



The LiRo Group

Reference:

Tai-Whang Chow

New York State Department of
Transportation
Region 11
Long Island City, NY 11101
718-484-4633

Total Project Cost: \$36,000,000

Completion Date: 2002

Project Overview:

Various rehabilitation projects
including pavement resurfacing,
ramp design and extensive and
complex MPT design. (New York
State Department of
Transportation, \$36M, 2002)

Cross Bronx/Throgs Neck/Hutchinson River Expressways - Construction Support

Queens, NY

I-295 Cross Bronx Expressway Pavement Resurfacing and Joint Restoration

This 2.5 km project included the existing roadway PCC pavement repair, joint restoration and new asphalt concrete overlay. The typical section included five travel lanes in each direction ((WB and EB) for the length of 0.5 km and four travel lanes in each direction between the interchanges with Throgs Neck Expressway and Bruckner Expressway. The limit of the project started at the Throgs Neck Bridge Toll Plaza and ended at the Bruckner Interchange (I-278). The new full depth asphalt shoulder were designed and constructed.

As a result of pavement rehabilitation and widening the existing drainage system was modified. The existing drainage structures were inspected and evaluated. The scope of work included adjustment and rehabilitation of the existing drainage system.

The extensive and complex MPT design and coordination with various agencies including MTA Bridges and Tunnels, utility owners and communities were important issues in this project. Construction support was included in the contract.

I-278 Bruckner Expressway - Havemeyer Ramp

The rehabilitation of this interchange's bridges was originally designed by another consultant. LiRo was asked by the State to assist with the review of shop drawings and investigation of deterioration to structural members as requested by EIC. The scope of work included review, approval and maintaining a log for approx. 600 shop drawings which included erection drawings, steel details, sheeting, temporary towers and various repairs.

The reconstruction of the Bruckner Interchange required complex maintenance of traffic including some detours. Part of this MPT was a temporary entrance ramp from the service road to the westbound Bruckner Expressway near Havemeyer Avenue. This temporary ramp proved to be very popular with local residences as it reduced their morning drive by about a mile and avoided some very congested areas. These residents successfully petitioned their local representatives and the State DOT to have the ramp made permanent. In conjunction with our Construction Support Services contract LiRo designed the new ramp to Interstate standards. In the process we obtained new survey and soils data, as well as, traffic and accident information. We developed an Access Modification Report and obtained approval for this change from FHWA. LiRo also provided complete construction documents on a fast track basis in the midst of a on-going construction project.

I-695 Throgs Neck Expressway Pavement Resurfacing and Joint Restoration

The scope of work for this 2.2 km project included repairs to the existing PCC pavement, joint restoration and new asphalt concrete overlay. The existing section consisted of three travel lanes in each direction (NB and SB). The limit of the project was from the diverging point with I-295 up to the merge with the New England Thruway (I-95). The new full depth asphalt shoulders were designed and constructed. Realignment of one of the egress ramps with deceleration lane was also part of the project.

As a result of pavement rehabilitation and widening, as well as realignment of one of the ramps, the existing drainage system was modified. The existing drainage structures were inspected and evaluated. The scope of work included design of the additional drainage structures and piping, relocation, adjustment and repairs to the existing system.

The extensive and complex MPT design and coordination with various agencies, utility owners and communities were important issues in this project. Construction support was included in the contract.

Hutchinson River Expressway - Design of Ramp Relocation

The Hutchinson River Expressway begins at the Whitestone Bridge toll plaza and proceeds north. Immediately past the toll plaza there is an exit ramp to the north bound service road. Some 1,000 feet farther north there is an entrance ramp onto the expressway. When EZpass was installed at the toll plaza, it was placed in the middle lanes thereby requiring travelers wishing to exit to cut across 4 to 5 lanes to reach the ramp.

To correct this, LiRo was asked to study changing the exit ramp to an entrance and changing the entrance ramp to an exit. This would move the exit ramp far enough from the toll barrier to allow for a safe weaving length. Since this is an Interstate Highway, FHWA approval was required. In conjunction with our Construction Support Services contract LiRo performed the necessary traffic and accident analysis, developed a ramp relocation report and obtained FHWA approval. In addition, LiRo prepared complete construction documents on a fast track basis in the midst of an ongoing construction project.