

Congestion Eases on Eastbound Interstate 470

From Knotty to Nice, the Triangle Untangles

The tightest knot in the Triangle interchange was untangled by the third week of August, a couple of months ahead of schedule.

Opening the new bridges and pavement on eastbound Interstate 470 in the Triangle provides two new lanes through the most congested segment in the interchange.

"Opening this important piece of the Triangle project weeks ahead of schedule shows once again that MoDOT is fulfilling its mission to delight our customers," said District Engineer Beth Wright.

The work, done by APAC-Kansas, Inc., is the latest in a string of tasks completed ahead of schedule on the Triangle project. APAC poured the last segment of the bridge deck on Aug. 5, with Fox 4 television reporter Shelly Slater and helicopter traffic reporter Nick Vasos airing live reports from 4 to 9 a.m. from the ground and the air.

Construction will continue on the eastbound Interstate 470 movement through next year, eventually adding a third through lane to untangle the single-lane knot that had slowed evening rush-hour traffic for several years.

New ramps from eastbound Interstate 470 to southbound Route 71 and to Red Bridge Road also are open, setting the stage for construction to move to the

Red Bridge interchange and farther south. A new Red Bridge interchange at Route 71 is scheduled to be fully functional early next summer.

Later this year, a third lane of eastbound-to-northbound Interstate 435 will open, providing additional capacity for one of the busiest movements in the interchange. The entire project is scheduled to be completed by late 2008.



Cool temperatures and overcast skies provided perfect weather for the final pour of the eastbound Interstate 470 deck in the Triangle August 5.

Pre-Labor Day Opening Delights Customers

Paseo Bridge Reopens Two Months Ahead of Schedule

Kansas City motorists got an early Labor Day surprise on Sept. 1, when a refurbished Paseo Bridge reopened to traffic more than two months ahead of schedule.

Crews began removing barrier in the early afternoon, and traffic was flowing across the 50-year-old structure by 1 p.m.

"Our contractor, Clarkson Construction Company, started immediately when the bridge closed on May 17 and worked diligently to earn the incentives for finishing the project early," District Engineer Beth Wright said. "Good weather allowed them to stay well ahead of schedule, and we were very pleased to reopen the bridge before the Labor Day weekend."

The contract for the project included up to \$1.5 million in incentives for early completion, and required that the bridge reopen by November 10. In addition to a fresh coat of blue paint and a new driving surface, the refurbished bridge features new barrier rails, light poles, and bearings. Its cables were wrapped for weatherproofing.

MoDOT also removed some long-range maintenance measures from the project, which reduced its overall cost while maintaining all of its structural and

safety-related aspects. Wright said those adjustments were made when it became evident that funding for additional capacity along the Interstate 29/Interstate 35 corridor would be available within the next five years.

"By not painting some non-visible areas on the bridge and by using a less expensive weather-proofing method on the driving surface, we lowered our project cost by about \$2 million," she said. "The bridge should remain in good shape while we complete

our environmental study of the corridor, determine how to best add additional lanes across the river, and then construct the recommended facility."

"Good weather allowed them (Clarkson Construction Company) to stay well ahead of schedule, and we were very pleased to reopen the bridge before the Labor Day weekend."

*~Beth Wright
District Engineer*



Joel Bloebaum

The rehabilitated Paseo Bridge reopened to traffic Sept. 1, more than two months ahead of schedule.

Three-lane Design Preferred Roundabout Opens in Belton

Seeing is believing, at least as far as roundabouts are concerned.

Concerns were raised, then dropped in Belton when the first of four roundabouts to be built as part of the Route 58 reconstruction opened just before the Memorial Day weekend.



Steve Porter

A large sedan moves through the new roundabout at Route 58 and Cherry Hill with room to spare.

The roundabout at Cherry Hill and Route 58 was expressly requested by Belton residents, who strongly preferred MoDOT's three-lane, three-roundabout alternative design to an earlier five-lane proposal.

During construction, one side of the intersection was tightly constricted to an 11-foot lane until final concrete and asphalt

work could be completed. Large trucks and school buses attempting to completely circle the intersection found it difficult to maneuver through the construction site.

Concerns were brought to Belton's mayor and aldermen, who asked MoDOT to discuss the design at meetings in mid-May. Norm Beeman in Traffic, Area Engineer Mark Stock, Senior Construction Inspector Mike Dawson, Senior Transportation Planner Joshua Scott and Senior Community Relations Specialist Steve Porter explained the roundabout design and urged city officials and citizens to evaluate the finished product.

MoDOT has also arranged public meetings and presentations to the Belton School District's driver education classes to familiarize residents with the new traffic feature.



Jennifer Benefield

The second of four explosive demolition blasts drops a span of the 80-year-old Route 13 bridge at Lexington, Mo. into the Missouri River Aug. 31.

Scout Staff Faces Challenges of Raising a Hybrid

Just 18 months after its debut, the Kansas City Scout Intelligent Transportation System is providing round-the-clock coverage to the metropolitan area.

As a joint venture between the Kansas and Missouri departments of transportation, Scout has a unique structure that has spawned administrative challenges for its staff. Ray Webb, Traffic Operations Center manager, says the journey from inception to 24/7 operation – which began June 18 – reflects

the challenges of raising a hybrid operation within two state agencies.

“We don’t really fit the DOT mold, in everything from paying bills to hiring staff to equipment procurement,” Webb observed.

“We’ve found ways to work around those issues, but it’s a constant challenge to deal with those administrative issues and still accomplish our purpose.”

Supervision of the TOC’s operations serves as a case in point. The system operators’ daily work is supervised by Chuck Jenkins and Bruce Baldwin, who are employees of consultant PB Farradyne. They coordinate their activities with Webb and Traffic Operations Engineer Jason Sims. District 4’s Customer Service representatives, who serve

as backup operators for the Scout system, fit under that broad supervisory umbrella.

“We have a diverse group of employees that includes expertise in information technology, traffic, public information and customer service,” Webb said. “That in itself can lead to some operational challenges.”

Spreading Out

Two Kansas Highway Patrol employees work in the TOC as daytime shift operators Monday through Friday. And Sims is quick to point out the role that Motorist Assist, Emergency Response and law enforcement and emergency response personnel play in the system’s success.

“We couldn’t make it without them,” Sims said. “All of them serve as our eyes and ears for incident management, because we don’t have sensors, cameras and message boards everywhere.”

Sims and Webb said that the departments’ experience with 24-hour operations during snow events has helped smooth the transition into constant operation. Nighttime construction and maintenance operations have increased in both states in recent years, so there was a mindset to build on as Scout began providing information to travelers around the clock. MoDOT has also provided 24-hour Emergency Response service in Kansas City since 2001.

Mutual benefit has prompted partnerships with several agencies and professional organizations in the Kansas City area, Sims noted. Scout staff has created, refined and continued to establish policies and procedures for the system’s operation since its January



Dianna Kidwell

Traffic Operations Center visitors enjoy a close-up view of Scout operations.

KANSAS CITY
SCOUT



Elected officials have declared
Kansas City metropolitan re



2004 debut. That includes everything from message creation to coordination with law enforcement and emergency service providers.

“We really had no partners when we started operating the system,” he said. “Now we partner with law enforcement, emergency responders, the media and other governmental agencies. We’re part of Operation Impact (a law enforcement group) and Operation Green Light (for traffic signal coordination), and we’re involved in Homeland Security issues and the Mid-America Regional Council’s planning and environmental efforts.”



ward their interest in expanding the Scout system's services throughout the region.

Come One, Come All: Visitors Flock to TOC

Scout’s Traffic Operations Center has proved a popular destination for professional groups, the news media, students and the general public.

Dianna Kidwell, communications coordinator, says a steady stream of groups have visited the TOC during its 18 months of existence.

“We’ve hosted several groups of engineers, including KDOT personnel who want to know more about the system and their state’s involvement in Scout,” she

said. “Law enforcement, Boy Scouts and Explorers, college students and home-schooled students interested in transportation careers have also visited us.”

Legislators and other elected officials have also toured the TOC – and usually ask when Scout will expand to cover more of the metropolitan area.

“We think we’ve done well to start out covering 75 miles of our busiest roadways, but when people see what we can do, they let us know they’re eager for blanket coverage,” Kidwell reported.

Cathy Morrison

Signal Alert Signs Ahead at Watkins Drive Intersections

Bruce R. Watkins Drive, which connects downtown Kansas City with the Triangle interchange and the southern portion of the metropolitan region, has attracted high traffic volumes since it opened in October 2001.

Collisions at three signalized intersections along the facility have raised safety concerns, and District 4's traffic division has responded with additional traffic safety measures that will alert drivers approaching the three signalized intersections.

The Missouri Highways and Transportation Commission July 8 approved a \$159,765.25 contract to place electronically controlled signs on Route 71 (Watkins Drive) near the at-grade intersections of Gregory Boulevard and 55th Street to alert drivers who approach those crossroads controlled by traffic signals. Custom Lighting Services, LLC of Kansas City is the contractor.

The 36-inch-by-36-inch signs, located several hundred feet before the intersections, will say "RED Signal Ahead;" the "RED" will

be illuminated in red prior to the signal light change to tell motorists they will not make it through the intersection on a green light as they approach it.

"If the sign goes red before you pass it, the signal you are approaching will be red before you arrive at that intersection," said Randy Johnson, traffic operations engineer.

The coordinated sign/signal combination includes signs flanking each side of Route 71 at all six approaches: Northbound at Gregory, 59th and 55th; and southbound at 55th, 59th and Gregory. The system also includes a changeable electronic message board on northbound Route 71 at 77th Street alerting motorists to signals ahead. A camera traffic detector can also send an alternative message alerting motorists to be prepared to stop if traffic begins to back up.

MoDOT traffic and maintenance crews also will place eight other signs using additional MoDOT funds. The system is scheduled to be installed this fall.

Smoother Trips a Reality in Johnson County

The first Smooth Roads Initiative project in District 4 wrapped up in late July, providing travelers on Route 50 a much nicer trip from Route HH in Warrensburg to the Johnson/Jackson County line.

The Route 50 project milled old pavement and replaced it with 1¾ inches of asphalt; the project included fog-sealing shoulders, sign replacement, mile-marker changes, rumble strips on some shoulders and new, wider 6-inch epoxy striping.

Crews also resurfaced Business Route 13 from Business Route 50 to Cooper Street, and the eastbound and westbound ramps at the Routes 13 and 50 interchange in Warrensburg. Hilty Quarries and subcontractor Chester Bross Co. performed the work.

The \$8.3 million Johnson County improvements were the first Amendment 3 project in the west-central Missouri district. By late July, Bross and Hilty had moved their equipment and operations to south Cass County, where they tackled a similar job on Route 71 from Route 7 south into Bates County.



Steve Porter

A diamond grinder pumps lime slurry to the shoulder and over a row of chicory on eastbound Route 7 in Cass County.

Paving Train Turns Heads

Hot In-Place Recycling Project is Missouri's First

Motorists slowed and heads turned to get a good look at the “paving train” now being used to resurface Interstate 29 in Platte County.

Missouri’s first hot in-place recycling project began Aug. 29 as MoDOT contractors Superior Bowen Asphalt Company and Cutler Repaving, Inc. started to resurface northbound lanes. When complete, the project will resurface approximately 36 lane miles from Platte City to the Buchanan County line. Although the project is located in District 4, District 1 is overseeing the work.

District Pavement Specialist Jesse Skinner researched hot in-place recycling last year, and he, Assistant District Engineer Chris Reline, and District 10 Engineer Mark Shelton lobbied to try it in District 4.

“Hot in-place recycling uses heat (300°F+) to help break up the surface of the existing road. The old asphalt is raked, ground into small particles, mixed with emulsion and then immediately laid back down,” said Skinner. Within minutes, the same machine adds a 1-3/4” layer of virgin asphalt over the top. The surface is then rolled to increase density.

The resurfacing of Interstate 29 is a Smooth Roads Initiative project. “We were going to mill off two inches and replace with three and three-quarters inches, so it just seemed like a good candidate for hot in-place recycling,” said Skinner. “The one inch of recycled asphalt on this job will address surface problems such as cracking, rutting and pot holes.”

Skinner points out hot in-place recycling has several benefits. “Surface irregularities

are improved and we’re able to add structure. One of the largest benefits is to the environment. There is no waste, and we’ve already paid for the material,” said Skinner.

Although hot in-place recycling can be somewhat slower than traditional resurfacing methods, one hundred percent of old asphalt millings are used right away instead of being transported, stored, then delivered to other jobs – a time and cost saver.

This is the first and only hot in-place recycling job in Missouri. If successful, the process could be used statewide. “We’ll see how this one goes and then decide if we’ll use it again,” said Skinner.



Jennifer Benefield

MoDOT contractor Cutler Repaving uses hot in-place recycling to repave northbound Interstate 29 at Route 92. When completed in November 2006, the Smooth Roads Initiative project will feature 36 resurfaced north- and southbound lane miles to the Buchanan County line.

Summer Institute Returns to District 4

District 4 co-sponsored the Kansas City Summer Transportation Institute for the second consecutive year. The nationwide program provides high school students an opportunity to learn more about rewarding careers in transportation. In early July, more than a dozen students visited District offices and saw Kansas City Scout's operations center, observed Reed Brunk (top photo) test elasticity in the Materials Lab, toured the sign shop and talked with Motorist Assist Operator Lee McAllister (bottom photo).

The National Summer Transportation Institute (NSTI) is funded through a Federal Highway Administration grant administered by the NSTI Resource Center at South Carolina State University. The Kansas City STI is funded through this grant awarded to the University of Missouri – Kansas City Institute for Human Development. Partners in this project include the Governor's Council on Disability, the Missouri Department of Transportation, the city of Kansas City, Mo., the Kansas City Area Transportation Authority, the Federal Aviation Administration, the Federal Transit Administration, the American

Association of People with Disabilities, area schools and organizations serving youth. Of the 45 NSTI programs nationwide, Kansas City's is the first STI designed as a national model for inclusion of high school students with disabilities.



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