

## ***Insurance Times*: THE BIG RISK - Insuring the Big Dig**

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*Never before and never again. That's how Ginny Greiman, (left), risk manager for Boston's Central Artery Project, describes the size and scope of the famed Big Dig. Never before has there been a public engineering project this enormous and complex, and it's unlikely there will ever be again. Mark Hollmer went underground and spoke with Greiman and other Big Dig officials for this exclusive account of how insurance companies and brokers have worked with Big Dig officials to meet the project's unique insurance, risk management and safety challenges.*

by Mark Hollmer

*Insurance Times*

BOSTON — Walk through the dark, damp, sprawling Central Artery northbound tunnel, as construction workers scurry to finish their final two years of work. The scope of the historic, Boston project becomes obvious.

Everything from the slurry used to build and harden the tunnel walls to the cables above the brand-new asymmetrical bridge crossing the Charles River illustrates the unique demands that the nation's largest municipal project has placed on engineers and contractors.

Those demands, in turn, created a crucial job for insurance companies and brokers. Their mandate: to find innovative, cost-effective ways to cover construction workers, engineers and equipment involved in the massive project, as well as at-risk pedestrians and the project itself.

The Big Dig's risks are unique, in part because the project is arguably bigger than anything before it.

It's larger than the Panama Canal, the Alaskan pipeline, more complex than the Hong Kong Airport (which involved land reclamation) and more expensive than the Chunnel connecting France and England underwater, Greiman said.

"We had to assure that there was going to be sufficient premium dollars in the program to fund (potential) losses," said Ginny Greiman, risk manager for the Central Artery Project since 1998.

"Things that are being done here are being done for the first time in terms of engineering initiatives, in terms of construction methods" and more, she said.

"Never before have we done a project of this size in an inner city or of this scope and magnitude and we will never do it again."

Officials developed the Big Dig's wrap-up program (and an owner-controlled insurance program to manage it) to cover the enormous risks posed by the mega-project.

Greiman was the Division of Insurance general counsel back in 1992 when she helped the state get the wrap-up program approved, working with the administration, finance officials, Central Artery planners and the Massachusetts Highway Department to develop the system.

Thirty-three insurance companies and 28 brokers bid back in 1992 to take part in the program. Among the winners: AIG, Design Professional Insurance, Zurich-American, Lexington Insurance, Kemper Environmental and Reliance.

Boston broker Sheppard, Riley and Coughlin helped piece together the deal and remains with the project today, Greiman said.

Wrap-Up Coverage

Planners divided the wrap-up coverage among the handful of winners writing insurance for six distinct areas: workers compensation/statutory coverage, general liability coverage, builder's risk, airport contractor's liability insurance, railroads coverage and professional liabilities coverage. (See sidebar on wrap-up details.)

A wrap-up program serves as the best option for a project as far-reaching as the Big-Dig, Greiman said, because a single program is simply more efficient than "separate insurance policies for every contract on the project, which would mean at the minimum 150 separate insurance policies."

Big Dig Organizers created an Owner Controlled Insurance Program, or Trust to manage coverage issues associated with the wrap-up coverage.

"It provides a base for funding both collateral for the insurance program and the deductible portion of the program," Greiman said.

The Trust is funded by premium payment from both the state and federal governments, in proportion to their contributions to the project as a whole.

Trust fund levels reached more than \$218.8 million as of July 31, though it was at more than \$300 million the year before.

#### Federal Audit

Recently, federal auditors determined the Trust was over-funded and that it should return some of the money back to state and federal officials to be used for other Big Dig project needs.

"The feeling was that because of the success of the owner-controlled insurance program, and far fewer (accident) incidents than anticipated; because of good safety ... and strong claims management..., there was more funding in the Trust ... than was ultimately needed to pay all the claims.

"Thereby taking a conservative approach, funds were transferred out ... when it was determined there was sufficient funding to cover losses for the balance of the program," Greiman said.

As of Aug 2, 2002, Big Dig insurance premium reached \$521.8 million, a small fraction of the total project's \$14 billion price tag.

Current plans call for the Trust to fund claims through 2017, filed by people who could theoretically develop a Big Dig-related occupational illness years down the line after the project ends.

Construction should be completed in 2004, after which the fund would be known as the "tail" of the insurance program.

One option could also lead to Big Dig organizers selling the "tail" to an insurance company after 2004, which would manage claims from that point through 2017.

#### Risk Factors

Still, risk factors continue to be enormous for a project that at its peak included 150 general contractors, up to 600 construction companies, thousands of employees and countless commuters and pedestrians who make their way through and past various project sites around the Boston. About 40 general contractors are working now.

"We're constantly concerned with traffic nuisances, appropriate traffic signals and that signage will provide significant notice to people" as the Big Dig work shifts from place to place, said Greiman, who also worked for the U.S. State Department, where she gained experience managing several public projects in Eastern and Central Europe.

Off all the potential losses in the Big Dig project, the biggest would be that a building within 50 feet of excavation would fall and collapse.

Three large buildings offered particular risk: The Federal Reserve building, One Financial Center and International Place – all near the South Station construction.

High on the list: one of the tunnels being placed over the MBTA subway system near South station could have breached, causing huge losses of property and life.

Risk managers didn't stop there. They also had to factor in the possibilities of earthquakes, fires, and floods. Water and flooding in particular provided a particular concern, Greiman said.

Construction workers already dealt with flooding problems at newly submerged highway tunnels, parts of the Orange Line subway and at the airport.

All were relatively minor problems that workers corrected, Greiman said, with catastrophic losses averted because of "quality assurance safety nets in place that prevented the situation from expanding."

Planners had to anticipate every eventuality, she said, even terrorism – nearly a decade before terrorist threats hit home on Sept. 11, 2001. (See sidebar on safety issues.)

"We had terrorism coverage prior to 9.11 in our general liability coverage, for a seven-year period..." Greiman said. (Though planners were required to purchase additional terrorism coverage since the New York and Washington D. C. attacks.)

Big Dig managers were better protected from the post-9.11 hardening market than most, Greiman said, because they negotiated much of their long-term coverage before then.

"Fortunately," she said, "we had done a lot of our homework in advance of the project. We were impacted (by 9.11, such as on our) airport liability coverage and builders risk, but not to a degree one might anticipate on ... construction project of this size."

Officials renewed parts of the wrap-up program for several year-periods in the 1990s, escaping price hikes other similar projects faced post 9.11 due to annual renewal schedules.

A lesson for other future, similar projects like the Big Dig?

"Think carefully about having a longer policy period than just a year," Greiman said. "One never knows what may happen in the risk world."

When completed, the new Central Artery will include 161 lane miles of highway in a 7.5-mile corridor, half in tunnels including four major highway interchanges.

In the end, the old highway stretch through Boston will be torn down, leaving 150 acres of new parks and open space.

Twenty-five percent of the 27 downtown acres of the elevated highway will be developed for retail, commercial and housing needs the city expects to face in the coming years, according to Central Artery statistics.

Big Dig claims statistics 'way below' expectations - figures as of late summer, 2002

The \$143 million in paid claims, based on \$521 million in current premium payments, is "way below" expectations, said Ginny Greiman, risk manager for the Central Artery project. The breakdown:

Workers Compensation Claims

Paid to date	\$84.2 million
Reserved (claims not yet paid)	\$25.3 million
Total	\$109.5 million

(Numbers are lower than expected based, in part, on original risk assessments)

General Liability Claims

Paid to date	\$26.3 million
Reserved	\$8.2 million
Total	\$34.5 million