



# Project Spotlight

## Roosevelt Avenue Bridge - Flushing, NY



**Owner:** NYC Dept of Transportation  
**Installer:** GeoCell Solutions

**Engineer:** Parsons/Urbitran JV  
**General Contractor:** Tully Construction

### Background Information

The Roosevelt Avenue Bridge in Flushing, NY has been carrying New York City commuters and area residents for more than 80 years. When it was built in 1927, this bridge was the largest double-leaf bascule moveable bridge in the world. This multi-deck bridge now carries four lanes of Roosevelt Avenue vehicular traffic, two sidewalks and three tracks of the Interborough Rapid Transit Company (IRT) 7 line of the New York City subway.



In January 2010, after decades of wear and tear, the bridge was showing signs of deterioration, and the NYC Department of Transportation (DOT) decided to start a \$60 million rehabilitation project.

### Project Details

This entire rehabilitation project would include replacing the bridge's road deck, repainting and repairing the steel truss, approach structures, and repairing the bridge's concrete structure. In addition, the eight-foot sidewalks would be widened to 10 feet, and bike lanes would be included.



A large portion of this project, requiring 1% of the \$60 million budget, entailed filling the voids of the abandoned counterweight well pits of the original drawbridge structure. This was a complex portion of the project that required a unique fill material that would be able to withstand not only the weight of the structure, but also the vibrations caused by the train and vehicular traffic that travelled over the bridge during the installation process. Specifications required that the fill material also provide a density equal to or less than that of water. The contracted installer, GeoCell, chose to use Aerix Industries AERLITE-iX™ lightweight cellular concrete (CLWC) for this portion of the project, installing 7,000 cubic yards of the cellular concrete into the 29-foot-high well pits of the drawbridge.



### Aerix Added Value

Because it is highly flowable and easy to install, AERLITE-iX provided installation efficiency while also offering the appropriate compression strength and lightweight characteristics necessary for this unique installation. Aerix's AERLITE-iX enabled the city of New York to rehabilitate a piece of history while protecting the safety of its residents and commuters for years to come.