

## **BRIDGE WORK IS ABOUT ALL THE CONSTRUCTION UNDERWAY AT MoDOT**

While work continues on building a new Mississippi River bridge in downtown St. Louis, another major bridge project is getting ready to start. And, the Missouri Department of Transportation (MoDOT) reports the Safe & Sound Bridge program has completed 60-percent of the bridges it had planned. Bridge work seems to be about the only projects MoDOT has going these days. But even these will come to an end in the next couple of years as funding for highway and bridge work continues to shrink [see past Foundation for Success articles and the article on page \_\_\_ regarding federal highway funding].

Laborers' hours make up a fair amount of work on a bridge project. May not as many as some other trade, but when you consider the placing of concrete and the construction of ramps and roads leading to a bridge, then you will see a good number of Laborers on the job.

### **Mississippi River Crossing**

Nearly two years ago, work started on a new bridge spanning the Mississippi River in downtown St. Louis. St. Louis civic leaders had been pushing for decades for a new structure to relieve the traffic congestion on the Popular Street bridge where Interstate Highways 70, 64(Highway 40) 44 and 55 come together to cross the river. Only when Congress authorized nearly \$240 million in funding did the states of Illinois and Missouri commit to building the estimated \$667 million project. Illinois portion of the cost is \$313 million while Missouri is contributing \$115 million to the work.

The joint venture of Massman Construction (St. Louis), Alberici Constructors (St. Louis) and Taylor Brothers of Evansville, Indiana was awarded the contract to build the portion of the project over the river. Other local contractors Millstone-Bangert and Fred Weber, Inc. also were awarded some of the roadway approaches and bridges leading to the structure. On the Illinois side, Keeley and Sons and Keller Construction are doing the bulk of the work.

All the contractors involved in this project are signatory to a Laborers' agreement along with contracts with other trades. There are a host of other subcontractors also working on the project, providing hundreds of man-hours of work for Laborers and other union members.

On the Missouri side of the project, the work is in Laborers' Local 53 service area. Business Manager Pat Lopiccolo is pleased with the way the project has gone so far. "This has been a very good project for Local 53," said Lopiccolo. "Obviously, safety is of the utmost on a bridge project. And the training our members receive really shows in a project like this." Lopiccolo also noted his local is working closely with Local 110 in Illinois to keep the project moving. On the Illinois side the project, the bridge is located in Local 110's area.

The bridge itself will be 1500-hundred over the water. This is a cable-stayed bridge, meaning the weight of the bridge deck will rest on steel cables stretched from two 400-foot towers constructed on both sides of the river. The new structure will be the third longest cable-stayed bridge in the country, trailing only one built in Louisiana and South Carolina.

More than 8-million pounds of reinforced steel will be needed for the cables and another 14.8 million pounds of steel girders will be used. And, these figures are just for the portion spanning the river. Three other bridges on the Missouri side, those carrying Madison, Cass and St. Louis streets over Interstate Highway 70 had to be torn down and rebuilt in order for Highway 70 traffic to easily use the proposed new bridge. When completed, the bridge will have two lanes going east bound and two lanes for west bound traffic. However, it is being built to accommodate additional lanes in the future.

“The important thing to remember is this bridge dramatically improves safety and relieves congestion on the Poplar Street Bridge and provides alternative routes through the region,” said current MoDOT Director Kevin Keith in an earlier press announcement on the bridge. Long term, bridge supporters estimate the new structure when completed and used could generate roughly 2,200 jobs in the region due to anticipated new building around the bridge.

The project is expected to be completed in 2014.

### **Blanchette Bridge Focus of New Project**

Further west on I-70 from the city of St. Louis, MoDOT is getting ready to start work rebuilding the west bound lanes of I-70 spanning the Missouri River. The proposed work will require the closing of the bridge carrying westbound traffic across one of the busiest bridges in the state for a year.

Bids are scheduled to be opened in late October 2011 for the work. Most of the larger highway contractors in Eastern Missouri have expressed interest in bidding on the project, as have a few out of state contractors. Laborers’ Locals 42[St. Louis] and 660[St. Charles County] have a particular interest in this project since it is in the area they serve.

The westbound bridge was the first structure carrying I-70 over the Missouri River when it was finished in 1958. Originally, this bridge carried traffic in both directions. Due to the rapid development of St. Charles County in the 60`s and 70`s, a second parallel bridge to carry eastbound traffic was opened in 1977. At one time, more than 90,000 vehicles per day travelled across the two bridge decks.

Basically, the westbound bridge, like many of us, is beginning to show its age and have problems. Engineers discovered cracks in the structure in 1999 and again in 2005. The cracks were not severe enough to close down the bridge, but MoDOT did conduct a full evaluation of the structure and develop a plan to repair it.

The westbound bridge contains 23 spans, with three of those over the Missouri River. Those spans over the river are supported by an overhead steel truss. Repairs plans range from completely removing and replacing all the driving surface(spans), including all joints and repairing or replacing the structural steel in many of the spans; to completely replacing the overhead steel truss along with the driving surface. This latter proposal would allow a more complete repair to the entire structure.

Handling traffic during the shutdown and construction of the new westbound bridge will be a major component of the project. Plans call for the east bound bridge, now containing five lanes to be restriped so that it can handle three lanes of eastbound traffic and three lanes of westbound traffic during construction. Each lane will be from 10-feet to 11-feet wide.

In order to redirect the traffic, MoDOT will also be reconfiguring the bridges at Fifth Street in St. Charles and the Earth City Expressway in St. Louis County. Traffic at those locations will have to be diverted in order to cross the river on the eastbound bridge.

The successful contractor for the project will be given two years to complete the job. The westbound bridge however, can only be closed for one year. Estimated cost of the entire project, including the Fifth Street and Earth City Expressway bridge is \$72-\$82 million.

Despite MoDOT's financial shortfalls, which led the department to adopt a program to trim more than a half-a-billion dollars from its budget in future fiscal year, as explained in the last Foundation for Success, this project is fully funded.

Laborers in both Locals 42 and 660 are looking forward to the opportunity to work with contractors on this project.

### **Safe & Sound Program Passes a Milestone**

Back in 2009, MoDOT awarded a first of its kind contract for bridge construction in Missouri and perhaps the nation. Faced with a large number of failing and dangerous bridges, mostly on small rural routes in Missouri, the department developed what it called its Safe & Sound Bridge Improvement Program.

Instead of individual contracts with engineers and contractors to design and build new structures, MoDOT lumped 550 of identified problem bridges and issued one design-build contract after a competitive bidding process. It gave the contractor five years to complete its task. The winning contractor shortens the time period even further, claiming it could get the job done in four years! MoDOT itself would either build or contract out to have the remaining 250 structures built.

As of August, the contractor and MoDOT are more than half-way finished with the work, having rebuilt or replace 500 of the 800 bridges in the program. The 500<sup>th</sup> bridge was on U.S. Highway 61 in Perry County over Apple Creek.

“The rate at which we have been completing these projects is incredible,” said project director Ken Warbritton. “By the end of the year (2011), we plan to have built more than 350 new bridges making this the busiest bridge year in Missouri History.” At this rate, the Safe & Sound Bridge Program will be completed in four years.

Most of these structures are small, two-lane bridges which are demolished and replaced. In other cases, the bridge deck was torn down and replace. The average construction time, from tear down to opening for traffic is 48 days.

MoDOT is financing the nearly \$700-million program with bonds. The bonds are paid off with future federal bridge money the state anticipating receiving.