LIRR Third Track Case Study

Third Track added new capacity to the LIRR system. It also reconstructed a critical stretch of the Main Line, including both stations and behind-the-scenes infrastructure. Delivered on time and under budget, it showcased key MTA innovations.

Design-build and bundling

Third Track was a complex project with many moving parts, from station improvements to substations to grade crossing separations to bridge replacements to constructing new parking facilities. No individual element was particularly challenging from a construction perspective; the logistics and sequencing of the work was the key challenge. A design-build contract that bundled what could have been 50 separate projects together put the responsibility and risk with the party best positioned to mitigate them. As a result, we were able to keep the project on schedule.

Define the right scope

During an extensive consultation process, MTA worked with the contracting community to solicit ideas to improve the project's design and delivery. Among other things, this allowed us to incorporate an alternative track alignment that made the project significantly easier to deliver. As a result of this consultation, a project that was initially estimated to take eight years took just five.

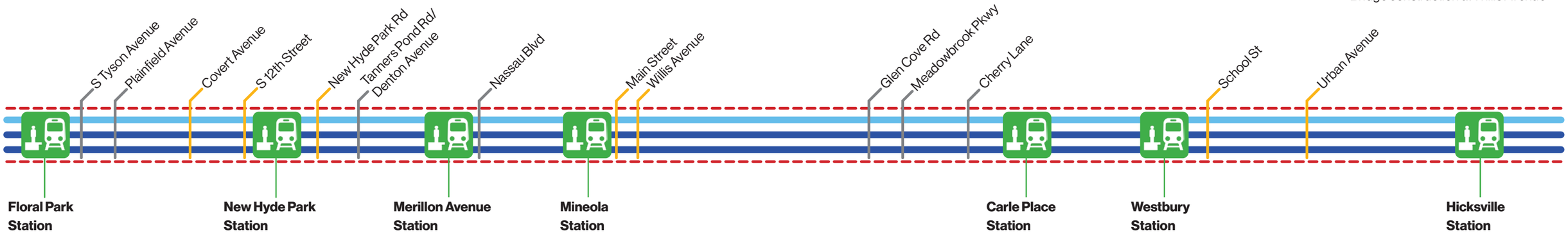
Project team accountability

The project teams, both at MTA and at our contractor, were empowered to make decisions and given a mandate to coordinate all work, aggressively control scope expansion, and enact performance oversight. The leadership on both the MTA and contracting sides developed a strong working relationship in their co-located field office. Given the tools they needed to manage the project successfully, this leadership team was held accountable by MTA leadership as the project progressed, with constant future projections ensuring the project remained on track.

The results

- 9.8 miles of track
- Seven upgraded stations, with
  - Six pedestrian overpasses
  - 15 ADA elevators
- Seven bridge replacements
- Eight substation replacements and upgrades
- Eight grade crossing eliminations
- 7.5 miles in retaining walls

Together with Grand Central Madison and other improvements, Third Track enables a 40% increase in LIRR service.



Spotlight: Grade crossing eliminations

Utilizing an innovative box-jacking system, our construction crews complete these complex jobs faster and easier. With close coordination between the contractor and LIRR forces, we were able to install a new railroad bridge over a new underpass in a single weekend, dramatically minimizing interruptions to LIRR riders. This compares to the weeks, months, or even years that similar projects took in the past.

Bridge construction at Willis Avenue