

S.C. 277 bridge completed over I-77

By Bob Kudelka

SCDOT has put the finishing touches on a new bridge and roadway approaches on S.C. 277 northbound over Interstate 77 in Richland County. The two-year, \$24.9 million project was officially completed April 6, 2021, highlighted by new safety improvements on a highway used by an average of 56,000 vehicles per day.

The old, structurally deficient bridge was demolished in October 2020. Replacing deficient bridges is one of SCDOT's 10-Year Plan programs, which include repaving aging roads, making rural roads safer and improving key portions of interstates. SCDOT has tripled its road work during the past several years to improve South Carolina's roads after more than 30

years of deferred maintenance.

The new 463-foot-long bridge has increased clear zones, which provide reduced roadside obstructions and more room to recover if vehicles happen to leave the road.

Engineers also included thermoplastic pavement markings on lane lines to enhance visibility of lanes, especially at night and during wet conditions, and rumble strips along the bridge approaches to alert inattentive drivers.

The project used a total of 1,340 cubic yards of structural concrete; 398,841 pounds of reinforcing steel; 1.6 million pounds of structural steel; and nearly 17,000 tons of asphalt pavement.

Traffic was first allowed on the new bridge in fall 2020 under lane closures as crews finished final tasks. The new bridge was painted green in late March 2021, officially completing the project.

RIGHT: Contractors painted the bridge at night, shutting down one lane of traffic at a time, to complete the painting over several nights with reduced interference to traffic.

BELOW: The new 463-foot bridge replaces the structurally deficient bridge and is part of SCDOT's Strategic 10-Year Plan.



PHOTOGRAPHS BY ROB THOMPSON/THE CONNECTOR

Before painting the steel bridge girders underneath, crews enclosed the area, including the roadway below it, with tarps to prevent overspray of green paint on the roadway and columns.

