Lazzara, P.E. "The I-90 Fox River Bridge Project is a shining example of the Illinois Tollway's industry leadership in sustainable design and construction. The project is highlighted by innovative approaches to bridge construction that reduced life cycle costs, minimized impacts to the roadway users and protected and enhanced sensitive environmental resources."

"The ASCE Illinois Section promotes sustainability and resiliency," said Sustainability Committee Chair Gary Paradoski, P.E. "The I-90 Fox River Bridge Project exemplifies the benefits of sustainability for the economy, the public and the environment. Its innovate design and construction methods minimized disruptions for customers and increased its lifespan while simultaneously preserving and improving high-quality natural resources. These innovations have great potential for building future bridges safer, faster and with less impact."

The I-90 Fox River Bridge Project provided numerous opportunities to apply innovations in sustainability and adhere to economic, social and environmental sustainability.

One of the most economically significant solutions was the decision to build a longer lasting bridge that requires less maintenance. Designed with stainless steel rebar and fewer beams and expansion joints, the bridge's anticipated deck lifespan is between 75 to 100 years, a significant increase over the 40- to 50-year standard life of a typical bridge deck on the Tollway system.

Bridge-under-bridge construction allowed the Tollway to keep the bridge open to traffic on the existing bridge as pier foundations were installed with low-clearance drill rigs and pier columns and caps were constructed in place with aerial lifts under the existing bridge superstructure.

The use of an innovative overhead gantry system to lift and move new bridge beams into place eliminated the need to stage cranes on the existing bridge structure and allowed the Tollway to keep traffic lanes open during construction. The gantry system, equipped with two, 50-ton hoists and a trolley system, lifted and transported more than 140 200,000-pound concrete beams each ranging from 150 to 170 feet in length and 7-foot 6-inches in height from the delivery truck to bridge piers.

In addition, building two new, side-by-side structures – each built with half as many support piers – enabled the Tollway to reduce the Fox River Bridge's footprint to help preserve the waterway and a rare forested fen below, decreasing the bridge's overall environmental impact.

The project also delivered drainage improvements including capturing all stormwater from the bridge and directing it through a treatment process prior to discharge into the Fox River. Additionally, the construction allowed the Tollway to eliminate the existing storm sewer that drained groundwater in the area and prevent the direct flow of stormwater runoff into the adjacent forested fen communities.

About Move Illinois

The Illinois Tollway's 15-year, \$12 billion capital program, *Move Illinois: The Illinois Tollway Driving the Future*, is improving mobility, relieving congestion, reducing pollution, creating as many as 120,000 jobs and linking economies throughout the region. The first five years of *Move Illinois* is on schedule and within budget, delivering the rebuilt and widened Jane Addams Memorial Tollway (I-90) as a state-of-the-art 21st century corridor and opening a new interchange connecting the Tri-State Tollway (I-294) to I-57. Progress continues on projects addressing the remaining needs of the existing Tollway system, delivering the Elgin O'Hare Western Access Project and planning for emerging projects, including reconstruction of the Central Tri-State Tollway (I-294).

About the Illinois Tollway

The Illinois Tollway is a user-fee system that receives no state or federal funds for maintenance and operations. The agency maintains and operates 292 miles of roadways in 12 counties in Northern Illinois, including the Reagan Memorial Tollway (I-88), the Veterans Memorial Tollway (I-355), the Jane Addams Memorial Tollway (I-90), the Tri-State Tollway (I-94/I-294/I-80) and the Illinois Route 390 Tollway.