

# **NEW YORK CITY DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES 2004 BRIDGES AND TUNNELS ANNUAL CONDITION REPORT**



View From the Bronx of the Third Avenue Temporary Bridge and New Swing Span in November 2004.  
(Credit: Michele N. Vulcan)

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## Contents

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<b>Acknowledgements</b>	<b>iii</b>
<b>Commissioner's Message</b>	<b>iv</b>
<b>Section 1     2004 Executive Summary</b>	<b>1</b>
<b>Section 2     2004 Division Overview</b>	<b>3</b>
<b>Section 3     2004 Chronology</b>	<b>10</b>
<b>Section 4     2004 Innovations and Accomplishments</b>	<b>49</b>
<b>Section 5     2004 Bridge Capital Program – Appendix A</b>	<b>131</b>
<b>Section 6     2004 Flag Conditions – Appendix B</b>	<b>147</b>
<b>Section 7     2004 Inventory – Appendix C</b>	<b>152</b>
<b>Section 8     2004 Glossary of Bridges</b>	<b>204</b>
<b>Section 9     Components of the Preventive Maintenance Program</b>	<b>217</b>
<b>Section 10    Maintenance Personnel Resources – 2004 vs 1900</b>	<b>225</b>
<b>Section 11    Bridge Inspection Equipment List</b>	<b>227</b>
<b>Section 12    2004 Motion Picture, Television, Video,                     and Still Photography Highlights</b>	<b>228</b>
<b>Section 13    Suggested Reading</b>	<b>232</b>
<b>Section 14    2004 In Memoriam</b>	<b>240</b>
<b>Section 15    2004 Inventory Location Maps</b>	<b>241</b>

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### **Cover Photograph**

New Third Avenue Bridge Swing Span Passing Under the Brooklyn Bridge On its Way up the East River on July 8, 2004.

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## A Message from the

## Commissioner

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Dear Friends,

On behalf of the many dedicated professionals who staff the Division of Bridges, it is my pleasure to present the 2004 Edition of the New York City Department of Transportation's Annual Bridges and Tunnels Condition Report, as mandated under New York City's Charter. This report provides DOT with an opportunity to display the many achievements, innovations and improvements that were realized by the Division of Bridges during the 2004 calendar year.

Preventive maintenance is essential to preserve the City's multi-billion dollar investment in its bridges. These steel and concrete structures must be protected from the stresses of weather, traffic, deterioration and neglect. In the last year alone, 14,969 square feet of concrete were used to renew sidewalks, curbs, and road decks; some 10,008 cubic yards of debris were removed; 1,221 bridge drains were cleaned; and crews eliminated 5,530,319 square feet of graffiti. DOT crews also eliminated 368 safety flag conditions that presented clear vehicle or pedestrian traffic hazards. Also, in the Department's ongoing attempts to minimize construction disruptions, we consistently used incentive and disincentive clauses in contracts to reward contractors who finish work early and penalize contractors who finish work late.

The Division's proud tradition of design and engineering excellence was recognized with awards from various entities, including:

- The American Council of Engineering Companies of New York's (formerly the New York Association of Consulting Engineers) award for the restoration of St. Felix Street, as well as the reconstruction of the Guy Brewer Bridge over the Belt Parkway.
- The Metro New York/New Jersey Chapter of the Construction Management Association of America's "Project of the Year" award for the Reconstruction of the North Roadways of the Williamsburg Bridge.
- The New York Tri-State Metro Chapter of the Design Build Institute of America's 2004 Excellence in Leadership - Owner of the Year award.
- *New York Construction Magazine* selected the component rehabilitation of Riverside Drive over West 96<sup>th</sup> Street for an Award of Merit as one of the best bridge projects of 2004.
- The Association for Bridge Construction and Design recognized the commitment, dedication and outstanding work of DOT's Chief Bridge Officer Henry Perahia with the Bridge Man of the Year Award.

New York City has a rich tradition of bridge design, construction, maintenance and administration. The Department of Transportation appreciates the importance of its duties and responsibilities, and the Division of Bridges is proud to shoulder the task of maintaining and rehabilitating our city's vital bridge infrastructure.

Sincerely,



Iris Weinshall  
Commissioner



## EXECUTIVE SUMMARY

### Inventory

In calendar year 2004, the inventory of bridges under the jurisdiction of the Division increased from 753 to 790. This was not the only change to the inventory: the condition ratings of the bridges also changed. In fact, over the past 10 years, there has been a mostly steady decline in the number of bridges rated "Poor," and a somewhat steady increase in the number of bridges rated "Very Good," as shown below.

	1995	1996*	1997	1998	1999	2000	2001	2002	2003	2004
<b>Poor</b>	<b>60</b>	<b>48</b>	<b>40</b>	<b>24</b>	<b>16</b>	<b>13</b>	<b>9</b>	<b>8</b>	<b>4</b>	<b>6</b>
<b>Fair</b>	406	524	530	516	507	481	459	451	429	456
<b>Good</b>	342	148	145	154	160	180	196	202	209	212
<b>Vgood</b>	<b>51</b>	<b>59</b>	<b>55</b>	<b>75</b>	<b>81</b>	<b>85</b>	<b>88</b>	<b>94</b>	<b>111</b>	<b>116</b>
<b>Unrated</b>		68								
	<b>**859</b>	<b>**847</b>	<b>770</b>	<b>769</b>	<b>764</b>	<b>759</b>	<b>752</b>	<b>755</b>	<b>753</b>	<b>#790</b>

\* In 1996, NYCDOT adopted a new rating scale to be used to determine the verbal condition of bridges. The new scale matches the rating scale by New York State DOT. The new scale changed the dividing line between Fair and Good bridges from 4.500 to 4.999. The net effect of this change was that, in 1996, 157 bridges that would have been rated Good were classified as Fair. This accounts for the increase in Fair rated bridges and the decrease in Good rated bridges.

\*\* The total count of structures in 1995 and 1996 still included the culverts.

# In 2004, 32 Department of Parks and Recreation structures, 1 Department of Education structure, and 7 Division of Ferries structures were absorbed into the inventory. 30 of these additions (22 from Parks, 6 from Ferries, and the 1 from Education) are rated "Fair," which accounts for the increase in Fair rated bridges. 1 of the Parks additions is rated "Poor."

### Contract Acceleration

Acceleration measures are a contract provision used in some reconstruction projects that is implemented through a contract pay item. This contract provision provides a mechanism to implement measures to accelerate the contractor's work to maintain critical path milestones. This provision does not apply to measures undertaken by the contractor to make up for time it lost in the progress schedule. Only the NYCDOT representative invokes this provision when the contract schedule is compromised due to unforeseen conditions during construction that are out of the contractor's control, and when it is deemed in the City's interests to accelerate.

Incentive and disincentive clauses are another contract provision used in some reconstruction projects that is implemented through a contract pay item. Under this provision, the contractor is compensated a certain amount of money for each day if the identified work in a critical milestone is completed ahead of schedule and is assessed a deduction for each day the contract overruns the allocated time. The amounts for the I/D clauses are based upon such items as traffic safety, maintenance and road user delay costs, Resident Engineering & Inspection (REI) expenses and cost of traffic enforcement agents. These amounts are implemented in accordance with guidelines established by Federal Highway Administration (FHWA).

2004 was a year in which the use of incentives/disincentives resulted in the early completion of several new bridge projects, such as:

In July 2004, the **Cross Bay Boulevard Bridge over Conduit Boulevard** was re-opened to traffic some two months ahead of schedule, thus earning the contractor a \$300,000 incentive.

The early completion in December 2004 of the reconstruction of the **Belt Parkway Bridge over Ocean Parkway** earned the contractor the maximum incentive of \$2 million.

## EXECUTIVE SUMMARY

### East River Bridges Anti-Icing Program

The Division's Anti-Icing Program uses the liquid chemical potassium acetate and aggregate chemical sodium acetate. The anti-icing fleet consists of fifteen spray trucks, ten plow trucks and several smaller plows. Six of the spray trucks are combination spray/plow trucks with an 1800 gallon tank capacity, and four are spray-spreader/plow trucks with a 900 gallon spray capacity, and an eleven cubic yard spreader capacity. There are twenty chemical storage tanks, with a total storage capacity of 113,750 gallons.

In the winter of 2003-2004, a total of 97,000 gallons of anti-icing chemicals were applied on the roadways of all four East River Bridges.

### Marine Borer Remediation

In October 1999, the Department began a study to assess the present damage caused by marine borers as well as the potential for future damage at several waterfront DOT structures, including the supporting structures of the relieving platforms along the FDR and Harlem River Drives, and the timber piles and structures of the Carroll Street and Ocean Avenue bridges in Brooklyn. The underwater inspection of timber piles supporting the FDR Drive began on May 8, 2000. Inspection of the Brooklyn sites was conducted during the week of October 23, 2000. The inspections were completed in October 2000, and the Marine Borer Evaluation Report was published in June 2001. Using the results of the underwater inspections, preliminary plans were developed for the implementation of repairs and remediation measures to protect the structures from attack. These preliminary plans were completed in December 2001. The construction work is expected to commence in summer 2006.

### 2004 Awards

In 2004, the outstanding work of the Division was recognized by the receipt of several awards. In February 2004, in recognition of his commitment, dedication and outstanding work, Chief Bridge Officer Henry Perahia was presented the Bridge Man of the Year award from the Association for Bridge Construction and Design. In April 2004, the American Council of Engineering Companies of New York (formerly the New York Association of Consulting Engineers) selected the restoration of St. Felix Street, as well as the reconstruction of the Guy Brewer Bridge over Belt Parkway for Engineering Excellence Awards.

In June 2004, the Metro New York/New Jersey Chapter of the Construction Management Association of America selected the Reconstruction of the North Roadways of the Williamsburg Bridge (Contract #7) as a "Project of the Year." In September 2004, the Department was presented the 2004 Excellence in Leadership - Owner of the Year award from the New York Tri-State Metro Chapter of the Design Build Institute of America.

In November 2004, *Roads & Bridges Magazine* selected the current project on the Manhattan Bridge (Contract #11) as the second place finisher in its annual selection of the country's top 10 bridge projects. The magazine also selected the replacement of the Belt Parkway Bridge over Ocean Parkway as the eighth place finisher.

In December 2004, *New York Construction Magazine* selected the component rehabilitation of Riverside Drive over West 96th Street for an Award of Merit as one of the best bridge projects of 2004.

The dedication and hard work of all members of the Division ensures that the Department is stronger than ever and more capable than ever to meet the challenges of maintaining a diverse and impressive bridge infrastructure.

## *DIVISION OVERVIEW*

The New York City Department of Transportation's Division of Bridges is comprised of six major bureaus. The **Chief Bridge Officer** is responsible for formulating policy and providing executive direction. He oversees all aspects of the design, construction, rehabilitation and reconstruction, maintenance, operation and administration of the 790 bridges (including 6 tunnels), and 67 culverts presently under the jurisdiction of the New York City Department of Transportation (NYCDOT). In addition to broad supervision, the Chief Bridge Officer also provides overall executive and administrative direction for the Division of Bridges, and ensures that all contractors are promptly paid.

Reporting to the Chief Bridge Officer, the **Community Affairs Unit** maintains liaison with elected officials, community boards, community groups, and civic/neighborhood associations. The Unit takes a pro-active approach in addressing roadway closures and detours by reaching out to communities prior to the onset of construction. This enables the Division to proceed with its rehabilitation program with community input, and allows the Agency and its contractors to co-exist in a more harmonious manner with the community surrounding the project. Issues and problems of concern to the communities are brought to the attention of the appropriate Division personnel and addressed.

The **Specialty Engineering and Construction Bureau** is responsible for all **Component Rehabilitation** activities, **Emergency Declarations/Specialty Engineering Services**, **Bridge Painting**, and the **When and Where Unit**.

**Component Rehabilitation** is the revamping or replacement of damaged, worn or defective bridge components. This type of work is performed primarily on those structures not classified as being "deficient," but which contain specific components that have low condition ratings. By rehabilitating these components, the Division can ensure that these bridges remain in "good" or "very good" condition; usually extending the bridge's useful life by up to 10 years. Section Heads or Engineers-in-Charge (E.I.C.'s) report to the Director of Component Rehabilitation. Each is assigned a specific bridge, or bridges, for which they are responsible for all component rehabilitation activities.

The **Emergency Declarations/Specialty Engineering Group** provides technical and procurement expertise related to the following areas: preparing Emergency Declarations for unsafe conditions that require immediate remediation; assisting the Chief Bridge Officer in the contractor selection process for declared emergency situations; providing technical expertise related to the development, procurement and administration of Design-Build contracts throughout the various areas of the Division; preparing and administering Design-Build agreements; and supervision of Design-Build project design, construction, and inspection services.

The **Bridge Painting** section's function is to maintain the protective coating of the City's bridges. The section is divided into two programs, the in-house (expense) program and the capital program. The capital program oversees total paint removal and repainting, performed by contractors; this is done at twelve-year intervals on bridges measuring more than 100,000 square feet of painted area, and bridges over railroads. In-house personnel provide the inspection services on East River Bridge preventive maintenance contracts for quality control purposes. The in-house program is responsible for full steel painting of bridges measuring less than 100,000 square feet, and bridges that are not over railroads. This includes local surface preparation of deteriorated areas and overcoating of the entire bridge. In addition, the in-house program is responsible for spot and salt splash/spot painting. Salt splash/spot painting is performed five years after full steel painting, and spot painting is performed four years after salt splash/spot. Three years after spot, we once again perform full steel painting. The interval between full steel applications is twelve years. Members of the in-house program respond to emergency flag repairs alongside the in-house repair forces, to perform surface preparation prior to, and painting upon completion of, the steel work. In-house painting personnel also perform environmental clean-up after the iron workers finish their repair work.

## DIVISION OVERVIEW

The engineers and inspectors of the **When and Where Unit** supervise the contractors' repairs of structural and safety flags citywide under both marine and general repair contracts. The use of these contracts allows the unit greater flexibility in deploying the contractors' resources as necessary, and in obtaining a variety of construction equipment and materials that are not readily available to in-house forces. In addition, the unit responds to bridge emergencies, providing on-site inspection to verify field conditions, taking measurements for repairs and providing emergency lane closures.

The Deputy Chief Engineer for Specialty Engineering and Construction also acts as the **Deputy Chief Bridge Officer**, assuming the responsibilities of the Chief Bridge Officer in that person's absence.

The **East River and Movable Bridges Bureau** is responsible for all design and construction activities for all rehabilitation/reconstruction work that is planned, or currently taking place on the four East River Bridges, as well as all City-owned movable bridges and tunnels. This involves overseeing and supervising design consultants who prepare plans and specifications for bridge rehabilitation/reconstruction projects on the four East River Bridges and all Movable Bridges, as well as overseeing and supervising contractors, Resident Engineers and Inspection Consultants, and Construction Support Services Consultants during the construction phase.

This Bureau consists of two major areas: **East River Bridges**, and **Movable Bridges**. Each of these areas is headed by a Director to whom Section Heads or Engineers-in-Charge (E.I.C.'s) report. Each is assigned a specific bridge, or bridges, where they are responsible for all design and construction activities. The Directors, in turn, report to the Deputy Chief Engineer of the Bureau.

The **Bureau of Roadway Bridges** is responsible for both design and construction activities for all rehabilitation/reconstruction work that is planned, or currently taking place on all City-owned, non-movable bridges, with the exception of the four East River Bridges. This involves overseeing and supervising design consultants who prepare plans and specifications for bridge rehabilitation/reconstruction projects, as well as overseeing and supervising contractors, Resident Engineers and Inspection Consultants, and Construction Support Services Consultants during the construction phase.

This Bureau covers two major geographic areas; **Brooklyn and Manhattan Bridges**, and **Bronx, Queens and Staten Island Bridges**. In each geographic area, the workload is divided by Community Board. Engineers-In-Charge report to the Directors of each major area, who, in turn, report to the Deputy Chief Engineer of the Bureau.

The **Engineering Review and Support Bureau** is responsible for providing Division-wide engineering support services. The following areas make up this Bureau: **In-House Design, Engineering Support, Engineering Review, and Quality Assurance**.

**In-House Design** staff prepare plans and specifications for bridge rehabilitation/reconstruction projects that enable the Division to restore bridges considered "structurally deficient," to a "very good" condition rating. This unit also handles urgent Division projects, as well as special projects under construction by the **Bureau of Bridge Maintenance, Inspections and Operations**. The Electrical Group reviews and/or prepares contract documents for the electrical and street lighting work for all projects in the Division's capital program. They further review plans and specifications prepared by consultants.

The **Engineering Support Section** is comprised of three units: *Specifications, Surveying and Load Rating*, and *Records Management*.

## DIVISION OVERVIEW

The *Specifications Unit* prepares and reviews specifications for all City-let in-house and consultant-designed bridge construction projects, processes the contracts for bidding, prepares and transmits addenda, maintains and updates boiler plates, and maintains an inventory of all NYC and NYS special specifications used in City-let bridge projects.

The *Surveying and Load Rating Unit* performs the survey, inspection and load rating of bridges, monitoring of cracks and movements in bridge structures and settlement of foundations. This unit also performs corrosion potential testing in all bridge resurfacing projects.

The *Records Management Unit* establishes electronic media, drafting and microfilming standards, and reviews contract, as-built and shop drawings prepared by consulting firms, as well as digital CDs, microfilms and indexes. This unit maintains original plan files, upgrades the database and converts original drawings into electronic media formats. It also answers requests for information regarding City-owned bridges.

The **Engineering Review Section** consists of five units: *Engineering Review and Estimates*, *Utilities*, *Land Acquisition*, *Geotechnical Engineering*, and *Scope Development*.

The *Engineering Review and Estimates Unit* reviews all City-let bridge construction contract drawings; reviews drawings from other Agencies and entities, as well as State and private companies; and ensures that the work to be performed conforms to NYCDOT requirements. This unit establishes design standards, including seismic requirements, and oversees estimates prepared by consultants. This unit also reviews superload truck permit applications and performs load analyses for the City's bridges. In addition, the unit conducts other, non-bridge engineering projects, such as the annual balloon wind study for the Macy's Thanksgiving Day Parade.

The *Utilities Unit* coordinates all issues related to utility design as they affect City-owned bridge projects and related projects.

The *Land Acquisition Unit* reviews and maintains a database of easement issues, right-of-way, and Uniform Land Use Review Procedures (ULURP).

The *Geotechnical Engineering Unit* provides geotechnical-engineering services and oversees seismic design requirements for City-let contracts for bridge projects.

The *Scope Development Unit* reviews inspection reports and structural condition ratings to develop the scope of work for the rehabilitation of deficient bridges, and initiates the procurement of Design Consultant contracts.

The **Quality Assurance Section** ensures that materials installed for the Bridge Rehabilitation Program meet contractual requirements and are incorporated in strict compliance with plans and specifications. This section operates under its own formulated Quality Assurance Plan that is based on NYSDOT requirements and procedures. Quality Assurance has contractually retained the services of private inspection/testing firms. The provision of services required for various projects is better coordinated through this centralized method, which is also timely and cost effective.

Off-site Quality Assurance services relative to a wide variety of basic and manufactured construction materials including concrete, asphalt, soils, reinforcing steel, bridge bearings, structural steel and precast/prestressed structural components for all bridge projects, irrespective of the funding source, are handled by this section. Current major projects include the Macombs Dam Bridge, the Third Avenue Bridge, the rehabilitation of the Manhattan Bridge North Spans, the Washington Bridge, the Queensboro Bridge, the East 241<sup>st</sup> Street Bridge, and the 145<sup>th</sup> Street Bridge.

Through its *Environmental Engineering Unit*, Quality Assurance also oversees the implementation of the Final Environmental Impact Statement (FEIS) on bridge construction projects involving the removal and disposal of lead-based paint. The unit's active involvement in training the supervisors and overseeing the abrasive blasting operations has resulted in the successful completion of various paint removal projects. This unit also oversees the proper and safe

## DIVISION OVERVIEW

disposal of other hazardous waste and regulated waste encountered during construction activities.

In addition to enforcing the lead paint removal protocols, the unit handles other environmental concerns. Typically, the unit participates in the design stage to ensure that any environmental issues are addressed during the construction phase of the project. These issues include, but are not limited to, asbestos abatement, soil sampling, groundwater sampling, remediation of contaminated soils and groundwater, worker exposure to environmental contaminants, management of waste oil, storage of hazardous waste, site safety, and OSHA compliance. The role of this unit in ensuring public safety has been recognized and commended by the community.

The unit has been instrumental in preparing and obtaining waste water discharge permits for such projects as the Metropolitan Avenue Bridge, dredging for the Third Avenue Bridge, discharging of waste water for the 145<sup>th</sup> Street Bridge pier drilling and seismic drilling of the riverbed at the Brooklyn Bridge. Waste water testing and analysis (as well as application of SPDES permits) for several movable bridges such as the Eastern Boulevard Bridge, Greenpoint Avenue Bridge and Hamilton Avenue Bridge, have also been a part of the waste water management program. The unit has provided environmental oversight on major capital projects such as the Third Avenue Bridge, Washington Bridge, 145<sup>th</sup> Street Bridge, Queensboro Bridge, as well as Component Rehabilitation projects and Design/Build projects.

The **Bureau of Bridge Maintenance, Inspections and Operations** employs almost 500 engineering, professional, administrative, and skilled trades employees in the maintenance and smooth operation of New York City's elevated infrastructure; it is composed of five major sections:

The **Flag Engineering** section is an engineering group that reviews, routes, and tracks hazardous or potentially hazardous safety and structural conditions ("flags") in or on the city's 790 bridges (including 6 tunnels). The Flags staff is on call 24 hours a day to respond to bridge emergencies. The section can be alerted to flag conditions by city and state inspectors and other sources, such as the Communications Center. All conditions undergo an evaluation involving review of the flag report, photographs of condition, and, if necessary, a visit to the site. Subsequently, a "flag packet" describing the type of repair or response that is required is created and routed to an appropriate group, in-house or contractor, for elimination. Flags engineers supervise repair work performed by contractors. The section monitors the status of each flag, and reports on all activities on a monthly basis.

The in-house engineers and skilled trades personnel of the **Bridge Repair Section** perform repairs to address flagged conditions. Flag repairs include structural and safety work, such as the repair of steel members damaged by corrosion or accident impact, the replacement of box beams and bridge railings, the replacement of roadway gratings, repairs to traffic control devices, and the rebuilding of wooden walkways. Much of this work is performed in the off-hours, either to accommodate traffic or in response to emergencies.

This section also rehabilitates and replaces damaged, worn, or defective components whose failure can affect service. This type of work, known as *Corrective Repair*, primarily involves the electrical, mechanical and operational control systems for the twenty-five movable bridges, as well as the travelers (movable underdeck access platforms) on the four East River bridges. The Bridge Repair Section is also responsible for the lubrication of the movable bridges as well as the mechanical components and the main cables of the East River bridges. In addition, this section administers federally funded contracts for the preventive maintenance of the four East River Bridges.

The **Inspections, Research, and Development** section performs three essential functions: *Bridge Inspections*, *Bridge Management*, and *Research and Development*.

The *Inspections Unit* inspects the city's bridges in accordance with state and federal standards; monitors bridge conditions with a high hazard potential, such as temporary repairs, outstanding

## DIVISION OVERVIEW

flags, and fire hazards; responds to emergency inspection requests from NYCDOT and external sources; recommends repairs and remedial measures for hazardous conditions; generates flag and inspection reports for the Division; supervises inspections by consultants working for the Division; conducts inspections and inventories of expansion joints; conducts acoustic emission monitoring; and inspects non-structural cladding.

The *Bridge Management Unit* develops and maintains the database for the City's bridge inventory, condition ratings, and inspection information. The unit is also responsible for maintaining records of privately-owned bridges in the City. The database is the source of information used in a variety of reports, including the present Bridges and Tunnels Annual Condition Report. This unit uses the bridge and span condition database to determine current and future needs for bridge rehabilitation, bridge component rehabilitation, flag forecasting, inspections and monitorings.

The *Research and Development Unit* is responsible for investigating new materials and methods to improve existing bridge conditions. It sponsors a series of lectures by experts on subjects relevant to design, construction, and maintenance, such as seismic retrofitting of bridges, salt substitutes, cathodic protection against corrosion, concrete patching materials, new paint strategies, non-destructive bridge testing, and deck resurfacing. The unit also participates in research programs with interested transportation and infrastructure entities. The unit contributed to the 1999 update of the Preventive Maintenance Manual for NYC bridges. In conjunction with the Port, Triborough Bridge and Tunnel, and NYS Bridge Authorities, it sponsored a report on suspension bridge cables that led to a federal project for the entire United States. A number of articles on bridge management are published by the unit in technical journals in the United States, Japan, France, and elsewhere. The Bridge Management and Research and Development Units created the system for generating bridge inspection reports with portable computers; a similar system is now being adopted by the NYSDOT.

**Preventive Maintenance** is a vital part of the overall bridge program. This section is responsible for functions including debris removal; mechanical sweeping; pointing of masonry brick and block; and emergency response, such as snow removal, oil/cargo spills, and overpass hits. The section also performs some corrective repair work such as asphalt and concrete deck repairs, sidewalk patching, fence repair, and brick and masonry repairs. Preventive Maintenance is responsible for conducting the Department's anti-icing operations on the four East River bridges.

**Bridge and Tunnel Operations** is responsible for operating the 25 City-owned movable bridges that span city waterways. This section operates under a variety of federal mandates that call for 24-hour coverage at many locations; its mission is to provide safe and expedient passage to all marine and vehicular traffic under and on movable bridges. In calendar year 2004, Bridge Operations effected a total of 7,774 openings, 6,595 of which allowed 11,115 vessels to pass beneath the bridges. The remaining 1,179 openings were for operational and maintenance testing. The section also operates the city's six mechanically-ventilated tunnels, performing electrical maintenance and arranging for roadway cleaning.

The overall mission of the Bureau of Bridge Maintenance, Inspections and Operations is to maintain the structural integrity of elevated structures and tunnels and to prolong their life by slowing the rate of deterioration. While our objective may be seen as "maintaining the status quo" of the infrastructure, we continue to take a new look at our methods, procedures, and general focus as we formulate our operational plans for the next several years.

As more bridges are rehabilitated, it becomes incumbent upon us to protect the government's investment in the infrastructure by developing and implementing a more **substantive preventive maintenance program** to keep these bridges in good condition.

The **Bureau of Management and Support Services** provides essential administrative and analytic services to each of the operational bureaus of the Division of Bridges. The Bureau is divided into six primary sections: **Office of the Executive Director, Administrative, Budget, Capital Procurement, Capital Coordination and Truck Sections**. Each highly-specialized

## DIVISION OVERVIEW

section is designed to address those issues and requirements that are critical to the operation of the respective Bureaus within the Division.

In addition to the Division-wide responsibility for conflict resolution, Equal Employment Opportunity (EEO) enforcement, confidential investigations, Bridges' Engineering Service Agreements, space allocation, mail delivery, and special projects, the **Executive Director** oversees, on an executive level, the following areas and functions:

The **Director of the Administrative Section** oversees and administers all administrative/personnel-related functions for the Division, acting as a liaison with the Central Personnel Coordinator in NYCDOT Personnel including, but not limited to, recruiting for vacancies (this includes reviewing for completeness and submitting the necessary paperwork, and reviewing and distributing candidates' resumes); maintaining all Managerial Position Descriptions; maintaining all Division organization charts; scheduling EEO training; confidential investigations; maintaining records of IFA-funded positions; initiating and assisting in resolving disciplinary/grievance actions; serving as Conflicts of Interest and Financial Disclosure Officer; collecting and reviewing managerial and non-managerial performance evaluations; absence control; providing interpretive advice to Division management regarding City and Agency policy and procedures; and overseeing telephone and facility-related issues for personnel located at Two Rector Street in Manhattan. The Director of Administration also serves as the Deputy Director of the Bureau of Management and Support Services, and assumes the responsibilities of the Executive Director in that person's absence.

The Director of the Administrative Section also oversees the following two units:

The *Analytic Unit* prepares comprehensive bi-weekly and monthly reports that address major issues confronting the Division; compiles statistical data detailing the Division's productivity; processes and monitors all FOIL requests; frames issues in which oversight assistance is required for use by the Division, NYCDOT Executive Management and the Mayor's Office; and prepares the City Charter-mandated **Bridges and Tunnels Annual Condition Report**.

The *Vehicle Coordination Unit* tracks the placement and condition of all vehicles under the jurisdiction of Bridges. It maintains a database and prepares reports containing this information; provides information and reports to appropriate inquiring Divisions and Agencies such as the Auditor General's Office, NYCDOT Legal Department and NYCDOT Litigation Support Services; coordinates the assignments of vehicles and their movement throughout various borough field locations and job sites; prepares reports on Vehicle Status and replacement; prepares reports for the purpose of tracking Overnight Vehicle Assignments for all Division vehicles; receives and routes vehicle Accident Reports, Police Reports and Security Incident Reports relating to vehicle accident, theft and/or vandalism; coordinates priorities for vehicle and equipment repair with Fleet Services; prepares reports and memoranda regarding vehicle safety issues and communication procedures for NYCDOT Communication Center; and collects required documentation from field personnel for checking Driver Certifications with the Department of Motor Vehicles (DMV).

The **Director of the Budget Section** oversees the Division's entire expense budget process including, but not limited to, base-line preparation, spending plans, overtime control, financial plan changes, and budget modifications. The unit further oversees all Division-wide fiscal activities, including the establishment and monitoring of all IFA-related project budgets, while simultaneously ensuring that the budget and plans represent the Division's priorities.

The **Capital Procurement Section** serves as a liaison between the Division of Bridges and the Office of the Agency Chief Contracting Officer (ACCO). The duties of this unit include: overseeing the Division's capital consultant contracts from inception to completion; acting as liaison between engineers and the consultant programs unit, handling all engineering questions and answers; preparing status reports; and coordinating Railroad Force Account Agreements for Division construction projects.

*Railroad Force Account Agreements* are a vital component in the rehabilitation/reconstruction program since train traffic affects 318 (40%) of City-owned bridges. Careful cooperation between the NYCDOT and the various railroad agencies that service the metropolitan area is required.



## *DIVISION OVERVIEW*

The Railroad Coordinator provides a single point of contact for all railroad issues. This coordination includes the use of railroad personnel for track safety, approval of reconstruction design drawings, track shutdowns and reductions in train service for bridge construction work. The coordinator informs managers of "typical" railroad problems and attempts to avoid them through proactive measures.

Our Legal Department and Division engineering staff work together to clarify force account language in an attempt to avoid ambiguity. New agreements are being designed to specify clearly when notices for outages or flagging protection are required, who will be responsible when outage/flagging is canceled, and specify those documents that can be audited to expedite reimbursement of bills. These additions will streamline payment processing. The use of a Master Agreement is not feasible since each railroad has its own rules and regulations governing its employees, its own scheduling procedures and different billing requirements/procedures.

NYCDOT bridge designers make every effort to prepare accurate and complete contract documents. Unfortunately, in many instances, the original design drawings for the deteriorating bridges no longer exist, and previous records of modifications and repairs are not available. When the contract documents for the bridge reconstruction projects do not accurately address conditions found in the field, Contract Change Requests (CCR) are needed. Change order work can not proceed until the CCR is registered. Due to the nature of bridge construction projects, change order work is often on the critical path. Any delay in the issuance of a change order affects the overall project, and adds substantial overruns to the final cost.

This approval process typically requires three to six months to complete. A tracking process for change orders has been implemented; it reduces the time for the approval process to one-and-a-half to three months.

The **Capital Coordination Section** is responsible for preparing, coordinating and updating the capital budget and capital program initiative within the Division of Bridges. Currently, the Division's Ten Year Capital Plan is worth approximately \$5 billion. This plan is designed to rehabilitate the City's bridges. Responsibilities include: administering and participating in the development and implementation of planning capital projects; acting as liaison with oversight agencies, DOT Administration and all responsibility centers within Bridges; developing and maintaining criteria by which the City's involvement in joint City/State projects is analyzed and evaluated; and determining applicability of projects for funding through the Federal Inter-modal Surface Transportation Efficiency Act (ISTEA).

The **Truck Section** issues Annual Overweight Load Permits, Annual Self-Propelled Crane Permits, and Daily Oversize/Overdimensional/Supersize Truck Permits, all in accordance with the New York City Department of Transportation Policy and Procedures and the New York City Traffic Rules and Regulations.

## JANUARY

### **191<sup>st</sup> Underground Street to Broadway (Manhattan)**

This underground street provides the main access to the 191<sup>st</sup> Street train station for the #1 and #9 trains in upper Manhattan. The structure underwent a facelift to repair 21 safety and structural conditions. The scope of work included waterproofing designated sections of the structure to limit groundwater intrusion; installing additional weep holes along the walls to convey any intruding groundwater to the drainage troughs that are on each side of the tunnel; repairing the drainage troughs and the installation of new gratings; repairing cracks and spalls in the concrete of the roof and walls; providing a new skid resistant walking surface; installing new high pressure sodium lighting fixtures to replace the old existing florescent fixtures, thus providing for a brighter structure; repairing the entrance stairway surface; and applying a new coat of graffiti resistant paint, thus giving it a new fresh, clean look. The structure was re-opened to pedestrian traffic on January 5, 2004.



Applying the 2<sup>nd</sup> Skid Resistant Coating to the Western Half of the Floor. – the Structure's Lighting Creates the Yellow Tint.  
(Credit: Thomas Leung)

### **Hamilton Avenue Asphalt Plant (Brooklyn)**

On January 10, 2004, Division ironworkers repaired the plant's blue smoke duct and rap bin.

#### **Anti-Icing**

On January 11, 2004, Division personnel applied anti-icing chemicals 5 times to the East River bridges. In addition, the East River bridge pedestrian walkways and the priority overpasses were cleaned. Anti-icing crews were deployed again from January 14 through 16. According to *The New York Times*, for several hours after midnight on January 16, 2004, the official temperature of Manhattan dropped to 1 degree, which tied the record for the coldest January 16 in City history, a mark established in 1893.

### **Bruckner Expressway over Westchester Creek (Bronx) (a.k.a. Unionport Bridge)**

Due to extreme cold, the bridge was closed to marine traffic from 3 AM on January 16, 2004 to 12:10 AM the following night.

#### **Anti-Icing**

From January 17 through 19, 2004, Division personnel applied anti-icing chemicals 17 times to the East River bridges. In addition, the East River bridge pedestrian walkways and the priority overpasses were cleaned. Icicle patrols monitored the FDR Drive, the Brooklyn-Queens Expressway, and the Cross Bronx Expressway.

#### **Anti-Icing**

From January 25 through 28, 2004, Division personnel applied 16,000 gallons of anti-icing chemicals to the East River bridges. In addition, the East River bridge pedestrian walkways were

## CHRONOLOGY

plowed, and the priority overpasses were de-iced. Icicle patrols monitored the FDR Drive, the Brooklyn-Queens Expressway, and the Cross Bronx Expressway. The snowstorm left an accumulation of 10.3 inches of snow in Central Park.

### ***West 37<sup>th</sup> Street Bridge over Amtrak (Manhattan)***

The reconstruction of this bridge, which began on January 21, 2002, was substantially completed on January 27, 2004.



Deck Placement for the West 37<sup>th</sup> Street Bridge.

### ***Borden Avenue Bridge over Dutch Kills (Queens)***

Cleaning and painting of the bridge operator house began and was completed in January 2004.

### ***Greenpoint Avenue Bridge over Newton Creek (Brooklyn/Queens)***

Cleaning and painting of the bridge operator house, which began in December 2003, was completed in January 2004.

### ***Hamilton Avenue Bridge over Gowanus Canal (Brooklyn)***

Cleaning and painting of the bridge operator house, which began in December 2003, was completed in January 2004.

### ***Harlem River Drive Northbound Ramp over Harlem River (Manhattan)***

Cleaning and painting of the bridge, which began in December 2003, was completed in January 2004.

### ***Pulaski Bridge over Newtown Creek (Brooklyn/Manhattan)***

Cleaning and painting of the bridge operator house began and was completed in January 2004.

### ***Union Street Bridge over the Gowanus Canal (Brooklyn)***

Cleaning and painting of the bridge operator house began and was completed in January 2004.

### ***Willis Avenue Bridge over Harlem River (Bronx/Manhattan)***

Cleaning and painting of the bridge operator house began and was completed in January 2004.

### ***3<sup>rd</sup> Street Bridge over Gowanus Canal (Brooklyn)***

Cleaning and painting of the bridge operator house began and was completed in January 2004.

## FEBRUARY

### ***Sergeant Keith Ferguson Tribute***

The American flag on the Brooklyn Bridge was lowered to half-mast by Division painters on February 2, 2004 in tribute to Emergency Service Unit Sergeant Keith Ferguson, who died on January 31, 2004. He collapsed while chasing an illegal vendor down a street in SoHo. The flag remained at half-mast until the end of the day on February 5, 2004. Sergeant Ferguson was a 17 year veteran of the NYPD.

### ***14<sup>th</sup> Avenue Bridge over LIRR Bay Ridge (Brooklyn)***

Stage II reconstruction of the bridge began on February 2, 2004.

### ***Cross Bay Boulevard Bridge over Conduit Boulevard (Queens)***

Stage IV reconstruction of the bridge began on February 5, 2004.



Concrete Placement for the Cross Bay Boulevard Grid Deck.

### ***Anti-Icing***

In response to winter storm warnings, Division personnel applied anti-icing chemicals 6 times to the East River bridges beginning in the early morning of February 6, 2004. The East River bridge pedestrian walkways and the priority overpasses were monitored and cleaned as necessary, and icicle patrols were active through the weekend.

### ***Brooklyn Bridge***

On February 7, 2004, an accelerometer test was performed by the U.S. Army Corps of Engineers R & D Center on the Brooklyn Bridge as part of the pedestrian vibration study.



Studying Pedestrian Vibrations. (Credit: Bojidar Yanev)

### ***Andrews Avenue Bridge over LIRR (Queens)***

Effective February 9, 2004, the bridge was closed to traffic for rehabilitation, as agreed to by Community Board #5.

### ***Steinway Street Bridges over Grand Central Parkway (Queens)***

Stage II reconstruction of the bridges began on February 9, 2004.

#### ***Award***

On February 10, 2004, Chief Bridge Officer Henry Perahia was presented the Bridge Man of the Year award from the Association for Bridge Construction and Design in recognition of "outstanding career achievements", for "exhibiting leadership of the highest competence in maintaining and improving the historic bridges under his jurisdiction", and to recognize "his extraordinary leadership and his career long achievements". The award was presented to him by First Deputy Commissioner Judith Bergtraum on behalf of the Association's Directors.



Chief Bridge Officer Henry Perahia and Neal Bettigole, One of the Founders of the ABCD Northeast Region. First Deputy Commissioner Judith Bergtraum, Chief Bridge Officer Henry Perahia, and ABCD Vice President Dr. Khaled Mahmood.  
(Credit: Jagtar Khinda)

### ***Belt Parkway Bridge over Paerdegat Basin (Brooklyn)***

The emergency repair project on this bridge, which began on September 2, 2003, was substantially completed on February 17, 2004.



Director of Design-Build/Emergency Contracts Chris Sklavounakis and Beatriz Duran Observing the Demonstration Opening of the Movable Median Barrier.  
(Credit: Valeriya Remezova)

### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On February 21, 2004, Division ironworkers performed emergency repairs on the plant's drum, grizzly screen, and truck scale.



## CHRONOLOGY

### **Manhattan College Parkway Bridge, West 232<sup>nd</sup> Street Bridge, West 239<sup>th</sup> Street Bridge, and West 252<sup>nd</sup> Street Bridge over Henry Hudson Parkway (Bronx)**

A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of February 23, 2004.

#### **Anti-Icing**

On February 24, 2004, Division personnel applied anti-icing chemicals 3 times to the East River bridges.

### **Belt Parkway Bridge over Ocean Parkway (Brooklyn)**

The erection of the temporary bridge was completed at 12:15 AM on February 28, 2004, in less than 20 minutes. Eastbound Belt Parkway traffic was shifted to the temporary bridge the evening of March 23, 2004, and on the evening of March 25, 2004, westbound traffic was shifted to the former eastbound lanes.



Assembling the Temporary Bridge. Nose of the Temporary Bridge Nearly at the West Abutment.  
(Credit: Valeriya Remezova)



Temporary Belt Parkway Bridge.

### **Belt Parkway Bridge over Mill Basin (Brooklyn)**

Cleaning and painting of the bridge operator house began and was completed in February 2004.

## MARCH

### **18<sup>th</sup> Avenue Bridge over NYCT (Brooklyn)**

Stage I reconstruction of the bridge began on March 12, 2004.

### **Metropolitan Avenue Bridge over English Kills (Brooklyn)**

Stage I reconstruction of the bridge began on March 15, 2004.

## CHRONOLOGY



Looking East at the Demolition of the Bridge Operator House. Looking West at the Removal of the Northwest Grid Deck. Looking East at the Driving of a Test Pile.

### ***Anti-Icing***

On March 16 and 17, 2004, Division personnel applied 10,000 gallons (37 applications) of anti-icing chemicals to the East River bridges. In addition, the East River bridge pedestrian walkways were plowed, and the priority overpasses were de-iced. Crews made another 5 applications beginning on the evening of March 18, 2004.

### ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

Division engineers visited the fabrication facility in Alabama from March 16 through 18, 2004 to monitor the assembly of the bridge's control house and the positioning of the track and rack castings. They also observed the erection of the swing span.



Touching up the Painting of the Intermediate Floorbeams. Track and Rack Assembly on Rotary Table Prior to Tooth Cutting. Northwest Truss Section for the New Third Avenue Bridge Swing Span (Credit: Rahul Shah)



Engineers Rahul Shah & Daniel Hom in Alabama.

## CHRONOLOGY

### **Brooklyn-Queens Expressway (EB) over Cadman Plaza (Brooklyn)**

On March 28, 2004, an emergency inspection resulted in the issuance of a PIA safety flag for separation of brick cladding at the abutment. Division personnel made the area safe and removed two panels of brick fascia totaling 7,500 square feet. They then installed steel angles with anchor bolts to support the coping stones. The project was completed on the night of March 30, 2004.



Bricklayers Ignazio Trapani & Salvatore Romano on the Truck Platform Removing the Brick Façade. Cement Masons John Padovano & Thomas Valentino Removing Bricks.  
(Credit: Joseph Saverino)



Masonry Crew Removing the Bottom of the Brick Façade. Completed Safety Repair.  
(Credit: Joseph Saverino)

### **Queensboro Bridge**

March 30, 2004 marked the 95<sup>th</sup> anniversary of the opening of the bridge.



Queensboro Bridge at Sunset. (Credit: Peter Basich)



### APRIL

#### **Award**

In April 2004, the American Council of Engineering Companies of New York (formerly the New York Association of Consulting Engineers) selected the restoration of St. Felix Street for the Gold Award for the Metropolitan Region in its 2004 Engineering Excellence Awards. Founded in 1921, ACEC New York is the oldest continuing organization of professional consulting engineering firms in the United States. The Engineering Excellence Awards Program recognizes engineering achievements that demonstrate the highest degree of skill and ingenuity.

In January 1997, an eight inch water main burst beneath St. Felix Street between Hanson Place and Lafayette Street in Brooklyn. This break caused damage to a number of buildings, including partial wall collapses, building façade cracking, and stoop movement. Inspection revealed pervasive soil loss under the street bed over several blocks.

The B and D subway lines run below the street, along with numerous public and private utilities. The #2, #3, #4, and #5 subway lines and the Long Island Railroad run immediately adjacent to that area, as well. Any of these infrastructure elements could have caused or contributed to the existing soil loss.

Preliminary evidence pointed to an improper backfill created during the original subway construction in 1916. Soil borings and test pits suggested that timber was left in the ground causing huge voids below the street's surface. Over the years, the soil shifted into the voids causing water main damages.

Consequently, on February 19, 1997, in the interest of public safety, the Agency declared the situation to be an emergency, pursuant to Section 315 of the New York City Charter. Division engineers from the Design-Build section oversaw the restoration project.

Soil stabilization, drilling and grouting were completed in December 1997. Façade work began in March 1999. In the spring of 2000, the Landmarks Preservation Commission requested the full replacement of all windows for all of the houses.

These repairs were substantially completed on November 15, 2001. All remaining punchlist items were completed as of the end of April 2002. The street was stabilized and its houses restored to early 20th century landmark condition. The project provided homeowners with new facades, straight stoops, areaways and trees, lampposts, stamped colored concrete sidewalks, custom-made windows and cornices, and numerous other exterior and interior repairs.



Newly Restored St. Felix Street

#### **Award**

In April 2004, the American Council of Engineering Companies of New York selected the reconstruction of the Guy Brewer Bridge over Belt Parkway for the Silver Award for the Metropolitan Region in its 2004 Engineering Excellence Awards.

The Guy Brewer Boulevard Bridge was built in 1937. Because a recent inspection revealed significant deterioration, DOT decided to replace the entire bridge. The old two span bridge

## CHRONOLOGY

consisted of reinforced concrete arch rigid frames with variable frame slabs. The new bridge consists of four spans with three new steel piers, a concrete grid deck, and concrete parapet walls with protective bridge fencing. The concrete abutments, approach slabs, adjacent curb, sidewalk, roadway and guiderails were replaced. New traffic signals, traffic regulatory signs, street lighting and thermoplastic stripping were installed. The utilities, including the water main, gas main, telephone cable and Fire Department cable were installed across the Belt Parkway under the bridge deck. Approximately 300 new trees will be planted in spring 2003 as part of the project's landscaping improvements. To improve safety, the safety barriers were rebuilt on the Belt Parkway adjacent to the bridge piers in the median areas. New directional overhead signs were installed across the Belt Parkway to guide motorists.

The Division reconstructed this bridge in a single stage with full bridge closure. This reduced the expected construction time from 24 months to 12 months. However, pedestrian access across the Belt Parkway was maintained at all times during construction using a temporary pedestrian bridge.

Normal travel lanes on the Belt Parkway were restored on June 28, 2002, resulting in the completion of Phases II and III of this project 57 days ahead of schedule. On November 1, 2002, the bridge was re-opened to both vehicular and pedestrian traffic 104 days ahead of schedule. The contractor earned the maximum incentive for the completion of this milestone. Removal of the temporary pedestrian bridge at Guy Brewer Boulevard was completed on November 14, 2002.

The \$11.8 million reconstruction of this bridge, which began on July 9, 2001, was substantially completed on December 12, 2002.



Demolishing the Old Guy Brewer Boulevard Bridge in March 2002

The New Bridge

### ***2<sup>nd</sup> Avenue Bridge over LIRR Bay Ridge (Brooklyn)***

Stage II reconstruction of the bridge began on April 1, 2004.

### ***Congress Street Bridge over Brooklyn-Queens Expressway (Brooklyn)***

On April 6, 2004, a truck traveling westbound in the right lane hit the overpass, cracking the web and the bottom flange of a stringer. Division painters removed paint from the damaged areas on the night of April 7, and Division crews began emergency repairs of the web and bottom flange on the night of April 8. Repairs were completed on the night of April 9, 2004.

### ***Cross Island Parkway Bridge over Fort Totten Entrance (Queens)***

The emergency deck repairs to correct a through-hole in the southbound right lane, which began on the night of April 7, 2004, were completed by Division personnel on the night of April 13, 2004.

### ***East 3<sup>rd</sup> Street Bridge over LIRR (Brooklyn)***

Stage II reconstruction of the bridge began on April 22, 2004.

### ***Third Annual “Take Our Children to Work Day”***

On April 22, 2004, as part of the Agency’s third annual “Take Our Children to Work Day,” Division personnel hosted children at several trades’ shops, the Brooklyn Bridge, and Division headquarters at 2 Rector Street. The children were treated to demonstrations by the ironworkers, oilers, electricians, and painters, a guided tour of the bridge, a video about the longest bridge in Japan, and a short lecture by Dr. Yanev on the Brooklyn Bridge.



Children at the Ironworker Shop. Chief Bridge Officer Henry Perahia Welcoming the Children.  
(Credit: Peter Basich)



Demonstration by Bridge Repairer & Riveter David Collins at the Ironworker Shop. (Credit: Peter Basich)



Future Ironworkers Samantha Quon and Corey Garcia at Work. (Credit: Peter Basich)



## CHRONOLOGY



Children With Electrician John Bayliss, & Oilers Samuel Garcia and Thomas McAuliffe.  
Oiler Samuel Garcia Demonstrating Equipment. (Credit: Peter Basich)



Painting Demonstration by Bridge Painter Drago Milin. Children on the Brooklyn Bridge With Engineer Jagtar Khinda (6<sup>th</sup> From Right). (Credit: Peter Basich)



Executive Director of Inspections and Bridge Management Dr. Bojidar Yanev Lecturing. Deputy Director of In-House Painting Earlene Powell (Center) With the Children. (Credit: Michele N. Vulcan)



Chief Bridge Officer Henry Perahia With the Children. (Credit: Michele N. Vulcan)

### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On April 25, 2004, Division ironworkers repaired sections of the plant's crusher and smokestack.

### ***Seeley Street Bridge over Prospect Avenue, Congress Street Bridge over Brooklyn-Queens Expressway, and Lincoln Road Bridge over BMT Subway (Brooklyn)***

A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of April 26, 2004.



Congress Street Bridge in the 1990's.

### ***Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)***

On April 27, 2004, Bridge Operations personnel hosted kindergarten students from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.

### ***FDR Drive Promenade at the Brearley School (Manhattan)***

Cleaning and painting of the promenade began and was completed in April 2004.

### ***Promenade over FDR Drive from East 79<sup>th</sup> to East 91<sup>st</sup> Streets (Manhattan)***

Cleaning and painting of the railings, which began in November 2003, was completed in April 2004.

## **MAY**

### ***Five Borough Bike Tour***

In preparation for the Five Borough Bike Tour on May 2, 2004, Division personnel performed mechanical sweeping along the route on the night before the event, including the Queensboro, Pulaski, Madison Avenue, and 145<sup>th</sup> Street Bridges, and performed asphalt repairs as necessary. In addition, they temporarily placed four variable message boards along the route on April 28, and removed them on May 3.

### ***Brooklyn-Queens Expressway (WB) over Furman Street & Brooklyn-Queens Expressway (EB) over Brooklyn-Queens Expressway (WB) a.k.a. BQE Triple Cantilever Joints (Brooklyn)***

A Notice to Proceed for the reconstruction of these joints was issued to the contractor with a start date of May 3, 2004.

### ***Carroll, Union, and 9<sup>th</sup> Street Bridges over the Gowanus Canal (Brooklyn)***

On May 4 and 5, 2004, and again on May 11 and 12, 2004, Bridge Operations personnel hosted kindergarten students from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.





Students on the Bridge. Bridge Operator-in-Charge Leonard Thomas Answering Questions. Mr. Thomas has Been With DOT Since 1975. (Credit: Keith Burrowes)

### ***Broadway Bridge over Harlem River (Bronx/Manhattan)***

The component rehabilitation of this bridge was substantially completed on May 12, 2004.



Worn Out Finger Joints on the Bridge. New Finger Joints. (Credit: Nasir Khanzada)



Broadway Bridge. (Credit: Vadim Sokolovsky)

### ***7th Avenue Bridge over NYCT (Brooklyn)***

The reconstruction of this bridge, which began on April 22, 2002, was substantially completed on May 17, 2004.



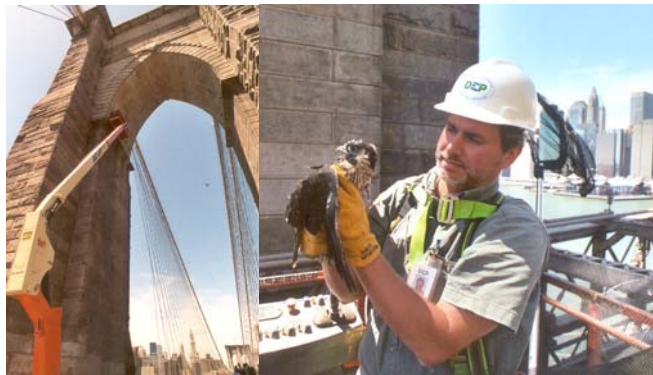
The New 7<sup>th</sup> Avenue Bridge. (Credit: Jiaji Shi)

### **Cross Bay Boulevard Bridge over Conduit Boulevard (Queens)**

Stage V reconstruction of the bridge began on May 18, 2004.

### **Brooklyn Bridge**

On May 20, 2004, Division personnel assisted DEP Director of Wildlife Studies Christopher Nadareski with access to the Brooklyn tower of the Brooklyn Bridge for the identification of 5-week-old falcon chicks. Southeastern New York State has 24 pairs of falcons, of which New York City hosts 12 on its bridges and buildings. Mr. Nadareski inspects and bands the City's new chicks every spring.



Lifting the Biologist to the Nest. Christopher A. Nadareski & Falcon Hatchling. (Credit: Peter Basich)



Falcon Hatchling. (Credit: Hany Soliman) Parent Falcon Observing the Banding. (Credit: Peter Basich)

### **14<sup>th</sup> Avenue Bridge over LIRR Bay Ridge (Brooklyn)**

The reconstruction of this bridge, which began on December 2, 2002, was substantially completed on May 21, 2004.



The New 14th Avenue Bridge. (Credit: Jiaji Shi)

### ***West 207<sup>th</sup> Street/West Fordham Road Bridge over Harlem River (Bronx/Manhattan) (a.k.a. University Heights Bridge)***

Due to heat expansion, the bridge was unable to close after opening for a barge carrying a crane bound for the Third Avenue Bridge project at 2:55 PM on May 25, 2004. It was returned to service at 7:10 PM that night.

### ***Williamsburg Bridge***

Bottom chord repairs on the bridge's Manhattan end spans, which began on October 22, 2003, were completed on May 27, 2004.

### ***Park Avenue Tunnel under 34<sup>th</sup> Street (Manhattan)***

Cleaning and painting of the tunnel began and was completed in May 2004.

## ***JUNE***

### ***Award***

In June 2004, the Metro New York/New Jersey Chapter of the Construction Management Association of America selected the Reconstruction of the North Roadways of the Williamsburg Bridge (Contract #7) as a "Project of the Year."

The reconstruction work on the north roadways of the Williamsburg Bridge was a mirror image of the completed reconstruction work on the south roadways. It included the complete replacement of the main bridge deck with a steel orthotropic deck system and the construction of new structures on both the Manhattan and Brooklyn approaches. This \$202.8 million contract included provisions for financial incentives to ensure that the project was completed within the scheduled roadway closure period, thereby minimizing the impact the closures had on the public.

Work on the north roadway substructure (pile foundations, piers and columns), began in early 2000. All four lanes that constitute the north roadways of the bridge were closed to traffic on January 29, 2001 for demolition and reconstruction.

The two lanes on the north outer roadway were completed and reopened to traffic on December 10, 2001, 50 days ahead of schedule. This allowed four travel lanes into Manhattan during the morning rush hour, and four lanes into Brooklyn during the afternoon rush hour. In addition, Manhattan-bound truck traffic was restored to the two outer roadway lanes, decreasing the demand at both the Manhattan Bridge and the Queens Midtown Tunnel. The contractor earned \$100,000 per day (for a maximum of 50 days) in incentive payments for early completion.

The north outer roadway reopening was complemented by the State Department of Transportation's early reopening of the Marcy Avenue connector ramp from the Brooklyn-Queens



## CHRONOLOGY

Expressway to the Williamsburg Bridge. This is the first time in the State's history that a segmented highway bridge was built using technology suited to situations requiring rapid construction with minimal traffic and community impacts.

The north inner roadway was re-opened to traffic on June 10, 2002, 50 days ahead of schedule, thus earning the contractor a \$5 million incentive. Mayor Bloomberg and Commissioner Weinshall presided over the opening ceremony.

During construction, the Department maintained pedestrian/bike access across the bridge. The south footpath/bikeway remained open at all times. During Contract #7, DOT constructed a new Manhattan approach ramp and north footpath/bikeway. The new footpath/bikeway has one common access point for pedestrians and cyclists in Manhattan at Clinton Street, which leads to a crossover before the main span of the bridge to enable people to access either the north or south paths. The north path is open to both pedestrians and bicyclists and leads to an access point at Washington Park in Brooklyn. The south path is dedicated to pedestrians and leads to an access point at Bedford Avenue. Completion of the new north walkway also means that, for the first time ever, the bridge is accessible to wheelchair users and meets the requirements of the Americans with Disabilities Act.

Contract #7 was substantially completed on December 12, 2002. The newly completed pedestrian walkway opened to traffic at 3:00 PM on this day.



Williamsburg Bridge

### ***President Ronald Reagan Tribute***

The American flags on the Brooklyn Bridge and at the Ironworker Shop at 59 Adams Street in Brooklyn were lowered to half-mast on June 7, 2004 in tribute to former President Ronald Reagan, who died at age 93 on June 5, 2004. Mr. Reagan served as the 40th president of the United States from 1981 to 1989. The flags remained at half-mast until July 2, 2004.



President Ronald Reagan. Brooklyn Bridge Flag at Half-Mast at Dusk. (Flag Credit: Michele N. Vulcan)

### ***Belt Parkway Bridge over Mill Basin (Brooklyn)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 2:12 PM on June 9, 2004. It was returned to service at 6:50 AM on June 10, 2004.

### ***Hamilton Avenue Bridge over Gowanus Canal (Brooklyn)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 2:15 PM on June 9, 2004. It was returned to service at 2:15 AM on June 10, 2004.

### ***Williamsburg Bridge***

Bottom chord repairs on the bridge's Brooklyn end spans, which began on January 26, 2004, were completed on June 14, 2004.

### ***West 207<sup>th</sup> Street/West Fordham Road Bridge over Harlem River (Bronx/Manhattan) (a.k.a. University Heights Bridge)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 10:57 A.M. on June 16, 2004. It was returned to service at 12:15 AM the following night.

### ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

On June 18, 2004, the new swing span was transferred from land onto an ocean barge at the Port of Chickasaw in Mobile, Alabama.



Transfer of New Third Avenue Swing Span From Land to Ocean Barge.

### ***Olympic Torch Relay***

As part of the Olympic flame's 46,800-mile journey before the start of the 2004 Summer Games, Derek Roberts, DOT's Director of Mail Room and Store Room Services, carried the torch on the Brooklyn Bridge on June 19, 2004. At 19, Mr. Roberts was selected for the United States Olympic Track Team in 1980. Unfortunately, he was unable to compete due to the United States boycott of the Moscow Olympics that year. Almost a quarter of a century later, as one of the 140 New York City torchbearers, he finally had the chance to be a part of the Olympic Games. Mr. Roberts has worked for the city for two decades and is currently a pastor at the Soul Tabernacle Church in the South Bronx.



Derek Roberts Carrying the Olympic Torch.  
(Credit: Cornelius Savage)

### ***BQE Eastbound over Cadman Plaza (Brooklyn)***

The concrete pothole and deck repair project, which began in early June 2004, was completed on the night of June 23, 2004, approximately two weeks ahead of schedule.

### ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

On June 27, 2004, the ocean barge carrying the new swing span departed the Port of Chickasaw in Mobile, Alabama.



New Swing Span Leaving Mobile, Alabama

### ***Battery Place over FDR Drive (Manhattan)***

Cleaning and painting of the railings began and was completed in June 2004.

### ***Belt Parkway Bridge over Bay Parkway (Brooklyn)***

Cleaning and painting of the bridge, which began in April 2004, was completed in June 2004.

### ***81<sup>st</sup> Street Pedestrian Bridge over the Belt Parkway (Brooklyn)***

Cleaning and painting of the bridge began and was completed in June 2004.

## ***JULY***

### ***Manhattan Bridge***

The new north bikeway was opened to the public at 12:30 PM on July 1, 2004.





Testing the Lights Prior to the Opening of the New North Bikeway.

## ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

The Manhattan half of the old swing span was removed on June 30, 2004, and the Bronx half was removed on July 1, 2004. The removal operation involved a 907 ton supercrane, six tugboats, and 13 barges.



Old Third Avenue Swing Span on Left, New Temporary Bridge on Right. Removing the Manhattan Half of the Old Swing Span. (Credit: Daniel Horn)

## ***Roosevelt Avenue Bridge over Van Wyck Expressway (Queens)***

The concrete deck repair project, which began in June 2004, was completed by Division crews on July 8, 2004.



Division Crew Starting Concrete Deck Repairs. (Credit: Anthony Napolitano)



Division Crew Continuing Concrete Deck Repairs. (Credit: Anthony Napolitano)



Division Crew Completing Concrete Deck Repairs. (Credit: Anthony Napolitano)

### ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

On July 8, 2004, the ocean barge carrying the new swing span arrived in New York City.



Swing Span Arrival in NYC. Barge Arrival at the Bridge Site. (Site Credit: Bojidar Yanev)

### ***Cross Bay Boulevard Bridge over Conduit Boulevard (Queens)***

The bridge was re-opened to traffic on July 14, 2004, some two months ahead of schedule.

### ***145<sup>TH</sup> Street Bridge over Harlem River (Bronx/Manhattan)***

A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of July 15, 2004.

### ***Glenmore Avenue Bridge over the LIRR (Brooklyn)***

The reconstruction of this bridge, which began on January 14, 2003, was substantially completed on July 16, 2004.



New Glenmore Avenue Bridge

### ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

On July 17 and 18, 2004, the new swing span was transferred from the 400-foot ocean barge to two smaller working barges moored along the Manhattan wharf.



Transfer of the New Span From the Ocean to the Working Barges. (Credit: Daniel Hom)

### ***Belt Parkway Bridge over Ocean Parkway (Brooklyn)***

The temporary bridge was removed during the early morning hours of July 20, 2004.

### ***Pitkin Avenue Bridge over LIRR (Brooklyn)***

Stage I reconstruction of the bridge began on July 23, 2004.

### ***Steinway Street Bridges over Grand Central Parkway WB & EB (Brooklyn-Queens Expressway) (Queens)***

On July 23, 2004, during the demolition process to remove the first one-third of the existing bridge in preparation for installing the new bridge components, a portion of the existing north bridge collapsed onto the westbound roadway of the Grand Central Parkway. An ongoing forensic investigation is in progress to study and determine the cause of the sudden collapse of the north bridge.

### ***East 241<sup>st</sup> Street Bridge over the Bronx River Parkway and Metro North (Bronx)***

Cleaning and painting of the bridge was completed on July 27, 2004, nine months ahead of schedule.



Detail of Freshly Painted East 241<sup>st</sup> Street Bridge.

### ***236<sup>th</sup> Street Pedestrian Bridge over Henry Hudson Parkway (Bronx)***

Cleaning and painting of the bridge, which began in June 2004, was completed in July 2004.



### AUGUST

#### ***Roosevelt Island Bridge over East River/East Channel (Manhattan/Queens)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 1 PM on August 4, 2004. It was returned to service at 7:07 PM that night.

#### ***Hamilton Avenue Bridge over Gowanus Canal (Brooklyn)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 5:45 PM on August 10, 2004. It was returned to service at 8 PM that night.

#### ***52<sup>nd</sup> Street Bridge over LIRR Bay Ridge (Brooklyn)***

Stage II reconstruction of the bridge began on August 13, 2004.



Installing Stay-in-Place Forms on the New Bridge.

#### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On August 14, 2004 Division ironworkers patched holes on the plant's bin and chute, installed plates on the crusher, and repaired broken welds on the flapper.

#### ***Atlantic Avenue Bridges (EB & WB) over East New York Avenue (Brooklyn)***

The reconstruction of these bridges, which began on September 9, 2002, was substantially completed on August 20, 2004.



Southbound East New York Avenue.

#### ***West 232<sup>nd</sup> Street Bridge over Henry Hudson Parkway (Bronx)***

The bridge re-opened to traffic on August 20, 2004, some three months ahead of schedule.

#### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On August 28, 2004, Division ironworkers performed repairs to the plant's drum, tension bars, and silo.

### ***Shore Road Bridge over Hutchinson River (Bronx) (a.k.a. Pelham Bay Bridge)***

On August 31, 2004, Division ironworkers replaced the bridge's northwest semaphore gate, which had been struck by a vehicle on August 29, 2004.

## **SEPTEMBER**

### ***Brooklyn-Queens Expressway near Gold and Nassau Streets (Brooklyn)***

In August 2004, at the request of the Department of Parks & Recreation, Division personnel began to install metal shielding below the expansion joints to prevent debris from falling into the Golconda Playground. This project was completed on September 3, 2004.

### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On September 4, 2004, Division ironworkers performed repairs to the plates inside the plant's mixing drum.

### ***Hamilton Avenue Bridge over Gowanus Canal (Brooklyn)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 4:45 PM on September 7, 2004. It was returned to service at 8 PM that night.

### ***Fresh Meadow Lane Pedestrian Bridge over Long Island Expressway (Queens) (NYS)***

On September 10, 2004, Division personnel completed the installation of pedestrian bridge landing fences at the State-owned Fresh Meadow Lane Bridge over the Long Island Expressway. The slalom fencing at the bottom of the exit ramps, which forces pedestrians, cyclists, skateboarders, and people using wheelchairs to travel in a zigzag pattern, is part of a citywide safety pedestrian initiative by Mayor Bloomberg and Commissioner Weinshall to make crossing pedestrian bridges safer citywide. Similar fences were installed at seven other pedestrian bridges over the Long Island Expressway, and at two pedestrian bridges over the Grand Central Parkway.



Bridge Ramp Before and After Installing the Fencing. (Credit: Hany Soliman)

### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On Patriot Day, September 11, 2004, Division ironworkers performed repairs to the plant's plates and mixing drum.

### ***Patriot Day Tribute***

The Brooklyn Bridge flags flew at half-mast on September 11, 2004 to commemorate Patriot Day.



### ***Cortelyou Road Bridge over NYCT (Brooklyn)***

Stage II reconstruction of the bridge began on September 13, 2004.

### ***Knapp Street Bridge over Belt Parkway (Brooklyn)***

At about 8 AM on September 20, 2004, the NYPD reported damage to the bridge due to a vehicular accident. The responding engineer arrived to find that one of the vehicles involved had hit and displaced the railing atop the wing wall, and several masonry blocks had fallen onto the embankment. Division crews and painters cut and removed the damaged rail and fence, installed temporary barriers, and made the area safe. All work was completed by 8:30 PM.



Division Personnel Inspecting the Damage. (Credit: Bala Nair)

### ***2<sup>nd</sup> Avenue Bridge over LIRR Bay Ridge (Brooklyn)***

The bridge's deck concrete was placed on September 21, 2004.



Placing the Deck Concrete.

### ***Cross Bay Boulevard Bridge over Conduit Boulevard (Queens)***

The reconstruction of this bridge, which began on July 15, 2002, was substantially completed on September 22, 2004.



Looking South at the New Cross Bay Boulevard Bridge.

### **Award**

On September 30, 2004, the Department was presented the 2004 Excellence in Leadership - Owner of the Year award from the New York Tri-State Metro Chapter of the Design Build Institute of America. The Institute advocates and advances single source project delivery within the design and construction community. Members include practitioners from all project phases, plus public- and private-sector project owners. The organization was founded in 1993.



Deputy Chief Engineer Albert Novak, Director of Design-Build/Emergency Contracts Chris Sklavounakis, Chief Bridge Officer Henry Perahia, and Engineer-in-Charge Valeriya Remezova.

### **17<sup>th</sup> Avenue Pedestrian Bridge over Belt Parkway (Brooklyn)**

Cleaning and painting of the bridge, which began in June 2004, was completed in September 2004.

## **OCTOBER**

### **Hamilton Avenue Asphalt Plant (Brooklyn)**

On October 9, 2004, Division ironworkers welded cracks and installed plates in the plant's mixing drum.

### **Brooklyn Bridge**

The project to mill and resurface the Brooklyn Bridge entrance ramps, a joint effort of the Division of Bridges and the Division of Roadway Repair and Maintenance, which began on September 25, 2004, was completed on the weekend of October 9 and 10, 2004.

### ***Williamsburg Bridge***

Top chord repairs of the bridge's north truss, which began on December 23, 2003, were completed on October 15, 2004.



Looking East at the North Truss Top Chord.

### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On October 15, 16, and 17, 2004, Division ironworkers performed extensive repairs to the plant's mixing drum, paddles, and shielding.

### ***Sutter Avenue Bridge over the LIRR (Brooklyn)***

The reconstruction of this bridge, which began on January 14, 2003, was substantially completed on October 19, 2004.



New Sutter Avenue Bridge.

### ***East 3<sup>rd</sup> Street Bridge over LIRR (Brooklyn)***

The reconstruction of this bridge, which began on May 5, 2003, was substantially completed on October 25, 2004.

### ***Pulaski Bridge over Newtown Creek (Brooklyn/Manhattan)***

On October 27, 2004, the Division participated in a 50<sup>th</sup> year anniversary celebration for the bridge. The event was organized by the Polish American Congress. The speakers at the event were Brooklyn Borough President Marty Markowitz, Assemblymember Joseph Lentol, and Chief Bridge Officer Henry Perahia.



Vice-Consul of the Republic of Poland in New York Marek Skulimowski; Polish & Slavic Center President Bozena Kaminski; Chief Bridge Officer Henry Perahia; Assemblymember Joseph Lentol; Polish American Congress President Frank Milewski; Brooklyn Borough President Marty Markowitz; Brooklyn Borough Commissioner Lori Ardito; Polish American Congress Chairperson Chet Szarejko; and Polish American Congress Secretary Richard Brzozowski. (Credit: Kathryn Kirk) Pulaski Bridge Viewed From the East Side in 1992.

## ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

On October 29, 2004, the new swing span was floated into place. It is estimated that this span weighed approximately 4.8 million pounds. Six tugboats pushed the span, which was supported on two barges, to within 2 inches of the center pier and bearings. Personnel worked with the rising tide and hydraulic jacks to position and then set the span. After positioning, and working with the now falling tide, 480,000 gallons of water were pumped into ballast tanks to sink the barges and lower the new span truss onto its bearings.



Chief Bridge Officer Henry Perahia Observing the Float-In. (Credit: Daniel Hom). Engineer-in-Charge Daniel Hom, Executive Assistant Yanina Goldfeld, Svetlana Melnichenko, and Engineer Wen-Yang Tsay at the Float-in.





Engineer-in-Charge Daniel Hom and Deputy Chief Engineer Russell Holcomb at the Float-in. New Swing Span After the Float-in. (Span Credit: Keith Burrowes)

### ***Manhattan College Parkway Bridge over Henry Hudson Parkway (Bronx)***

The bridge re-opened to traffic on October 29, 2004, some six weeks ahead of schedule.

### ***Grand Avenue Bridge over Long Island Expressway (Queens)***

Cleaning and painting of the bridge, which began in September 2003, was completed in October 2004.

### ***Hamilton Place Bridge over Long Island Expressway (Queens)***

Cleaning and painting of the bridge, which began in August 2003, was completed in October 2004.

### ***69<sup>th</sup> Street Bridge over Long Island Expressway (Queens)***

Cleaning and painting of the bridge, which began in September 2003, was completed in October 2004.

## **NOVEMBER**

### ***Award***

In November 2004, *Roads & Bridges Magazine* selected the current project on the Manhattan Bridge as the second place finisher in its annual selection of the country's top 10 bridge projects. Scheduled to begin in January 2005 and to be completed in 2008, Contract#11 will include the following improvements: reconstruction of the lower roadway, rehabilitation of the anchorages, rehabilitation of the travelers, installation of new lighting on the north upper roadway and lower roadway, and upgrading of the lower roadway lane control signals. The work on the lower roadway, which will include the installation of 200,000 square feet of new bridge decking, is scheduled to begin in August 2006 and be completed in July 2007.

### ***Award***

In addition to the award for the Manhattan Bridge project, in November 2004, *Roads & Bridges Magazine* selected the replacement of the Belt Parkway Bridge over Ocean Parkway as the eighth place finisher in its annual selection of the country's top 10 bridge projects. This project also involved the reconfiguration of the interchange, roadway work on approximately a mile of the Belt Parkway, and roadway and associated landscaping work on Ocean Parkway from approximately Avenue Z to West End Avenue. The new bridge utilized many precast elements, including deck units, t-wall abutments, cap beams, parapets, and approach slabs.



### ***Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)***

On November 5, 2004, Bridge Operations personnel hosted two second grade classes from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.



Deputy Director of Bridge & Tunnel Operations Keith Burrowes (Kneeling) & Students on the Carroll Street Bridge.

### ***New York City Marathon***

In preparation for the Marathon on November 7, 2004, Division personnel inspected and cleaned the Pulaski, Madison Avenue, and Willis Avenue Bridges, and painters searched for and removed all graffiti along the race route. On the night before the race, all bridges along the route were swept. Division crews installed temporary barriers and barrels on the Queensboro Bridge approaches. Standard traffic configurations were restored before the next morning rush hour.



Great Britain's Paula Radcliffe (Wearing #F111), Winner of the 2004 NYC Marathon, Crossing the Willis Avenue Bridge. Ms. Radcliffe Won in 2 Hours, 23 Minutes, and 10 Seconds, and Was the First British Woman to Win Since Liz McColgan in 1991. Leaders in the Wheelchair Race on the Willis Avenue Bridge. (Credit: Russell Holcomb)

### ***Brooklyn Bridge***

On November 11, 2004, Mayor Michael Bloomberg and Governor George Pataki held a ceremony on the Brooklyn Bridge walkway to publicize the City's bid to host the 2012 Olympics. Supporters waved white "NYC 2012" pennants, schoolchildren held flags from 60 countries, and former Olympians and Paralympians wore their medals. The mistress of ceremonies was the 1960 and 1964 Olympic swimming gold medalist and NYC2012 Senior Advisor for Sports Donna de Varona. The attending athletes included the 2004 Olympic 100-meter gold medalist Justin Gatlin, a Brooklyn native, as well as Jason Read, a 2004 Olympic rowing gold medalist and volunteer firefighter from New Jersey. Mr. Read is a recipient of an Arête Honorary Lifetime Achievement Award for Sport for his response at Ground Zero following the World Trade Center attacks on September 11, 2001. Division personnel provided electrical assistance and temporarily removed several benches.



NYC Olympic Bid Supporters Waving Pennants. Governor George Pataki, 2004 Gold Medalist Jason Read (Holding Medal), 1960 & 1964 Gold Medalist Donna de Varona (in Red Coat), and 2004 Gold Medalist Justin Gatlin (Speaking). (Credit: Eric Thompson)



Donna de Varona, Justin Gatlin, and Mayor Michael Bloomberg. Schoolchildren Holding Banner and Pennants. (Credit: Eric Thompson)

## ***Liberty Avenue Bridge over the LIRR (Brooklyn)***

Effective November 11, 2004, the bridge was closed to traffic for rehabilitation, as agreed to by the community.

## ***Congress Street Bridge over Brooklyn-Queens Expressway (Brooklyn)***

The contractor removed the structural steel of the old bridge on the night of November 12, 2004.



Structural Steel Removal on the Congress Street Bridge. (Credit: Carlos Ramirez)

## ***Belt Parkway Bridge over Mill Basin (Brooklyn)***

On November 16, 2004, Division ironworkers replaced the bridge's northeast warning gate and housing, which had been struck by a vehicle on November 12, 2004.

### ***Williamsburg Bridge***

Top chord repairs of the bridge's south truss, which began on December 15, 2003, were completed on November 19, 2004.

### ***Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)***

On November 22, 2004, Bridge Operations personnel hosted first grade children from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.



Students on the Carroll Street Bridge Watching the Union Street Bridge Open. (Credit: Keith Burrowes)

### ***Madison Avenue Bridge over Harlem River (Bronx/Manhattan)***

Cleaning and painting of the bridge was substantially completed on November 23, 2004.



Freshly Painted Madison Avenue Bridge.

### ***Andrews Avenue Bridge over LIRR (Queens)***

The bridge was re-opened to traffic on November 24, 2004.

### ***Washington Bridge over Harlem River (Bronx/Manhattan)***

Cleaning and painting of the bridge was substantially completed on November 24, 2004.





Installing Safety Netting During the Painting of the Washington Bridge.  
(Credit: Vadim Sokolovsky)

## **78<sup>th</sup> Annual Macy's Thanksgiving Day Parade**

Division engineers reviewed and approved the design specifications of three new large balloons to be introduced in the parade, as follows: Sponge Bob, M&M, and Chicken Little. A balloon is classified as large if it is larger than 5,000 cubic feet. However, the balloons in the parade cannot be taller than 70 feet, wider than 40 feet, or longer than 78 feet.

On November 25, Chief Bridge Officer Henry Perahia, Deputy Chief Engineer Kamal Kishore, Director of Engineering Review Abul Hossain and Mahabal Shah, as well as three consultants, were positioned at various locations along the parade route to ensure that the balloons were flown within the prescribed requirements for the wind conditions at that site. An estimated 2.5 million spectators watched the parade in 64 degree weather. Wind speeds remained between 7 and 17 miles per hour.



New Sponge Bob. (Credit: Mahabal Shah) New M&M. (Credit: Kamal Kishore)  
New Chicken Little. (Credit: Mahabal Shah)



Lady Liberty Float & Charlie Brown. (Credit: Kamal Kishore)  
Kermit. (Credit: Mahabal Shah)



Assistant Commissioner for Special Events Evan Korn, DOT Commissioner Iris Weinshall; First Deputy Commissioner Judith Bergtraum; Agency General Counsel Philip Damashek; Chief Bridge Officer Henry Perahia; Deputy Chief Engineer Kamal Kishore (obscured); and Mahabal Shah.  
Director of Engineering Review Abul Hossain and George Jarvis.  
(Credit: Kamal Kishore)

### ***Officer William Rivera Tribute***

The American flag on the Brooklyn Bridge was lowered to half-mast by Division painters on November 26, 2004 in tribute to Police Officer William Rivera, 35, who died on November 24, 2004. Officer Rivera, a 12 year veteran of the NYPD, was seriously injured on October 2, 2004, when he fell off a rooftop while chasing a robbery suspect. The flag remained at half-mast until November 29, 2004.

### ***Greenpoint Avenue Bridge over Newton Creek (Brooklyn/Queens)***

Cleaning and painting of the bridge, which began on August 1, 2003, was completed in November 2004.



Bridge Painter Julio Perez at the Greenpoint Avenue Bridge. (Credit: Earlene Powell)

### ***5<sup>th</sup> Avenue Bridge over Prospect Expressway (Brooklyn)***

Cleaning and painting of the bridge, which began in October 2004, was completed in November 2004.



## DECEMBER

### Award

In December 2004, *New York Construction Magazine* selected the component rehabilitation of Riverside Drive over West 96<sup>th</sup> Street for an Award of Merit as one of the best bridge projects of 2004. The award recognizes the contribution of key team members and the innovative solutions to a project's challenges. This \$4.7 million project rehabilitated the corroded structural steel hidden within the granite stone masonry of the 1,110 square foot three span steel structure. Other improvements included the installation of new sidewalks, curbs, and bridge railings, as well as concrete sidewalk barriers to protect the public from vehicular traffic. This project, which began in April 2001, was substantially completed on June 26, 2003.



View of the Bridge Under Construction Showing the Marked Granite Stones to be Reinstalled. Newly Installed Structural Steel Members Along the East Sidewalk. View of the New Structural Steel Fascia Girder Being Installed.



Newly Installed Structural Steel Floor Beams Along the East Sidewalk. Completed Pedestrian Concrete Barrier. Looking East from West 96<sup>th</sup> Street at the Newly Rehabilitated Bridge.

### ***Gun Hill Road Bridge over Metro North RR (Bronx)***

A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of December 1, 2004.

### ***Firefighter Christian Philip Engeldrum Tribute***

The American flag on the Brooklyn Bridge was lowered to half-mast by Division painters on December 2, 2004 in tribute to Firefighter Christian Philip Engeldrum of Ladder Company 61 in the Bronx, who was killed in action while serving in Iraq. Mr. Engeldrum was the first New York City employee to die on active military duty in the war. Army National Guard Sergeant Engeldrum was a 5 ½ year veteran of the New York City Fire Department.

Mr. Engeldrum, 39, began his career in with the City of New York as a New York City Police Officer assigned to the 47<sup>th</sup> Precinct. After successfully completing the New York City Fire Academy in 1999, he was assigned to Engine Company 89 in the Bronx. Firefighter Engeldrum also served in Engine Company 58 in Manhattan and was most recently assigned to Ladder Company 61 in the Bronx. Engeldrum received one FDNY unit citation on July 15, 2000, as a result of his company's successful rescue of two civilians at a fire. The flag remained at half-mast until November 29, 2004. The flag remained at half-mast until December 13, 2004.

### ***Belt Parkway Bridge over Ocean Parkway (Brooklyn)***

The reconstruction of this bridge, which began on September 12, 2002, was substantially completed on December 3, 2004.



New Belt Parkway Bridge.

### ***Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)***

On December 3, 2004, Bridge Operations personnel hosted first grade children from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.



Bridge Operator Mary Harrigan at the Union Street Bridge. (Credit: Adal Maldonado)

### ***Westchester Avenue Bridge over Hutchinson River Parkway (Bronx)***

The construction and installation of the vehicle height sensor system on the bridge was substantially completed on December 3, 2004.



Overheight Sensor on the Northbound Hutchinson River Parkway. Gantry With an Exit Variable Message Sign on the Northbound Hutchinson River Parkway. (Credit: Roly Parroco)

### ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

The new swing span was opened to two lanes of traffic in the morning hours on December 6, 2004.

### ***Seeley Street Bridge over Prospect Avenue (Brooklyn)***

The deteriorated stairs of this bridge had become a possible hazard to pedestrians. Repairs were designed that involved the building of wooden steps and their installation by Division carpenters over the existing concrete ones. Division ironworkers fabricated steel tread plates, and applied a spray-on non-skid surface. Division engineers supervised the job to ensure compliance with the design standards and made field changes as required. The project to repair the stairs, which began on October 26, 2004, was completed by Division personnel on December 9, 2004.



Seeley Street Bridge Stairs. (Credit: Hany Soliman)

### ***Cortelyou Road Bridge over NYCT (Brooklyn)***

Stage III reconstruction of the bridge began on December 9, 2004.



Excavating and Demolishing the Bridge Approach.

### ***15<sup>th</sup> Avenue Bridge over NYCT (Brooklyn)***

The bridge was re-opened to traffic on December 9, 2004.

### ***Hamilton Avenue Asphalt Plant (Brooklyn)***

On December 11, 2004, Division ironworkers performed repairs to the plant's silos, mixing drum, and rap bin.

### ***2<sup>nd</sup> Avenue Bridge over LIRR Bay Ridge (Brooklyn)***

The reconstruction of this bridge, which began on November 4, 2002, was substantially completed on December 17, 2004, some two months ahead of schedule.





New 2<sup>nd</sup> Avenue Bridge.

### ***Anti-Icing***

In the first storm of the 2004-2005 winter season, ½ inch of snow was recorded in Central Park, and up to 2 inches in parts of Queens. Anti-icing crews were mobilized from 4:00 PM on December 19, 2004 to 9:00 AM the following day. 8,100 gallons of potassium acetate were applied to the East River bridges.

### ***Belt Parkway Bridge over Ocean Parkway (Brooklyn)***

On December 21, 2004, a substantial completion celebration was held in the project field office, during which City Councilmember Domenic Recchia presented award plaques for a “job well done”. The event was attended by Commissioner Weinshall.



Councilmember Recchia. Solademi Olajide; Beatriz Duran; Brooklyn Borough Commissioner Lori Ardito; Director of Design-Build/Emergency Contracts Chris Sklavounakis; Engineer-in-Charge Valeriya Remezova; DOT Commissioner Iris Weinshall; Leonid Gitis; Chief Bridge Officer Henry Perahia; Andre Celestin; and Tamara Berlyavsky. (Credit: Katherine Sarlin)

### ***Third Avenue Bridge over Harlem River (Bronx-Manhattan)***

Removal of the temporary bridge span on the Manhattan side took place on December 17, 2004, and the Bronx span was removed on December 21, 2004.

### ***Southbound Van Wyck Expressway (SB) at Union Turnpike (Queens)***

On December 21, 2004, Division ironworkers completed the repairs to the box beams and Jersey barriers that had been struck by a truck on December 7, 2004.

### ***FDR Drive (Manhattan)***

On the morning of December 26, 2004, acting upon complaints received by the Communications Center, our contractor mobilized a crew to remove icicles hanging from structures above the FDR Drive, which were judged to be in danger of falling onto traffic. Icicles were removed at Gracie Mansion, Houston Street, and at the Battery Park Underpass.

### ***Anti-Icing***

In the second storm of the 2004-2005 winter season, 1.8 inches of snow were recorded in Central Park. Anti-icing crews were mobilized from the evening of December 26, 2004 through the following morning. 5,050 gallons of potassium acetate were applied to the East River bridges. In addition, Division personnel cleared overpasses and monitored icicle conditions at the underpasses and on the FDR Drive and Cross Bronx and Brooklyn-Queens Expressways.

### ***Belt Parkway Bridge over Paerdegat Basin (Brooklyn)***

On December 27, 2004, Division ironworkers performed emergency repairs on a loose expansion joint on the bridge to avert an immediate threat to vehicles.



Division Ironworkers at the Belt Parkway Bridge over Paerdegat Basin. (Credit: Gholamali Mozaffari)

### ***New Year's Eve***

On the night of December 27, 2004, at the request of the Mayor's Office of Special Events and the NYPD, Division ironworkers temporarily welded shut all manholes in the Times Square area in preparation for New Year's Eve. Celebrating the arrival of the New Year in Times Square started in 1904 by Adolph Ochs, owner of the *New York Times*. The ball dropping tradition began three years later.

### ***Belt Parkway Bridge over Bay Ridge Avenue (Brooklyn)***

Cleaning and painting of the bridge, which began in April 2004, was completed in December 2004.

### ***Brooklyn-Queens Expressway over Atlantic Avenue (Brooklyn)***

Cleaning and painting of the bridge, which began in September 2004, was completed in December 2004.

### ***Cross Bay Boulevard Bridge over Belt Parkway (Queens)***

Cleaning and painting of the bridge, which began in November 2004, was completed in December 2004.

### ***Farmers Boulevard Bridge over Southern Parkway (Queens)***

Cleaning and painting of the bridge began and was completed in December 2004.

### ***Henry Hudson Parkway Viaduct over West 72nd to West 79th Street (Manhattan)***

Cleaning and painting of the bridge, which began in June 2003, was completed in December 2004.



## CHRONOLOGY

### ***Linden Boulevard Bridge over Cross Island Parkway (Queens)***

Cleaning and painting of the bridge began and was completed in December 2004.

### ***Seeley Street Bridge over Prospect Avenue (Brooklyn)***

Cleaning and painting of the bridge began and was completed in December 2004.

### ***Superior Road Bridge over Cross Island Parkway (Queens)***

Cleaning and painting of the bridge began and was completed in December 2004.

### ***11<sup>th</sup> Avenue Viaduct over LIRR West Side Yard (Manhattan)***

Cleaning and painting of the bridge, which began in July 2003, was completed in December 2004.



Bridge Painters Goncalo Lima & Milan Radovic at the 11<sup>th</sup> Avenue Viaduct. (Credit: Eralene Powell)

### ***Manhattan Bridge***

December 31, 2004 marked the 95<sup>th</sup> anniversary of the opening of the bridge.



Manhattan Bridge at Twilight. (Credit: Michele N. Vulcan)

## INNOVATIONS & ACCOMPLISHMENTS

### **East River Bridges**

A \$2.9 billion reconstruction program is underway to rehabilitate all four East River crossings. In 2003, these bridges carried some 493,418 vehicles per day. In 2002, working in coordination with the NYPD and other law enforcement agencies, the Division implemented enhanced security measures on these bridges. This work is ongoing.

### **BROOKLYN BRIDGE**

The Brooklyn Bridge carried some 134,444 vehicles per day in 2003. The \$470 million reconstruction commenced in 1980 with Contract #1, and will continue with Contract #6, currently in the design phase and scheduled for completion in 2013. This contract will include the rehabilitation of both approaches and ramps, as well as the painting of the entire bridge. In addition, the bridge is scheduled to be seismically retrofitted by the end of 2013. Work completed on the bridge to date includes reconditioning of the main cables, replacement of the suspenders and cable stays, rehabilitation of the stiffening trusses, and the replacement of the suspended spans deck. The next work scheduled for the bridge is a project to replace the existing travelers with a state of the art technology system. Construction is scheduled to begin in the spring of 2006 and conclude in the spring of 2008.



Brooklyn Bridge in 1909. Bridge Repairer & Riveter Joseph Antony Repairing a Red-Flagged Stringer on the Bridge. (Repair Credit: Hany Soliman)

### **Pedestrian Vibration Study**

The major blackout of August 14, 2003 forced City officials to close the bridge to vehicular traffic and open the entire bridge to pedestrians. During this mass exodus, several pedestrians reported that the bridge was vibrating and thus causing them great anxiety. At the request of the Office of Emergency Management, an emergency inspection of the bridge was performed that evening as a result of these complaints of “swaying”; no structural problems were found. DOT decided to retain a consulting firm to study the effects of pedestrian induced vibration for this bridge.

All necessary instruments were installed on the bridge to measure ambient bridge vibrations. A controlled test was performed in February 2004. This study was completed in summer 2004. The report concluded that pedestrian-induced vibrations can get to the point where people will feel uncomfortable, but not to where the bridge structure will suffer significant damage.

## INNOVATIONS & ACCOMPLISHMENTS



Measuring Ambient Vibrations on the Bridge. (Credit: Bojidar Yanev)

### MANHATTAN BRIDGE

The youngest of the three suspension bridges that traverse the East River, the Manhattan Bridge carries some 313,767 commuters – 73,767 vehicles and 240,000 mass transit riders - between Manhattan and Brooklyn daily. It was designed by Leon Moisseiff and completed in 1909. The bridge supports a subway transit line upon which four different train lines operate.



Manhattan Bridge. (Credit: Yuliy Zak). Engineer-in-Charge Reza Lotfi Inspecting the Bridge Cable.

The \$777 million reconstruction commenced in 1982 with Contract #1, progressed with Contract #10, and continues with Contract #11, currently in construction and scheduled for completion in 2008. This work will be followed by Contract #14 to rewrap the cables and replace the suspenders and necklace lighting. Completion is expected in 2011. The reconstruction will end with a seismic retrofit of the bridge (Contract #15), slated for completion in 2012. Work completed on the bridge to date includes reconstruction and painting of the south and north spans, installation of a truss stiffening system to reduce twisting, restoration of the historic arch, colonnades and Manhattan Plaza structures, reconstruction of the south walkway, and installation of a new north bikeway. The reopening of the south walkway and north bikeway is notable in that it marks the first time in 40 years that pedestrians and bicyclists have access across the bridge between Brooklyn and downtown Manhattan.



## INNOVATIONS & ACCOMPLISHMENTS

### Contract #10

Begun in March 2001, and scheduled for completion in early 2005, **Contract #10** will bring the following improvements: rehabilitation of the north main span; refurbishment of the approach spans, tunnels and truss bearings; installation of a dedicated bicycle way on the bridge's north side, and painting. The Manhattan Bridge bicycle path was closed in the 1960's because it fell into such disrepair that it became unsafe. The restored south walkway and north bikeway reflect the original design of the bridge.



Contract #10 Temporary Truss Jacking Frame Used in the Work to Replace the Existing Truss Bearings. Replacement of Steel Stringers and Floorbeams on the North Upper Roadway Main Span. Installing a New End Frame on the Main Span Side of the Brooklyn Tower.



Contract #10 Painting Containment Structures on the Cables of the Manhattan Approach Span. Construction of the New Bikeway Approach Ramp in Manhattan.

The scope of work includes a new Intelligent Transportation System (ITS). The ITS, providing coverage from Bowery Street in Manhattan to Tillary Street in Brooklyn, consists of Closed Circuit Televisions (CCTV), and Variable Message Signs (VMS). This provides full coverage for the Manhattan Bridge upper and lower roadways, including the south walkway and north bikeway. Ranging radar detectors determine the volume and occupancy of the traffic on the bridge, and the CCTV is utilized to confirm any incident. Operators at the Traffic Management Center in Long Island City obtain data and video from the ITS. This enhances the management of traffic on the bridge and its vicinity and improves response to incidents. A total of 19 cameras and 7 VMS are installed on the bridge.

The north lane of the lower roadway was closed to traffic in June 2001 for use as a construction staging area. At the same time, the south lane of the lower roadway was reopened to traffic. Subway service was restored to the south tracks on July 22, 2001. On that same day, service was temporarily discontinued on the north tracks until February 22, 2004.

Effective August 1, 2002, the bridge's north upper roadway was closed for a scheduled 12-month period, and the north lane of the lower roadway was reopened during peak hours. The roadway was re-opened to traffic on June 1, 2003, 61 days ahead of schedule, thus earning the contractor a \$3 million incentive.



## INNOVATIONS & ACCOMPLISHMENTS



Contract #10 Removing an Existing North Upper Roadway Floorbeam on the Main Span of the Bridge. Installing the New Grid Deck for the North Upper Roadway on the Brooklyn Side Span. Preparing the Brooklyn Elevated Structure Grid Deck for Concrete Placement.



Contract #10 Placing Concrete on the Manhattan Side Span Grid Deck of the North Upper Roadway. Placing and Finishing Concrete on the Grid Deck of the Brooklyn Elevated Structure.



Contract #10 Placing the Microsurfacing Overlay on the Main Span. Placing the Asphalt Overlay on the Brooklyn Approach Span.

A Notice to Proceed for the additional work for NYCT on the bridge's north side tracks was issued to the contractor with a start date of September 9, 2002.



Contract #10 Installation of New Floorbeams & Stringer Panels for the Subway Support Steel. Placing the Waterproof Protection Layer on the Anchorage Roof Inside the North Track Envelope.

## INNOVATIONS & ACCOMPLISHMENTS

Full access to the north tracks, originally scheduled in the MOU for January 11, 2004, was given to NYCT on December 15, 2003. Power to the third rail was energized on January 16. NYCT restored revenue service on the north tracks on February 22, 2004.



Contract #10 Installation of New Ties for the North Subway Track. Torquing the Bolts for the Installation of the Upper Laterals for the Truss Stiffening System. Installation of a Permanent Maintenance Platform Under the Bridge on the Brooklyn Approach Span.

During 2003, the replacement of truss C and D bearings on the approach spans in Brooklyn and Manhattan was completed. Also, permanent maintenance platforms below the North and South subway tracks on the approach spans were installed.



Placing Concrete for the New Interior of the Manhattan Colonnade and Arch. Preparing Subgrade for the Brooklyn Approach Ramp of the New North Bikeway and for the Path to the Bikeway Along Sands Street.



Placing Concrete on Manhattan Approach Ramp of New North Bikeway. Finishing Concrete for the Sidewalk Along Forsyth Street. Engineer-in-Charge Reza Lotf (in White Hard Hat) Inspecting the Placement of Concrete for North Upper Roadway at Nassau Street Intersection.



## INNOVATIONS & ACCOMPLISHMENTS



Landscaping Work in Progress Along the Brooklyn Approach Ramp of the North Bikeway. Installing Protective Fencing for the Bikeway.



Putting Final Touches on the Historic Arch.

### Contract #11

A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of January 14, 2005. **Contract #11** will include the following improvements: reconstruction of the lower roadway; rehabilitation of the anchorages; rehabilitation of the travelers; installation of new lighting on the north upper roadway and lower roadway; and upgrading of the lower roadway lane control signals. The work on the lower roadway is scheduled to begin in August 2006 and be completed in July 2007. The contractor will be paid an incentive of \$65,000 per calendar day for early completion with a maximum incentive of \$3.9 million. Late completion will carry a disincentive of \$65,000 per calendar day with no limit on the maximum amount. This \$148 million project is expected to be complete in 2008.

These upgrades will not only restore the structural integrity of the Manhattan Bridge, but will also allow it to carry an increasing number of pedestrians and bicyclists. This will reduce automobile congestion and its related air pollution in New York City.

### QUEENSBORO BRIDGE

At the time of its completion in March 1909, the Queensboro Bridge (popularly referred to as the 59<sup>th</sup> Street Bridge), was the longest continuous cantilever-truss bridge in the world. While its starring role in the hierarchy of bridges has since been eclipsed by longer and larger structures, the Queensboro Bridge's importance to the mobility and unity of New York City remains undimmed. The bridge was designated as a national landmark on November 23, 1973. The \$741 million reconstruction commenced in April 1981 with Contract #1, continues with Contract #6, which began on October 31, 2003, and is scheduled for completion in early 2006, and will end with a seismic retrofit of the bridge, slated for completion in 2011. Work completed on the bridge to date includes the rehabilitation of the lower inner roadways, the lower outer roadways,

## INNOVATIONS & ACCOMPLISHMENTS

and the restoration of the Guastavino arches and Bridgemarket area. The south outer roadway is open to automobile vehicular traffic, and the north outer roadway is open to pedestrians and bicyclists. The work on this vital link between Manhattan and the outer boroughs will enable this 75,000-ton workhorse to better provide the citizens and commerce of New York City with a second century of reliable, prosperous transport. The Queensboro Bridge carried some 184,964 vehicles per day in 2003.



Queensboro Bridge. (Credit: Peter Basich)

### Contract #6

**Contract #6**, which began on October 31, 2003, will include the following: condition investigation of the eyebar heads and pins, replacement of the protective screening and the aviation warning lights, drainage improvements, rehabilitation of the overhead sign structures in Manhattan, the upgrading of roadway lighting (by replacing all low-pressure sodium lights on the bridge and ramps with high-pressure sodium lights), cleaning and miscellaneous repairs of the anchor piers, the geometric improvement of Crescent Street, bikeway and walkway improvement, and repair of the south upper roadway concrete overfill and overlay, the promenade platform, the traveler platform, the sidewalk between 61<sup>st</sup> and 62<sup>nd</sup> Streets, and the underside of the 59<sup>th</sup> Street overpass. The work will also include the rehabilitation of the Sanitation Department area's arch infill, and modifications to the maintenance facility beneath the Manhattan approach plaza. In addition, the kiosk in the plaza on the Manhattan side of the bridge will be restored. This small historical structure is in an advanced state of disrepair and has been damaged by repeated vehicular impacts. This \$35 million project is expected to be complete in early 2006.



Views of the Queensboro Plaza Kiosk



## INNOVATIONS & ACCOMPLISHMENTS

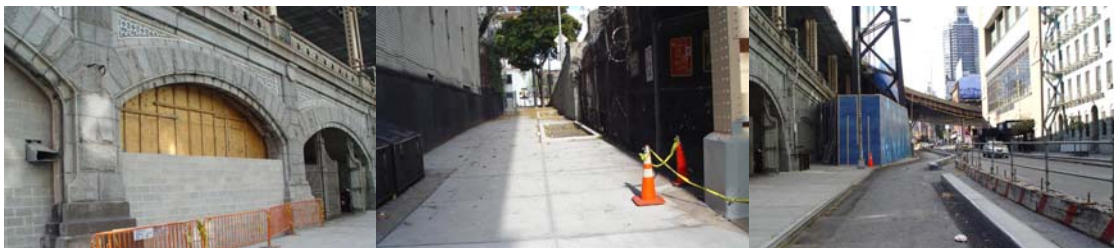


Proposed Rehabilitation of the Arch Infill for the Sanitation Department. Repairing the Steel of the 59<sup>th</sup> Street Arch Ceiling.

In 2004, work was completed at the retaining wall at York Avenue, the kiosk bollards on the Manhattan plaza, the sidewalk between 61<sup>st</sup> and 62<sup>nd</sup> Streets, and the maintenance facility beneath the Manhattan approach plaza.



Starting Curb Replacement at 60<sup>th</sup> Street. Improving the Drains at the Vehicle Storage Area. Repairing Spalled Concrete at the 59th Street Overpass.



Sanitation Arch Infill Work Progressing at 60<sup>th</sup> Street. Repaired Sidewalk Between 61<sup>st</sup> & 62<sup>nd</sup> Streets, and Curb at 60<sup>th</sup> Street.



NYCT Column Relocation Work. Anchor Pier Granite Cleaning in Progress.

## INNOVATIONS & ACCOMPLISHMENTS

### Protective Coating

The \$168 million Queensboro Bridge painting contract commenced in January 2004. The Department and its contractor strictly adhere to the safety requirements regarding lead paint removal as approved by the United States Environmental Protection Agency and the Occupational Safety and Health Administration, New York City Departments of Health and Environmental Protection, and the New York State Departments of Health and Environmental Conservation.



Containment on the Manhattan Ramp. (Credit: Peter Basich)

The work is performed within an entirely sealed Class 1A containment system (under negative pressure) which prevents any materials from escaping into the air. Filtration of the enclosed air prevents paint waste dust from being released. The Department has placed several air monitoring stations in the area around the bridge. The Department performs continuous monitoring and testing of the soil and air quality as well as noise levels in the area surrounding the containment enclosure to minimize impacts and ensure the safety and quality of life for workers and residents nearby.

Active measures are taken to reduce noise at its source, such as the use of mufflers, sound screens, low noise producing equipment, and noise blankets. Light shields are utilized to reduce glare from work lights. All staging areas are behind a screened fencing. This project is expected to be completed in January 2009, and will result in the total re-painting of the bridge.



Work Platform and Containment Installation on the Queensboro Bridge.  
(Credit: Daniel Lima) Painting in Progress on the South Outer  
Roadway. (Credit: Peter Basich)

## INNOVATIONS & ACCOMPLISHMENTS

### WILLIAMSBURG BRIDGE

The largest of the three suspension bridges that traverse the East River, the Williamsburg Bridge carries some 200,243 daily commuters – 100,243 in vehicles and 100,000 via mass transit - on eight traffic lanes, two heavy rail transit tracks, and a pedestrian footwalk, between Manhattan and Brooklyn. The bridge supports a subway transit line upon which three different train lines operate (J, M, and Z). The \$989 million reconstruction commenced in 1983 with Contract #1, continues with Contract #8, which began in March 2003 and is scheduled for completion in 2006, and will end with a seismic retrofit of the bridge, slated for completion in 2011.



Williamsburg Bridge. Bridge Subway Structure. Contract #8 Looking South at a Cable Band Retensioning Crew.

In order to minimize disruption to the riding public and ensure that traffic is maintained across the bridge, the rehabilitation of the Williamsburg Bridge was divided into several contracts. In the contracts completed to date, all four main cables have been completely rehabilitated, the south and north roadways of the bridge have been replaced and the BMT subway structure across the bridge was completely reconstructed.

### Contract #7

In June 2004, the Metro New York/New Jersey Chapter of the Construction Management Association of America selected the Reconstruction of the North Roadways of the Williamsburg Bridge (Contract #7) as a "Project of the Year." This reconstruction work was a mirror image of the completed reconstruction work on the south roadways. It included the complete replacement of the main bridge deck with a steel orthotropic deck system and the construction of new structures on both the Manhattan and Brooklyn approaches. This \$202.8 million contract included provisions for financial incentives to ensure that the project was completed within the scheduled roadway closure period, thereby minimizing the impact the closures had on the public.



Contract #7 Installing An Orthotropic Deck Panel. Working on the North Roadways.



## INNOVATIONS & ACCOMPLISHMENTS

Work on the north roadway substructure (pile foundations, piers and columns), began in early 2000. All four lanes that constitute the north roadways of the bridge were closed to traffic on January 29, 2001 for demolition and reconstruction.

The two lanes on the north outer roadway were completed and reopened to traffic on December 10, 2001, 50 days ahead of schedule. This allowed four travel lanes into Manhattan during the morning rush hour, and four lanes into Brooklyn during the afternoon rush hour. In addition, Manhattan-bound truck traffic was restored to the two outer roadway lanes, decreasing the demand at both the Manhattan Bridge and the Queens Midtown Tunnel. The contractor earned \$100,000 per day (for a maximum of 50 days) in incentive payments for early completion.

The north outer roadway reopening was complemented by the State Department of Transportation's early reopening of the Marcy Avenue connector ramp from the Brooklyn-Queens Expressway to the Williamsburg Bridge. This is the first time in the State's history that a segmented highway bridge was built using technology suited to situations requiring rapid construction with minimal traffic and community impacts.

The north inner roadway was re-opened to traffic on June 10, 2002, 50 days ahead of schedule, thus earning the contractor a \$5 million incentive. The opening ceremony was presided over by Mayor Bloomberg and Commissioner Weinshall.



Contract #7 Replacing the North Inner Roadway Deck & Erecting the Footwalk. Bikeway Steel Erection.

During construction, the Department maintained pedestrian/bike access across the bridge. The south footpath/bikeway remained open at all times. During Contract #7, DOT constructed a new Manhattan approach ramp and north footpath/bikeway. The new footpath/bikeway has one common access point for pedestrians and cyclists in Manhattan at Clinton Street, which leads to a crossover before the main span of the bridge to enable people to access either the north or south paths. The north path is open to both pedestrians and bicyclists and leads to an access point at Washington Park in Brooklyn. The south path is dedicated to pedestrians and leads to an access point at Bedford Avenue. Completion of the new north walkway also means that, for the first time ever, the bridge is accessible to wheelchair users and meets the requirements of the Americans with Disabilities Act.

Contract #7 was substantially completed on December 12, 2002. The newly completed pedestrian walkway opened to traffic at 3:00 PM on this day.

### Contract #8

**Contract #8** began on March 3, 2003, and is scheduled to finish in February 2006. This \$173 million project will see the rehabilitation of the tower bearings, the truss system, the steel structure of all eight towers, and the north comfort station houses, the replacement and/or adjustment of the cable suspenders, the installation of maintenance travelers (inspection platforms) under the main span, as well as painting of the stiffening trusses. Architectural work



## INNOVATIONS & ACCOMPLISHMENTS

will include the restoration of decorative lights on the main towers and in the Manhattan Plaza. Work inside the anchorage houses on both the Manhattan and Brooklyn sides will include the construction of new stairs, a hoisting system, ventilation and lighting, and oiling platforms. The project will also include the installation of several Intelligent Transportation System (ITS) components, including variable message signs and closed circuit television cameras.

Painting of the south side stiffening trusses, which began on June 1, 2003, was completed on September 6, 2003. Painting of the north side stiffening trusses, which began on September 6, 2003, was completed on November 25, 2003. Steel replacement on both the main and intermediate towers, as well as on the upper and lower chords of the main span trusses began in 2003 and will continue through 2005.



Contract #8 North Stiffening Truss Containment Erection and Removal. South Truss Bottom Chord Rehabilitation.



Contract #8 Degreasing the Brooklyn Main Tower Saddle Bearing. Manhattan Main Tower Member Replacement & South Pier Platform Erection.

The most significant accomplishment of 2004 was the successful installation of strengthening plates on the four river-side column legs of each of the main towers. This operation began with the hoisting of the plates from the roadway to the highest level of each tower and was completed during weekends on which the transit tracks were removed from service. This work included over 800,000 pounds of steel attached through over 30,000 individual bolt holes drilled into the existing steel.



Contract #8. Looking East at the Brooklyn Main Tower Temporary Work Platforms. Manhattan Main Tower Temporary Platform Erection.

## INNOVATIONS & ACCOMPLISHMENTS



Strengthening Plate Operation on Brooklyn Main Tower. Pier Stationed & Barge Mounted Cranes at Brooklyn Main Tower Pier. Steel Arch Replacement.

Fourteen wire rope cable suspenders and twenty-eight tension rods were replaced during 2004 at select locations on the suspended main span. All of the suspenders will be systematically adjusted in 2005 to optimize the profile of the bridge. Other work anticipated to be completed in 2005 includes the replacement of truss bearings at the anchorages and the main towers, as well as the installation of the new maintenance traveler system.



Looking West at the North Truss Top Chord Steel Rehabilitation. High Strength Bolt Torque Inspection. Cable Band Bolt Retensioning.



Steel Bracing Replacement Operation at the Brooklyn Intermediate Towers. Ironworkers Bolting up New Steel on Intermediate Tower. Cleaning the Brooklyn Anchorage Exterior Granite Surface.

## INNOVATIONS & ACCOMPLISHMENTS



Entrance to North Walkway. (Credit: Peter Basich)

Such improvements will not only restore the structural integrity of the Williamsburg Bridge, but will also allow it to carry an increasing number of pedestrians and bicyclists, thereby reducing automobile congestion and its concomitant air pollution in New York City.

### ***Movable Bridges***

As NYCDOT completes reconstruction work on the East River Bridges, more attention is being devoted to other key City-owned bridges, such as the movable bridges. Building on the success of the East River Bridge projects, the Department is implementing many of the innovative concepts originated during the rehabilitation of East River Bridges on these other major reconstruction projects.

### **BELT PARKWAY BRIDGE OVER MILL BASIN (BROOKLYN)**

When the Mill Basin Bridge was constructed during the first half of the 20<sup>th</sup> century, New York City's inland waterways were among the most heavily navigated thoroughfares in the country. However, as maritime traffic in New York City steadily decreased since the mid-1960s, the need for movable bridges lessened as well. In 1941, during its first full year of operation, the Mill Basin Bridge was opened 3,100 times; by 1953, that figure decreased to 2,173; by 2004, the number of openings declined further to a total of only 164 openings.

In addition, significant and costly traffic congestion results from the operation of this outmoded drawbridge. In 2003, the Mill Basin Bridge carried 141,212 vehicles per day. The average opening and closing time for the bridge (and others like it) is ten minutes. Thus, this structure's operation has a negative and significant effect on the efficiency of New York City's vehicular traffic flow.

In 2004, on a New York State-mandated scale from 1 to 7, this bridge had a condition rating of 3.25, or "fair." While the bridge is not in any immediate danger of structural failure, its reconstruction is required in order to maintain mobility and public safety on this vital artery.

The bridge is a 14 span structure, consisting of a double leaf steel bascule span. The substructure is made of reinforced concrete abutments and piers supported on precast concrete or timber piles.



## INNOVATIONS & ACCOMPLISHMENTS



Mill Basin Bridge

Under the Department's current proposal, the Mill Basin Bridge will be replaced with a new, 11 span, high-level, fixed bridge with a pre-stressed concrete superstructure and reinforced concrete substructure on piled footings. The bridge will be constructed next to the existing structure so as to maintain traffic during the construction period. It will feature three lanes of vehicular traffic, as well as a 12-foot wide shoulder in each direction. A new sidewalk/bicycleway will also be constructed, and the stopping sight distance for the bridge and approach roadway will be improved.

Currently in its final design phase, the reconstruction of the Mill Basin Bridge is scheduled to start in spring 2008, and to last approximately 4 years. The new bridge will be constructed off-line while maintaining three traffic lanes in each direction and a bike/pedestrian path on the eastbound side on the existing bridge during construction. The existing bridge will be demolished after the new bridge is fully opened to vehicular traffic.

### **BRUCKNER EXPRESSWAY NB & SB SERVICE ROAD (UNIONPORT BRIDGE) OVER WESTCHESTER CREEK**

This double leaf bascule bridge opened in 1953. In 2003, the bridge carried 60,993 vehicles per day. The 17 span structure carries five lanes of the Bruckner Boulevard Expressway service road traffic over Westchester Creek. Currently in its final design phase, the reconstruction of the bridge is scheduled to start in December 2005. The estimated construction duration will be a total of 28 months with approximately 9 months lead time. The project's scope of work includes rehabilitation of the existing bridge superstructure, substructure and approaches, replacement of the existing mechanical and electrical systems for the bascule span, and reconstruction of the bridge operator house.

Onsite construction will be carried out in five stages. Incentive and disincentives will be used to expedite the completion of the project. Construction is expected to be completed in March 2008.



## INNOVATIONS & ACCOMPLISHMENTS



Unionport Bridge in 1953.

### HAMILTON AVENUE BRIDGE OVER THE GOWANUS CANAL

The Hamilton Avenue Bridge opened in 1942. In 2003, the bridge carried 59,108 vehicles per day. The \$45 million reconstruction of this landmark bridge will use the “float out the old/float in the new” technique. The new bascule spans with trunion towers will be shop-assembled and tested off-site, then will be floated in and erected on the rehabilitated piers. This will reduce the roadway closure time for the construction of each span from 14 months to only 2 months. Other reconstruction work will include: the rehabilitation and seismic retrofitting of the existing piers; the replacement of all electrical and mechanical and control equipment; the removal and replacement of the approach slabs of both sides of the bridge; the rehabilitation of the backwalls and abutments; and the renovation and extension of the bridge operator house.



Hamilton Avenue Bridge. (Credit: NYSDOT)

The bridge's appearance will also be enhanced artistically. A permanent new lighting art structure will be installed on the bridge buildings that will be viewable by pedestrians, motorists, mariners and the general public as part of the Percent For Art Program administered by the Department of Cultural Affairs.

## INNOVATIONS & ACCOMPLISHMENTS



Mock-up of the Hamilton Avenue Light Sculpture. (Credit: Gholamali Mozaffari) Open Bridge. (Credit: NYSDOT)

In Stage I, the Manhattan-bound span will be closed from July 1, 2007 to August 31, 2007, and it will be replaced. In Stage 2, the Brooklyn-bound span will be closed from July 1, 2008 to August 31, 2008, and it will be replaced. Each of these two main stages of the contract includes an incentive for early completion of \$25,000 of per day with a cap of \$300,000. There is a disincentive of \$25,000 for each day the contractor is late in finishing a stage with no limit to the amount of penalty. The project is scheduled for construction between July 2005 and May 2009.

### MACOMBS DAM BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

The Macombs Dam Bridge, which has one of the longest swing spans in the world, was opened in 1895. In 2003, the bridge carried 42,254 vehicles per day. The \$145 million reconstruction of this landmark bridge includes the West 155<sup>th</sup> Street viaduct, the west approach plaza over the Harlem River Drive and Seventh Avenue, the swing span over the Harlem River, the deck and camelback trusses over Metro-North Railroad and Conrail, the Major Deegan interchange (consisting of the east approach and four ramps), and the Jerome Avenue viaduct. Each of the three stages of the contract included an incentive for early completion of \$50,000 of per day with a cap of \$2 million. There was a disincentive of \$100,000 for each day the contractor would be late in finishing a stage with no limit to the amount of penalty. The rehabilitation work will not only strengthen the structure, it will also return the bridge's appearance to its turn of the century grandeur.



East View of Macombs Dam Bridge Swing Span and Camelback Truss.  
(Credit: Peter Basich) Architectural Detail of the Bridge. (Credit: Michele N. Vulcan)

As part of this project, the historic John Hooper Fountain, which dates from 1894, was fully rehabilitated in 2000. After studying detailed old photographs, the globe and weather vane were recast and replicated. Cast aluminum was used with high impact glazing similar to the lanterns installed in Central Park in the 1980's. Just east of the fountain, a garden of rose bushes was added for the community's pleasure. Other additions included a new paved island, new curbs,

## INNOVATIONS & ACCOMPLISHMENTS

and a steel fence. Bollards were installed at the western end of the island to protect the fountain from vehicular traffic.

The first stage of construction was completed on March 31, 2001. It included the installation of structural components, as well as the deck replacement of the northern one-third area of the bridge and the West 155<sup>th</sup> Street viaduct. This milestone date was met even though 31 calendar days were lost from the work period due to the post season play of the New York Yankees. Essentially twelve months' worth of work was compressed into the five worst weather months of the year.

The second stage of construction began on November 2, 2001, after the conclusion of World Series play at Yankee Stadium. It consisted of the installation of structural components as well as the deck replacement of the middle one-third area of the bridge. This stage was completed on February 20, 2002, 39 days ahead of schedule.

The third and final stage of construction began on October 7, 2002. Work included replacement of the structural deck, and rehabilitation of the superstructure steel and the concrete substructure members on the southern portion of the bridge. In addition, truss members in both the swing span and camelback portions of the bridge were reinforced. This stage was completed on March 31, 2003. Concluding items will include necessary paint work, installation and testing of electrical and mechanical systems, and additional steel repairs of the 155<sup>th</sup> Street viaduct. Park areas impacted by the construction project will be restored in spring 2005. Expected completion of the project is the end of 2005.



Close-up of the 1894 Dedication Plaque. (Credit: Hani Faouri)  
View of the Swing Span Control House. (Credit: Michele N. Vulcan)



View of the Roadway From Above the Control House – Yankee Stadium is on the Right. Closeup of a Gate House. (Credit: Peter Basich)

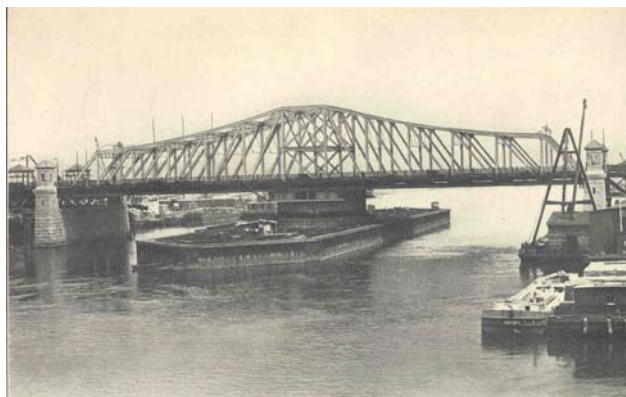
## *INNOVATIONS & ACCOMPLISHMENTS*

The bridge is also being assessed for seismic vulnerabilities. A seismic retrofit of this bridge will include strengthening the existing foundations and superstructure steel members. Retrofitting work will be completed throughout the length of the structure from the 155<sup>th</sup> Street Viaduct to the Jerome Avenue Approach. This will include installation of mini-piles in the existing piers that support the swing span, strengthening of the steel columns and floor beams of the 155<sup>th</sup> Street Viaduct and installation of lock-up devices to disseminate loads during a seismic event. The seismic retrofit project is currently scheduled to start in July 2013 and end in January 2016.

### **MADISON AVENUE BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN)**

This rehabilitation project began in 1994. The work included rehabilitating the swingspan and approaches, and replacing the bridge's barriers, handrails, fencing, mechanical and electrical systems. The bridge's electrical system was vandalized in August 2000. Both submarine cables and most of the bridge wiring had to be replaced. More than \$2.5 million in damage was done by the vandals for the salvage value of the copper wiring they removed. A temporary drive was installed to make the bridge operational. In late June 2002, the bridge was successfully partially opened utilizing the interim drive machinery, except for the end lifts. This was the first time the bridge had opened under its own power in several years. The remaining work on the Bronx approach traffic signals and the submarine cables was completed in 2004. Test openings of the bridge in the counter-clockwise direction are expected to be performed in the summer of 2005, to check for any interference or binding in high temperatures.

A project for seismic retrofit, electrical, mechanical, masonry and miscellaneous work is scheduled to be performed between March 2012 and September 2013. A preliminary seismic assessment indicates that a new center pivot pier may need to be constructed to support the swing span to meet seismic demands. If this assessment is confirmed by a further detailed analysis, the construction duration will be longer since it will require construction of new foundations for the swing span located in the Harlem River. In 2003, the bridge carried 41,575 vehicles per day.



Madison Avenue Bridge in 1910

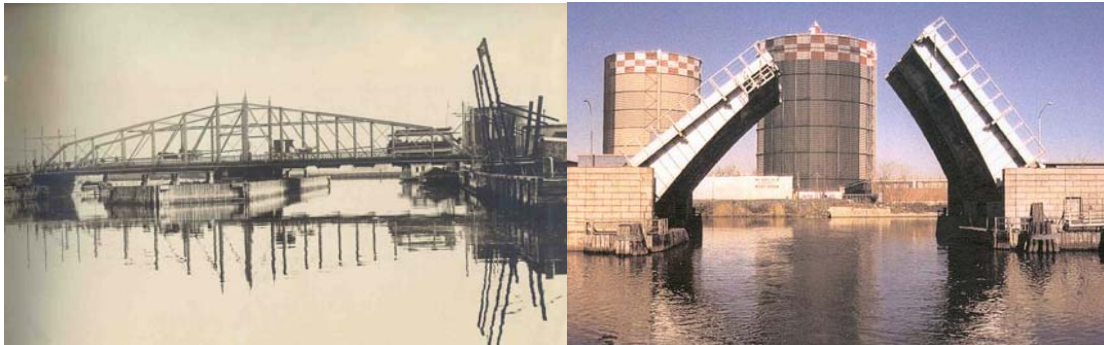
### **METROPOLITAN AVENUE BRIDGE OVER ENGLISH KILLS (BROOKLYN)**

This bridge is a double leaf bascule constructed in 1931. The five span structure carries four lanes of traffic over the English Kills. In 2003, the bridge carried 40,284 vehicles per day. A \$30.7 million rehabilitation project began in October 2003. The estimated construction duration will be 36 months with approximately 16 months lead time. The project's scope of work includes rehabilitation of the existing bridge superstructure, substructure, and approaches, replacement



## INNOVATIONS & ACCOMPLISHMENTS

of the existing mechanical and electrical systems for the bascule span, and reconstruction of the Bridge Operator House.



Previous Metropolitan Avenue Bridge in 1903. Current Metropolitan Avenue Bridge Before Reconstruction.

Stage I reconstruction of the bridge began on March 15, 2004. The bridge was divided in two distinct halves, north and south, with the first stage of rehabilitation commencing on the north half.



Looking West at the Open Metropolitan Avenue Bridge Before Splitting of the Leaves. Looking North at the Demolition of the Bridge Operator House. Looking East at the Rebuilding of the Operator House.

The north half grid deck, the east and west approach spans, the existing operator house and the existing pier walls and wingwalls were demolished. An existing rest pier, cribbing, and contaminated soil were also removed to facilitate subsurface construction. Steel repairs were completed, and blasting and painting are nearly complete on this half of the bridge. Seismic retrofitting of the trunnion columns was completed. A new operator house was constructed and bridge control equipment was delivered and placed inside the house; the interior finishing work remains. A new submarine cable was placed, and the bridge's grid deck was replaced and filled with a lightweight concrete. New machinery and bedplates with a housing were installed in the pit areas. The flanking spans and on grade approach slabs were reconstructed. New pier walls and wingwalls were constructed on the east and west sides of the bridge, and new warning and barrier gates were installed on both approaches. Sidewalk construction is nearly complete on the approaches, and is already complete in the park island areas. The bridge currently operates using a temporary hydraulic system.



Demolition of the Northwest Flanking Span of the Metropolitan Avenue Bridge. Looking West at the Installation of Sheet Piles on the Northeast Approach Slab. Looking West at the Removal of the Northwest Sidewalk.

## INNOVATIONS & ACCOMPLISHMENTS



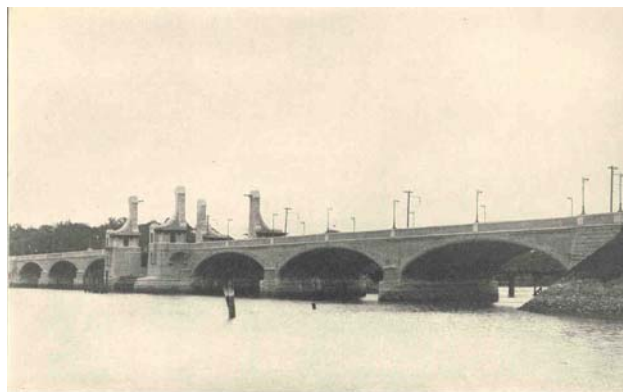
Working on the Approaches. Metropolitan Bridge Under Construction.

Onsite construction will be carried out in three stages. Incentives and disincentives are tied to the completion of Stage I and Stage II and the opening of each half of the bridge to traffic. The maximum project incentive is \$900,000. There is no maximum value associated with the disincentives. Construction is expected to be complete in mid-2006.

### SHORE ROAD BRIDGE OVER THE HUTCHINSON RIVER (BRONX)

This bridge, built in 1908, was originally called the Pelham Parkway Bridge over Eastchester Bay. In 2003, the bridge carried 18,023 vehicles per day. The \$5 million interim rehabilitation of the existing bridge superstructure and substructure will enable the Department to keep it operational for a period of 10 years while a new bridge is being designed and built adjacent to the existing bridge. The existing bridge will be demolished once the new bridge is in service. The rehabilitation project began in April 2001, and all traffic lanes were reopened to traffic on April 24, 2002, three days earlier than scheduled. The interim rehabilitation of this bridge was substantially completed on June 17, 2002.

As of the end of 2004, various alternatives for the new bridge were being evaluated for further design. The project to construct a new Shore Road Bridge is scheduled for construction between August 2011 and November 2015.



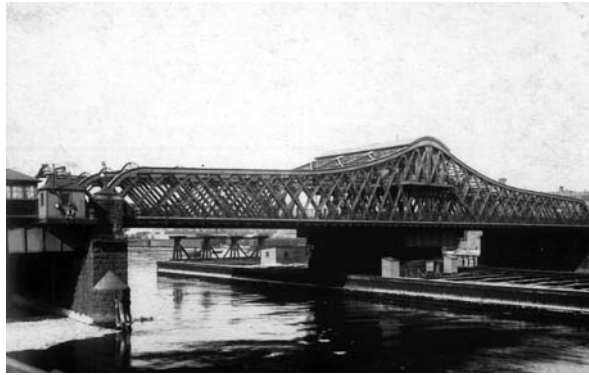
Shore Road Bridge in 1909

## INNOVATIONS & ACCOMPLISHMENTS

### THIRD AVENUE BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

The Third Avenue Bridge carried some 43,065 vehicles per day in 2003. The bridge was built in 1899 and was last rehabilitated in the 1950's. The design of the approximately \$120 million reconstruction project of this rim bearing swing bridge was completed in October 2000. Construction began in July 2001. Reconstruction will include complete replacement of the approaches and the swing span. Elimination of the center median on the main span will greatly improve the traffic flow on the bridge. This bridge will use a center spherical roller thrust bearing for supporting the span and for seismic loads. The bearing will be the largest of this type made for this purpose. The existing pivot pier will also be reinforced for seismic loads. The approximate design loading is 7,000,000 lbs. vertical and 2,400,000 lbs. horizontal. A temporary bridge, adjacent to the current one, was in place for five months to maintain two lanes of traffic into Manhattan while the swing span was being replaced.

If the roadway is completed five months ahead of schedule, the contractor will receive a maximum incentive of \$5 million. As a disincentive, the contractor will be penalized from \$25,000 to \$37,500 each day the milestone date is exceeded with no set maximum penalty. Completion of the project is scheduled for May 2005.



Third Avenue Bridge in 1914

In 2004, the project's land work was escalated by the construction of a crossover ramp from Third Avenue in the Bronx to the existing swing span and into the staged ramp construction in Manhattan. This enabled the Bruckner Boulevard ramp to be reconstructed about four months early and concurrent with the work to demolish the existing swing span. Meanwhile, fabricated steel and machinery were shipped from northwest Alabama to the Port of Chickasaw in Mobile, where the new swing span was erected and prepared for a 1,800 mile journey to New York City.



South Truss of New Third Avenue Swing Span Fully Erected in Alabama in March 2004. Installation of Top Lateral Bracing. Erecting the Northeast Section of the Truss. (Credit: Rahul Shah)



## INNOVATIONS & ACCOMPLISHMENTS



Control House Machinery Frame Leaving Russellville, Alabama in April 2004. Erecting the Swingspan in Mobile, Alabama in April 2004.



Third Avenue Temporary Bridge Nearly Complete in Early June 2004. (Credit: Daniel Hom) Transfer of New Swing Span to an Ocean Barge in Alabama. New Swing Span Leaving Mobile, Alabama in June 2004.

By mid-2004, all of the river foundations were completed, the existing swing span was demolished and removed from the site, and a temporary bridge was erected and used for two lanes of Manhattan-bound traffic. This bridge was in service from June 13, 2004 through December 5, 2004. During the summer of 2004, all of the existing river piers were demolished and reconstructed on the new foundations for the new swing span, which was delivered to Harlem in July and parked along the Manhattan side of the Harlem River where final machinery and structural components were installed.



Starting the Removal of the Old Swing Span. Removing the Bronx Half of the Old Swing Span. (Credit: Daniel Hom)



## INNOVATIONS & ACCOMPLISHMENTS



New Swing Span Passing Under the Williamsburg Bridge and Passing the United Nations.



Ocean Barge Arrival at the Bridge Site. (Credit: Bojidar Yanev)  
New Swing Span on the Working Barges. (Credit: Daniel Hom)

On October 29, 2004, the new swing span was floated-into final position. By December, the new span had received two of its five lanes of traffic, the temporary bridge was removed from service and floated out, the Bruckner Ramp was 90% completed and ready for opening in early 2005, and the auxiliary bridge machinery systems were installed and ready for turning the bridge for mariners through the hydraulic machinery. The bridge was opened to five lanes of traffic at 5 AM on February 10, 2005.



Preparing for the Float-in of the New Swing Span. Tugboats Pushing the Span Into Final Position. (Credit: Keith Burrowes)

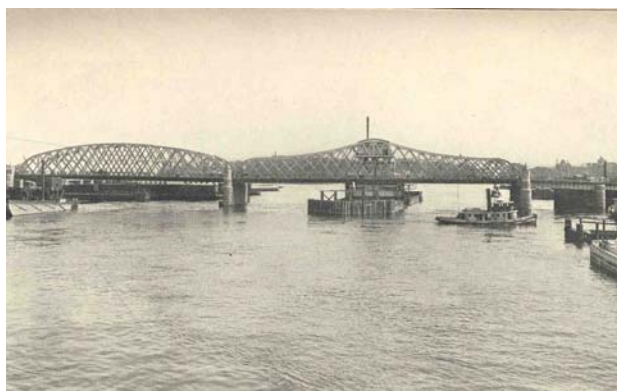
## INNOVATIONS & ACCOMPLISHMENTS



Director of Bridge Repair George Klein and Engineer-in-Charge Daniel Hom at the Float-in.  
(Credit: Russell Holcomb) Almost Completed New Span and Temporary Bridge.  
(Credit: Daniel Hom)

### **WILLIS AVENUE BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)**

Measuring 3,212 feet in length and opened to traffic on August 23, 1901, the Willis Avenue Bridge remains one of New York City's most heavily traveled bridges. The bridge is a bowstring truss swing bridge which spans the Harlem River, and connects Manhattan's First Avenue and 125th Street to Willis Avenue and 132nd Street in the Bronx. Engineered by Thomas C. Clarke, the bridge was designed to relieve traffic congestion on the Third Avenue Bridge.



Willis Avenue Bridge in 1909

A major hub between the FDR Drive in Manhattan, the Major Deegan Expressway and the Bruckner Expressway in the Bronx, the Willis Avenue Bridge carried approximately 66,710 vehicles per day in 2003. Ten local and interstate bus lines use the bridge as a principal route from New York City to points throughout the northeastern United States.

Because of substandard curves which are present on the structure's approaches, the Willis Avenue Bridge has been one of the City's most accident-prone crossings. Between 1992 and 1994, there were 809 vehicular accidents on the bridge, for an average of 269 per year. Under the Department's proposed reconstruction program, these substandard curves will be eliminated.

Because of the advanced age and condition of the Willis Avenue Bridge, the City of New York proposes to replace the existing bowstring truss swing bridge with a new swing span bridge

## INNOVATIONS & ACCOMPLISHMENTS

constructed just to the south of the existing bridge. Elimination of the center median on the main span will greatly improve the traffic flow on the bridge. Due to begin in March 2007, this project is slated for completion in March 2012.



Willis Avenue Bridge

### **145<sup>TH</sup> STREET BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)**

The existing 145<sup>th</sup> Street Bridge is a swing type bridge with three throughtrusses. An eight-span structure, it carries four lanes of vehicular traffic over the Harlem River Drive, the Harlem River and Oak Point Link Railroad. Spans one and two were constructed in 1957 when the bridge was extended to span the Harlem River Drive. Spans six, seven and eight were reconstructed in 1990 in place of the original Bronx flanking span to provide a right-of-way for the Oak Point Link. In 2003, the 145<sup>th</sup> Street Bridge carried approximately 23,034 vehicles per day. This makes it one of the most essential routes for vehicles and pedestrians traveling between Manhattan and the Bronx. Vehicles, which cross this rim bearing swing bridge each day between the two boroughs, include buses, trucks and cars.



Bridge Operator House in 1958.

A Notice to Proceed for the \$69.4 million reconstruction of this bridge was issued to the contractor with a start date of July 15, 2004. Fabrication of steel components for the approach and new swing span commenced in Pennsylvania. Installation of mini-piles at the rest and center piers of the bridge began in November 2004. The new swing span will be assembled in Albany, New York and is scheduled to be barged down the Hudson River for a final float-in during the winter of 2007.



## *INNOVATIONS & ACCOMPLISHMENTS*

The project will include the complete replacement of the swing span and six approach spans, seismic retrofitting, partial reconstruction of substructures and the reconstruction of the approach roadways. The design for the bridge utilizes elements pre-fabricated off-site so as to allow a very quick replacement of the existing bridge in 3 stages totaling 18 months. Traffic will only be impacted for the 15-month period of March 16, 2006 to June 18, 2007. The project is slated for completion in September 2007.

These upgrades will restore the structural integrity and extend the useful life of the 145<sup>th</sup> Street Bridge.



145<sup>th</sup> Street Bridge

### **FLOAT OUT/FLOAT IN**

A technique referred to as “float out the old/float in the new” is being incorporated into replacement schemes for many movable bridges. Under this scheme, the old spans are floated out in their entirety and the new spans are floated in. Having the new spans constructed off-site and barged to the project allows for quick and efficient replacement of the removed span. Current projects that will incorporate this technique are: 145<sup>th</sup> Street Bridge, Hamilton Avenue Bridge, Borden Avenue Bridge, and Grand Street Bridge. The float-in of the new swing span of the Third Avenue Bridge was successfully performed in October 2004.

### **THREE TUNNEL PROJECT**

Rehabilitation work continued on the Battery Park Underpass, and the Park Avenue and First Avenue tunnels in Manhattan. The contract includes the rehabilitation of the mechanical and electrical systems, as well as the ventilation, fire, lighting and drainage systems. This project, (particularly the Battery Park Underpass, which was used as a route to remove debris), was greatly impacted by the World Trade Center disaster, and the subsequent default of the electrical subcontractor. The project is scheduled for completion in early 2005.

### **BRIDGE SEISMIC DESIGN AND RETROFITTING**

The seismic retrofitting of bridges in New York City is part of the inspection and rehabilitation program mandated by Congress and administrated by the FHWA through the local authorities. During the period of 1993 to 1996, four major bridge owners in the New York City area (NYCDOT, NYSDOT, MTA, and the Port Authority of New York and New Jersey) retained seismologists to study hard rock seismic ground motions. The rock motions generated by these studies differed from each other and from the AASHTO spectrum as modified by NYSDOT. The differences were such that the resulting retrofit costs varied widely, depending upon which motions were adopted. To resolve this issue, NYCDOT, in association with NYSDOT and the FHWA, retained Weidlinger Associates to assemble an expert panel to develop recommendations for rock motions that would be adopted uniformly by the New York City region. The panel consisted of a team of six internationally recognized experts in the fields of



## *INNOVATIONS & ACCOMPLISHMENTS*

seismology, geology, earthquake engineering, ground motion, and geotechnical studies. There were several brainstorming workshops held in New York, where the senior officials from NYCDOT, NYSDOT, and the FHWA provided their input to the panel members. NYCDOT also invited other city agencies to participate in the process.

The expert panel came up with definitive recommendations regarding rock motions, time histories, ground motions and bridge performance criteria to be used for critical, essential or other bridges undergoing structural analyses. The panel detail findings are described in the report entitled "New York City, Seismic Hazard Study and its Applications, Final Report, December 1998." This report is now extensively used by NYCDOT, NYSDOT, the FHWA, their consultants, and other agencies in the New York area for bridge projects. Thus, NYCDOT's leading role and efforts to establish ground motion standards have brought uniformity in seismic design to the New York City area. This will result in savings in bridge retrofit costs.

In 1997, the Division began a unique project aimed at conducting a seismic evaluation and subsequent retrofit of the Macombs Dam and 145<sup>th</sup> Street Bridges over the Harlem River. It is also intended to develop schemes for the strengthening of the unreinforced masonry piers on these movable bridges. The project's findings may be applied to other NYC bridges that have similar masonry substructures.

The 1998 Seismic Design Criteria generated by NYCDOT and adopted by all local bridge entities includes a requirement that they be revisited every 3-4 years. In 2002, a panel of seismologists prepared a report to update the existing 1998 criteria. This report was reviewed by NYCDOT, NYSDOT, FHWA, and also by a few consultants working on NYCDOT projects. A meeting was held on November 13, 2002, and was attended by NYCDOT, NYSDOT, and FHWA. It was unanimously agreed to continue to follow the existing 1998 seismic design criteria at least until the new USGS national hazard maps are finalized and incorporated in a national code.

On June 3, 2004, in a meeting attended by NYCDOT, NYSDOT and FHWA, it was unanimously agreed to adopt the new hard rock ground motions recommended by the panel of seismologists.

### **BRIDGE CLASSIFICATION**

The Coast Guard regulations, which govern the operation of the City's movable bridges, define the owner's responsibility to the mariner by classifying a bridge as "open on demand" or "open on advance notice." An "on demand" bridge provides an immediate opening to any vessel wishing to pass the bridge. An "advance notice" bridge opens after the mariner requests an opening several hours in advance. "On demand" bridges must be staffed at all times. "Advance notice" bridges are staffed only when necessary. DOT redesigned the work process in order to reduce personnel costs to the City and improve the delivery of services to the maritime community.

In October 2000, the Department implemented the United States Coast Guard-approved changes, establishing a four-hour notice for the Harlem River bridges, and a two-hour notice for the remaining "advance notice" bridges. The "on demand" classification remains for three bridges. The revised advance notice requirements allowed the formation of mobile crews with overlapping responsibilities, meeting the mariners' needs and, in some instances, improving service by providing two mobile crews to expedite a vessel's travel along a waterway.

The reduction in planned personnel will save approximately \$930,435 annually. In addition, bridge operational capabilities, general maintenance, and debris and snow removal have been enhanced through the more efficient utilization of existing personnel.

The remaining task is the conversion of the three remaining bridges to "on demand" status. This will be achieved by the replacement of two of the bridges with new bridges built with higher clearances, thereby reducing the number of times the bridges must be opened.

## INNOVATIONS & ACCOMPLISHMENTS

### Summary of Vessel Openings 1990 - 2004

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Brdn Ave. (Q)	218	282	107	141	0	0	105	15	0	3	0	28	0	0	0
Brdwy (B/M)	0	12	3	10	6	7	24	7	2	0	6	27	83	49	16
Brecknr Expwy (Estrn Blvd) (B)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brecknr Expwy (Unnpnt Brdg) (B)	745	743	635	554	594	431	386	363	257	345	385	420	332	300	309
Carroll St. (K)	552	517	627	669	704	432	245	142	110	174	102	80	124	186	49
Grand St. (K/Q)	610	419	549	224	254	239	189	37	23	24	17	50	19	10	8
Grnpoint Ave. (K/Q)	1390	1014	860	587	549	498	557	626	669	787	688	641	659	738	1093
Hmltn Ave. (K)	1597	1466	1331	1300	1336	1246	1191	1157	996	982	933	832	946	824	757
Hntrs Point Ave. (Q)	157	264	106	141	0	0	113	15	0	1	0	36	0	0	0
Htchsn River PkwY (B)	30	8	0	0	0	37	31	32	75	46	5	120	30	5	37
Macombs Dam (B/M)	0	0	0	0	6	5	13	3	0	0	0	0	0	0	0
Mdsn Ave. (B/M)	9	3	1	5	5	0	0	0	0	0	0	0	0	0	7
Metrpntn Ave. (K)	351	301	356	225	310	272	407	423	448	513	279	366	339	342	153
Mill Bsn (K)	699	867	879	1151	1250	954	903	628	591	433	336	317	142	173	164
Pulaski (K/Q)	577	584	426	224	239	206	195	291	332	383	276	208	308	599	694
Rsvlt Islnd (M/Q)	2	0	0	0	0	0	0	0	4	0	58	48	125	63	669
Shore Rd (Pelham Pky) (B)	2457	1968	1996	2138	2222	2190	2167	2158	2274	2162	2168	2222	1897	1910	2011
Union St. (K)	574	502	547	657	713	432	236	144	103	144	85	101	62	24	21
Ward's Islnd Pdstrn (M)	0	0	0	2	0	1	0	2	1	0	0	279	0	0	7
Willis Ave. (B/M)	9	15	6	8	18	24	17	9	0	4	4	40	0	7	25
3 <sup>rd</sup> Ave. (B/M)	7	3	1	7	19	20	18	9	0	2	1	1	0	0	0
3 <sup>rd</sup> St. (K)	638	410	549	663	732	432	256	149	112	157	178	117	212	152	99
9th St. (K)	1082	864	984	927	836	0	0	0	0	192	513	808	733	547	457
145 <sup>th</sup> St. (B/M)	0	2	0	0	9	24	24	3	0	0	1	6	0	0	9
W.207 <sup>th</sup> St. (B/M)	0	0	0	1	6	4	12	7	2	0	6	14	4	6	10
<b>TOTAL</b>	<b>11707</b>	<b>10244</b>	<b>9963</b>	<b>9634</b>	<b>9808</b>	<b>7454</b>	<b>7089</b>	<b>6220</b>	<b>5999</b>	<b>6352</b>	<b>6041</b>	<b>6761</b>	<b>6015</b>	<b>5935</b>	<b>6595</b>

# INNOVATIONS & ACCOMPLISHMENTS

## Roadway Bridges

### INNOVATIONS

Innovations in the design and construction of Roadway Bridges continued in 2004. The continued use of weathered steel for bridges over railroads eliminates expensive costs involved in maintenance painting. Where feasible, the continued use of precast elements in bridge reconstruction reduces construction duration and the resulting negative impacts on the traveling public.

Stainless steel clad rebars and galvanized steel rebars, to reduce concrete deck deterioration, are being utilized in pilot projects such as the Congress Street Bridge over the Brooklyn-Queens Expressway, and the East Third Street Bridge over the Bay Ridge LIRR.

### ANDREWS AVENUE BRIDGE OVER LIRR (QUEENS)

The Andrews Avenue Bridge was built in 1937. A Notice to Proceed for the \$3.7 million replacement of this bridge was issued to the contractor with a start date of August 4, 2003. The bridge was completely closed beginning in winter 2004, and the new bridge was fully re-opened to traffic on November 24, 2004. The new bridge, designed by the Division's In-House Design Section, accommodates two 3.6-meter traffic lanes and two 2.5-meter wide sidewalks to better serve the community. The old four-span bridge was completely removed and replaced with a single span concrete-filled grid deck with multiple weathering steel stringers and girders supported by precast modules for the abutments and wing walls. This was the first use of this material in a NYCDOT bridge project. The proposed geometry of the south approach roadway required the construction of a retaining wall at the edge of a soccer field, lumber yard, and other private properties, due to the rise in profile. The precast wall required the excavation of only half a meter as compared to about two meters with the use of conventional cast-in-place concrete. The installation of these wall units greatly minimized the disturbance to the adjacent private properties, and enabled installation of the precast units in a relatively short time, even in winter. Precast wall units also improved the aesthetics of the playground and the area within the project limits. The use of precast concrete modules assured better quality concrete, and ease of installation reduced the total construction time from 15 months to 9 months. This project was substantially completed on February 1, 2005.



Installation of the Grid Deck on the New Andrews Avenue Bridge.

## INNOVATIONS & ACCOMPLISHMENTS



Rendering of New Andrews Avenue Bridge

### ATLANTIC AVENUE BRIDGES (EB & WB) OVER EAST NEW YORK AVENUE (BROOKLYN)

The existing eastbound and westbound Atlantic Avenue bridges are on either side of the LIRR. Each is a two span steel multi-stringer structure, supported by a steel pier and reinforced concrete abutments. The NYCT structure overhead is partially supported by these bridges. The scope of work included replacement of the roadway and sidewalks, repair of the bridge deck, and cleaning and painting of the exposed surface of the steel structure.



Atlantic Avenue Bridges in 2003. (Credit: NYSDOT)

The pavement, sidewalks and curbs of the East New York Avenue underpass and service roads were replaced. At the East New York Avenue underpass, new 5" thick concrete walls were built in front and attached to existing retaining walls. In addition, a new median wall was constructed, as well as wheel guard plates around steel pier columns and steel guide rails in front of the columns. A Notice to Proceed for the \$4.2 million reconstruction of these bridges was issued to the contractor with a start date of September 9, 2002. The bridges were reconstructed in two stages. The eastbound Atlantic Avenue Bridge, which had been closed to vehicular and pedestrian traffic since October 22, 2002, was re-opened on June 11, 2003. The westbound Atlantic Avenue Bridge, which had been closed to vehicular and pedestrian traffic since June 12, 2003, was re-opened on October 17, 2003. The project was substantially completed on August 20, 2004.



## INNOVATIONS & ACCOMPLISHMENTS



Northeast Retaining Wall at Northbound East New York Avenue After Construction. New Sidewalk & Newly Paved Roadway at Northbound East New York Service Road. New Sidewalk at Westbound Atlantic Avenue Service Road.

### **BELT PARKWAY BRIDGES OVER FRESH CREEK, GERRITSEN INLET, PAERDEGAT BASIN, ROCKAWAY PARKWAY, NOSTRAND AVENUE, AND BAY RIDGE AVENUE (BROOKLYN)**

On a New York State-mandated scale from 1 to 7, these six bridges possess a condition rating of “fair” (3.001 – 4.999). In 2004, the Fresh Creek Bridge was 3.22; the Gerritsen Inlet Bridge was 3.68; the Paerdegat Basin Bridge was 3.13; the Rockaway Parkway Bridge was 4.11; the Nostrand Avenue Bridge was 4.09; and the Bay Ridge Avenue Bridge was 3.66. While none of the bridges are in any immediate danger of structural failure, their reconstruction is required in order to maintain mobility and public safety on this vital artery.

Under the Department’s current proposal, the existing 5 span, 264.5 foot Fresh Creek Bridge will be replaced with a new 3 span, 309-foot bridge; the existing 11 span, 520-foot Gerritsen Inlet Bridge will be replaced with a new 3 span, 496-foot bridge; the existing 4 span, 150-foot Rockaway Parkway Bridge will be replaced with a new single span 95-foot bridge; the existing 3 span 140-foot Nostrand Avenue Bridge will be replaced with a new single span 98-foot bridge; and the existing single span 58-foot Bay Ridge Avenue Bridge will be replaced with a new single span, 58-foot bridge. The stopping sight distance for the bridge and approach roadways will be improved except for the Bay Ridge Avenue Bridge, where improvement is not needed.

The reconstruction of the Fresh Creek Bridge, currently in its final design phase, is scheduled to start in summer 2007, and will last for approximately 3 years. The bridge and the approach roadways will be constructed in four stages, while maintaining three traffic lanes in each direction and a bike path on the eastbound side during construction.

The reconstruction of the Gerritsen Inlet Bridge, currently in its final design phase, is scheduled to start in fall 2007, and will last for approximately 4 years. The bridge and the approach roadways will be constructed in four stages, while maintaining three traffic lanes in each direction and a bike/pedestrian path on the eastbound side during construction.

The reconstruction of the Rockaway Parkway Bridge, currently in its final design phase, is scheduled to start in summer 2008, and will last for approximately 3 years. The bridge and the approach roadways will be constructed in five stages, while maintaining three traffic lanes in each direction during construction.

The reconstruction of the Nostrand Avenue Bridge, currently in its final design phase, is scheduled to start in summer 2008, and will last for approximately 2½ years. The bridge and the approach roadways will be constructed in five stages, while maintaining three traffic lanes in each direction during construction.

The reconstruction of the Bay Ridge Avenue Bridge, currently in its final design phase, is scheduled to start in summer 2008, and will last for approximately 1½ years. The bridge will be constructed in five stages, while maintaining three traffic lanes eastbound and two traffic lanes westbound during Stage I, and two traffic lanes in both directions during Stages II, III, IV, and V during construction.

## INNOVATIONS & ACCOMPLISHMENTS



Fresh Creek, Gerritsen Inlet & Bay Ridge Avenue Bridges in 2002. (Credit: NYSDOT)



Rockaway Parkway & Nostrand Avenue Bridges in 2002. (Credit: NYSDOT)

The Paerdegat Basin Bridge will be replaced by a new bridge (with complete replacement of the superstructure and substructure). It will be constructed on a new off-line alignment conforming to current standards. The new split bridge will be within the right-of-way of the parkway. This project is scheduled to begin construction in the spring of 2007, and to last for approximately four years.



Paerdegat Basin Bridge

A computerized traffic simulation model is under development in connection with the Division's plans to reconstruct seven bridges on the Belt Parkway. This model will serve as a useful tool to establish the impact of construction on the traveling public and to help determine appropriate construction schedules. In addition, it will enable us to rapidly evaluate the impact of a variety of combinations of construction staging.

## INNOVATIONS & ACCOMPLISHMENTS

### **BROOKLYN-QUEENS EXPRESSWAY (WB) OVER FURMAN STREET & BROOKLYN-QUEENS EXPRESSWAY (EB) OVER BROOKLYN-QUEENS EXPRESSWAY (WB) (BROOKLYN)**

A Notice to Proceed for the \$1.1 million project to reconstruct the transverse expansion joints on the Brooklyn-Queens Expressway (BQE) in Brooklyn Heights between Orange and Joralemon Streets was issued to the contractor with a start date of May 3, 2004. The first (lower) cantilevered level carries the westbound vehicular traffic. The second (intermediate) cantilevered level carries the eastbound vehicular traffic, and the third (top) cantilevered level supports the Brooklyn Heights promenade.



BQE Bridge in 2003 – Upper Level is Eastbound, Lower Level is Westbound. (Credit: NYSDOT)

This section of the BQE was originally constructed approximately 50 years ago and due to the aging process, the original joint material is no longer capable of preventing water from infiltrating the structural concrete. If this situation continues unabated, the concrete will become severely damaged due to the water's freeze/thaw action and its corrosive effect on the reinforcing steel. Installing new joint material will reestablish the watertight seals while allowing for the necessary expansion of the superstructure, thus extending the useful life of the structural concrete that supports the westbound and eastbound roadways of the BQE. There are a total of 100 joints; 50 joints on the first cantilevered level, and 50 joints on the second cantilevered level within the project limits. Each joint is 33½ feet in length for a total 3,350 feet of joint replacement. The work will be performed only during the nighttime hours of 12:01 AM to 5:00 AM under two lane closures, with the third lane open to traffic. At all other times, all three lanes in both the westbound and eastbound directions will be open to traffic. The eastbound cantilevered level was completed in November 2004. The project is expected to be complete in October 2005.

### **CLAREMONT PARKWAY BRIDGE OVER METRO NORTH RR (BRONX)**

The Claremont Parkway Bridge was built in 1889, with major reconstruction in 1938. This project, currently in its final design phase, will include removal of the entire superstructure and approaches. The new bridge will consist of pre-stressed concrete box beams supporting a reinforced concrete deck and approach slab, concrete sidewalks and reinforced concrete parapet walls with protective fencing, and reconstructed approach roadways. A portion of both existing abutments will be removed to accommodate the new bridge profile. The utility work will include the installation of two new water mains, a gas main, and electrical conduits. The bridge will be constructed in four stages, with one traffic lane open in each direction at all times during construction. Construction is expected to begin in October 2005, and is expected to be complete by April 2007.

## INNOVATIONS & ACCOMPLISHMENTS



Claremont Parkway Bridge. (Credit: NYSDOT)

### CONCOURSE VILLAGE AVENUE BRIDGE OVER METRO NORTH (BRONX)

This project will include demolishing the existing bridge deck, removing loose encasement on the structural members, localized steel repairs, and restoring the encasement. A new concrete deck will be installed, and new approach slabs, an east parapet, steel faced curbs, and concrete sidewalks will be built. The existing granite blocks will be repointed as necessary. The bridge will be reconstructed in four stages, with one 4.3 meter wide southbound lane maintained during construction. Construction is expected to begin in September 2008, and is expected to be complete in early 2010.



Concourse Village Avenue Bridge. (Credit: NYSDOT)

### CONGRESS STREET BRIDGE OVER BROOKLYN-QUEENS EXPRESSWAY, AND LINCOLN ROAD BRIDGE OVER BMT SUBWAY (BROOKLYN)

A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of April 26, 2004. The project is expected to be completed in March 2007. The project originally contained three bridges, but the Seeley Street Bridge was removed from the contract in September 2004.

The existing Congress Street Bridge is a two span structure over the Brooklyn-Queens Expressway (BQE). The major substandard feature of the bridge is its vertical clearance over the BQE. There is evidence of vehicular impacts on the bridge superstructure. The rehabilitation will include reconstructing a new bridge superstructure with high strength steel that will add 12 inches of additional vertical clearance. Epoxy coated reinforcement will be used for



## INNOVATIONS & ACCOMPLISHMENTS

concrete deck reinforcement, and the bridge substructure will be rehabilitated to conform to seismic requirements. The reconstruction of this bridge will be accomplished in two stages. The existing bridge carried one-way east bound traffic, which will be maintained for the duration of the construction. The reconstruction will involve BQE lane closures at certain times. Traffic Enforcement Agents will be posted for the duration of the BQE lane closures to ensure the smooth flow of traffic. The Congress Street Bridge is expected to be completed in October 2005.



Congress Street Bridge Deck Demolition. (Credit: Carlos Ramirez)



Congress Street Bridge Deck Demolition and Structural Steel Removal. (Credit: Carlos Ramirez)

The Lincoln Road Bridge project will include a replacement of a water trunk main under the railroad track which is within the limits of the bridge reconstruction. The replacement of the water trunk main will be funded by NYCDEP. The existing bridge is a four span structure with a steel pier bent and reinforced concrete abutments. The bridge spans over NYCTA Brighton Beach line. The rehabilitation will include removal of the existing bridge in its entirety and the construction of a new bridge. The new bridge will be a single span flexible type integral abutment bridge built compositely with a steel stringer and a concrete deck. The project work will be accomplished in three stages. The water trunk main will be replaced during the first stage. One eastbound lane of vehicular traffic and a pedestrian sidewalk will be maintained throughout the construction, beginning in March 2005. Due to high traffic volume in the vicinity of the project, Traffic Enforcement Agents will be posted for part of the construction period. The Lincoln Street Bridge is expected to be completed in March 2007.

## INNOVATIONS & ACCOMPLISHMENTS



Lincoln Road Bridge in 2003. (Credit: NYSDOT)

### CORTELYOU ROAD BRIDGE OVER NYCT (BROOKLYN)

This \$3.7 million project is being constructed in three stages. Two-way traffic will be maintained by providing one lane in each direction during construction, and no detours will be required. The existing bridge is a one span steel through-girder, floorbeam and steel stringer bridge with very short approach spans. Two steel column bents, rising out of the passenger platforms, support each end of the main span. The reconstruction will replace the existing deck slab and steel stringers with modified floorbeams and through-girders. Construction began in April 2002, and is expected to be complete in July 2005.



Cortelyou Road Bridge in 2003. (Credit: NYSDOT)



Reconstructing the Sidewalk Area & Approach Roadway During Stage I. Stage II Work in Progress.

## INNOVATIONS & ACCOMPLISHMENTS

### **CROOKE AVENUE AND NEWKIRK AVENUE BRIDGES OVER BMT SUBWAY (BROOKLYN)**

The existing four span Crooke Avenue Bridge was constructed in 1916. A recent inspection revealed significant deterioration of the superstructure. This project, currently in its final design phase, will include removal of the entire superstructure, approaches and three piers. The new single span bridge will consist of pre-stressed concrete box beams supporting a reinforced deck and approach slabs, concrete sidewalks, reinforced parapet walls with protective fencing and reconstructed approach roadways. The top portion of the abutments will be removed and reconstructed. The utilities will be relocated within project limits. The new bridge will also meet current NYCT sight distance and horizontal clearance standards. The bridge will be constructed in two stages, with one vehicle lane and one sidewalk maintained. Construction is expected to begin in August 2006, and is expected to be complete in April 2008.

The Newkirk Avenue Bridge is a three span structure between East 16<sup>th</sup> Street and Marlborough Road. This project, currently in its final design stage, will include the removal of the entire superstructure, including pier caps, girders, deck slabs and approaches. The new three span bridge will consist of steel stringers and light weight concrete deck. The exterior and middle columns will be replaced with new steel columns. The existing steel caps on the steel pier columns will be replaced. The top portion of the abutments will be removed and reconstructed. New utilities will be installed. Pedestrian access to the Newkirk Avenue station will be maintained during the three stage construction. During Stage III of construction the bridge will be closed to vehicular traffic. Construction is expected to begin in October 2007, and is expected to be complete in March 2008.



Crooke & Newkirk Avenue Bridges. (Credit: NYSDOT)

### **CROSS BAY BOULEVARD BRIDGE OVER CONDUIT BOULEVARD (QUEENS)**

The bridge was built in 1949. A recent inspection by the Division revealed that the bridge had outlived its useful service life. The effects of age, weather and increased traffic volume have rendered reconstruction necessary. The bridge connects the communities of Howard Beach and Ozone Park, and provides seasonal access to the beaches at Gateway National Recreation Area and the Rockaways. The existing bridge structure consisted of a two span reinforced deck slab, and carried four lanes of traffic in each direction. The new bridge structure consists of a two span concrete grid deck and a concrete parapet wall with protective bridge fencing. It carries the same lanes as before. The approach slabs, curb and sidewalk, median, roadbase, and guiderails were replaced. New traffic signals, street lighting, traffic regulatory signs and thermoplastic stripping were installed. Utilities such as the gas main, Con Edison, telephone, Fire Department and Time Warner were installed across the bridge under the deck.



## INNOVATIONS & ACCOMPLISHMENTS

Approximately 66 new trees will be planted as part of the landscaping improvement of this project.

The bridge was constructed in five stages, with four lanes of traffic maintained southbound and three lanes of traffic northbound at all times. In addition, traffic enforcement agents were deployed to stream line the traffic during peak hours.



Backfilling and Compacting the Northwest Sidewalk. Curing the Northwest Wingwall and South Roadway.  
(Credit: Muhammad Siddiqui) Fixing the Formwork During Construction of the Eastern Pier Columns and Cap.



Placement of the Grid Deck Panels. Placing the Concrete for the Grid Deck. (Credit: Muhammad Siddiqui)

A Notice to Proceed for the \$8.75 million reconstruction of this bridge was issued to the contractor with a start date of July 15, 2002. Effective October 10, 2002, the left lane in each direction on Conduit Avenue at Cross Bay Boulevard was closed to traffic for a period of two years. The bridge was re-opened to traffic on July 14, 2004, some two months ahead of schedule. The contractor received an incentive of \$300,000 for opening the bridge early. The reconstruction of this bridge was substantially completed on September 22, 2004.



Landscaping Work at the East Side of the New Bridge.



## INNOVATIONS & ACCOMPLISHMENTS

### **GLENMORE AVENUE, PITKIN AVENUE, SUTTER AVENUE, AND LIBERTY AVENUE BRIDGES OVER LIRR BAY RIDGE (BROOKLYN)**

This \$12 million project will reconstruct four bridges over the LIRR tracks in Bay Ridge. A Notice to Proceed for the reconstruction of the Glenmore Avenue, Pitkin Avenue, and Sutter Avenue Bridges over LIRR Bay Ridge was issued to the contractor with a start date of January 14, 2003. The reconstruction of Liberty Avenue over LIRR Bay Ridge will commence after the completion of these bridges. Glenmore Avenue, Sutter Avenue, and Liberty Avenue will be fully closed to pedestrian as well as vehicular traffic during construction. The Pitkin Avenue bridge will be constructed in two stages. One traffic lane in each direction and one sidewalk will be open at all times during construction.



Glenmore & Pitkin Avenue Bridges in 2002. Sutter Avenue Bridge in 2003. (Credit: NYSDOT)

The reconstruction of the Glenmore Avenue Bridge was substantially completed on July 16, 2004. Stage I reconstruction of the Pitkin Avenue Bridge began on July 23, 2004. The reconstruction of the Sutter Avenue Bridge was substantially completed on October 19, 2004. Effective November 11, 2004, the Liberty Avenue Bridge was closed to traffic for rehabilitation, as agreed to by the community. The project is expected to be complete in December 2005.



Demolishing the Old Glenmore Avenue Bridge. Installing Tiebacks at the East Abutment.



New Bearings Installed at the Central Pier & East Abutment of the Glenmore Avenue Bridge. Erecting Structural Steel. Placing the Deck Slab Concrete.

## INNOVATIONS & ACCOMPLISHMENTS



Demolishing the Old Sutter Avenue Bridge. Erecting Structural Steel.



Installing Stay-in-Place Forms on the Sutter Avenue Bridge. Placing the Bridge Deck Concrete.

### GRAND CONCOURSE BRIDGE OVER EAST 161<sup>ST</sup> STREET (BRONX)

This project, currently in the rebidding process, will include the rehabilitation of the Lou Gehrig Plaza and the reconstruction of the Grand Concourse from East 161<sup>st</sup> Street to East 166<sup>th</sup> Street, as well as landscaping improvements. In addition, artwork will be included under the Percent For Art Program administered by the Department of Cultural Affairs. The underpass and its approaches will be closed to traffic during the Yankees' off season only. Two traffic lanes in each direction will be maintained at the Grand Concourse during construction. Construction of the bridge is scheduled to begin in November 2006, and is expected to be complete by November 2009.



Grand Concourse Bridge over East 161<sup>st</sup> Street. View of West Portal.



## INNOVATIONS & ACCOMPLISHMENTS



Existing Lou Gehrig Plaza



Rendering of New Plaza



Existing Grand Concourse



Rendering of New Grand Concourse

### GUN HILL ROAD BRIDGE OVER METRO NORTH RR (BRONX)

A recent inspection by the Division revealed that the superstructure of the bridge has outlived its useful service life. The effects of age and weather have rendered reconstruction necessary. This project will include the removal of the existing superstructure and the top portion of the existing concrete abutments, and the construction of new approach slabs, roadway, and sidewalks. The work will also include replacing the water and gas mains, as well as other utilities, erecting new steel girders, installing new utility supports, placement of a new reinforced concrete deck, constructing new concrete parapets with pedestrian fencing. The bridge will be reconstructed in three stages, with two lanes of traffic maintained during construction. A Notice to Proceed for the \$7.4 million reconstruction of this bridge was issued to the contractor with a start date of December 1, 2004. Construction is expected to be complete in December 2008.



Gun Hill Road Bridge in 2002. (Credit: NYSDOT)

## *INNOVATIONS & ACCOMPLISHMENTS*

### **HARLEM RIVER DRIVE AT EAST 127<sup>TH</sup> STREET (MANHATTAN)**

This project, currently in its preliminary design phase, involves the replacement of the existing 11 span bridge and the construction of a flyover ramp over the Third Avenue Bridge, in addition to various highway improvements. It eliminates a major weaving problem between the southbound Harlem River Drive traffic destined for the Second Avenue exit and the Third Avenue Bridge exit ramp; allows at-grade access for a future Park/Promenade to be developed by the Department of Parks at 127<sup>th</sup> Street between the Harlem River Drive and the Harlem River; and improves operational characteristics of the Harlem River Drive from the Third Avenue Bridge to the Willis Avenue Bridge. The viaduct currently carries two northbound and three southbound traffic lanes and serves approximately 79,000 vehicles per day. The bridge will be reconstructed in six stages. During construction, two southbound lanes and three northbound lanes of traffic will be maintained. Construction is expected to begin in July 2012, and is expected to be complete in July 2015.



Harlem River Drive at East 127<sup>th</sup> Street.

### **INSPECTION OF THE HIGH BRIDGE PEDESTRIAN BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)**

In support of the Department of Parks and Recreation (DPR), the Division prepared a detailed scope of work for the comprehensive in-depth inspection of this eleven span landmark structure, the oldest (circa 1848) bridge over the Harlem River. The bridge is under DPR's jurisdiction.

A Notice to Proceed was issued to the contractor with a start date of July 18, 2002. Engineering consultants are conducting this inspection, which is scheduled for completion in the spring of 2005, at an estimated cost of \$1.6 million. The Division administers and supervises this work.

The resultant report will be furnished to DPR to pursue rehabilitation of the structure. Its goal is to open the historic promenade level for public use by pedestrians and cyclists and, once again, link the Bronx and Manhattan portions of High Bridge Park.



## INNOVATIONS & ACCOMPLISHMENTS



High Bridge Pedestrian Bridge. (Credit: Michele N. Vulcan)

### **MANHATTAN COLLEGE PARKWAY, WEST 232<sup>ND</sup> STREET, WEST 239<sup>TH</sup> STREET, AND WEST 252<sup>ND</sup> STREET BRIDGES OVER HENRY HUDSON PARKWAY (BRONX)**

This \$6.6 million project will reconstruct four bridges over the Henry Hudson Parkway. A Notice to Proceed was issued to the contractor with a start date of February 23, 2004. The reconstruction of the West 239<sup>th</sup> Street and West 252<sup>nd</sup> Street Bridges will commence after the substantial completion of the Manhattan College Parkway and West 232<sup>nd</sup> Street Bridges. Work on the Manhattan College Parkway, West 232<sup>nd</sup> Street, and West 239<sup>th</sup> Street Bridges will include the demolition and removal of the existing pavement and roadway slab down to the concrete arch of each bridge, and replacing it with a new deck on a protected membrane waterproofing system. In addition, the reconstruction of these bridges will include drainage, repointing the existing stone masonry, new signage and pavement markings, improving the under deck lighting systems, and private utility work.



Manhattan College & West 232<sup>nd</sup> Street Bridges in 2001. (Credit: NYSDOT)



West 239<sup>th</sup> Street Bridge in 2001 & West 252<sup>nd</sup> Street Bridge in 2002. (Credit: NYSDOT)

## INNOVATIONS & ACCOMPLISHMENTS

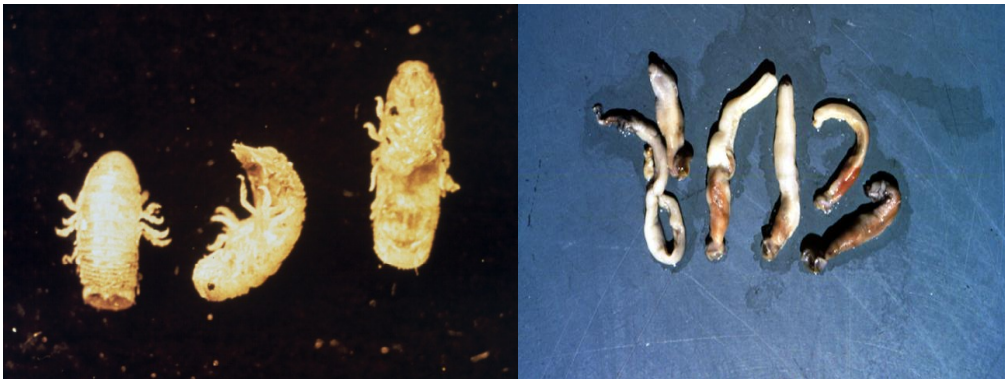
On West 232<sup>nd</sup> Street, the work will be completed in three stages, with one lane of vehicular traffic maintained in each direction during construction. On Manhattan College Parkway, the work will also be completed in three stages, with one lane of vehicular traffic maintained in the westbound direction during construction. On West 239<sup>th</sup> Street, the work will be completed in four stages, with one lane of vehicular traffic maintained in the each direction during construction.

The West 232<sup>nd</sup> Street Bridge re-opened to traffic on August 20, 2004, some three months ahead of schedule. The Manhattan College Parkway Bridge re-opened to traffic on October 29, 2004, some six weeks ahead of schedule. These two bridges are expected to be complete in early 2005.

Work on the West 252<sup>nd</sup> Street Bridge will include the demolition of the existing concrete arch bridge deck, and replacing it with a new prestressed concrete box beam superstructure. In addition, the reconstruction of this bridge will include installing a new 300 mm diameter water main, improving the under deck lighting systems, private utility work, partial removal of the pier and abutments, new roadway lighting, and adjustment of the existing drain inlets, manholes, and catch basins. The work will be completed in four stages, with one lane of vehicular traffic maintained in the eastbound direction during construction. The four bridge project is expected to be complete in September 2006.

### MARINE BORER REMEDIATION (MANHATTAN & BROOKLYN)

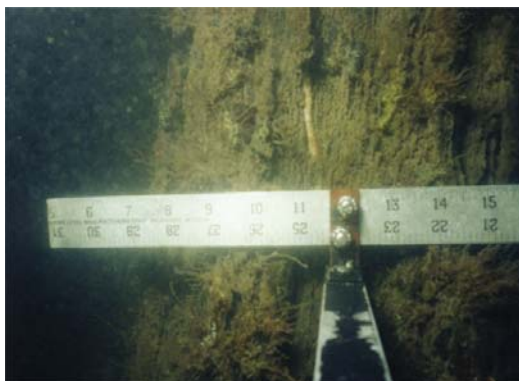
Marine borers pose an immediate and serious danger to the thousands of piles and other structures of timber built in the marine environment. In New York Harbor, as the water quality improved due to many years of clean up efforts, marine borer (limnoria, teredo, etc.) activity has increased significantly in recent years. The recent inspections of timber structures by various local agencies (such as The Port Authority of NY & NJ, NYS Department of Transportation, NYC Department of Sanitation, and NYC Economic Development Corporation) indicate increasing damage to their structures resulting from marine borer activity. These agencies are implementing measures to protect the structures against marine borers.



Marine Borer – Limnoria Species

Marine Borer – Teredo Species

## INNOVATIONS & ACCOMPLISHMENTS



Medium Limnoria Infestation



Teredo Damage (holes up to 1/4" diameter)

In October 1999, the Department began a study to assess the existing damage caused by marine borers as well as the potential for future damage at several waterfront DOT structures, including the supporting structures of the relieving platforms along the FDR and Harlem River Drives, and the timber piles and structures of the Carroll Street and Ocean Avenue bridges in Brooklyn. The underwater inspection of timber piles supporting the FDR Drive began on May 8, 2000. Inspection of the Brooklyn sites was conducted during the week of October 23, 2000. The inspections were completed in October 2000, and the Marine Borer Evaluation Report was published in June 2001. Using the results of the underwater inspections, preliminary plans were developed for the implementation of repairs and remediation measures to protect the structures from attack. These preliminary plans were completed in December 2001. The final design is in progress and is scheduled for completion by April 2005. The construction work is expected to commence in summer 2006.

### SHORE ROAD CIRCLE BRIDGE OVER AMTRAK (BRONX)

This project will include the removal of the existing two span bridge and the construction of a new single span bridge structure with a reinforced concrete deck over steel girders. The work will also include the construction of new reinforced concrete abutments and wing walls, as well as new parapet walls with protective steel fences. The bridge will be reconstructed in three stages, with one lane of traffic maintained in each direction during construction. Construction is expected to begin in February 2006, and is expected to be complete in July 2007.



Shore Road Circle Bridge in 2003. (Credit: NYSDOT)



## INNOVATIONS & ACCOMPLISHMENTS

### STEINWAY STREET BRIDGES OVER GRAND CENTRAL PARKWAY WB & EB (BROOKLYN-QUEENS EXPRESSWAY) (QUEENS)

This \$16 million project will replace two bridges, originally built in 1937, that connect over the Grand Central Parkway. The contract has incentive/disincentive clauses amounting to \$5,000 a day for a maximum of 90 days for incentive. There is an equal amount for disincentive with no limit. This means that the contractor will receive a bonus of \$5,000 a day for every day that the work is completed ahead of schedule, up to 90 days, or will be penalized \$5,000 a day with no limit if the work is completed late.



Steinway Street Bridges in 2002. (Credit: NYSDOT)



Temporary Bridges in Place in December 2004.

The contract provides for several NYPD Traffic Agents to maintain the flow of traffic at the Steinway Street intersections affected by the bridge for the duration of the replacement. Variable Message Signs (VMS) will be utilized to advise motorists of impending nightly lane closures on the Grand Central Parkway.

A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of July 1, 2002.

During 2004, the contractor completed all pre-stage construction activities and commenced Stage I construction activities. On July 23, 2004, during the demolition process to remove the first one-third of the existing bridge in preparation for installing the new bridge components, a portion of the existing north bridge collapsed onto the westbound roadway of the Grand Central Parkway. An ongoing forensic investigation is in progress to study and determine the cause of the sudden collapse of the north bridge. In a coordinated emergency effort by the NYPD, NYCFD, NYCDOT and the contractor, the Grand Central Parkway was completely closed for a period of twenty hours during which time the first one-third of the existing bridges'



## INNOVATIONS & ACCOMPLISHMENTS

superstructures over the eastbound and westbound Grand Central Parkway was removed and carted away from the construction site.

In the interim period between August 2004 and December 2004 and as a precautionary measure, a decision was made by the Department to completely close the remaining two-thirds of the existing bridges to both vehicular and pedestrian traffic. As a result, traffic detour routes along north and south Astoria Boulevard were established with appropriate placement of signs, barricades and traffic control devices in an effort to facilitate the movement of traffic through the construction zone. NYPD Traffic Enforcement Agents were along deployed at critical location along the detour routes to assist in the smooth flow of traffic around the construction zone.

Also during this period a decision was made by the Department to have the contractor install temporary vehicular bridges capable of carrying the Standard HS 20 Highway Loading (with a provision for a pedestrian walkway) in the location where the first one-third of the existing bridges were removed. These temporary bridges will be utilized to carry two lanes of traffic along the northbound direction on Steinway Street over the Grand Central Parkway and will result in the elimination of the northbound detour route that was established when the bridges were closed to traffic in July 2004.

The design and construction of these temporary bridges began in September 2004. The bridges were opened to two lanes of northbound traffic, as well as pedestrians, on January 10, 2005. The bridge will be constructed in two stages. In the first stage, the remaining two-third of the bridges will be demolished and reconstructed. In the second stage the final one-third will be rebuilt after removal of the temporary bridges. Traffic will be maintained in the newly constructed two-third portion. The project is scheduled for completion in April 2007.



Erection of the South Temporary Bridge.



Erection of the North Temporary Bridge.

## INNOVATIONS & ACCOMPLISHMENTS



Director of Bronx, Queens & Staten Island Roadway Bridges Ali Mallick. Chief Bridge Officer Henry Perahia and Director OCMC Thomas Whitehouse.



Concrete & Asphalt Work on the Temporary Bridges.



Opening of the Temporary Bridges.

### WESTCHESTER AVENUE BRIDGE OVER THE HUTCHINSON RIVER PARKWAY (BRONX)

This bridge supports a transit structure overhead and has substandard clearance over the highway below. In 2004, 10 unauthorized overheight vehicles struck the bridge's girders. A project to install an ITS solution, which includes an overheight vehicle detection system that will flash signs directing vehicles identified as being over 9' in height to exit the parkway, was substantially completed on December 3, 2004. It also includes cameras that will be activated by acoustics and will document future damage to the bridge as well as the offending vehicles' descriptions and plate numbers for recoupment of costs by the City. A separate project is underway to reconstruct the bridge and lower the Parkway.

## INNOVATIONS & ACCOMPLISHMENTS



Westchester Avenue Bridge in 2001. (Credit: NYSDOT) Overheight Sensor Unit on the Hutchinson River Parkway. (Credit: Roly Parroco)



New Vehicle Detection System

### WOODSIDE AVENUE OVER LIRR (QUEENS)

This project, currently in its final design phase, will include the removal of the existing three span bridge and the construction of a new single span structure. The superstructure and abutments will be completely redesigned to comply with current seismic requirements. The bridge will be reconstructed in six stages. Construction is expected to begin in October 2005, and is expected to be complete by October 2007.



Woodside Avenue Bridge. (Credit: NYSDOT)



## INNOVATIONS & ACCOMPLISHMENTS

### 2<sup>ND</sup> AVENUE BRIDGE OVER LIRR (BROOKLYN)

This \$9 million project reconstructed the bridge in two stages. During both stages, the bridge was open for one lane of traffic in each direction. Pedestrian traffic on the bridge was maintained at all times. The existing six span bridge was constructed in 1912. The existing bridge superstructure was completely removed and replaced with a new two span, cast-in-place reinforced concrete deck and weathering steel composite superstructure. A recent inspection revealed significant deterioration of the steel frames and the reinforced concrete piers. The bridge had been supported by temporary 12"x12" wooden columns at various locations. A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of November 4, 2002. The reconstruction of this bridge was substantially completed on December 17, 2004, some two months ahead of schedule.



Demolition of the 2<sup>nd</sup> Avenue Bridge Superstructure. Abutment Footing and Stem Reinforcement. Installation of Footing and Column Reinforcement for the Bridge's Center Pier.



Excavation Protection System at the New 2<sup>nd</sup> Avenue Bridge North Abutment. View of the Partially Completed Center Pier and South Abutment. View of the New North Abutment Stem Wall.



Installation of Stay-in-Place Deck Forms on the 2<sup>nd</sup> Avenue Bridge. Structural Steel Erection.

## INNOVATIONS & ACCOMPLISHMENTS



Placing the Deck Concrete.

### EAST 3<sup>RD</sup> STREET AND 52<sup>ND</sup> STREET BRIDGES OVER LIRR (BROOKLYN)

This \$4 million project reconstructed these two bridges, built in 1906. The bridges span a railroad track owned by LIRR, and presently used by New York and Atlantic Railway for freight service. A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of May 5, 2003. The work included building new superstructures of steel stringers, reinforced concrete decks, parapets with protective screenings, and steel faced curbs and concrete sidewalks. The bridges were constructed in two stages, with one traffic lane in each direction and one sidewalk open at all times during construction. The reconstruction of the East 3<sup>rd</sup> Street Bridge was substantially completed on October 25, 2004. The reconstruction of the 52<sup>nd</sup> Street Bridge was substantially completed on January 11, 2005.



East 3<sup>rd</sup> Street Bridge Before Reconstruction. Removing the Stringer Encasements. Removing the West Side Bridge Deck.



Demolition of the East 3<sup>rd</sup> Street Bridge South Abutment. Installing Structural Steel. Placing Concrete for the Approach Slabs.



## INNOVATIONS & ACCOMPLISHMENTS



Installing Galvanized Rebar for the Approach Slab. East 3<sup>rd</sup> Street Bridge After Reconstruction.



52<sup>nd</sup> Street Bridge Before Reconstruction. Demolition of the Bridge Deck. Installation of Temporary Supports.



Installation of Structural Steel on 52<sup>nd</sup> Street Bridge. Placing Concrete on the Bridge Deck.



New 52<sup>nd</sup> Street Bridge East Sidewalk.



## INNOVATIONS & ACCOMPLISHMENTS

### 7<sup>TH</sup> AVENUE BRIDGE OVER NYCT (BROOKLYN)

The old two span concrete encased steel stringer bridge consisted of one span and a cantilever over a concrete encased steel column pier. The reconstruction of this bridge included the replacement of the entire existing superstructure, the repair of the existing abutments and pier, and the reconstruction of the approaches. The bridge was closed to traffic for 10 months beginning on June 19, 2002, as agreed to by Community Board #7. This \$3.7 million bridge reconstruction began in April 2002, and was substantially completed on May 17, 2004.



Installation of Safety Wrap Around the High Pressure Gas Main and the Con Edison Oil-o-Static Pipeline.  
Installation of Reinforcement in the 7<sup>th</sup> Avenue Bridge Abutment Stem and Backwall.



The New 7<sup>th</sup> Avenue Bridge. (Credit: Jiaji Shi)

### EAST 8<sup>TH</sup> STREET ACCESS RAMP OVER BELT PARKWAY (BROOKLYN)

The East 8<sup>th</sup> Street access ramp provides vehicular access to the westbound Belt Parkway from Coney Island Avenue and the surrounding area, south of the Belt Parkway. The bridge also serves pedestrian traffic crossing the Belt Parkway. The bridge is a four span, simply supported, multi-girder steel superstructure with a reinforced concrete deck. The abutments and wingwalls are also reinforced concrete, as are the three piers. The entire substructure is supported on reinforced concrete pile caps and steel piles. The project will include the replacement of the superstructure with new steel stringers, a cast-in-place deck including a sidewalk, a new steel bridge railing with protective screen fencing, and the replacement of the tops of the existing pier columns and abutments. In addition, the piers will be modified by adding two columns on new steel piles, and underdeck and ramp lighting will be installed, as well as new catch basin frames. The ramp will be closed to both vehicular and pedestrian traffic for the duration of the reconstruction. Traffic will be diverted to local streets. Construction is expected to begin in September 2005, and is expected to be complete in May 2007.

## INNOVATIONS & ACCOMPLISHMENTS



East 8<sup>th</sup> Street Bridge in 2002. (Credit: NYSDOT)

### 14<sup>TH</sup> AVENUE BRIDGE OVER LIRR (BROOKLYN)

This \$3.3 million project reconstructed a bridge originally built in 1927. The old four span superstructure was removed and replaced with a single span precast, pre-stressed concrete and steel composite jointless superstructure. The bridge was constructed in two stages. During each construction stage, two lanes of traffic, one lane in each direction, were maintained. Pedestrian traffic was maintained at all times. A Notice to Proceed for the reconstruction of this bridge was issued to the contractor, with a start date of December 2, 2002. The project was substantially completed on May 21, 2004.



Installation of the Soldier Piles for the Excavation Protection System for the 14<sup>th</sup> Avenue Bridge. Excavation for the Abutment Footing. Installation of Abutment Footing.



Installation of Stem Reinforcement for the 14<sup>th</sup> Avenue Bridge. View of Reinforcement and Form Work Installation at the Bridge Abutment.



## INNOVATIONS & ACCOMPLISHMENTS



Concrete Pour at the 14<sup>th</sup> Avenue Bridge Abutment. View of the Partially Completed Abutments. Installing the Precast Panels.



The New 14<sup>th</sup> Avenue Bridge. (Credit: Jiaji Shi)

### **15<sup>TH</sup> AVENUE, 18<sup>TH</sup> AVENUE, 17<sup>TH</sup> AVENUE, AND 20<sup>TH</sup> AVENUE BRIDGES OVER NYCT (BROOKLYN)**

The 15<sup>th</sup> Avenue Bridge is an arch barrel bridge, constructed in 1912-1913 between 63<sup>rd</sup> and 64<sup>th</sup> Streets. Age, weather and increased traffic had affected the bridge. The roadway slab, concrete abutments and concrete piers were severely deteriorated. The bridge had outlasted its useful life. The scope of this project included the removal of the existing pavement, sidewalk, piers, columns, roof beams, portions of the abutments and the concrete arches over the NYCT tracks. The reconstruction included portions of the abutments, installation of precast reinforced concrete pier wall and deck panels, construction of a reinforced concrete deck on top of precast deck panels, and the installation of a 300 mm water main, 408 mm gas main and electric facilities. The approach slabs and bridge joints were replaced. In addition, new roadways, sidewalks, steel faced curbs, and a concrete parapet with pedestrian fencing and street lighting were constructed. The 15<sup>th</sup> Avenue Bridge was substantially completed in January 2005.

The 18<sup>th</sup> Avenue Bridge is also an arch barrel bridge, constructed in 1912-1913 between 63<sup>rd</sup> and 64<sup>th</sup> Streets. Age, weather and increased traffic have affected the bridge. The roadway slab, concrete abutments and concrete piers are severely deteriorated. The bridge has now outlasted its useful life. The scope of this project includes sewer work, the removal of a portion of the existing abutments, columns, roof beams, piers and the arches over the NYCT tracks. Cast-in place concrete piles, a steel superstructure, and new integral abutments will be installed. The water main, gas main, and sewer will be removed and relocated. A new concrete deck, approach slabs, and sidewalks will also be part of this reconstruction project. The 18<sup>th</sup> Avenue Bridge is expected to be completed by July 2005. The bridge is being constructed in four stages, with one lane open in each direction at all the times.



## INNOVATIONS & ACCOMPLISHMENTS



15<sup>th</sup> Avenue Bridge in 2002 & 18<sup>th</sup> Avenue Bridge in 2003. (Credit: NYSDOT)

Similar construction at the 17<sup>th</sup> Avenue and 20<sup>th</sup> Avenue Bridges is scheduled to begin after the completion of the 15<sup>th</sup> and 18<sup>th</sup> Avenue Bridges. A Notice to Proceed for the \$17.7 million reconstruction of these four bridges was issued to the contractor with a start date of September 29, 2003. The project is scheduled for completion in December 2007.



17<sup>th</sup> Avenue & 20<sup>th</sup> Avenue Bridges in 2002. (Credit: NYSDOT)

### WEST 37<sup>TH</sup> STREET BRIDGE OVER AMTRAK (MANHATTAN)

A Notice to Proceed for the \$3.4 million reconstruction of this bridge was issued to the contractor with a start date of January 21, 2002. A new reinforced concrete deck and approach slabs were installed, approach roadways were reconstructed, and wingwalls, abutments, and pier crash walls were replaced. Concrete encasement was removed from the existing stringers, and they were cleaned and painted. New water mains and electrical conduits were installed. The reconstruction of this bridge was substantially completed on January 27, 2004.



West 37<sup>th</sup> Street Bridge Before Reconstruction. Stage 1 Construction. Deck Pour.

## INNOVATIONS & ACCOMPLISHMENTS



Deck Placement. New West 37<sup>th</sup> Street Bridge Sidewalk.

### **EAST 78<sup>TH</sup> STREET PEDESTRIAN BRIDGE OVER FDR DRIVE (MANHATTAN)**

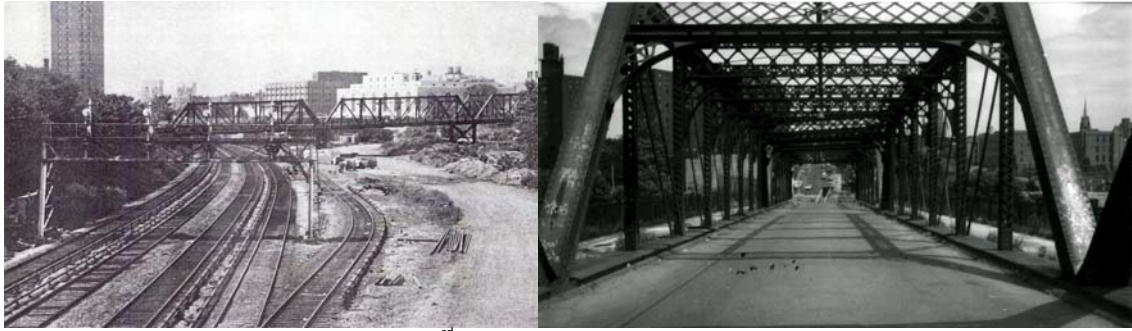
The current bridge is a nine span reinforced concrete structure over the FDR Drive. This project, currently in its final design phase, will include the removal of the entire superstructure; concrete deck, floor beams, parapet, girders, railing, protective screening, encased steel beams in the ferry house, existing concrete stair case on the esplanade side, existing substructure of piers, and ramp walls and wall of the ferry house, as well as a portion of the pier foundations below grade. The new twelve span bridge will include steel piers with caisson foundations, a ramp retaining wall, and new superstructure using welded structural tubing, steel railing, and hand rails, as well as hand-protective screening. A new cast-in-place reinforced concrete deck will be installed on stay-in-place forms on the viaduct spans and ramps. The new bridge will comply with ADA regulations.

During construction, pedestrian traffic will be detoured to the 71<sup>st</sup> and 81<sup>st</sup> Street pedestrian bridges. Construction is expected to begin in July 2005, and is expected to be complete in April 2006.

### **153<sup>RD</sup> STREET BRIDGE OVER METRO NORTH (BRONX)**

This project, currently in the design and environmental impact assessment stage, will include a two-span, single tower, cable stayed vehicular bridge. It will be the first of its kind in New York City. The new four lane bridge will extend East 153<sup>rd</sup> Street in the Bronx across the Mott Haven rail yards from Morris Avenue to the Grand Concourse just north of Hostos Community College in the Melrose Section of the Bronx. This bridge will complete a link the street lost in the early 1980's when the old turn-of-the-century bridge was closed and demolished because of its age and deterioration. Construction of the new bridge is tentatively scheduled to begin in December 2006 and be completed in December 2008.

## INNOVATIONS & ACCOMPLISHMENTS



Original 153<sup>rd</sup> Street Bridge. Bridge in Early 1980's.

The new bridge will significantly ease congestion on the current east-west streets in the South Bronx, along 149<sup>th</sup> and 161<sup>st</sup> Streets as well as on the local streets in this neighborhood. With this bridge, East 153<sup>rd</sup> Street will be a continuous east-west thoroughfare from the commercial hub of Third Avenue to the Civic Center area of the Grand Concourse. It will serve the new revitalization projects of Melrose Commons, the Concourse Shopping Plaza and the Bronx Criminal Court Complex.

The bridge's graceful design, similar to the Tampa Bay Bridge in Florida, will create a very prominent landmark for this neighborhood. The cable-stayed structure will contain a tower rising above East 153<sup>rd</sup> Street to add to the Bronx skyline, with ribbons of steel cables holding up the roadway structure. The roadway will run between the two towers, and the sidewalk and bicycle lanes will be located on cantilever sections outside of the towers. This will reduce the overall depth of the superstructure by reducing the floor beam depths.



Rendering of New 153<sup>rd</sup> Street Bridge

### **EAST 183<sup>RD</sup> STREET BRIDGE OVER METRO NORTH (BRONX)**

This project will include the removal of the existing single span bridge and the construction of a new single span bridge structure with a reinforced concrete deck over steel girders. The work will also include the rehabilitation of existing abutments and wing walls. The bridge will be closed during construction and will be reconstructed in a single stage. Construction is expected to begin in November 2005 and is expected to be completed in January 2007.



## INNOVATIONS & ACCOMPLISHMENTS



East 183<sup>rd</sup> Street Bridge in 2002. (Credit: NYSDOT)

### ***Design-Build***

In 2004 the Department continued to use the Design-Build process to expedite capital bridge rehabilitation. These contracts retain the same company for both design and construction on selected projects. It is evident that there are many advantages to the Design-Build program, including the use of one consolidated procurement rather than two or more, resulting in significant time savings; the ability to commence construction before design completion; the avoidance of project escalation costs as construction commences two or three years earlier than with the conventional design-bid-build method; minimization of design change orders; and better coordination between design and construction, as critical field issues are addressed expeditiously. In addition, the design is custom made and reflects the capabilities and strength of the specific contractor; the Department establishes a single point of contact for communicating its goals and objectives; and overall costs are reduced substantially.

### **BELT PARKWAY BRIDGE OVER OCEAN PARKWAY (BROOKLYN)**

This \$55 million project involved the replacement of the Belt Parkway Bridge over Ocean Parkway, reconfiguration of the interchange, roadway work on approximately a mile of the Belt Parkway, and roadway and associated landscaping work on Ocean Parkway from approximately Avenue Z to West End Avenue.



Old Belt Parkway Bridge Over Ocean Parkway

The bridge needed to be replaced because of its deteriorating condition; this could not be done without affecting the already substandard ramps. This necessitated the re-design of the entire

## INNOVATIONS & ACCOMPLISHMENTS

interchange and the associated work on Belt Parkway and on Ocean Parkway. The existing traffic patterns at the bridge and interchange ramps were projected to reach unacceptable levels of service within the next ten years without the reconstruction. The existing interchange design placed pedestrians in conflict with vehicles, especially at the loop ramps that were adjacent to Coney Island Hospital, located to the northeast of the interchange.

The Belt Parkway is a significant corridor of the Regional Transportation System with daily volumes of 166,000 vehicles. Coupled with the rapid deterioration of the bridge, the possibility of closure, and our concern for public safety, the New York State Department of Transportation (NYSDOT) requested that NYCDOT procure this project using Design-Build. The project secured 80% federal funding since it involves this significant corridor of the Belt Parkway, as well as the Historic Ocean Parkway, which was the first parkway of its kind in the United States. It was part of the Special Experimental Project No. 14 Program, a Federal Program that allows innovative contracting practices to be used.

This project extensively utilized precast elements. The precast deck units, beams, parapets, and approach slabs were fabricated in upstate New York and transported to the site on an as-needed basis.



Two Girders For a Precast Unit at the Schuylerville, New York Fabrication Shop. Placing Stainless Steel Reinforcement and Formwork For a Deck Unit at the Shop.



Director of Design-Build/Emergency Contracts Chris Sklavounakis and Beatriz Duran Inspecting the Precast Sections. Precast Pieces Laid Out at the Fabricator's Plant.



Precast Pier Capbeam Section Prior to Setting it on the Cast-in-Place Columns. Installing T-Walls. Precast Panels and Joints Awaiting Cast-in-Place Concrete Placement.

## INNOVATIONS & ACCOMPLISHMENTS



New Stringers Under the Deck and A Pier. Completed Northeast Abutment Retaining T-Wall and Abutment Cap Beam. Reinforcing for the Cast-in-Place Pier Columns.

A temporary bridge was placed at the south side of the existing bridge. Traffic was diverted onto the temporary bridge and the existing south portion, while the north portion was demolished and rebuilt. The newly built north portion was wide enough to accommodate all six lanes (three in each direction) on the Belt Parkway while the south was demolished and rebuilt.



Launching of the 54 Meter (190 ft) Temporary Bridge in February 2004. Original Bridge Under Demolition.

The project included incentives and disincentives and liquidated damages clauses to ensure timely completion of critical activities and to minimize the inconvenience to the public. The project included an incentive for early completion of \$85,000 per day with a cap of \$2 million. There was a disincentive of \$85,000 for each day the contractor might be late in finishing the project with no limit. A Notice to Proceed for the design-build reconstruction of this bridge was issued to the contractor with a start date of September 12, 2002. Pre-construction preparatory activities began in September 2003.

The erection of the temporary bridge was completed at 12:15 AM on February 28, 2004, in less than 20 minutes. Eastbound Belt Parkway traffic was shifted to the temporary bridge the evening of March 23, 2004, and on the evening of March 25, 2004, westbound traffic was shifted to the former eastbound lanes.

The temporary bridge was removed during the early morning hours of July 20, 2004. The new southern portion of the bridge was complete by August 2004.



## INNOVATIONS & ACCOMPLISHMENTS



Contractor Personnel and Engineer-in-Charge Valeriya Remezova (in the Middle) Inspecting the Bridge Approach. Nearly Completed Project.

The new bridge has shoulders and an increased width of 40.5 meters (133 ft.) In addition to carrying three lanes each way, the added width allows for an acceleration and deceleration lane at the ends of the bridge to ease vehicle access and departure, as well as the introduction of shoulder lanes, a feature that was previously missing from the Belt Parkway. The new interchange configuration eliminates the old geometric deficiencies and enhances traffic flow. As part of the project, a mile of the Belt Parkway (half a mile on each side of the bridge) received new pavement; Ocean Parkway was widened and its mainline was separated from its service road by two malls (one landscaped and the other for pedestrian and bicycle use); new watermain lines were provided; all sewers within the project limits were cleaned; and new lighting was provided, as well as new signals at the Ocean Parkway intersection with the Belt Parkway service roads. In addition, extensive landscaping was done on Ocean Parkway, both where the old interchange loop ramps used to be, and along both Belt Parkway service roads. The new bridge itself is aesthetically pleasing with architectural details at the abutments and parapets, and decorative lighting at the abutments. Other architectural work included the placement of historic type lampposts on Ocean Parkway. In addition, a pigeon deterrent system was installed on the new bridge.

The reconstruction of this bridge was substantially completed on December 3, 2004. This early completion resulted to the contractor collecting the maximum incentive of \$2 million. This project brought this segment of the Belt Parkway up to current design standards and will provide a minimum 50-year useful service life.



Engineer-in-Charge Valeriya Remezova, Andre Celestin, Beatriz Duran, and Leonid Gitis Inspecting the Nearly Completed Belt Parkway Bridge.

## INNOVATIONS & ACCOMPLISHMENTS

### PEDESTRIAN BRIDGES

In 2004, the Division procured another design-build project to replace 22 pedestrian bridges in all five boroughs. The bridges are Bethel Avenue over SIRT South Shore, and Tracy Avenue over SIRT South Shore in Staten Island; Crocheron Park over BCIP, 51<sup>st</sup> Avenue over LIRR Main Line, 55<sup>th</sup> Avenue over LIRR Main Line, 71<sup>st</sup> Avenue over LIRR, 94<sup>th</sup> Street over LIRR, 167<sup>th</sup> Street over LIRR Port Washington Branch, and 216<sup>th</sup> Street over LIRR Port Washington Branch in Queens; 204<sup>th</sup> Street over Metro North in the Bronx; Morris Street over Brooklyn Battery Tunnel Plaza, Pedestrian Bridge West of 8th Avenue over West 155th Street, 81<sup>st</sup> Street Stairway at the Promenade over FDR Drive, East 111<sup>th</sup> Street over FDR Drive, Pedestrian Bridge over East 128<sup>th</sup> Street, 129<sup>th</sup> to 130<sup>th</sup> Street over ramp off 3<sup>rd</sup> Avenue, West 155<sup>th</sup> Street over Amtrak 30<sup>th</sup> Street Branch, and West 181<sup>st</sup> Street over Henry Hudson Parkway NB in Manhattan; West 8<sup>th</sup> Street over Surf Avenue, 17<sup>th</sup> Avenue over BSHP, 27<sup>th</sup> Avenue over BSHP, and 92<sup>nd</sup> Street over BSHP in Brooklyn. Construction is expected to begin in March 2005, and be complete in the summer of 2007, with no construction activity at any single location exceeding six months. In addition, no construction is expected to take place at the West 8<sup>th</sup> Street Bridge during the summer months, so as not to interfere with Aquarium activities and access to the waterfront.



Bethel Avenue & Tracy Avenue Bridges Over SIRT. Crocheron Park Bridge Over BCIP.



51<sup>st</sup> Avenue, 55<sup>th</sup> Avenue, & 94<sup>th</sup> Street Bridges Over LIRR.



167<sup>th</sup> Street & 216<sup>th</sup> Street Bridges Over LIRR. 204<sup>th</sup> Street Bridge Over Metro North.



## INNOVATIONS & ACCOMPLISHMENTS



Morris Street Bridge Over Tunnel Plaza. West 155<sup>th</sup> Street Bridge. 81<sup>st</sup> Street Stairway.



East 111<sup>th</sup> Street Bridge Over FDR Drive. East 128<sup>th</sup> Street Bridge. East 129<sup>th</sup> Street Bridge.



West 155<sup>th</sup> St. Over Amtrak Bridge. West 181<sup>st</sup> Street Bridge. West 8<sup>th</sup> Street Bridge.



17<sup>th</sup> Avenue, 27<sup>th</sup> Avenue, & 92<sup>nd</sup> Street Bridges Over Belt Parkway



## INNOVATIONS & ACCOMPLISHMENTS

Bridge	Average 2002 Daily Pedestrian Traffic - Weekday	Average 2002 Daily Pedestrian Traffic - Weekend
Bethel Avenue over SIRT South Shore	390	169
Tracy Avenue over SIRT South Shore	410	179
Crocheron Park over BCIP	176	351
51 <sup>st</sup> Avenue over LIRR Main Line	635	188
55 <sup>th</sup> Avenue over LIRR Main Line	244	186
71 <sup>st</sup> Avenue over LIRR	No Existing Bridge	No Existing Bridge
94 <sup>th</sup> Street over LIRR	626	369
167 <sup>th</sup> Street over LIRR Port Washington Branch	254	176
216 <sup>th</sup> Street over LIRR Port Washington Branch	58	30
204 <sup>th</sup> Street over Metro North	131	102
Morris Street over Brooklyn Battery Tunnel Plaza	789	632
Pedestrian Bridge West of 8th Avenue over West 155 <sup>th</sup> Street	N/A	N/A
81 <sup>st</sup> Street Stairway at the Promenade over FDR Drive	687	578
East 111 <sup>th</sup> Street over FDR Drive	563	389
Pedestrian Bridge over East 128 <sup>th</sup> Street	602	329
129 <sup>th</sup> to 130 <sup>th</sup> Street over Ramp off 3 <sup>rd</sup> Avenue	598	340
West 155 <sup>th</sup> Street over Amtrak 30 <sup>th</sup> Street Branch	567	434
West 181 <sup>st</sup> Street over Henry Hudson Parkway NB	416	883
West 8 <sup>th</sup> Street over Surf Avenue	1051	1129
17 <sup>th</sup> Avenue over BSHP	648	916
27 <sup>th</sup> Avenue over BSHP	394	813
92 <sup>nd</sup> Street over BSHP	393	773

## *INNOVATIONS & ACCOMPLISHMENTS*

### **RIKERS ISLAND BRIDGE OVER RIKERS ISLAND CHANNEL (QUEENS)**

This project, currently in the preliminary engineering phase, involves replacing the superstructure of this rapidly deteriorating bridge. Cores taken from the bridge deck reveal that the estimated useful life of the deck will soon expire, thus making bridge rehabilitation necessary. In 2003, the bridge carried approximately 16,966 vehicles per day.



Rikers Island Bridge in 2001. (Credit: NYSDOT)

The Division had previously completed the replacement of the bridge's substructure in 1998. The salty environment of the channel significantly contributes to the deterioration of the superstructure. This continued deterioration could also negatively impact the recently completed substructure work. The Division considered Design-Build to be the best project delivery method for this project, as it can expeditiously bring projects to the construction stage, and is the preferred method in all cases where time is of the essence. As the bridge exclusively serves the Rikers Island Correctional Facility, this project will require coordination with the Department of Corrections. Construction is expected to begin in 2012. As an interim measure, a project is planned for the latter half of Fiscal Year 2005 to rehabilitate the bridge deck.

### ***Emergency Contracts***

#### **BELT PARKWAY BRIDGE OVER MILL BASIN (BROOKLYN)**

On November 6, 2002, in the interest of public safety (pursuant to Section 103(4) of the General Municipal Law and Section 315 of the New York City Charter) the Department declared that an emergency existed relative to the movable bridge carrying the Belt Parkway over Mill Basin.

A Notice to Proceed for this \$3 million emergency contract was issued to the contractor with a start date of December 23, 2002. The project included an incentive for early fabrication completion of \$10,000 per day with a cap of \$50,000, and an incentive for early construction completion of \$10,000 per day with a cap of \$70,000. There were disincentives of the same amounts for a late finish with no limit to the amount of penalty.

The contractor completed the emergency median guide rail installation and re-opened all lanes to traffic on March 29, 2003, six days ahead of schedule, thus collecting an incentive of \$60,000. The bridge was re-opened to marine traffic on April 3, 2003. The emergency project on this bridge, which began on December 23, 2002, was substantially completed on April 5, 2003.

Crash tests were performed at a testing site on a copy of the new barrier, resulting in the need to make some modifications to the barrier that was installed. Additional crash tests were completed in 2004, and further modifications were made. The new barrier has already proved

## INNOVATIONS & ACCOMPLISHMENTS

its worth by saving lives on more than one occasion. Recent accidents at the site have resulted in property damage only.

The next significant work on this bridge will consist of the replacement of the rapidly deteriorating bridge grid deck. Construction is expected to begin in late summer 2005 and to be complete by March 2006. The contract will provide incentives/disincentives of \$10,000 per calendar day, with a maximum incentive amount of \$ 300,000, to ensure timely completion of the construction activities. The new deck will serve traffic needs until April 2012. At that time a new bridge carrying the Belt over Mill Basin will have been built and the existing one will be demolished.

### BELT PARKWAY BRIDGE OVER PAERDEGAT BASIN (BROOKLYN)

On February 21, 2003, NYCDOT was informed by the Police Harbor Unit that extensive damage was observed to one of the columns supporting the bridge. The column appeared to have been hit by a vessel. Inspection revealed that the column was cracked through, and was hanging from the bridge instead of supporting it. The cap beam between this column and the adjacent column was also pulled out of place, as was the pedestal.



Broken Pier Column at the Belt Parkway Over Paerdegat Basin Bridge in 2003. (Credit: Bojidar Yanev)  
Connecting Joint of Newly Installed and Existing Span. (Credit: Valeriya Remezova)

In order to immediately address this condition, NYCDOT took traffic off the part of the road whose load the damaged column would carry. Today the bridge has three narrower lanes of traffic and weight restrictions are being strictly enforced. We used our in-house forces to remove the cap beam and the deck over the damaged column.

The real concern, however, is that the column adjacent to the one that was hit exhibited significant distress. This column was now taking more load than that for which it was designed. This reinforced concrete column had cracks running lengthwise along its height. The column also exhibited cracks and spalls at the level where the first column was damaged. Failure of this column could result in a catastrophic failure of the bridge, and therefore posed an immediate threat to life and property.

The above described condition had to be corrected as soon as possible by implementing the necessary repairs. These repairs included the following: removal of unsafe structural elements and obstructions of the existing bridge; repair of distressed elements (columns, dolphins, etc.); replacement of stringers and concrete deck around the location of the impact; protection of elements of the bridge from marine traffic; replacement of a portion of the bridge railing; creation of cuts in the median barrier on the approaches with removable barriers to allow overweight emergency vehicles to make u-turns; and installation of overhead gantries at the Rockaway Parkway and Flatbush Avenue entrances to the Belt Parkway to warn motorists of the bridge



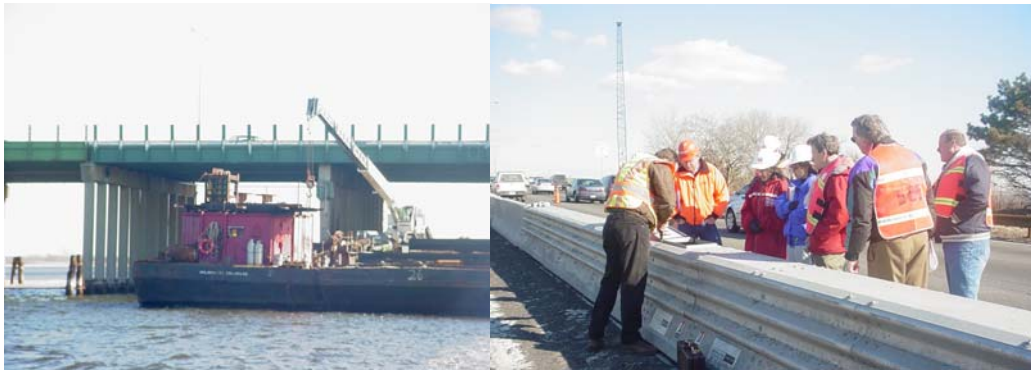
## INNOVATIONS & ACCOMPLISHMENTS

restrictions.

In the event of another emergency that would make the bridge unable to carry heavy loads (and necessitate its closing), the gates installed at the median barrier would enable emergency vehicles to turn around and travel in the opposite direction on the Belt Parkway to the closest exit, and then re-enter the parkway at an entrance pass the bridge. Traffic lights to stop the traffic in such an event were installed as well as appropriate signs to notify motorists of the upcoming traffic light.

The Department was notified by its consultant that the bridge may be left in service for 7 years until the programmed replacement (planned to be completed in 2011), provided that all repairs mentioned above were carried out on an emergency basis.

On June 18, 2003, in the interest of public safety, pursuant to Section 103(4) of the General Municipal Law and Section 315 of the New York City Charter, the Department declared that an emergency exists relative to the bridge carrying the Belt Parkway over Paerdegat Basin.



Installation of Fender System on the Belt Parkway Bridge. Inspecting the Movable Median Barrier.  
(Credit: Valeriya Remezova)

A Notice to Proceed for this \$11.3 million emergency contract was issued to the contractor with a start date of September 3, 2003. The project included a milestone for the structural portion of the work involving the replacement and/or repair of the distressed column and the replacement of that portion of the deck. This work required that one westbound lane on the Belt Parkway be closed for 24 hours. The contractor was given nine days to complete this work. In spite of adverse weather conditions, the contractor completed this work on November 14, 2003, in only 6 days, thus collecting the maximum incentive of \$120,000. The emergency repair project on this bridge was substantially completed on February 17, 2004.

### ***When and Where Unit***

In 2004, the following structures were worked on under the Division's When and Where contracts: B&O Railroad (Abandoned) Bridge over Robin Road, Bedford Avenue Bridge over LIRR Bay Ridge, Belt Parkway Bridge over Rockaway Parkway, Brooklyn-Queens Expressway over Furman Street, Brooklyn-Queens Expressway over Nassau Street, Central Drive Bridge over Transverse Road #1 (at 65<sup>th</sup> Street), Bridge over Dam at North End of Clove Lake, FDR Drive at East 14<sup>th</sup> Street, Promenade over FDR Drive from East 79<sup>th</sup> to East 91<sup>st</sup> Streets, Harlem River Drive Northbound Ramp over Harlem River (ramp to Trans-Manhattan Expressway), Hempstead Avenue Bridge over Cross Island Parkway Service Road, Henry Hudson Parkway Viaduct over West 72<sup>nd</sup> to West 79<sup>th</sup> Street, Ramp From the Southbound Henry Hudson Parkway Over Amtrak, Houston Street Bridge over FDR Drive, Knapp Street over Belt Parkway, Long Island Expressway over Utopia Parkway, Matthewson Road Bridge over MacCracken Avenue,

## INNOVATIONS & ACCOMPLISHMENTS

Richmond Avenue Bridge over Richmond Creek, Sackett Street Bridge over Brooklyn-Queens Expressway, East 14<sup>th</sup> Street Pedestrian Bridge over Belt Parkway, East 51<sup>st</sup> Street Pedestrian Bridge over FDR Drive, 80<sup>th</sup> Street over 71<sup>st</sup> to 77<sup>th</sup> Avenues, 92<sup>nd</sup> Street Pedestrian Bridge over Belt Parkway, 153rd Street and 3rd Avenue DOT Parking Garage, West 155<sup>th</sup> Street Pedestrian Bridge over Amtrak 30<sup>th</sup> Street Branch, West 181<sup>st</sup> Street Pedestrian Bridge over Henry Hudson Parkway NB, 191<sup>st</sup> Underground Street between St. Nicholas Avenue to Broadway IRT, and 216<sup>th</sup> Street Pedestrian Bridge over LIRR Port Washington Branch.



An Emergency Safety Netting System was Installed at Both Ends of the Abutment of the Abandoned Railroad Bridge Over Robin Road to Protect the Adjoining Property Owners From Falling Deteriorated Concrete. (Credit: Thomas Leung)



Bridge over Dam at North End of Clove Lake—the Deteriorated Asphalt Wearing Surface was Restored & a New Belgian Block Drainage Trough System was Installed. (Credit: Thomas Leung)

### MARINE WHEN AND WHERE

New York State DOT conducts the underwater inspections of our waterway structures. A contract was needed to facilitate the performance of marine repairs and to maintain structures in need. The objective is to perform marine structural repairs and maintenance together with other appurtenant work, which constitutes repairs of defective and deteriorated parts of bridge structures due to and in a water environment. The Department has neither the staffing nor the equipment to handle this type of special work. The work could not be handled under the usual time and materials When and Where contract, because the work is unique, in that it requires a consultant with underwater-licensed inspectors to supervise and inspect the work for compliance and adequacy. Furthermore, detailed note taking is necessary by the inspectors to check and approve payments for the contractor's work. A Notice to Proceed for this project was issued to the contractor with a start date of February 14, 2002.

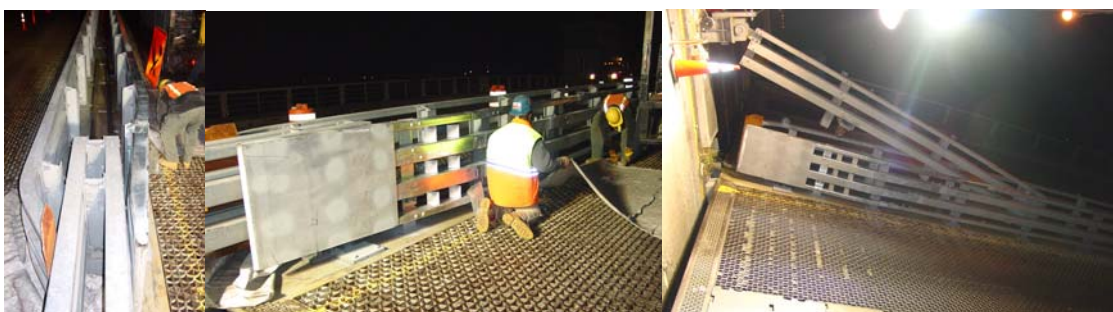
Marine bridge repairs already completed include Botanical Garden Road Bridge over the Twin Lakes inside the Bronx Botanical Garden, 145<sup>th</sup> Street Bridge over the Harlem River, Hutchinson River Parkway Bridge over the Hutchinson River, Shore Road Bridge over the Hutchinson River, Boston Post Road over the Hutchinson River, Carroll Street Bridge over the Gowanus Canal,

## INNOVATIONS & ACCOMPLISHMENTS

East 15<sup>th</sup> Street over the FDR Drive, Depot Place Bridge over Conrail Hudson Division, Belt Parkway Bridge over Mill Basin, Roosevelt Island Bridge over the East River East Channel, and Hamilton Avenue Bridge over the Gowanus Canal.

Some of these locations experience repeated damage due to heavy marine traffic and/or a narrow channel. The issuance of new flags necessitates new visits to even recently completed projects. Timber fender systems are subject to recurring hits by barge traffic, and consequently require periodic restoration. In addition to damage due to impact, timber elements are also replaced because of deterioration and attack by marine borers, whose activity has vastly increased as the water quality in the New York City area has improved.

Currently scheduled projects include the Broadway Bridge over the Harlem River and the 207<sup>th</sup> Street Bridge over the Harlem River, as well as newly flagged conditions at the Hamilton Avenue Bridge over the Gowanus Canal, and the Roosevelt Island Bridge over the East River East Channel.



Installation of Two Newly Retrofitted Steel Median Bridge Railing Transition Units on the Belt Parkway Bridge Over Mill Basin. (Credit: Thomas Leung)

### ***Engineering Review and Support***

#### **IN-HOUSE DESIGN**

In-House Design staff prepares plans and specifications for bridge replacement/reconstruction projects that enable the Division to restore bridges considered “structurally deficient” to a “very good” condition rating. This unit handles urgent Division projects, as well as special projects under construction by the Bureau of Bridge Maintenance, Inspections and Operations. Projects underway in 2004 included Belt Parkway Bridge over Paerdegat Basin (both replacement and Emergency Repair projects) in Brooklyn; and Hempstead Avenue Bridge over Cross Island Parkway, Springfield Boulevard Bridge over Belt Parkway, Union Turnpike Bridge over Cross Island Parkway (and Creedmoor Center Road), Hillside Avenue Bridge over Cross Island Parkway, Linden Boulevard Bridge over Cross Island Parkway, and Sunrise Highway (Westbound) over Belt Parkway (Westbound) in Queens.



## INNOVATIONS & ACCOMPLISHMENTS



Rendering of New Belt Parkway Bridge Over Paerdegat Basin. (Credit: Alexander Berens)

In-House Design's Electrical Group reviews and/or prepares contract documents for all electrical and street lighting work on all projects on the Division's Capital Program. Some of the contracts reviewed during 2004 included the Willis Avenue, Broadway, Macombs Dam, Madison Avenue, 145<sup>th</sup> Street, Third Avenue, and Wards Island Pedestrian Bridges over Harlem River; Hamilton Avenue Bridge over Gowanus Canal; Metropolitan Avenue Bridge over English Kills, and Belt Parkway bridge over Paerdegat Basin in Brooklyn; Roosevelt Island Bridge over East River Channel; Bruckner Expressway NB & SB Service Road (Unionport Bridge) over Westchester Creek in the Bronx; Williamsburg and Manhattan Bridges; and the Battery Park Underpass under West Street to FDR Drive in Manhattan.

### ENVIRONMENTAL ENGINEERING

The Environmental Engineering staff of the Quality Assurance Section provides environmental oversight on all capital projects in the Division. Lead paint abrasive cleaning projects underway or completed in 2004 included Queensboro Bridge, Cortelyou Road Bridge, Metropolitan Avenue Bridge, Andrews Avenue Bridge, Belt Parkway over Ocean Parkway, Congress Street Bridge, Washington Bridge, East 241<sup>st</sup> Street Bridge, Williamsburg Bridge and Madison Avenue Bridge. In addition, this staff provided environmental engineering services for the dewatering and dredging operations at the Third Avenue Bridge. In accordance with NYSDEC requirements, a discharge monitoring system was established at the construction site in the Harlem River to ensure the quality of the water during dredging operations. Additional projects consisted of the remediation of contaminated soils, asbestos abatement and discharge of excavation dewatering wastewater at the Metropolitan Avenue Bridge over English Kills; permitting for the drilling of seismic cores in the East River at the Brooklyn Bridge; and permitting and oversight for the discharge of wastewater generated during drilling operations at the 145<sup>th</sup> Street Bridge.

The unit was responsible for developing wastewater discharge applications in accordance with the NYSDEC SPDES system for seven bridges that cross waterways such as the Gowanus Canal, English Kills Creek and the Newtown Creek. The project involved collection and analysis of numerous water samples and establishment of a discharge monitoring system. Environmental oversight was provided to emergency work-over-water projects on the Brooklyn Bridge, Mill Basin Bridge, Roosevelt Island Bridge, Willis Avenue Bridge, Borden Avenue Bridge, Greenpoint Avenue Bridge, and Metropolitan Avenue Bridge. This environmental oversight ensured that there was no environmental impact to the city's waterways during emergency repair projects.

In addition, the staff continued the implementation of a new quality assurance plan for coating inspection and application on Division bridge structures. Services are implemented through the use of consultant contracts. Coating inspection services and engineering were provided on numerous projects such as the Queensboro Bridge Painting Project; Cortelyou Road Bridge

## *INNOVATIONS & ACCOMPLISHMENTS*

construction; rehabilitation of the Liberty, Pitkin and Sutter Avenue Bridges; and the Metropolitan Avenue Bridge.

### **BRIDGE PROJECT SPECIFICATIONS**

In 2004, the Engineering Support Section prepared and/or reviewed specifications for 21 bridge rehabilitation and reconstruction contracts which included five combined or multiple-bridge contracts. Eight of these contracts totaling approximately \$340 million in construction costs have been bid and are currently in different stages of award and registration. Five contracts with a total construction cost of approximately \$90 million have been approved by the Law Department and are either waiting to be advertised, or are already advertised but not yet bid. The specifications for the remaining eight contracts are in various stages of preparation.

Notable among the bridge contracts prepared and/or reviewed are the 145<sup>th</sup> Street Bridge over the Harlem River; Manhattan Bridge Rehabilitation; Rehabilitation of the Grand Concourse Bridge over 161<sup>st</sup> Street (includes the Grand Concourse from 161<sup>st</sup> to 166<sup>th</sup> Streets); Protection Against Marine Borers of the FDR Drive (and two bridges in Brooklyn); Battery Park Underpass and West Street Underpass; Hamilton Avenue Bridge over the Gowanus Canal; Rikers Island Bridge; Belt Parkway Bridge over the Fresh Creek Basin; Woodside Avenue Bridge over LIRR; and Gun Hill Road Bridge over Metro North Railroad.

### **SUPERSIZED LOADS**

The weight and frequency of very heavy loads traveling over the City's bridges and roadways have taken a toll on the bridges' infrastructure. The Engineering Review Section is very involved in reviewing the requests for issuing permits for these vehicles. NYSDOT has a project to develop a computerized Automated Overweight Permitting Program for use on State-owned bridges that will handle the complete permitting process and its accompanying required analyses. At the request of NYCDOT, the State is including our locations in their ongoing consultant contract. This will ensure both a lower development cost for the City as well as compatibility between the two systems (routes often pass over both City and State owned bridges). The Department's Management and Information Systems Section has been managing the City's part of the project beginning in 2002, and they assisted in the preparation of the Memorandum of Agreement with the State. This project is expected to begin in 2005.

The new system will have the following benefits:

As the turn-around time will be days instead of weeks, truckers will be more likely to apply for permits rather than ignoring the restrictions and driving without permits on the bridges.

Ease of permit rule enforcement efforts by the NYPD, as they will have access to the system.

The program will create a database of bridges used by the trucks on the approved routes. This will help the Division to assess the affected bridges when creating the scope of work for rehabilitation and/or reconstruction, and to decide whether or not to design them for higher loads.

Many consumers are now buying merchandise via the Internet. Giant warehouses are being built around the country for packaging and shipping these goods by trucks. We expect a large increase of overweight truck movement in the City in the near future. The new permit computer program will be able to handle a large number of permit requests.

A streamlined vehicle permitting approval process coupled with the ongoing inspections of the bridges being subjected to repetitive super-loads will actually reduce the yearly capital outlays of the Department in the long run.

## *INNOVATIONS & ACCOMPLISHMENTS*

### **CONVERSION OF DIVISION ENGINEERING ARCHIVES**

Since the first digitizing contract of engineering records began five years ago, we have converted over 58,000 full-size drawings and 20,000 construction photographs into digitized image and data formats, a total of 43 CD-ROMs.

The next phase of the project will consist of the digitizing of the microfilm collection. Since we began microfilming contract and other drawings in the early 1980s, we have accumulated more than 360 microfilm rolls. Microfilming of records is rapidly becoming an obsolete technology as it cannot be used to perform rapid searches, sorting of information, or sending and sharing files via the Internet and/or copying electronic files to CDs.

While we await the award of this contract, we upgraded our microfilm reader/printer. This newer model has the following features and capabilities: standard PC/network connectivity to send and print images over the Agency network; digital image convertibility -- once images are scanned, they may be conveyed electronically via fax and E-mail, uploaded onto the Internet, or stored on CD-ROM; compatibility with all microfilm formats, including aperture cards submitted to us by NYSDOT; automatic switching between negative or positive film images; productivity enhancements -- automatic focusing and exposure, background erasure, automatic skew correction; and high-quality (600-dpi) resolution printing with automatic enlargement for large-format, ledger-size (11" x 17") printouts.

### **TRUMP/NEW WORLD PROJECT**

The Trump/New World project (Riverside Drive between 59<sup>th</sup> and 72<sup>nd</sup> Streets) includes the construction of seven new bridges, a ramp, and connector roads along Riverside Drive as a part of the residential and commercial development over the former Penn Central Rail Yard. When completed, the infrastructure network will be transferred to DOT for maintenance. The Division is providing engineering review of the design drawings, as well as quality assurance inspections, to ensure the developer's compliance with DOT's construction and design standards. The project is now in its second stage, and is 70 percent complete overall.

### ***Bridge Maintenance, Inspections and Operations***

#### **EAST RIVER BRIDGES ANTI-ICING PROGRAM**

Traditional snow and ice control practices rely heavily on the use of salt, a material known to corrode steel and accelerate the deterioration of concrete and asphalt surfaces. A new method of snow and ice control was needed to protect the City's \$2.5 billion investment in the rehabilitated East River Bridges. This method, known as anti-icing, involves the application of a chemical freezing point depressant to the roadway surface to prevent snow and ice from bonding to the roadway. Frequent plowing removes any accumulation of unbonded snow or ice before traffic is affected.

The Division's Anti-Icing Program uses the liquid chemical potassium acetate and aggregate chemical sodium acetate. The anti-icing fleet consists of fifteen spray trucks, ten plow trucks and several smaller plows. Six of the spray trucks are combination spray/plow trucks with an 1800 gallon tank capacity, and four are spray-spreader/plow trucks with a 900 gallon spray



## INNOVATIONS & ACCOMPLISHMENTS

capacity and an eleven cubic yard spreader capacity. There are twenty chemical storage tanks, with a total storage capacity of 113,750 gallons.

In the winter of 2003-2004, a total of 97,000 gallons of anti-icing chemicals were applied on the roadways of all four East River Bridges.

### SEISMIC RETROFITTING OF FLATBUSH AVENUE BRIDGE OVER BELT PARKWAY (BROOKLYN)

The Flatbush Avenue Bridge over Belt Parkway was rehabilitated in 2002 without the required seismic retrofitting that it needed. The rehabilitation design of the bridge was completed prior to the introduction of the Division's new seismic criteria and retrofitting requirements. The design of retrofitting the bridge for seismic loads was completed after the award of work to the contractor. The Division refused to accept a huge change order cost estimate proposed by the rehabilitation contractor, and instead entrusted the work to our in-house repair and maintenance forces. The Division crews successfully completed the seismic retrofitting work, which involved the modification of all of the bearings, the strengthening of the pier and abutments and other miscellaneous work.

The center pier was strengthened at eight locations on each side. Additional reinforcement was provided to strengthen the pier at the barrier level. Division engineers planned the locations of new buttresses, including where to drill holes and saw cut. Division masons performed saw cutting for the new buttresses and grooves; drilled 176 precisely measured holes; excavated below roadway level to reach the pier caps; grouted the rebars to the inside of the drilled holes using special grout pumps and grouting material; and poured concrete for each buttress. After saw-cutting the masons broke the concrete at the barrier level using jack hammers and excavated the roadway. Division ironworkers fabricated jigs for drilling holes, installed m-rails to protect the work area, installed rebars, and assisted the masons in drilling and bending of rebars after grouting. Division carpenters fabricated and installed form work for the concrete pours. Division engineers monitored work at each stage and ensured compliance with specifications. Concrete was tested at each pour. Division electricians relocated electrical conduits and fixtures as necessary. They also provided light and power for the work. When the concrete work was completed, the m-rails were removed, the roadway was paved and the area was cleaned. The project was completed on December 13, 2004. This is the first time that the in-house construction group has performed highly specialized work.



View of the Center Pier Before Project Start. Drilling the Holes at the Center Pier—Assistant City Highway Repairer Robert Rivas, Highway Repairer Vincent Sciulla, Cement Mason John Padovano, & Highway Repairer James Barlett. (Drilling Credit: Peter Basich) Rebars Installed by Ironworkers for Each Buttress.

## INNOVATIONS & ACCOMPLISHMENTS



Engineer Hany Soliman Inspecting the Form Work and Rebar Installation Before the Concrete Pour. (Credit: Peter Basich) Cement Masons Frank Finizio, Lawrence Marks, Thomas Valentino, & John Padovano Working on the Pier. (Credit: Peter Basich) Electricians Jerry Salzman & Robert Stackpole Relocating Electric Lines.



Carpenters Stephen Buckley & Joseph Moschella, Highway Repairer Vincent Sciulla, and Supervisor Carpenter Joseph Vaccaro Working on the Pier. View of the Center Pier After Project Completion.

## INSPECTIONS

In 2004, Inspections covered 114 bridges and 696 spans. Emphasis was placed on ensuring public safety through the monitoring of potentially hazardous conditions and temporary repairs. The unit performed 350 monitoring inspections, and 304 special winter monitoring inspections of cellular structures, shorings, and potential fire hazards. In addition, 146 emergency inspections were conducted in response to hot line calls, in-house requests, or citizen complaints.

The unit is also preparing a software and hardware upgrade of the system for bridge inspections using portable computers, to be completed in 2005.



Division Personnel Preparing to Conduct an Emergency Inspection of Paerdegat Bridge. (Credit: Alaa Ahmed) Emergency Inspection of the Northbound FDR Drive at 86<sup>th</sup> Street. (Credit: Samuel Teaw)

## *INNOVATIONS & ACCOMPLISHMENTS*

In 2002, the Division began to receive State DOT bridge inspection reports in CD-ROM format. Flag reports are now also transmitted electronically. As of September 2003, standard inspection work is funded by a federal grant. Emergency response inspections and administrative support remain city funded.

The Division is inspecting 31 Parks Department bridges on a priority basis, and the necessary flag repairs are being performed under our present When and Where contract utilizing \$500,000 transferred to us by Parks for this work. The bridges are: Footbridge North of Route 1 over Bronx River, West Footbridge over Prospect Park Stream, Footbridge Near Boathouse over Prospect Park Lake, Pedestrian Bridge at 73<sup>rd</sup> Street over HHP/Amtrak, West 151<sup>st</sup> Street Footbridge over Conrail 30<sup>th</sup> Street Branch, Footbridge Opposite 62<sup>nd</sup> Street over Bridle Path, Pedestrian Bridge Between 73<sup>rd</sup> and 74<sup>th</sup> Streets over the Lake, Footbridge Opposite 77<sup>th</sup> Street over the Lake, Pedestrian Walk Opposite 77<sup>th</sup> Street over Stream to Lake, Pedestrian Walk Opposite 86<sup>th</sup> Street over Bridle Path (both directions), High Bridge Pedestrian Overpass, Isham Park Pedestrian Bridge over Harlem River Inlet, Belmont Park Ramp, Motor Parkway Pedestrian Bridge over Francis Lewis Boulevard, Motor Parkway Pedestrian Bridge over Bell Boulevard, Motor Parkway Pedestrian Bridge over Springfield Boulevard, Motor Parkway Pedestrian Bridge over Hollis Court Boulevard, Flushing Meadow Park Pedestrian Bridge over Lawrence Street, Motor Parkway Pedestrian Bridge over 73<sup>rd</sup> Avenue, Motor Parkway Pedestrian Bridge over Alley Park Pedestrian Walk, Flushing Meadow Park over Willow Lake and 76<sup>th</sup> Road, Flushing Meadow Park over Stream North of Long Island Expressway, Highland Park Pedestrian Bridge over Pedestrian Path, Flushing Meadow Park Road over Aquacade Lake, West Footbridge over Clove Lake, East Footbridge over Clove Lake, Bridge over Dam at North End of Clove Lake, South of Brooks Lake over Stream in Park, Footbridge over Brooks Lake Dam, and Footbridge South of Forest Avenue over Stream in Park. In 2004, these bridges were added to the Division inventory.

### **STRAIN GAUGE TESTING**

The monitoring of cracks in the Manhattan Bridge anchorages utilizing displacement gauges by Strain Monitoring Systems continued in 2004. In a demonstration project provided at no cost to the City, the reduction in the main span torsion on the Manhattan Bridge under train loads is monitored with fiber-optic strain gauges as the stiffening of the structure approaches conclusion.

### **CLEANING**

In 2004, 10,008 cubic yards of debris were removed from bridges and their surrounding areas, and 1,221 drains were cleaned.

### **PIGEON DETERRENCE**

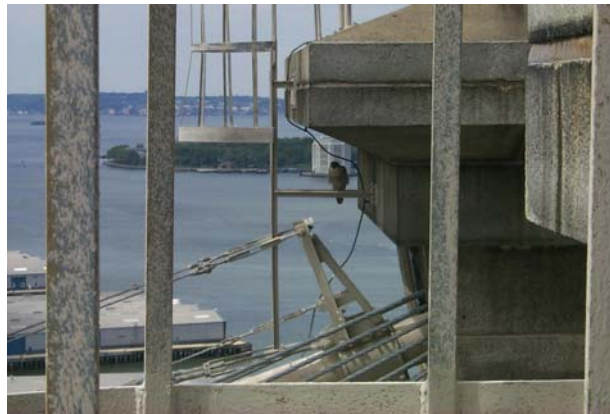
Excessive numbers of pigeons cause property deterioration, unsafe working conditions and health hazards. Besides being unsightly, accumulation of pigeon droppings and feathers is corrosive to steel structures and raises concerns about health hazards. Many disease organisms have been associated with pigeons. They harbor ectoparasites which can infest or bite humans. Pigeon droppings also harbor fungi that can trigger serious, even fatal, lung diseases such as Histoplasmosis, Cryptococcosis and Toxoplasmosis, when the spores are transmitted to humans who breathe in the harmful dust.

The Division utilizes a relatively low tech, and passive, approach to deterring pigeons. Chicken wire or heavier wire fabric is attached to metal studs to create panels which are used, much like a drop ceiling, to keep the pigeons out. The panels rest horizontally on top of the bottom flanges of the steel beams, and vertically along the top of the abutment walls. The pigeons are caged



## INNOVATIONS & ACCOMPLISHMENTS

out. This method is currently in use under the Brooklyn Bridge approach (over Cadman Plaza East), Shore Parkway over Bay Ridge Avenue, and under the Pulaski Bridge approach (over Clay Street). In 2004, pigeon dropping removal and/or pigeon proofing were performed at the East Tremont Avenue Bridge over Hutchinson River Parkway, the Hutchinson River Parkway Bridge over the Hutchinson River, the Van Cortlandt Park Bridge over Henry Hudson Parkway, the Boston Post Road Bridge over the Hutchinson River, the Belt Parkway Bridge over Bay Parkway, the East 14<sup>th</sup> Street Pedestrian Bridge over Belt Parkway, the Madison Avenue Bridge over the Harlem River, the Roosevelt Island Bridge over the East River and East Channel, the Tompkins Avenue Bridge over Greenfield Avenue, SIRT South Shore over Amboy Road, SIRT South Shore over Luten Avenue, SIRT South Shore over South Railroad Avenue, SIRT South Shore over Buel Avenue, SIRT South Shore over Seaview Avenue, SIRT South Shore over Cromwell Avenue, SIRT South Shore over Bay Street, the Grand Concourse Bridge over East 174<sup>th</sup> Street, the Grand Concourse Bridge over East 175<sup>th</sup> Street, the Bruckner Expressway Southbound over the Bronx River, and the Cross Island Parkway over Fort Totten Entrance.



Nature's Pigeon Deterrent—A Falcon  
on the Brooklyn Bridge South Side Tower

### PAINTING

In 2004, the following bridges were painted: Belt Parkway Bridge over Bay Parkway, Belt Parkway Bridge over Bay Ridge Parkway, Brooklyn-Queens Expressway over Atlantic Avenue, Cross Bay Boulevard Bridge over Belt Parkway, Farmers Boulevard Bridge over Southern Parkway, FDR Drive Promenade at the Brearly School, Grand Avenue Bridge over Long Island Expressway, Greenpoint Avenue Bridge over Newton Creek, Hamilton Place Bridge over Long Island Expressway, Henry Hudson Parkway Viaduct over West 72<sup>nd</sup> to West 79<sup>th</sup> Street, Linden Boulevard Bridge over Cross Island Parkway, Madison Avenue Bridge over Harlem River, Park Avenue Tunnel under 34<sup>th</sup> Street, Queensboro Bridge, Seeley Street Bridge over Prospect Avenue, Superior Road Bridge over Cross Island Parkway, Winchester Boulevard Bridge over Cross Island Parkway, 5<sup>th</sup> Avenue Bridge over Prospect Expressway, 11<sup>th</sup> Avenue Viaduct over LIRR West Side Yard, 17<sup>th</sup> Avenue Pedestrian Bridge over Belt Parkway, 69<sup>th</sup> Street Bridge over Long Island Expressway, 81<sup>st</sup> Street Pedestrian Bridge over the Belt Parkway, 130<sup>th</sup> Street Bridge over Belt Parkway, 236<sup>th</sup> Street Pedestrian Bridge over Henry Hudson Parkway, and East 241<sup>st</sup> Street Bridge over the Bronx River Parkway and Metro North.

## INNOVATIONS & ACCOMPLISHMENTS



Detail of Freshly Painted East 241<sup>st</sup> Street Bridge. Queensboro Bridge Work Platform & Containment. (Queensboro Credit: Daniel Lima)



Madison Avenue Bridge Containment. Detail of Freshly Painted Bridge.

During 2004, the following structures were also painted: Borden Avenue Bridge Operator House, Railings of Battery Place Bridge over FDR Drive, Brooklyn Army Terminal Fleet Services Facility, Railings of Brooklyn Bridge over Brooklyn-Queens Expressway, Railings of Promenade over FDR Drive from East 79<sup>th</sup> to East 91<sup>st</sup> Streets, Flatlands Fleet Services Facility Trailer, Glendale Yard Highway Maintenance Facility, Hamilton Avenue Asphalt Plant Control Tower and Hall, Harper Street Fleet Services Facility, Mill Basin Bridge Operator House, DEP Plant at Port Richmond, Staten Island, Pulaski Bridge Operator House, Red Light Camera Offices at 34-02 Queens Boulevard, Riverside Drive Facility at West 158<sup>th</sup> Street, Union Street Bridge Operator House, Van Courtland Yard Highway Maintenance Facility, Willis Avenue Bridge Operator House, 3<sup>rd</sup> Street Bridge Operator House, Support Column of East 10<sup>th</sup> Street Pedestrian Bridge over FDR Drive, DEP Plant at West 135<sup>th</sup> Street at North River.

### GRAFFITI REMOVAL

In 2004, 5,530,319 square feet of graffiti were eliminated. This program focuses its primary attention on the four East River bridges, as well as the following 21 arterial highways: Clearview Expressway, Gowanus Expressway/Belt Parkway, Major Deegan Expressway, Harlem River Drive, Van Wyck Expressway/Whitestone Expressway, Brooklyn-Queens Expressway, Jackie Robinson Parkway, Sheridan Expressway, Hutchinson River Parkway, Henry Hudson Parkway, West Shore Expressway, Richmond Parkway, Martin Luther King Jr. Expressway, Staten Island Expressway, Bruckner Expressway, Prospect Expressway, Grand Central Parkway, Long Island Expressway, Cross Bronx Expressway, Nassau Expressway, and Bronx River Parkway.

## INNOVATIONS & ACCOMPLISHMENTS



Pressure Washing Machine Used for Graffiti Removal. It is Set to 2500 psi and 212° F.



Williamsburg Bridge Graffiti Removal. (Credit: Vadim Sokolovsky)



Removing Graffiti From the Manhattan Pier of the Williamsburg Bridge. (Credit: Vadim Sokolovsky)

During 2004, graffiti was also removed from the following structures: Atlantic Avenue, Barlow Circle, Battery Park Underpass, Bruckner Boulevard, City Hall Area, Cortelyou Road between Ocean Avenue and Coney Island Avenue, Cross Island Parkway, FDR Drive, Grand Concourse over East 175<sup>th</sup> Street, Harper Street Yard, Liberty Park Tunnel, Madison Square Garden Area, the New York City Marathon Route, Orchard Beach Road, Park Avenue Tunnel under 34<sup>th</sup> Street, Pulaski Bridge over Newtown Creek, Westside Highway, Whitehall Street, and Woodhaven Boulevard.



## INNOVATIONS & ACCOMPLISHMENTS

### RESEARCH AND PRESENTATIONS

In 2004, research work and/or case histories of the Division were presented in the following proceedings:

Bridges 2004: The 12th Annual Conference and Exhibition, London, England, 9 March 2004. Dr. Bojidar Yanev, the Division's Executive Director of Inspections and Bridge Management, delivered the address, *Management for the Bridges of New York City*, as well as a case study of the East River Bridges.

5<sup>th</sup> International Conference on Case Histories in Geotechnical Engineering, New York City, 13 – 17 April 2004. Yegian, M. K. *Seismic Geotechnical Investigation of Bridges in New York*.

Moving New York: Transportation Projects in the Metropolitan Area (10<sup>th</sup> Annual Seminar) of the New York Interagency Engineering Council, 13 May 2004. The Division presented papers dealing with the sensor system at Westchester Avenue over the Hutchinson River Parkway and the future East 153<sup>rd</sup> Street cable-stayed bridge over MNRR.

4<sup>th</sup> International Workshop on Structural Control, New York City, 10 – 11 June 2004. Ye, Q. *Dynamic Testing on the Brooklyn Bridge*.

"Foundation Retrofit of Third Avenue Bridge in New York," Geotechnical Engineering For Transportation Projects: Proceedings Of Geo-trans 2004, July 27-31, 2004, Los Angeles, California (Geotechnical Special Publication).

Second National Prefabricated Bridge Elements and Systems Workshop, New Brunswick, New Jersey, 8 – 10 September 2004. Sklavounakis, C., and Norrish III, C. *Replacement of the Belt Parkway Bridge over Ocean Parkway*.

Bridge Engineering Association, 4 October 2004. Chief Bridge Officer Henry Perahia delivered the opening presentation of the "Bridge Structures: Assessment, Design and Construction" seminar. His subject was the "Float-In of the Third Avenue Swing Span". Dr. Yanev chaired the session on the Monitoring and Testing of Bridges.

In addition, Dr. Yanev continued his participation on the technical advisory panels of the National Council for Highway Research (NCHR) for the following projects: FHWA DTFH61-98-C-00094 *Seismic Vulnerability of the Highway System* and NCHRP 10-57 *Strength Evaluation of Parallel Wire Suspension Bridge Cables*. The results of the latter work were published in NCHRP Report 534 "Guidelines for Inspection and Evaluation of Suspension Bridge Parallel-Wire Cables."

Dr. Yanev serves on the ASCE Committee working on revising the NYC Building Code. He continues to serve on the advisory panel of the NYC Department of Buildings for emergency response after citywide disasters.

Dr. Yanev is coordinator of the bridge track on the Congress Steering Committee for the 2005 ASCE Structures Congress: Metropolis & Beyond, to be held in New York, 20 – 24 April, 2005.

Dr. Yanev hosted the New York leg of the annual U. S. - Japan Bridge Engineer's tour in October 2004, the visit of Osaka Municipal Engineers in November 2004, and the visits of Tokyo Municipal Engineers and Hanshin Expressway Engineers in December 2004.

In addition, the Division sponsors an in-house lecture series, inviting speakers from industry and academia several times a month. Highlight topics of the presentations in 2004 included: remote structural monitoring; refurbishment and strengthening of bridges; concrete emergencies and long-term repairs and strengthening.

## INNOVATIONS & ACCOMPLISHMENTS



Dr. Yanév (Center) With the Children at the Agency's Third Annual "Take Our Children to Work Day." (Credit: Michele N. Vulcan)



Dr. Yanév on the Temporary Northbound FDR Drive at 60<sup>th</sup> Street. (Credit: Samuel Teaw)

## Appendix A

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### BRIDGE CAPITAL PROGRAM

<b>East River Bridge Rehabilitation Plans</b>	<b>A-1</b>
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<b>Bridges Under Construction</b>	<b>A-2</b>
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<b>Component Rehabilitation</b>	<b>A-3</b>
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<b>Bridges Under Design</b>	<b>A-4</b>
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<b>MANHATTAN BRIDGE</b> REHABILITATION ITEMS TOTAL ESTIMATED COST	
	Est. Cost (\$ in millions)
• Repair floor beams. (1982)	0.70*
• Replace inspection platforms, subway stringers on approach spans. (1985)	6.30*
• Install truss supports on suspended spans (1985)	0.50*
• Partial rehabilitation of walkway. (1989)	3.00*
• Rehabilitate truss hangers on east side of bridge. (1989)	0.70*
• Install anti-torsional fix (side spans) and rehabilitate upper roadway decks on approach spans on east side; replace drainage system on approach spans, install new lighting on entire upper roadways east side, including purchase of fabricated material for west side of bridge. (1989)	40.30*
• Eyebar rehabilitation - Manhattan anchorage Chamber "C". (1988)	12.20*
• Replacement of maintenance platform in the suspended span. (1982)	4.27*
• Reconstruct maintenance inspection platforms, including new rail and hanger systems and new electrical and mechanical systems; over 2,000 interim repairs to structural steel support system of lower roadway for future functioning of roadway as a detour during later construction contracts. (1992)	23.50*
• Install anti-torsional fix on west side (main and side spans); west upper roadway decks, replace drainage systems on west suspended and approach spans; walkway rehabilitation (install fencing, new lighting on west upper roadways and walkways); rehabilitate cables in both Brooklyn and Manhattan anchorage chambers; dehumidify Brooklyn and Manhattan anchorages. (1997)	141.82*
• Installation of test panels. (1982)	1.55****
• Removal of existing suspender ropes and sockets in the suspended spans; replacement with new suspender ropes and sockets in the suspended spans and re-tensioning of suspender ropes bearing plates; re-tensioning of cable band bolts; removal of existing main cable wrapping; cleaning of main cables; application of new protective paste on main cables; replacement of new main cable wrapping; reinforcement of truss verticals and gusset plates. (2009)	70.00***
• Interim Steel Rehabilitation and Painting - cable and saddle repairs lower roadway floorbeams @PP 37/38 on approaches and at anchorages; west side truss rockers and grillages on approaches; cable and suspender repairs. Removal of parking desk. Painting entire west side, all four cables. (2001)	127.98*

<b>MANHATTAN BRIDGE</b> REHABILITATION ITEMS TOTAL ESTIMATED COST		Est. Cost (\$ in millions)
<ul style="list-style-type: none"> <li>Stiffening of Main Span; Reconstruction of North Subway framing; reconstruction of North upper roadway deck at suspended spans; rehabilitation of north approach span trusses; replace overlay on north upper roadway approach spans; rehabilitation of north elevated structures and subway tunnels; removal of railing on truss "D" in the north spans; painting of north side of bridge; new inspection platforms and debris protection in approach spans; construction of new north bikeway, replacement of approach span bearings and grillages; installation of Intelligent Vehicle Highway System for North and South Upper Roadways as well as for Lower Roadway. (Present)</li> </ul>	175.38**	
<ul style="list-style-type: none"> <li>Rehabilitation of Lower Roadway; rehabilitation of anchorage roofs under lower roadway; rehabilitation of substructures and retaining walls in Brooklyn and Manhattan approaches; installation of new signage on bridge and at plaza areas; installation of new lighting on lower roadway and plaza areas; clean and paint lower roadway; installation of grating platform under towers at lower roadway; canopy lighting at towers. (Present)</li> </ul>	148.39**	
<ul style="list-style-type: none"> <li>Seismic Retrofit (2009)</li> </ul>	20.00***	
<b>TOTAL: \$ 776.59</b>		
* Construction Complete ** In Construction *** In Design **** Research and Development (completed)		

**QUEENSBORO BRIDGE**  
**REHABILITATION ITEMS**  
**TOTAL ESTIMATED COST**

	Est. Cost (\$ in millions)
• Repair lower outer roadways / reconstruct two ramps in lower Queens (1984)	18.80*
• Reconstruct south upper roadway, replace inspection platforms, lighting (1986)	31.50*
• Interim rehabilitation, contracts A, B, & C (repairs to lower deck and main bridge approaches). (1985)	2.80*
• Interim rehabilitation, contract D (repairs to lower deck, main bridge, and new median barrier). (1988)	3.00*
• Reconstruct north upper roadway and Queens approaches A & B, rehabilitate bearings at Queens approach. (1989)	50.00*
• Reconstruct ramps C & D (Queensboro only, not Thompson Ave.) (1988)	10.40*
• Rehabilitate bridge bearings, pier tops, and truss lower chords. (1989)	18.00*
• Rehabilitate Queens approach trusses, lower inner roadways on the main span and approaches. (1996)	172.00*
• Rehabilitate lower outer roadways main span and approaches, (bikeway) cleaning and painting. (2001)	216.93*
• Cleaning and painting main bridge upper trusses. (In Progress)	167.75**
• Miscellaneous Items (In Progress)	34.84**
• Seismic Retrofit	15.00***

**TOTAL: \$ 741.02**

\* Construction Complete

\*\* In Construction

\*\*\* In Design



<b>WILLIAMSBURG BRIDGE</b> REHABILITATION ITEMS TOTAL ESTIMATED COST	
	Est. Cost (\$ in millions)
• Replace main span outer roadway. (1983)	11.20*
• Replace one third of suspenders. (1984)	3.20*
• Repair pier 20E foundation, and replace bulkhead. (1986)	2.30*
• Paint side spans and towers. (1985)	1.10*
• Paint main and approach spans. (1989)	4.24*
• Emergency interim repairs. (1989)	10.00*
• Install temporary hand-rope system on main cables. (1990)	0.63*
• Main cable preservation (field test - oiling). (1991)	0.44*
• Main cable strand splicing at Manhattan anchorage. (1991)	0.29*
• Interim pedestrian walkway. (1994)	1.05*
• Component repairs of flag conditions on the north outer roadway and north inner roadway. (1994)	4.12*
• Rehabilitate main cables and new redundant suspender system. (1996)	88.30*
• Demolish existing building under approaches. (1993)	1.50*
• Testing Program for bored-in piles. (1993)	0.74*
• Demolish DOS and DOH buildings, replace entire south outer roadway approach structures, rehabilitate south outer roadway deck and south inner roadway deck of the main bridge, and replace south inner roadway substructure of the approaches. (1998)	198.00*

<b>WILLIAMSBURG BRIDGE</b> REHABILITATION ITEMS TOTAL ESTIMATED COST	
	Est. Cost (\$ in millions)
• Portion of Contract #6 BMT track structure work transferred to Contract #5 south approach roadway reconstruction work. (1998)	65.00*
• Paint main and intermediate towers. (2001)	14.90 *(1)
• Reconstruct BMT Subway structure; install new signals, tracks and communication system. (2000)	166.65*
• Miscellaneous rehabilitation work: rehabilitation of towers, replace bearings, travelers, architectural work, painting of north and south trusses, suspender adjustment, tower jacking, construction of colonnades.	172.90**
• Replace north approach structures (Manhattan / Brooklyn), and rehabilitate north half of bridge. (2002)	233.00*
• Seismic Retrofit	10.00***
<b>TOTAL: \$ 989.56</b>	

\* Construction Complete

\*\* In Construction

\*\*\* In Design

(1) Painting suspended in 1996 pending publication of Environmental Impact Statement (EIS) in 1998. Painting resumed under a new schedule in 1999 and was completed in 2001.

**BROOKLYN BRIDGE**  
**REHABILITATION ITEMS**  
**TOTAL ESTIMATED COST**

	Est. Cost (\$ in millions)
• Brooklyn Tower protection and new sign gantries. (1981)	2.72*
• Rehabilitate promenade between towers. (1983)	0.94*
• Rehabilitate cables in anchorage and replace short rod suspenders; rehabilitate balance of promenade and construct bikeway and new pedestrian ramp. (1988)	22.68*
• Rehabilitate and paint York, Main, William and Prospect Street structures and main bridge roadway deck overlay. (1988)	6.21*
• Replace suspenders, cable posts, stay cables, hand-rope necklace lights, main cable wrapping; paint suspended spans. (1991)	53.57*
• Rehabilitate ramp E. concrete piers of ramp C and abutment at ramps C & I, and rehabilitate Sands and Washington Street structures in Brooklyn. (1991)	4.73*
• Rehabilitate ramp D and H in Manhattan; permanent improvement of promenade at Manhattan approach. (1993)	17.92*
• Rehabilitate floor systems, stiffening trusses, roadways of suspended spans and Franklin Square trusses. (1994)	66.30*
• Rehabilitate Manhattan traveler (electrical work). (1997)	1.83*
• Rehabilitate ramp D and widening along the FDR Drive. (1996)	11.50*
• Arch supports for Franklin Square truss structure.	9.50*
• Replacement of Suspended Span Deck (2000)	36.2*
• Resurfacing of the main spans (1998)	6.67*



**BROOKLYN BRIDGE**  
 REHABILITATION ITEMS  
 TOTAL ESTIMATED COST

	Est. Cost (\$ in millions)
• • Improvement of Manhattan end of promenade (2001)	4.50*
• Rehabilitate Brooklyn approach & ramps (B, S, F) and Rehabilitate Manhattan approaches and remaining ramps (A,B,C,F,G,I,J). (In Progress)	115.00**
• Painting	74.00**
• Seismic Retrofit	25.00**
• • Replacement of Travelers	11.00**

**TOTAL: \$ 470.27**

\* Construction Complete

\*\* In Design

\*\*\* In Construction

**BRIDGES UNDER CONSTRUCTION**

CALENDAR YEAR 2004

**CONTRACT # BRIDGE**

HBX663	3 <sup>rd</sup> Avenue Bridge over Harlem River (& 3 <sup>rd</sup> Avenue Ramp to Bruckner Boulevard)
HBX1029	145 <sup>th</sup> Street over Harlem River
HBX1086B	Westchester Avenue Bridge over Hutchinson River Parkway
HBX1155	Manhattan College Parkway over Henry Hudson Parkway
HBX1156	West 239 <sup>th</sup> Street Bridge over Henry Hudson Parkway
HBX1157	West 252 <sup>nd</sup> Street Bridge over Henry Hudson Parkway
HBX1158	West 232 <sup>nd</sup> Street Bridge over Henry Hudson Parkway
HBK1024E	Belt Parkway Bridge over Paerdegat Basin (Emergency Contract)
HBK1035	Sutter Avenue Bridge over LIRR
HBK1036/1037	Atlantic Avenue Bridges (EB & WB) over East New York Avenue
HBK1039	15 <sup>th</sup> Avenue Bridge over NYCT
HBK1040	18 <sup>th</sup> Avenue Bridge over NYCT
HBK1095	Cortelyou Road Bridge over BMT Subway
HBK1097	Pitkin Avenue Bridge over LIRR
HBK1098	7 <sup>th</sup> Avenue Bridge over NYCT
HBK1132	2 <sup>nd</sup> Avenue Bridge over LIRR
HBK1149	Metropolitan Avenue Bridge over English Kills
HBX1163	Gun Hill Road Bridge over Metro North RR
HBK1168	Congress Street over Brooklyn-Queens Expressway
HBK1169	14 <sup>th</sup> Avenue Bridge over LIRR
HBK1193	Belt Parkway Bridge over Ocean Parkway
HBK1196	Glenmore Avenue Bridge over LIRR Bay Ridge
HBK1216	Lincoln Road Bridge over BMT Subway
HBKC059	East 3 <sup>rd</sup> Street Bridge over LIRR
HBKC063	52 <sup>nd</sup> Street Bridge over LIRR
HBKC1144	Brooklyn-Queens Expressway (WB) over Furman Street & Brooklyn-Queens Expressway (EB) over Brooklyn-Queens Expressway (WB)
HBM1094	West 37 <sup>th</sup> Street Bridge over Amtrak
HBQ656	Cross Bay Boulevard Bridge over Conduit Boulevard
HBQ1181/1182	Steinway Street Bridges over Grand Central Parkway WB & EB (Brooklyn-Queens Expressway)
HBQ1199	Andrews Avenue Bridge over LIRR
BRC156C	Manhattan Bridge – Contract #10
BRC231C	Queensboro Bridge – Contract #6
BRC253CC	Williamsburg Bridge – Contract #8
BRX287R	Macombs Dam Bridge over Harlem River
HBMC023	Rehabilitation of electrical/mechanical components for First Avenue Tunnel, Park Avenue Tunnel, and Battery Park Underpass

BRIDGE CONSTRUCTION	
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<i>Projects Completed in Calendar Year 2004</i>	
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CONTRACT #	BRIDGE
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HBX1086B	Westchester Avenue Bridge over Hutchinson River Parkway
HBK1024E	Belt Parkway Bridge over Paerdegat Basin (Emergency Contract)
HBK1035	Sutter Avenue Bridge over LIRR
HBK1036/1037	Atlantic Avenue Bridges (EB & WB) over East New York Avenue
HBK1098	7 <sup>th</sup> Avenue Bridge over NYCT
HBK1132	2 <sup>nd</sup> Avenue Bridge over LIRR
HBK1169	14 <sup>th</sup> Avenue Bridge over LIRR
HBK1193	Belt Parkway Bridge over Ocean Parkway
HBK1196	Glenmore Avenue Bridge over LIRR Bay Ridge
HBKC059	East 3 <sup>rd</sup> Street Bridge over LIRR
HBKC063	52 <sup>nd</sup> Street Bridge over LIRR
HBM1094	West 37 <sup>th</sup> Street Bridge over Amtrak
HBQ656	Cross Bay Boulevard Bridge over Conduit Boulevard

### Component Rehabilitation

The following table illustrates the program's performance over the last eight years:

	FY 97	FY 98	FY 99	FY 00	FY 01	*FY 02	**FY 03	#FY 04
Number of Bridges	30	13	21	24	16	0	0	12
Construction Cost	\$15.9 M	\$8.8 M	\$15.7 M	\$5.26 M	\$13.2 M	\$0	\$0	\$8.25

\*No contracts were bid during the 2002 calendar year.

\*\*One contract was bid during the 2003 calendar year, but was not registered until February 2005.

# One contract was bid during the 2004 calendar year, but was not registered until February 2005.

In 2004, work was completed at the following bridge, in the indicated borough, at the final cost shown, in millions:

Broadway Bridge over Harlem River (BM)	\$2.140
<b>TOTAL</b>	<b><u>\$2.140 M</u></b>

During calendar year 2004, work commenced at the following bridges.

East Tremont Avenue/Hutchinson River Parkway (B)  
 Grand Concourse/East 170<sup>th</sup> Street (B)  
 Grand Concourse/East 175<sup>th</sup> Street (B)



### Component Rehabilitation

There is no projects “still under construction” since the 2003 *Annual Report* was issued.

23 component rehabilitation projects are slated to continue, commence or be completed in the 2005 calendar year. They are:

- Bedford Park Boulevard/Metro North (BX)
- East Tremont Avenue/HRP (BX)
- Grand Concourse/East 170<sup>th</sup> Street (BX)
- Grand Concourse/East 175<sup>th</sup> Street (BX)
- Riverdale Avenue/HHP (BX)
- 3<sup>rd</sup> Avenue/Conrail Port Morris (BX)
- East 149<sup>th</sup> Street/Metro North (BX)
- East 156<sup>th</sup> Street/Conrail Port Morris (BX)
- East 168<sup>th</sup> Street/Metro North (BX)
- East 173<sup>rd</sup> Street/Metro North (BX)
- East 238<sup>th</sup> Street (Nereid Avenue)/Bronx River Pkwy. & Metro North (BX)
- West 246<sup>th</sup> Street/HHP (BX)
- Cypress Hills Cemetery Road (E)/JRP (Q) (demolition)
- Cypress Hills Cemetery Road (W)/JRP (Q) (demolition)
  
- 3<sup>rd</sup> Avenue over Gowanus Canal (K)
- 49<sup>th</sup> Street over Grand Central Parkway (Q)
- Jamaica Avenue over Cross Island Parkway (Q)
- Metropolitan Avenue Bridge over Conrail (Q)
- Bronx Boulevard N.B. over Bronx River (BX)
- Bronx Boulevard S.B. over Bronx River (BX)
- Fort Tryon Place over Entrance from Riverside Drive (M)
- Unionport Road over Amtrak (BX)
- E. 149th Street over Amtrak (BX)

## BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2241129	HBCREPL99A	E 149 <sup>TH</sup> ST	AMTRAK	2005	FD	B
2241330	HBCREPL99A	UNIONPORT RD	AMTRAK	2005	FD	B
2242071	HBCREPL99A	BRONX BLVD S.B.	BRONX RIVER	2005	FD	B
2242072	HBCREPL99A	BRONX BLVD N.B.	BRONX RIVER	2005	FD	B
2241259	HBPED	204TH ST PED BRIDGE	METRO NORTH RR	2006	DB	B
2241570	HBX199	E 153RD ST.	METRO NORTH RR	2006	FD	B
2075837	HBX1086	WESTCHESTER AVENUE	HRP	2007	FD	B
2241590	HBX1103	CONCOURSE VILL AVE	METRO NORTH RR HAR	2009	FD	B
2242259	HBX1104	GRAND CONCOURSE	E 161ST ST	2006	FD	B
1066510	HBX1131	BRUCKNER EXP.	WESTCHESTER CREEK	2006	FD	B
2241800	HBX1139	E 183RD ST	METRO NORTH RR HAR	2006	FD	B
NEW 2240200	HBX1148B	SHORE ROAD (NEW)	HUTCHINSON RIVER	2012	PD	B
2241210	HBX1152	BRYANT AVE	AMTRAK	2006	PD	B
2241710	HBX1160	CLAREMONT PKWY	METRO NORTH RR HAR	2006	FD	B
2240210	HBX1164	CITY ISLAND ROAD	EASTCHESTER BAY	2007	PD	B
2241810	HBX1172	E 188TH ST	METRO NORTH RR HAR	2011	FD	B
2241409	HBX1190	GRAND CONCOURSE	METRO NORTH RR HUD	2010	PD	B
2242319	HBX1191	GRAND CONCOURSE	E 174 <sup>TH</sup> ST	2010	PD	B
2241390	HBX1195	SHORE RD CIRCLE	AMTRAK	2006	FD	B
2240137	HBM1147	BROADWAY	HARLEM RIVER	2011	PD	BM
2240079	HBX644S	MADISON AVE	HARLEM RIVER	2012	PD	BM
1240090	BRX287S	MACOMBS DAM BRIDGE	HARLEM RIVER	2014	PD	BM
2240027	BRC156R	MANHATTAN BRIDGE (LL)	EAST RIVER	2009	FD	KM
2240028	BRC156R	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	2009	FD	KM
2240028	BRC156S	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	2011	PD	KM
2240039	BRC253S	WILLIAMSBURG BRIDGE	EAST RIVER	2011	FD	KM
2240019	BRC270C	BROOKLYN BRIDGE	2781 (B.Q.E.)	2009	FD	KM
2240019	BRC270S	BROOKLYN BRIDGE	2781 (B.Q.E.)	2011	PD	KM
2240019	BRC270T	BROOKLYN BRIDGE	2781 (B.Q.E.)	2006	FD	KM
VARIOUS	HBCBORERS-R	VARIOUS	VARIOUS	2006	FD	KM
2240310	HBCREPL99A	3 <sup>RD</sup> AVE	GOWANUS CANAL	2005	FD	K
2231419	HBCREPL99B	BSHP	OCEAN AVENUE	2006	FD	K
2243480	HBCREPL99B	OCEAN AVE	LIRR	2007	FD	K
2243710	HBKC062	19TH AVE	BMT SEA BEACH	2010	FD	K
2243100	HBKC064	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	2007	FD	K
2269260	HBPED	W 8 <sup>TH</sup> ST PED BRIDGE	SURF AVE	2007	DB	K
2231330	HBPED	27 <sup>TH</sup> AVE PED BRIDGE	BSHP	2007	DB	K
2231300	HBPED	17 <sup>TH</sup> AVE PED BRIDGE	BSHP	2007	DB	K
2231260	HBPED	92 <sup>ND</sup> ST PED BRIDGE	BSHP	2007	DB	K
2243020	HBK530	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	2008	FD	K
2243050	HBK531	CATON AVE	BMT SUBWAY, BRIGHTON	2009	FD	K
2243820	HBK548	21ST AVE	BMT SEA BEACH	2010	FD	K
2231450	HBK643	BSHP	GERRITSEN INLET	2008	FD	K
2231370	HBK668	E 8 <sup>TH</sup> ST ACCESS RMP	BSHP	2006	FD	K
2231479	HBK1023	BSHP	MILL BASIN	2008	FD	K

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## BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2231489	HBK1024	BSHP	PAERDEGAT BASIN	2007	FD	K
2243080	HBK1032	CHURCH AVE	BMT SUBWAY, BRIGHTON	2009	FD	K
2243510	HBK1046	FLATBUSH AVE	LIRR BAY RIDGE	2007	FD	K
2231509	HBK1072	BSHP	FRESH CREEK	2007	FD	K
2231249	HBK1089	BSHP	BAY RIDGE AVE	2008	PD	K
2231439	HBK1090	BSHP	NOSTRAND AVE	2008	PD	K
2231499	HBK1091	BSHP	ROCKAWAY PKWY	2008	PD	K
2240231	HBK1140	HAMILTON AVE BRIDGE	GOWANUS CANAL	2006	FD	K
2240232	HBK1140	HAMILTON AVE BRIDGE	GOWANUS CANAL	2006	FD	K
2230887	HBK1151	278I W.B. (B.Q.E.)	CADMAN PLAZA	2005	FD	K
2230888	HBK1151	278I E.B. (B.Q.E.)	CADMAN PLAZA	2005	FD	K
2243140	HBK1153	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	2005	FD	K
2243040	HBK1154	CROOKE AVE	BMT SUBWAY, BRIGHTON	2005	FD	K
2243569	HBK1201	ATLANTIC AVE	LIRR ATLANTIC AVE	2013	PD	K
2240270	HBK1213	UNION STREET BRIDGE	GOWANUS CANAL	2015	PD	K
2240390	HBK1161	GRAND ST BRIDGE	NEWTON CREEK	2013	PD	KQ
2240047	BRC231S	QUEENSBORO BRIDGE (LL)	EAST RIVER	2011	PD	MQ
2240048	BRC231S	QUEENSBORO BRIDGE (UL)	EAST RIVER	2011	PD	MQ
2240640	HBC1117	ROOSEVELT ISLAND	E. RIVER E. CHANNEL	2007	FD	MQ
2246500	HBCREPL99A	FORT TYRONE PLACE	ENT. FR. RIVERSIDE DR.	2005	FD	M
2246570	HBCREPL99B	UNITED NATIONS PLAZA	1 <sup>ST</sup> AVE TUNNEL	2006	FD	M
2245090	HBM032	W 43 <sup>RD</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	PD	M
2245130	HBM033	W 47 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2008	FD	M
2245150	HBM034	W 49 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2014	PD	M
2245340	HBM035	W 50 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2014	PD	M
2245180	HBM036	W 53 <sup>RD</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	PD	M
224501C	HBM037	W 33 <sup>RD</sup> ST	LAND ADJ TO AMTRAK	2010	PD	M
2268930	HPED	MORRIS ST PED BRIDGE	BRKLYN BTRY TNNL PLZ	2007	DB	M
2245400	HPED	PED BRIDGE WEST OF 8 <sup>TH</sup> AVE	W 155 <sup>TH</sup> ST	2006	DB	M
2269820	HPED	81 <sup>ST</sup> ST PROMENADE	FDR DRIVE	2007	DB	M
2232190	HPED	E 111 <sup>TH</sup> ST PED BRIDGE	FDR DRIVE	2006	DB	M
2246620	HPED	PED BRIDGE	E 128 <sup>TH</sup> ST	2007	DB	M
2246990	HPED	129 <sup>TH</sup> to 130 <sup>TH</sup> ST PED BRIDGE	RAMP OFF 3 <sup>RD</sup> AVE	2006	DB	M
2245290	HPED	W 155 <sup>TH</sup> ST PED BRIDGE	AMTRAK 30 <sup>TH</sup> ST BRANCH	2007	DB	M
2229400	HPED	W 181 <sup>ST</sup> ST PED BRIDGE	HHP NB	2006	DB	M
2246540	HBM551	E 34TH ST	PARK AVE TUNNEL	2010	PD	M
2233059	HBM1027	HARLEM RIVER DRIVE	RAMP TO HRD N.B.	2012	PD	M
2245010	HBM1120	11 <sup>th</sup> AVE VIADUCT	LIRR WEST SIDE YARD	2012	PD	M
2240059	HBM1124	WILLIS AVENUE	HARLEM RIVER	2007	FD	BM
224005A	HBM1124	FROM FDR DRIVE	HARLEM RIVER DRIVE	2007	FD	M
224005B	HBM1124	TO BRUCKNER BLVD (WILLIS)	RELIEF	2007	FD	M
2246490	HBM1145	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD	2007	FD	M
2246710	HBM1145B	W 153 ST	A.C. POWELL BLVD	2007	FD	M
2240620	HBM1159	WARDS ISLAND PED BRDG	HARLEM RIVER	2010	PD	M
2246720	HBM1165	RIVERSIDE DRIVE	W 158TH ST	2012	PD	M

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## BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
226672A	HBM1171	W 31 <sup>ST</sup> ST	AMTRAK LAYUP TRACKS	2007	FD	M
2245070	HBM1174	W 38 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2008	FD	M
2245080	HBM1175	W 39 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2008	FD	M
2245100	HBM1176	W 44 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	PD	M
2245120	HBM1177	W 46 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2014	PD	M
2245140	HBM1178	W 48 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2008	FD	M
2245210	HBM1179	W 42 <sup>ND</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2008	FD	M
2245440	HBM1180	W 40 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2014	PD	M
2245330	HBM1183	W 41 <sup>ST</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2014	PD	M
224501B	HBM1184	W 33 <sup>RD</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2010	PD	M
224501D	HBM1185	W 34 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2010	PD	M
224501E	HBM1186	W 35 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2010	PD	M
224501F	HBM1187	W 36 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2010	PD	M
2245209	HBM1188	11 <sup>TH</sup> AVE	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	PD	M
2229290	HBM1189	W 79 <sup>TH</sup> ST	AMTRAK	2012	PD	M
2267717	HBM1189	79 <sup>TH</sup> ST PED PLAZA	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2012	PD	M
2267718	HBM1189	79 <sup>TH</sup> ST TRAFFIC CIRCLE	79 <sup>TH</sup> ST PED PLAZA	2012	PD	M
226771A	HBM1189	79 <sup>TH</sup> ST RAMP TO HHP	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2012	PD	M
226771B	HBM1189	79 <sup>TH</sup> ST RAMP TO GARAGE	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2012	PD	M
226771C	HBM1189	GARAGE RAMP TO 79 <sup>TH</sup> ST	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2012	PD	M
226771D	HBM1189	SB HHP RAMP TO 79 <sup>TH</sup> ST	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2012	PD	M
2231819	HBCREPL99A	JAMAICA AVE	BCIP	2005	FD	Q
2247500	HBCREPL99A	METROPOLITAN AVE	CONRAIL	2005	FD	Q
2230890	HBCREPL99A	49 <sup>TH</sup> ST	GCP	2005	FD	Q
2231710	HBCREPL99B	MERRICK BLVD	BLP EB	2006	FD	Q
2231720	HBCREPL99B	MERRICK BLVD	BLP WB	2006	FD	Q
224004F	HBCREPL99B	TO NY FROM 21 <sup>ST</sup> ST	21 <sup>ST</sup> ST (QUEENS)	2006	FD	Q
224004G	HBCREPL99B	TO NY FROM 11 <sup>TH</sup> St	TERRAIN (CHAMBER)	2006	FD	Q
2231730	HBCREPL99B	130 <sup>TH</sup> AVE	BLP EB	2006	FD	Q
2231740	HBCREPL99B	130 <sup>TH</sup> AVE	BLP WB	2006	FD	Q
2247080	HBCREPL99B	149 <sup>TH</sup> ST	LIRR	2007	FD	Q
2240660	BRC289A	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL	2012	DB	Q
2231880	HBPED	CROCHERON PARK PED BRIDGE	BCIP	2007	DB	Q
1247280	HBPED	51 <sup>ST</sup> AVE PED BRIDGE	LIRR MAIN LINE	2007	DB	Q
2247190	HBPED	55 <sup>TH</sup> AVE PED BRIDGE	LIRR MAIN LINE	2006	DB	Q
NONE	HBPED	71 <sup>ST</sup> AVE PED BRIDGE	LIRR	2007	DB	Q
2247020	HBPED	94 <sup>TH</sup> ST PED BRIDGE	LIRR N SIDE	2006	DB	Q
7705510	HBPED	167 <sup>TH</sup> ST PED BRIDGE	LIRR PORT WASH BRANCH	2006	DB	Q
7703720	HBPED	216 <sup>TH</sup> ST PED BRIDGE	LIRR PORT WASH BRANCH	2007	DB	Q
1247560	HBQ1112	METRO AVE (FRESH POND)	LIRR MONTAUK DIV	2009	FD	Q
2231780	HBQ1114	HEMPSTEAD AVE	BCIP	2010	PD	Q
2266149	HBQ1114	HEMPSTEAD AVE	RAMP TO BCIP NB	2010	PD	Q
2231850	HBQ1115	UNION TPKE	BCIP	2010	PD	Q

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## BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2247120	HBQ1130	WOODSIDE AVE	LIRR MAIN LINE	2006	FD	Q
2248159	HBQ1134	WOODHAVEN BLVD	QUEENS BLVD	2008	FD	Q
2248160	HBQ1137	ELLIOT AVE	QUEENS BLVD	2009	PD	Q
2240410	HBQ1162	BORDEN AVE	DUTCH KILLS	2013	PD	Q
2231760	HBQ1173	BCIP	DUTCH BRDWAY-115 AVE	2013	PD	Q
2230869	HBQ1197	QUEENS BLVD	ACCESS ROAD TO BQE SB	2008	PD	Q
2231630	HBQ1200	SPRINGFIELD BLVD	BSOP	2009	PD	Q
2266129	HBQC063	WINCHESTER BLVD SB	BCIP	2009	PD	Q
2266160	HBQC064	WHITESTONE EXPRY/VAN WYCK EXPRY SB TO BCIP EB	ACCESS ROAD FROM WHITESTONE EXPRY/VAN WYCK EXPRY	2009	PD	Q
R00049	HBRC1145	VAN PELT AVE	WALKER ST	2008	FD	R
2249820	HBRC1149	ARTHUR KILL ROAD	ARTHUR KILL STREAM	2008	FD	R
2249250	HBPED	BETHEL AVE PED BRIDGE	SIRT SOUTH SHORE	2006	DB	R
2249230	HBPED	TRACY AVE PED BRIDGE	SIRT SOUTH SHORE	2007	DB	R
2249330	HBR1166	ANNADALE ROAD	SIRT SOUTH SHORE	2006	FD	R

PD=Preliminary Design; FD=Final Design; DB=Design Build

## Appendix B

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### FLAG CONDITIONS

**Definitions and Procedures**

**B-1**

**2000-2004 Red, Yellow and Safety Flags**

**B-2**

**Flag Reporting and Tracking Process**

**B-3**

## FLAG DEFINITIONS AND PROCEDURES

(Source: NYSDOT *Engineering Instruction 94-002*)

New York State Department of Transportation (NYSDOT) bridge inspection procedures require that "Flags" be issued to report the existence of conditions that pose a clear and present danger, or conditions which, if left unattended for an extended period, would likely become a clear and present danger.

A "Flag" is classified as either a Red Flag, Yellow Flag or Safety Flag.

*Red Flag* is used to report the failure or potentially imminent failure of a critical primary structural component. Potentially imminent means that a failure is likely before the next scheduled inspection. The maximum time between bridge inspections is two years. Red Flags must be addressed within six weeks.



Flag Engineers Inspecting a Red Flag (Floor Beam Web) on the Tower Structure of the Manhattan Bridge. Closeup of the Location. (Credit: Bojidar Yanev) Flag Engineers Inspecting a Red Flag on the Central Drive Bridge over Transverse Road #1-- the West Fascia Had a Long Crack Running From the South Abutment Wall to the North Abutment Wall. (Credit: Peter Basich)

*Yellow Flag* is used to report a potentially hazardous condition which, if left unattended beyond the next scheduled inspection, would likely become a clear and present danger. A Yellow Flag is also used to report the actual or imminent failure of a non-critical primary structural component, where its failure may diminish the reserve capacity or redundancy of the bridge but would not result in structural collapse or a clear and present danger.

## FLAG DEFINITIONS AND PROCEDURES

(Source: NYSDOT *Engineering Instruction 94-002*)



Flag Engineer Inspecting a Yellow Flag (Loose Masonry Panel) on the BQE under the Brooklyn Bridge. (Credit: Andy Hoang)

Flag Engineer Inspecting a Yellow Flag (Bottom Flanges are Corroded and Loose) at the Inwood Hill Park Footbridge (Credit: Tiffany Yau)

*Safety Flag* is used to report a condition that presents a clear and present vehicle or pedestrian traffic hazard, but there is no danger of structural failure or collapse.



72<sup>nd</sup> Street Cross drive Near Concert Grounds – The Posts Were Missing, Leaving the Bases Protruding Above the Sidewalk. This was a Tripping Hazard. Gun Hill Road over Bronx Boulevard – the Asphalt Surrounding the Catch Basin Had Settled, Causing the Grating to Deflect Under Heavy Traffic Loads. This was a Safety Hazard to Vehicles. (Description & Credit: NYSDOT)

Certain Red or Safety Flags may be further classified as Prompt Interim Action (PIA) flags. PIA flags must be addressed within 24 hours of discovery.



FLAG CONDITIONS BY CALENDAR YEAR						
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**Citywide**

	2000*	2001*	2002*	2003*	2004*	% increase (2000-2004)
FLAGS ROUTED	1,161	1,150	1,179	1,117	1,198	3%
RED	39	24	36	20	20	-49%
YELLOW	304	399	137	215	157	-48%
SAFETY	818	727	1,006	882	1,021	25%
TTL FLGS ELIMINATED	1,335	1,369	1,319	940	1,042	-22%
RED	42	32	42	21	33	-21%
YELLOW	368	452	307	192	233	-37%
SAFETY	925	885	970	727	776	-16%
TTL FLGS OUTSTANDING	1,872	1,653	1,513	1,690	1,846	-1%
RED	34	26	20	19	6	-82%
YELLOW	851	798	628	654	578	-32%
SAFETY	987	829	865	1,017	1,262	28%

**Division of Bridges Workload**

FLAGS ROUTED	987	1,039	959	935	976	-1%
RED	39	23	35	13	19	-51%
YELLOW	301	399	137	211	154	-49%
SAFETY	647	617	787	711	803	24%
FLAGS ELIMINATED	1,068	1,230	1,140	764	918	-14%
RED	40	31	41	14	32	-20%
YELLOW	349	451	305	183	233	-33%
SAFETY	679	748	794	567	653	-4%
FLAGS OUTSTANDING	1,581	1,397	1,237	1,389	1,435	-9%
RED	34	26	20	19	6	-82%
YELLOW	835	783	615	625	540	-35%
SAFETY	712	588	602	745	889	25%

\*The number of flags routed, eliminated, and outstanding has been revised since the 2003 Annual Condition Report.

## FLAG REPORTING AND TRACKING PROCESS

There are three primary sources from which flags originate:

- NYSDOT inspectors
- NYCDOT inspectors
- NYCDOT Communications Center

### State DOT Inspectors

1. State inspectors identify flag conditions.
2. Written notification of flag conditions are sent to the Bridge's Flags unit. (Immediate verbal notification is given for Red Flags and PIA flags.)
3. Flag condition reports are entered into the Division's "City Flag" and "State Flag" database.
4. Flag conditions are reviewed by City engineers who have four routing options:
  - ♦ assign flags to outside agencies for repair, or
  - ♦ have City inspectors monitor flags until further action is desired, or
  - ♦ assign flags to the Maintenance Section for in-house or contractor repair, or
  - ♦ assign flags to the Construction Section for Capital contractor repair.
5. Each flag condition is assigned a City Flag number, and routed to the appropriate group.
6. When flag conditions are eliminated, the respective databases are updated.

### City DOT Division of Bridges Inspectors

1. City inspectors identify flag conditions and prepare a scope of work. (Immediate verbal notification is given for Red Flags and PIA flags.)
2. Flag condition reports are received and reviewed by the Flags unit.
3. Flag condition reports are entered into the "City Flag" database.
4. Flag conditions are reviewed by City engineers who have four routing options:
  - ♦ assign flags to outside agencies for repair, or
  - ♦ have City inspectors monitor flags until further action is desired, or
  - ♦ assign flags to the Maintenance Section for in-house or contractor repair, or
  - ♦ assign flags to the Construction Section for Capital contractor repair.
5. When flag conditions are eliminated, the database is updated.

### City DOT Communications Center

1. Flag condition is phoned in.
2. City inspectors visit the site to review the reported condition.
3. If the deficiency warrants, a flag condition report is filed.
4. Flag condition reports are entered into the "City Flag" database.
5. Flag conditions are reviewed by City engineers who have four routing options:
  - ♦ assign flags to outside agencies for repair, or
  - ♦ have City inspectors monitor flags until further action is desired, or
  - ♦ assign flags to the Maintenance Section for in-house or contractor repair, or
  - ♦ assign flags to the Construction Section for Capital contractor repair.
6. When flag conditions are eliminated, the database is updated.

## Appendix C

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### 2004 INVENTORY

<b>Inventory Summary</b>	<b>C-1</b>
<b>Posted, Partially Closed &amp; Closed Bridges</b>	<b>C-2</b>
<b>Bridge Identification Numbers</b>	<b>C-3</b>
<b>New York State Inspection System</b>	<b>C-4</b>
<b>Standard Abbreviations</b>	<b>C-5</b>
<b>Information on Inventory Lists</b>	<b>C-6</b>
<b>Adjustments to the Inventory</b>	<b>C-7</b>
<b>Listing of Bridge Inventory and Conditions</b>	<b>C-8</b>

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### Inventory Summary

In Calendar Year 2004, the Division of Bridges added 41 bridge structures: 32 were added from the Department of Parks and Recreation (bringing the Parks total to 117), 2 were newly inventoried (one of which belonged to the Department of Education), and 7 were added from the Staten Island Ferry Division. The Division also eliminated 4 State-owned structures from our count. This brought the total number of bridge and tunnel structures under the jurisdiction of the New York City Department of Transportation (NYCDOT) to 790. In 1999, a Memorandum of Understanding between NYCDOT and the New York City Department of Environmental Protection (NYCDEP) added 67 culverts in Staten Island to the Division's Inventory. While the Division is responsible for the capital rehabilitation of these structures, maintenance and inspection responsibilities remain with NYCDEP.

The condition of New York City's 790 elevated bridge structures (including six tunnels), as measured by the City's general condition rating, are as follows: 6 structures were rated *Poor*, 456 structures were rated *Fair*, 212 structures were rated *Good*, and 116 structures were classified *Very Good*.

The bridges in the Division's inventory connect a vast and diverse highway and street network throughout the City. The impressive East River crossings – the Brooklyn, Manhattan, Williamsburg, and Queensboro Bridges – are the most visible and famous structures, but are by no means representative of all the bridges in the City's inventory. Three hundred nine (39%) of the Division's structures consist of one span (the portion of a bridge between two supports). One hundred seven (13 ½ %) bridges carry pedestrian traffic. Of the 790 structures in the City's inventory, 100 (13%) cross waterways; of these, 19 connect the boroughs of the Bronx, Brooklyn, Manhattan and Queens. Three hundred eighteen (40%) structures cross the City's labyrinthine system of railroad and subway tracks. Two hundred fifty-two (32%) structures cross or connect arterial highways, such as the Henry Hudson Parkway, the Brooklyn-Queens Expressway, and the Belt Parkway, which facilitate traffic flow through and around the five boroughs of the City of New York.

### Rating System

The Division of Bridges bases its general condition ratings directly on the numerical ratings assigned during bridge inspections. Federal law mandates that bridge structures be inspected at least once every two years. The New York State Department of Transportation hires engineering consultants to perform biennial inspections for all bridge structures except pedestrian bridge structures, and bridge structures less than 20 feet in length. Bridge structures not inspected by the State are inspected by the NYC Department of Transportation's Division of Bridges.

The State inspected 673 (85%) bridge structures. The balance of 117 (15%) were inspected by the City, with the exception of the High Bridge over the Harlem River, which was inspected by the Department of Parks and Recreation. Each structure in a biennial inspection is given an overall numerical condition rating from 1 (structural failure) to 7 (new condition), reflecting a weighting of key features of the structure (see Appendix C-4). In certain cases, where a bridge structure is closed to traffic, only a city condition rating is given.

City condition ratings coincide with the following ranges of State ratings:

<u>State Numerical Rating</u>		<u>City Condition Rating</u>
1.000 – 3.000	=	POOR
3.001 – 4.999	=	FAIR
5.000 – 6.000	=	GOOD
6.001 – 7.000	=	VERY GOOD

This method is used as a guide in assessing what operational action is needed. The overall bridge rating, in and of itself, is not always indicative of whether a bridge needs major rehabilitation. Further inspection and analysis must be done to determine specific rehabilitation or corrective repair needs.



### Summary of 2004 Structure Conditions

Rating	Number of Structures	Percent	Number of Spans	Percent	Deck Area Sq Ft	Percent
Poor	6	0.76%	130	2.84%	207,904	1.43%
Fair	456	57.72%	3308	72.32%	10,853,031	74.84%
Good	212	26.84%	766	16.75%	1,979,103	13.65%
Very Good	116	14.68%	370	8.09%	1,462,194	10.08%
Total	790	100%	4574	100%	14,502,232	100%

As of December 31, 2003, the condition of the City's bridges and tunnels indicated that 0.76% were rated as *Poor*; 57.72% were classified as *Fair*; 26.84% were awarded ratings of *Good*; and 14.68% as *Very Good*. Those structures given ratings of *Poor* and *Fair* encompassed 75.16% of bridge spans.

Rating	2001		2002		2003		2004	
Poor	9	1.20%	8	1.06%	4	0.53%	6	0.76%
Fair	459	61.04%	451	59.74%	429	56.97%	456	57.72%
Good	196	26.06%	202	26.75%	209	27.76%	212	26.84%
Very Good	88	11.70%	94	12.45%	111	14.74%	116	14.68%
Total	752	100%	755	100%	753	100%	790	100%

During 2004, Manhattan had the highest percentage of bridge structures rated *poor* – 1.69% - as well as the highest percentage of bridge structures rated *fair* – 70.06%. Staten Island had the highest percentage of bridge structures classified as *good* – 32.31%, and the highest percentage of bridge structures rated *very good* – 26.15%, for a total of 58.46%. In 2004, Brooklyn had no bridges rated as *poor*, and the second highest percentage of bridge structures rated as *very good* – 20.57%. The Bronx had the second highest percentage of bridge structures classified as *fair* – 58.55%. Queens had the second highest percentage of bridge structures rated as *good* – 29.21%.

Borough*	Poor	% of Boro	Fair	% of Boro	Good	% of Boro	Very Good	% of Boro	Total
Bronx	1	0.66%	89	58.55%	42	27.63%	20	13.16%	152
Brooklyn	0	0.00%	95	54.29%	44	25.14%	36	20.57%	175
Manhattan	3	1.69%	124	70.06%	43	24.29%	7	3.95%	177
Queens	1	0.50%	107	52.97%	59	29.21%	35	17.33%	202
Staten Island	1	1.54%	26	40.00%	21	32.31%	17	26.15%	65
Total	6	0.78%	441	57.20%	209	27.11%	115	14.92%	771

\* Does not include borough-crossing bridges (see next table).

### Summary of 2004 Structure Conditions

Approximately seventy-nine percent (78.95%) of the 19 bridge structures that service the five boroughs were rated in either *poor* or *fair* condition in 2004, and 21.05% were rated *good* or *very good*.

Boro-Crossing	Poor	% of Boro Crossing	Fair	% of Boro Crossing	Good	% of Boro Crossing	Very Good	% of Boro Crossing	Total
Bronx-Manhattan	0	0.00%	6	66.67%	2	22.22%	1	11.11%	9
Brooklyn-Manhattan	0	0.00%	4	100.00%	0	0.00%	0	0.00%	4
Queens-Manhattan	0	0.00%	3	100.00%	0	0.00%	0	0.00%	3
Brooklyn-Queens	0	0.00%	2	66.67%	1	33.33%	0	0.00%	3
Total	0	0.00%	15	78.95%	3	15.79%	1	5.26%	19

These figures evidence that the Division is continuing to make progress in improving the conditions of the City's bridges. The number of bridges rated *Poor* and *Fair* has decreased over the past few years while the number of bridges rated *Good* and *Very Good* has increased. However, it continues to remain essential that the overall bridge program include an expansion of the Preventive Maintenance and Corrective Repair programs which have traditionally slowed the deterioration of *good* and *very good* bridges.

During 2004, the total number of closed or partially closed bridge structures was four, with two closed and two partially-closed structures (see Appendix C-2).

**Bridges with Posted Weight Restrictions**  
**NEW YORK CITY DEPARTMENT OF TRANSPORTATION**

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	FISCAL YEAR*	POSTED TONS	REMARKS
2-23145-0	BROOKLYN	BELT SHORE PKWY.	GERRITSEN INLET		2008	5	CONDITION OF PAERDEGAT BASIN BRIDGE
2-23147-9	BROOKLYN	BELT SHORE PKWY.	MILL BASIN CREEK		2008	5	CONDITION OF PAERDEGAT BASIN BRIDGE
2-23148-9	BROOKLYN	BELT SHORE PKWY	PAERDEGAT BASIN		2007	5	
2-23149-9	BROOKLYN	BELT SHORE PKWY.	ROCKAWAY PKWY.		2008	5	PASSENGER CARS ONLY
	MANHATTAN	FDR DRIVE (NB & SB)	23 <sup>RD</sup> TO 63 <sup>RD</sup> STREET			4	PASSENGER CARS ONLY
2-23304-0	MANHATTAN	EAST 60 <sup>TH</sup> STREET	FDR DRIVE			7	TO BE LET BY NYSDOT
2-24001-9	BROOKLYN & MANHATTAN	BROOKLYN BRIDGE	EAST RIVER	INCLUDING RAMPS	2009	3	NO COMMERCIAL TRAFFIC NO TRUCKS, NO BUSES
2-24003-9	BROOKLYN & MANHATTAN	WILLIAMSBURG BRIDGE	EAST RIVER		2005		INNER ROADWAYS, <u>NO TRUCKS</u>
2-24004-7	MANHATTAN & QUEENS	QUEENSBORO BRIDGE	EAST RIVER		2005	7.5	LOWER OUTER ROADWAYS POSTED AS H-7.5 (PASSENGER CARS ONLY FOR SOUTHBOUND; PEDESTRIANS AND BICYCLES ONLY FOR NORTHBOUND); UPPER ROADWAYS DESIGNED FOR H- 15, NO TRUCKS
2-24026-0	BROOKLYN	CARROL STREET BRIDGE	GOWANUS CANAL	CARROL STREET	2010	25	
2-24064-0	MANHATTAN & QUEENS	ROOSEVELT ISLAND	EAST CHANNEL OF THE EAST RIVER		2008	36	
2-24066-0	QUEENS	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL			36	
2-24655-0	MANHATTAN	PARK AVENUE VIADUCT	42 <sup>ND</sup> STREET			15	NO COMMERCIAL TRAFFIC
2-24759-0	QUEENS	FOREST PARK DRIVE	LIRR			18	

14 COUNT

\* - CONSTRUCTION CONTRACT LETTING

# Partially Closed Bridges

## NEW YORK CITY DEPARTMENT OF TRANSPORTATION

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	FISCAL YEAR*	REMARKS
2-07664-0	BRONX	DEPOT PLACE	CONRAIL HUDSON DIVISION			ONE LANE CLOSED TO TRAFFIC AND ONE LANE OPEN
2-23087-0	BROOKLYN	COLUMBIA HEIGHTS	B.Q.E.	MIDDAGH ST.		CLOSED TO TRAFFIC OPEN TO PEDESTRIANS (TO BE DONE BY NYS W/B.Q.E)

2 COUNT

\* - CONSTRUCTION CONTRACT LETTING



**Closed Bridges***NEW YORK CITY DEPARTMENT OF TRANSPORTATION*

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	FISCAL YEAR*	REMARKS
2-24540-0	MANHATTAN	PEDESTRIAN BRIDGE WEST OF 8 <sup>TH</sup> AVE.	W 155 <sup>TH</sup> STREET		2005	PED BRIDGE (FOOTBRIDGE)
2-23007-0	QUEENS	CYPRESS HILLS CEMETERY ROAD EAST	JACKIE ROBINSON PARKWAY			CLOSED TO TRAFFIC AND PEDESTRIANS

2 COUNT

\* - CONSTRUCTION CONTRACT LETTING

Revised 2/23/05

### Bridge Identification Numbers

In 1972, the State of New York developed a computerized system to store inventory and inspection data on bridges that are greater than 20 feet in length. In New York City, structures that are 20 feet in length or less, “mini-bridges,” are tracked independently by the City. Each structure is distinguished by a separate Bridge Identification Number (B.I.N.).

A six-digit B.I.N. identifies a single structure or group of connected or associated structures, while the seven-digit B.I.N. identifies each of those connected or associated bridge structures individually. Each level of a bi-level bridge, each separate bridge structure in a parallel configuration, and each ramp attached to a main bridge is considered an individual structure and assigned its own unique B.I.N. for example, the Brooklyn Bridge has one six-digit B.I.N., 2-24002, which incorporates the entire bridge. All ramps and secondary structures, as well as the main structure, are identified by their own seven-digit numbers, such as 2-24001-A, 2-24001-B, etc.

**If the prefix (first number) of the B.I.N. is:**

**1**, the bridge is considered part of the **State** bridge system. This number might include City bridges if maintenance is shared between City and State.

**2**, the bridge is considered part of the **City** bridge system. This number might include State bridges if maintenance is shared between City and State.

**M, Q, or R**, the bridge is a “mini-bridge,” and is considered part of the **City** bridge system. They are located in Manhattan, Queens, or Staten Island, respectively.

**If the suffix (last character) of the B.I.N. is:**

**1 through 6**, the bridge is in parallel configuration. The left-most bridge in the Direction of Orientation has a last character of 1. The next left-most bridge has a last character of 2, and so on.

**7 or 8**, the bridge is in a bi-level configuration. Seven indicates the lower level and eight indicates the upper level.

**0 or 9**, the bridge is not in parallel or bi-level configuration.

**A letter of the alphabet**, the structure is a ramp physically attached to the main bridge. If more than one ramp is attached to the same span of the main bridge, the characters are assigned alphabetically starting with the left-most ramp in the Direction of Orientation. Other ramps attached to the bridge are assigned alphabetical characters in a clockwise direction.

### New York State Biennial Bridge Inspection and Condition Rating System

During the regularly scheduled State biennial bridge inspections, each bridge element is investigated and its structural condition is numerically rated according to the system indicated below:

<u>Numerical Rating</u>	<u>Description</u>
1	Potentially Hazardous
2	Used to shade between a rating of 1 and 3
3	Serious deterioration, or not functioning as originally designed
4	Used to shade between a rating of 3 and 5
5	Minor deterioration, and is functioning as originally designed
6	Used to shade between a rating of 5 and 7
7	New condition
8	Not Applicable
9	Unknown (due to inaccessibility, e.g. footings or piles)

Based on these individual ratings for each element, a weighted average rating is computed for the entire structure.

These ratings (both individual and weighted average) are recorded on New York State Department of Transportation Inspection report Forms. Together with photographs and explanatory descriptions, the ratings provide the Division with information on the existing condition of each bridge.

A description of the condition ratings 1 through 7, with programmed responses to certain critical ratings, demonstrates the importance of these inspections:

A rating of 1 describes an extremely serious condition which is deemed potentially hazardous. This rating, which is phoned in by the inspection leader, necessitates that the Division respond immediately by 1) closing the structure either completely or partially until emergency repairs are made, or 2) limiting the vehicle weight permitted on the structure and then performing repairs on a timely basis.

A rating of 3 describes a bridge element that is not functioning as designed. Although not considered hazardous, such members require extensive rehabilitation. A determination is then made to repair such rated members either by the Division's in-house repair personnel, the critical maintenance contractor (When and Where contracts), or a major capital contract. Until such repairs are made, this condition is periodically monitored.

A rating of 5 indicates the member is functioning as designed but exhibits minor deterioration. These members are prioritized and scheduled for repair by the Bridge Maintenance, Inspection and Operations Bureau.

A rating of 7 indicates a new condition requiring no remediation.

The ratings of 2, 4, and 6 are utilized to shade between each of the above ratings.

## Standard Abbreviations

### General Abbreviations :

APP:	Approach
AVE:	Avenue
BLVD:	Boulevard
BR:	Bridge
CPK:	Central Park
DR:	Drive
EB:	Eastbound
EXPWY:	Expressway
I:	Interstate
LN:	Lane
NB:	Northbound
PED BR:	Pedestrian Bridge
PKWY:	Parkway
PL:	Place
RD:	Road
SB:	Southbound
ST:	Street
TPKE:	Turnpike
WB:	Westbound
X:	No State accepted mileage markers exist on this route

### Routes :

<u>No.</u>	<u>Borough</u>	<u>Name</u>
25	Queens	Union Turnpike
25A	Queens	Northern Boulevard
27	Brooklyn	Southern Parkway
I-87	Manhattan, Bronx	Major Deegan Expressway
I-95	Manhattan, Bronx	Cross Bronx Expressway
I-278	Brooklyn, Queens	Brooklyn-Queens Expressway
I-278	Bronx	Bruckner Expressway
I-278	Staten Island	Staten Island Expressway
I-295	Queens	Clearview Expressway
I-295	Bronx	Throgs Neck Expressway
I-440	Staten Island	Richmond Parkway
I-478	Brooklyn	Brooklyn Battery Tunnel
I-495	Queens	Long Island Expressway
I-678	Queens	Whitestone Expressway, Van Wyck
I-878	Queens	Nassau Expressway
I-895	Bronx	Sheridan Expressway



### Standard Abbreviations

**Highways :**

BCIP:	Belt System -- Cross Island
BE:	Bruckner Expressway
BLP:	Belt System -- Laurelton Parkway
BPP:	Bronx Pelham Parkway
BQE:	Brooklyn-Queens Expressway
BRPC:	Bronx River Parkway (in NYC)
BSHP:	Belt System -- Shore Parkway
BSOP:	Belt System -- Southern Parkway
CBE:	Cross Bronx Expressway
FDRD:	Franklin D. Roosevelt Drive
GCP:	Grand Central Parkway
GW:	George Washington Bridge
HHP:	Henry Hudson Parkway
HRD:	Harlem River Drive
HRPC:	Hutchinson River Parkway (in NYC)
IP:	Jackie Robinson (Interborough) Parkway
LIE:	Long Island Expressway
MAP:	Marine Parkway
MDE:	Major Deegan Expressway
MP:	Mosholu Parkway
OCP:	Ocean Parkway
PR:	Prospect Expressway
RP:	Richmond Parkway
VWE:	Van Wyck Expressway
WLMBRG:	Williamsburg Bridge
WSE:	West Shore Expressway

### Information Available On Division Of Bridges Inventory Of Structures

- **Bridge Inventory Number (B.I.N.)**
- **Borough :**

B - The Bronx	Q - Queens	R - Staten Island
K - Brooklyn	M - Manhattan	
- **Feature Carried :** Name of passageway carrying vehicle or pedestrian traffic.
- **Feature Crossed :** Description of area crossed.
  - **Railroad Crossed** (if applicable):
 

A - Amtrak	N - New York & Atlantic
C - Conrail	O - B & O Railroad
L - Long Island Railroad	S - Staten Island Rapid Transit Operating Authority
M - Metro-North (MTA)	T - NYC Transit Authority
- **Other Owner :**

ED	Department of Education
F	Ferries (Department of Transportation)
P	Department of Parks and Recreation
- **Bridge Type :**

A - Arterial	W - Waterway
O - Off-System	M - Movable
PED - Pedestrian	E - East River
- **Rating Source:**

(C)	City Inspection
(S)	State Inspection
- **Rating :** Numerical and/or verbal rating
 

1.000 - 3.000:	(P)	POOR
3.001 - 4.999:	(F)	FAIR
5.000 - 6.000:	(G)	GOOD
6.001 - 7.000:	(V)	VERY GOOD
- **Deck Area:** Square feet
- **CD:**

Community Board District

APPENDIX C-7

2004 Bridge Inventory Adjustments

B.I.N.	BORO	FEATURE CARRIED	FEATURE CROSSED	EXPLANATION
<b>- Bridges removed from the City's Inventory:</b>				
2229339	M	HHP	ST CLAIR PLACE	STATE OWNED
222933A	M	RAMP FROM S.B. HHP	WEST 135 <sup>TH</sup> STREET	STATE OWNED
222933B	M	RAMP TO N.B. HHP	WEST 135 <sup>TH</sup> STREET	STATE OWNED
2230400	K	278I (B.Q.E.)	ATLANTIC AVE	STATE OWNED
<b>- Bridges added to the City's Inventory:</b>				
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK	DPR (DEPARTMENT OF PARKS & RECREATION)
2231790	Q	BELMONT PARK RAMP	BCIP	DPR
2241380	B	PELHAM BAY PK PED	AMTRAK	DPR
2242120	B	FTBG N OF RTE 1	BRONX RIVER	DPR
2244100	K	WEST FOOTBRIDGE	PROSPCT PK STREAM	DPR
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE	DPR
2245240	M	W 151ST ST FOOTBR	CONRAIL 30 ST BR	DPR
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH	DPR
2246160	M	PED BET 73ST&74ST	THE LAKE	DPR
2246320	M	FTBRG OPP 77TH ST	THE LAKE	DPR
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE	DPR
2246380	M	PED WALK OPP 86ST	BRIDLE PATH	DPR
2246390	M	PED WALK OPP 86ST	BRIDLE PATH	DPR
2246580	M	HIGH BRIDGE PDOVP	87I - HARLEM RIVER	DPR
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET	DPR
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD	DPR
2248060	Q	MOTOR PKWY (PED)	BELL BLVD	DPR
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD	DPR
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD	DPR
2248090	Q	FLSHG MDW PK PED.	LAWRENCE STREET	DPR
2248100	Q	MOTOR PKWY (PED)	73RD AVE	DPR
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK	DPR
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD	DPR
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE	DPR
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH	DPR
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE	DPR
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE	DPR
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE	DPR
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE	DPR
2249770	R	S OF BROOKS LAKE	STREAM IN PARK	DPR
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM	DPR
2249790	R	FB S OF FOREST AV	STREAM IN PARK	DPR
2269240	M	RIVERSIDE DRIVE	W. 155TH ST	NEWLY INVENTORIED
2269730	R	PARKING EXIT RAMP	SIRT	FERRIES
2269740	R	BUS STATION NORTH	SIRT	FERRIES
2269750	R	BUS STATION SOUTH	SIRT	FERRIES
2269760	R	NORTH RAMP	SIRT	FERRIES
2269770	R	BUS STA ENTR RAMP	SIRT	FERRIES
2269780	R	PARKING ENTR RAMP	SIRT	FERRIES
2269790	R	BUS STATION EXIT RAMP	SIRT	FERRIES
2270030	B	E 156TH ST	ACCESS TO HOUSING	NEWLY INVENTORIED - DEPARTMENT OF EDUCATION

REV. DATE February 7, 2005

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)			A	1	S	7/8/2004	4.683	F	2500	\$3,600,000.00	7
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK			WMA	17	S	10/14/2004	3.821	F	39400	\$56,736,000.00	9
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M		O	10	S	7/26/2003	4.211	F	57750	\$83,160,000.00	12
1240090	B M	MACOMBS DAM BRIDGE	HARLEM RIVER			WMO	52	S	8/6/2003	4.169	F	211788	\$304,974,720.00	10
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L		O	3	S	6/23/2003	7.000	V	2760	\$3,974,400.00	4
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L		O-PED	3	C	8/5/2004	4.414	F	1300	\$1,872,000	6
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L		O-PED	5	C	8/4/2004	3.091	F	700	\$1,008,000	2
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L		O	2	S	5/21/2004	3.683	F	20900	\$30,096,000.00	5
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER			WO	40	S	8/30/2004	4.817	F	71900	\$103,536,000.00	7
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER			WO	40	S	8/30/2004	4.507	F	78894	\$113,607,360.00	7
205580A	Q	N.BLVD WB TO 678I SB	VACANT LAND			AR	16	S	9/2/2004	5.571	G	8600	\$12,384,000.00	7
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO			A	1	S	8/4/2003	5.276	G	6300	\$9,072,000.00	27
2065930	Q	HAMILTON PLACE	495I (L.I.E.)			A	2	S	6/4/2004	6.347	V	11111	\$15,999,840.00	5
2065940	Q	GRAND AVE	495I (L.I.E.)			A	2	S	9/1/2004	5.264	G	12376	\$17,821,440.00	5
2065950	Q	69TH STREET	495I (L.I.E.)			A	2	S	5/30/2003	5.389	G	10336	\$14,883,840.00	5
2066002	Q	495I (2066000)	WOODHAVEN BLVD			A	2	S	6/5/2003	6.197	V	25200	\$36,288,000.00	6
2066100	K	5TH AVE	27 X PROSPECT EXPWY			A	1	S	4/2/2004	5.208	G	8800	\$12,672,000.00	7
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER			WMA	3	S	6/12/2003	5.528	G	12400	\$17,856,000.00	2
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER			WMA	8	S	6/13/2003	4.761	F	22300	\$32,112,000.00	2
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A		A	13	S	10/28/2004	4.375	F	47430	\$68,299,200.00	9
206672A	B	174TH ST-NTH PED BRDG	895I - SHERIDAN EXPWY			A-PED	4	C	2/2/2004	4.889	F	1800	\$2,592,000	9
206672B	B	174TH ST-STH PED BRDG	895I - SHERIDAN EXPWY			A-PED	4	C	2/9/2004	5.056	G	1900	\$2,736,000	9
2066919	B M	WASHINGTON BRIDGE	HARLEM RIVER			WO	9	S	11/16/2004	4.821	F	128339	\$184,808,160.00	12
2075351	B	BRUCKNER EXPWY SB	AMTRAK	A		A	1	S	8/9/2004	3.625	F	11600	\$16,704,000.00	2
2075352	B	BRUCKNER EXPWY NB	AMTRAK	A		A	1	S	8/9/2004	3.547	F	10900	\$15,696,000.00	2
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY			A	2	S	10/31/2003	4.069	F	10200	\$14,688,000.00	10
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY			A	2	S	4/5/2004	4.389	F	15858	\$22,835,520.00	10
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY			A	2	S	9/20/2004	4.184	F	17600	\$25,344,000.00	10
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER			WMA	7	S	10/26/2004	5.375	G	60500	\$87,120,000.00	10
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	10/15/2003	4.737	F	7800	\$11,232,000.00	10
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	2/19/2004	5.105	G	7100	\$10,224,000.00	10
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C		O	11	S	6/4/2004	5.306	G	30192	\$43,476,480.00	4
2076929	B	BRUCKNER EXPWY	AMTRAK	A		A	1	S	5/8/2003	4.900	F	3800	\$5,472,000.00	2
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A		A	145	S	12/7/2004	3.478	F	236100	\$339,984,000.00	7
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK		P	A-PED	3	C	6/8/2002	4.000	F	3480	\$5,011,200	7
2229290	M	W 79 ST	AMTRAK	A		A	1	S	10/13/2004	4.559	F	4500	\$6,480,000.00	7
2229309	M	HHP	RIVERSIDE PARK			A	1	S	2/20/2004	5.267	G	2400	\$3,456,000.00	7
2229311	M	HHP SB	RAMP TO 96 ST			A	1	S	2/26/2004	4.273	F	2000	\$2,880,000.00	7
2229312	M	HHP NB	RAMP TO 96 ST			A	1	S	2/27/2004	4.364	F	2000	\$2,880,000.00	7
2229321	M	HHP SB	RAMP TO 96 ST			A	1	S	3/8/2004	5.200	G	2000	\$2,880,000.00	7
2229322	M	HHP NB	RAMP TO 96 ST			A	1	S	3/8/2004	5.300	G	2000	\$2,880,000.00	7
2229349	M	HHP	W 158 ST	A		A	44	S	8/12/2004	4.268	F	140000	\$201,600,000.00	12
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE	A		AR	26	S	9/1/2004	3.875	F	10800	\$15,552,000.00	12
2229400	M	W 181ST ST PED BRDG	HHP N.B.		P	A-PED	6	C	2/5/2003	4.652	F	1500	\$2,160,000	12
2229440	B	HHP	KAPPOCK ST			A	1	S	9/22/2003	5.207	G	3900	\$5,616,000.00	8
2229450	B	232ND ST	HHP			A	2	S	9/18/2003	4.237	F	4900	\$7,056,000.00	8
2229460	B	236TH ST PED BRDG	HHP			A-PED	3	C	8/24/2004	5.106	G	2500	\$3,600,000	8
2229470	B	239TH ST	HHP			A	2	S	6/2/2003	4.711	F	6100	\$8,784,000.00	8
2229480	B	MANHATTAN COLL PKWY	HHP			A	3	S	4/30/2003	4.158	F	6200	\$8,928,000.00	8
2229490	B	246TH ST	HHP			A	2	S	4/29/2003	4.974	F	5600	\$8,064,000.00	8
2229500	B	252ND ST	HHP			A	2	S	2/25/2004	4.184	F	4500	\$6,480,000.00	8
2229510	B	RIVERDALE AVE	HHP			A	2	S	8/19/2003	4.053	F	5200	\$7,488,000.00	8
2229520	B	FIELDSTON ROAD	HHP			A	1	S	8/20/2003	5.700	G	6600	\$9,504,000.00	8
2229530	B	HHP	BROADWAY			A	1	S	8/21/2003	4.936	F	7500	\$10,800,000.00	8
2229540	B	VAN CRTLDT PARK	HHP		P	A-PED	2	C	9/17/2004	4.742	F	3900	\$5,616,000	26
2229550	B	VAN CRTLDT EQUES	HHP		P	A-PED	2	C	9/17/2004	5.178	G	2100	\$3,024,000	26
2229560	B	BRONX PELHAM PKWY	AMTRAK,METRO NORTH	MA		A	3	S	11/16/2004	4.778	F	24591	\$35,411,040.00	11
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER			WO	14	S	6/5/2003	4.528	F	95700	\$137,808,000.00	12
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY			A	1	S	4/22/2004	4.667	F	4900	\$7,056,000.00	5
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	1	S	4/22/2004	4.933	F	3500	\$5,040,000.00	5
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	2	S	4/22/2004	4.974	F	4700	\$6,768,000.00	5
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY			A	1	S	5/7/2004	5.611	G	5000	\$7,200,000.00	5
2230050	Q	CYP HILLS CEM WEST	JACKIE ROBINSON PKWY			A	3	S	4/8/2004	3.955	F	4400	\$6,336,000.00	5



INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD

2230070	Q	CYP HILLS CEM EAST	JACKIE ROBINSON PKWY			A	3	S	4/8/2004	4.114	F	4400	\$6,336,000.00	5
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY			A	1	S	1/7/2004	5.483	G	4200	\$6,048,000.00	5
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY			A	1	S	3/5/2004	5.611	G	6400	\$9,216,000.00	82
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE			A	2	S	1/29/2004	5.321	G	8673	\$12,489,120.00	82
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY			A	1	S	2/25/2004	5.984	G	5359	\$7,716,960.00	82
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY			A	1	S	3/23/2004	5.389	G	4400	\$6,336,000.00	82
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T		A	5	S	4/23/2004	4.857	F	90000	\$129,600,000.00	9
2230220	K	HIGHLAND BLVD NB	VERMONT AVE			A	1	S	7/11/2003	6.254	V	3995	\$5,752,800.00	5
2230250	B	MOSHOLU PARKWAY	BRONX RIVER			A	5	S	2/26/2004	4.263	F	16300	\$23,472,000.00	27
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M		A	1	S	4/20/2004	6.203	V	8880	\$12,787,200.00	27
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE			A	1	S	4/23/2003	6.016	V	8480	\$12,211,200.00	27
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T		A	3	S	5/5/2003	5.053	G	11800	\$16,992,000.00	7
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH			A	1	S	2/12/2004	4.724	F	4300	\$6,192,000.00	26
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C		A	1	S	11/16/2004	4.229	F	5200	\$7,488,000.00	26
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP			A	2	S	10/22/2003	5.243	G	7400	\$10,656,000.00	26
2230350	K	SUMMIT ST PED BRDG	278I (B.Q.E.)			A-PED	2	S	3/8/2004	4.671	F	1400	\$2,016,000.00	6
2230360	K	UNION ST	278I (B.Q.E.)			A	2	S	3/9/2004	4.486	F	5000	\$7,200,000.00	6
2230370	K	SACKETT ST	278I (B.Q.E.)			A	2	S	3/23/2004	4.694	F	5000	\$7,200,000.00	6
2230380	K	KANE ST	278I (B.Q.E.)			A	2	S	3/25/2004	4.236	F	5000	\$7,200,000.00	6
2230390	K	CONGRESS ST	278I (B.Q.E.)			A	2	S	4/7/2004	4.250	F	5000	\$7,200,000.00	6
2230410	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/14/2004	4.563	F	2500	\$3,600,000.00	2
2230420	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/14/2004	4.781	F	2500	\$3,600,000.00	2
2230430	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	2/2/2004	5.267	G	1100	\$1,584,000.00	2
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.			A	1	S	2/5/2004	5.200	G	2700	\$3,888,000.00	2
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.			A	1	S	2/6/2004	4.933	F	2500	\$3,600,000.00	2
2230460	K	278I (B.Q.E.)	PEARL ST			A	1	S	2/27/2004	5.333	G	4500	\$6,480,000.00	2
2230470	K	278I (B.Q.E.)	JAY ST			A	1	S	4/14/2004	4.900	F	5100	\$7,344,000.00	2
2230480	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	3/11/2004	5.241	G	8400	\$12,096,000.00	2
2230490	K	278I (B.Q.E.)	SANDS ST			A	1	S	3/15/2004	5.093	G	12600	\$18,144,000.00	2
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB			A	1	S	3/1/2004	5.567	G	1300	\$1,872,000.00	2
2230510	K	278I (B.Q.E.)	NASSAU ST			A	6	S	4/7/2004	4.444	F	51200	\$73,728,000.00	2
2230520	Q	65TH PLACE	278I (B.Q.E.)			A	2	S	2/4/2004	4.338	F	11600	\$16,704,000.00	2
2230530	Q	QUEENS BLVD	278I (B.Q.E.)			A	2	S	8/25/2004	4.625	F	23500	\$33,840,000.00	2
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)			A	1	S	1/5/2004	5.266	G	7500	\$10,800,000.00	2
2230550	Q	69TH ST	278I (B.Q.E.)			A	2	S	3/11/2004	4.842	F	12600	\$18,144,000.00	2
2230560	Q	70TH ST	278I (B.Q.E.)			A	2	S	3/11/2004	5.125	G	8500	\$12,240,000.00	2
2230570	Q	41ST AVE	278I (B.Q.E.)			A	3	S	2/13/2004	4.931	F	8800	\$12,672,000.00	2
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)			A	2	S	2/13/2004	4.559	F	6600	\$9,504,000.00	2
2230590	Q	BROADWAY	278I (B.Q.E.)			O	2	S	4/27/2004	3.842	F	16000	\$23,040,000.00	2
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)			A	1	S	1/13/2004	4.167	F	4200	\$6,048,000.00	1
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)			A	1	S	1/13/2004	4.028	F	4200	\$6,048,000.00	1
2230620	Q	37TH ST	278I (B.Q.E.)			A	2	S	4/8/2004	4.667	F	5300	\$7,632,000.00	1
2230630	Q	35TH ST	278I (B.Q.E.)			A	4	S	7/16/2004	4.819	F	9000	\$12,960,000.00	1
2230640	Q	32ND ST	278I (B.Q.E.)			A	2	S	4/15/2003	4.986	F	8100	\$11,664,000.00	1
2230657	Q	31ST ST	278I (B.Q.E.)			A	2	S	7/16/2004	4.917	F	9500	\$13,680,000.00	1
2230669	Q	278I (B.Q.E.)	35TH AVE			A	1	S	8/29/2003	6.627	V	13135	\$18,914,400.00	2
2230679	Q	278I (B.Q.E.)	34TH AVE			A	3	S	5/12/2003	6.898	V	9500	\$13,680,000.00	2
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD			A	1	S	3/24/2004	6.683	V	27011	\$38,895,840.00	2
2230690	Q	BQE EAST LEG NB	32ND AVE			A	1	S	6/3/2004	7.000	V	6160	\$8,870,400.00	1
2230700	Q	BQE EAST LEG	TO BQE WEST LEG			A	14	S	11/8/2004	6.915	V	16800	\$24,192,000.00	1
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE			A	1	S	8/28/2003	6.797	V	5240	\$7,545,600.00	1
2230720	Q	BQE EAST LEG	BQE NB WEST LEG			A	1	S	6/11/2003	6.667	V	20800	\$29,952,000.00	1
2230730	Q	31ST AVE	278I (B.Q.E.)			A	1	S	8/27/2003	6.800	V	5800	\$8,352,000.00	1
2230740	Q	BQE WEST LEG SB	31ST AVE			A	1	S	7/8/2003	7.000	V	5246	\$7,554,240.00	1
2230750	Q	BQE EAST LEG SB	31ST AVE			A	1	S	7/8/2003	6.068	V	2900	\$4,176,000.00	1
2230760	Q	BQE WEST LEG NB	31ST AVE			A	1	S	10/5/2004	7.000	V	2900	\$4,176,000.00	1
2230770	Q	BQE WEST LEG	30TH AVE			A	1	S	7/2/2003	7.000	V	6199	\$8,926,560.00	1
2230780	Q	BQE EAST LEG	30TH AVE			A	3	S	6/10/2003	6.746	V	7071	\$10,182,240.00	3
2230790	Q	BULOVA AVE	BQE WEST LEG			A	2	S	3/22/2004	5.667	G	3300	\$4,752,000.00	1
2230800	Q	49TH ST	BQE WEST LEG			A	2	S	3/22/2004	5.333	G	4900	\$7,056,000.00	1
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG			A	4	S	3/22/2004	4.221	F	8200	\$11,808,000.00	1
2230820	Q	47TH ST	GCP			A	2	S	4/20/2004	4.944	F	5700	\$8,208,000.00	1
2230830	Q	BQE WEST LEG	GCP			A	2	S	7/14/2004	4.861	F	7600	\$10,944,000.00	1

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD

2230840	Q	44TH ST	GCP			A	2	S	4/16/2004	4.847	F	5000	\$7,200,000.00	1
2230857	K	278I (B.Q.E.)	JORALEMON ST			A	1	S	5/4/2004	5.030	G	2100	\$3,024,000.00	2
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB			A	2	S	5/4/2004	4.177	F	5900	\$8,496,000.00	2
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.			A	1	S	6/18/2004	4.205	F	7900	\$11,376,000.00	2
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)			A	1	S	4/26/2004	4.583	F	16500	\$23,760,000.00	2
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA			A	2	S	5/11/2004	4.309	F	4500	\$6,480,000.00	2
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB			A	2	S	5/11/2004	5.053	G	4500	\$6,480,000.00	2
2230890	Q	49TH ST	GCP			A	2	S	6/11/2004	4.778	F	5500	\$7,920,000.00	1
2231249	K	BSHP	BAY RIDGE AVE			A	1	S	4/9/2004	3.667	F	4900	\$7,056,000.00	10
2231250	K	81ST ST PED BR	BSHP		P	A-PED	5	C	10/1/2004	4.483	F	3100	\$4,464,000	10
2231260	K	92ND ST PED BR	BSHP		P	A-PED	6	C	9/7/2004	4.016	F	3000	\$4,320,000	10
2231270	K	4TH AVE	BSHP			A	2	S	3/24/2004	4.842	F	6100	\$8,784,000.00	10
2231290	K	BAY 8TH ST	BSHP			A	1	S	5/5/2003	5.984	G	4920	\$7,084,800.00	11
2231300	K	17TH AVE PED BRDG	BSHP		P	A-PED	1	C	2/5/2004	3.846	F	2100	\$3,024,000	11
2231319	K	BSHP	BAY PKWY			A	1	S	4/6/2004	4.395	F	7200	\$10,368,000.00	11
2231329	K	BSHP	26TH AVE			A	1	S	4/8/2004	4.800	F	6700	\$9,648,000.00	13
2231330	K	27TH AVE PED BRDG	BSHP		P	A-PED	1	C	7/1/2003	4.000	F	2100	\$3,024,000	13
2231340	K	CROPSEY AVE	BSHP			A	2	S	4/12/2004	5.000	G	13100	\$18,864,000.00	13
2231360	K	BSHP	OCEAN PKWY			A	2	S	12/6/2004	7.000	V	11800	\$16,992,000.00	13
2231370	K	GUIDER AV RAMP TO BSHP	BSHP			A	4	S	5/10/2004	3.903	F	12800	\$18,432,000.00	13
2231380	K	CONEY ISLAND AVE	BSHP			A	4	S	9/8/2003	6.292	V	19866	\$28,607,040.00	13
2231390	K	E 12TH ST	BSHP			A	4	S	4/16/2004	4.764	F	17200	\$24,768,000.00	15
2231409	K	BSHP	SHEEPSHEAD BAY ROAD			A	1	S	4/20/2004	4.807	F	6500	\$9,360,000.00	15
2231419	K	BSHP	OCEAN AVE			A	3	S	4/19/2004	4.486	F	14000	\$20,160,000.00	15
2231429	K	BSHP	BEDFORD AVE			A	3	S	4/21/2004	4.278	F	12000	\$17,280,000.00	15
2231439	K	BSHP	NOSTRAND AVE			A	3	S	5/10/2004	4.097	F	13000	\$18,720,000.00	15
2231449	K	KNAPP ST	BSHP			A	1	S	4/28/2004	4.469	F	9500	\$13,680,000.00	15
2231450	K	BSHP	GERRITSEN INLET			WA	11	S	8/3/2004	3.687	F	46400	\$66,816,000.00	56
2231460	K	FLATBUSH AVE	BSHP			A	2	S	9/5/2003	6.618	V	14058	\$20,243,520.00	56
2231479	K	BSHP	MILL BASIN			WMA	14	S	7/20/2004	3.254	F	73500	\$105,840,000.00	18
2231489	K	BSHP	PAERDEGAT BASIN			WA	15	S	9/9/2004	3.130	F	58300	\$83,952,000.00	18
2231499	K	BSHP	ROCKAWAY PKWY			A	4	S	8/24/2004	4.111	F	11500	\$16,560,000.00	56
2231509	K	BSHP	FRESH CREEK			WA	5	S	8/4/2004	3.222	F	23000	\$33,120,000.00	56
2231519	K	PENNSYLVANIA AVE	BSHP			A	2	S	5/7/2003	6.194	V	6191	\$8,915,040.00	56
2231559	Q	CROSS BAY BLVD	BSHP			A	4	S	4/6/2004	5.278	G	23205	\$33,415,200.00	10
2231560	Q	S CONDUIT BLVD	BSOP			A	2	S	4/6/2004	5.690	G	15776	\$22,717,440.00	10
2231570	Q	COHANCY ST	BSOP			A	2	S	4/6/2004	4.636	F	6400	\$9,216,000.00	10
2231580	Q	AQUEDUCT RCTK RAMP	BSOP			A	4	S	6/24/2004	4.264	F	14000	\$20,160,000.00	10
2231590	Q	130TH ST	BSOP			A	2	S	2/20/2004	4.750	F	6800	\$9,792,000.00	10
2231610	Q	GUY R. BREWER BLVD	BSOP			A	2	S	5/13/2003	6.833	V	12342	\$17,772,480.00	13
2231620	Q	FARMERS BLVD	BSOP			A	2	S	6/4/2004	4.568	F	6400	\$9,216,000.00	13
2231630	Q	SPRINGFIELD BLVD	BSOP			A	2	S	4/15/2004	4.682	F	8500	\$12,240,000.00	13
2231640	Q	225TH ST	BSOP			A	2	S	5/6/2004	4.727	F	7000	\$10,080,000.00	13
2231650	Q	SUNRISE HWY W.B.	BLP E.B.			A	1	S	4/7/2004	4.623	F	4100	\$5,904,000.00	13
2231660	Q	SUNRISE HWY W.B.	BLP W.B.			A	2	S	4/7/2004	4.531	F	5350	\$7,704,000.00	13
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.			A	1	S	1/8/2004	4.917	F	4000	\$5,760,000.00	13
2231680	Q	N CONDUIT AVE WB	BLP W.B.			A	2	S	1/8/2004	4.932	F	6500	\$9,360,000.00	13
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.			A	1	S	3/26/2004	5.333	G	6000	\$8,640,000.00	13
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.			A	1	S	3/26/2004	4.867	F	6000	\$8,640,000.00	13
2231710	Q	MERRICK BLVD	BLP E.B.			A	1	S	3/26/2004	4.533	F	6000	\$8,640,000.00	13
2231720	Q	MERRICK BLVD	BLP W.B.			A	1	S	3/26/2004	4.200	F	6000	\$8,640,000.00	13
2231730	Q	130TH AVE	BLP E.B.			A	1	S	1/7/2004	5.267	G	4400	\$6,336,000.00	13
2231740	Q	130TH AVE	BLP W.B.			A	1	S	1/7/2004	4.667	F	4400	\$6,336,000.00	13
2231750	Q	LINDEN BLVD	BCIP			A	2	S	2/10/2004	4.295	F	6700	\$9,648,000.00	13
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE			A	1	S	3/12/2004	4.442	F	7300	\$10,512,000.00	13
2231770	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	3/12/2004	4.781	F	3200	\$4,608,000.00	13
2231780	Q	HEMPSTEAD AVE	BCIP			A	2	S	4/22/2004	4.210	F	14200	\$20,448,000.00	13
2231790	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	1/7/2004	4.656	F	3400	\$4,896,000.00	13
2231800	Q	SUPERIOR ROAD	BCIP			A	2	S	3/22/2004	4.364	F	7000	\$10,080,000.00	13
2231819	Q	JAMAICA AVE	BCIP			A	2	S	2/11/2004	4.773	F	11500	\$16,560,000.00	13
2231829	Q	BRADDOCK AVE	BCIP			A	2	S	2/11/2004	4.909	F	10600	\$15,264,000.00	13
2231840	Q	HILLSIDE AVE	BCIP			A	2	S	4/30/2004	4.079	F	9672	\$13,927,680.00	13
2231850	Q	UNION TPKE	BCIP			A	2	S	6/11/2004	4.318	F	13600	\$19,584,000.00	13

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2231860	Q	W ALLEY ROAD	BCIP			A	2	S	9/26/2003	5.568	G	7200	\$10,368,000.00	11
2231870	Q	NORTHERN BLVD	BCIP			A	2	S	8/17/2004	6.431	V	8951	\$12,889,440.00	11
2231880	Q	CROCHERON PK PED	BCIP		P	A-PED	9	C	10/5/2004	4.750	F	2300	\$3,312,000	11
2231890	Q	28TH AVE PED BRDG	BCIP		P	A-PED	24	C	9/21/2004	5.150	G	7600	\$10,944,000	11
2231900	Q	BCIP	FORT TOTTEN ENTRANCE			A	1	S	6/15/2004	4.672	F	4900	\$7,056,000.00	7
2231910	Q	UTOPIA PKWY	BCIP			A	2	S	2/5/2004	5.136	G	7200	\$10,368,000.00	7
2231920	Q	160TH ST	BCIP			A	2	S	4/24/2003	5.972	G	5550	\$7,992,000.00	7
2231930	Q	FRANCIS LEWIS BLVD	BCIP			A	3	S	1/14/2004	4.773	F	9100	\$13,104,000.00	7
2231940	Q	CLINTONVILLE ST	BCIP			A	2	S	1/14/2004	4.727	F	7400	\$10,656,000.00	7
2231950	Q	150TH ST	BCIP			A	2	S	1/14/2004	4.773	F	5900	\$8,496,000.00	7
2231960	Q	149TH ST	BCIP			A	2	S	1/27/2004	4.977	F	6210	\$8,942,400.00	7
2231970	Q	14TH AVE	BCIP			A	2	S	1/27/2004	4.750	F	8100	\$11,664,000.00	7
2231980	Q	147TH ST	BCIP			A	2	S	1/27/2004	4.773	F	6300	\$9,072,000.00	7
2232000	M	BATTERY PLACE	FDR DRIVE			AT	2	C	7/19/2004	4.500	F	75000	\$108,000,000	1
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST			AR	17	S	2/18/2004	3.776	F	102225	\$147,204,000.00	1
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST			AR	10	S	2/23/2004	3.821	F	44625	\$64,260,000.00	1
223201C	M	STH ST RMP TO FDR	SOUTH ST			AR	8	S	2/19/2004	4.701	F	39150	\$56,376,000.00	1
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.			AR	22	S	3/22/2004	5.393	G	15825	\$22,788,000.00	1
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		P	A	4	S	2/10/2004	4.156	F	4100	\$5,904,000.00	3
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		P	A-PED	9	C	8/15/2004	4.449	F	2900	\$4,176,000	3
2232040	M	HOUSTON ST	FDR DRIVE			A	2	S	3/10/2004	3.318	F	11010	\$15,854,400.00	3
223204A	M	FDR NB TO HOUSTON ST	RELIEF			AR	4	S	6/15/2004	4.100	F	6150	\$8,856,000.00	3
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF			AR	4	S	2/5/2004	4.417	F	7642	\$11,004,480.00	3
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	3/14/2004	4.431	F	2200	\$3,168,000	3
2232070	M	25TH ST PED BRDG	FDR DRIVE			A-PED	4	C	3/14/2004	4.594	F	1700	\$2,448,000	6
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		P	A-PED	10	C	3/7/2004	4.188	F	2800	\$4,032,000	6
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		P	A-PED	13	C	3/7/2004	5.141	G	2100	\$3,024,000	8
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		P	A-PED	19	C	3/21/2004	6.182	V	1800	\$2,592,000	8
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		P	A-PED	9	C	3/21/2004	3.000	P	1700	\$2,448,000	8
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.			AT	56	S	6/18/2003	4.773	F	54302	\$78,194,880.00	8
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		P	A-PED	53	S	7/28/2003	3.571	F	93000	\$133,920,000.00	8
2232180	M	E 103RD ST PED BRDG	FDR DRIVE			A-PED	20	C	7/29/2003	5.000	G	6000	\$8,640,000	11
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		P	A-PED	14	C	2/2/2004	3.800	F	2600	\$3,744,000	11
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		P	A-PED	23	C	10/24/2004	4.500	F	2500	\$3,600,000	11
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	12/16/2004	6.326	V	1632	\$2,350,080	3
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST			AT	46	S	7/8/2004	2.415	P	70113	\$100,962,720.00	8
2233040	M	E 60TH ST	FDR DRIVE			A	17	S	5/3/2004	3.409	F	24480	\$35,251,200.00	6
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.			A	11	S	3/23/2004	3.433	F	51000	\$73,440,000.00	11
2233080	K	E 14 ST PED BR	BSHP			A-PED	14	C	7/19/2004	4.588	F	4700	\$6,768,000	15
2240019	K M	BROOKLYN BRIDGE	278I (B.Q.E.)			WEO	75	S	11/2/2004	3.153	F	503788	\$725,454,720.00	3
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.			OE	3	S	2/18/2004	4.250	F	10167	\$14,640,480.00	1
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY			OE	31	S	3/12/2004	4.148	F	51400	\$74,016,000.00	1
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG			OE	12	S	2/24/2004	3.881	F	6489	\$9,344,160.00	3
224001D	M	TO FDR DR N.B.	PEARL STREET			OE	30	S	5/14/2003	5.208	G	49600	\$71,424,000.00	1
224001E	M	TO PEARL ST	LAND ADJ TO BRDG			OE	3	S	5/12/2003	5.225	G	5300	\$7,632,000.00	6
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG			OE	3	S	4/7/2004	5.310	G	5200	\$7,488,000.00	1
224001G	M	TO PARK ROW	ROSE ST			OE	11	S	5/6/2003	4.736	F	16551	\$23,833,440.00	1
2240027	K M	MANHATTAN BRIDGE(LL)	EAST RIVER	T		WEO	23	S	11/12/2002	3.847	F	616390	\$887,601,600.00	3
2240028	K M	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T		WEO	43	S	11/12/2002	4.243	F	587424	\$845,890,560.00	3
2240039	K M	WILLIAMSBURG BRIDGE	EAST RIVER	T		WEO	72	S	10/28/2004	4.556	F	824000	\$1,186,560,000.00	3
2240047	M Q	QUEENSBORO BRIDGE(LL)	EAST RIVER	L		WEO	53	S	1/23/2003	4.514	F	626900	\$902,736,000.00	6
2240048	M Q	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL			WEO	37	S	1/23/2003	4.547	F	322300	\$464,112,000.00	6
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE			OE	13	S	7/22/2004	5.732	G	14800	\$21,312,000.00	6
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE			OE	13	S	7/23/2004	5.764	G	14800	\$21,312,000.00	6
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST			OE	10	S	7/29/2004	4.985	F	16720	\$24,076,800.00	6
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST			OE	12	S	8/25/2004	4.660	F	11781	\$16,964,640.00	6
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE			OE	64	S	10/29/2004	4.906	F	104600	\$150,624,000.00	2
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)			OE	63	S	12/9/2004	4.652	F	63310	\$91,166,400.00	2
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)			OE	36	S	10/5/2004	4.634	F	8360	\$12,038,400.00	1
224004H	Q	TO 21ST ST FROM NY	22ND ST			OE	34	S	12/10/2004	4.310	F	48100	\$69,264,000.00	2
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE			OE	38	S	11/23/2004	5.016	G	59100	\$85,104,000.00	2
224004J	M	25X	NYC GARAGE			OE	14	S	7/30/2004	4.537	F	22058	\$31,763,520.00	6

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD

2240059	B M	WILLIS AVENUE	HARLEM RIVER			WMO	26	S	8/27/2004	3.083	F	94700	\$136,368,000.00	11
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR			OR	19	S	8/18/2004	4.119	F	29900	\$43,056,000.00	11
224005B	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	8/4/2003	4.000	F	12100	\$17,424,000.00	1
2240069	B M	THIRD AVE BRIDGE	HARLEM RIVER			WMO	32	S	9/7/2004	7.000	V	79950	\$115,128,000.00	11
224006A	B	TO BRUCKNER BLVD	RELIEF			OR	11	S	6/23/2004	2.966	P	11100	\$15,984,000.00	1
2240079	B M	MADISON AVE BRIDGE	HARLEM RIVER			WMO	31	S	9/1/2004	5.139	G	80000	\$115,200,000.00	11
224007A	M	TO MADISON AVENUE	RELIEF			OR	9	S	4/30/2004	5.592	G	19880	\$28,627,200.00	11
2240089	B M	145TH ST BRIDGE	HARLEM RIVER			WMO	8	S	6/11/2004	3.208	F	56700	\$81,648,000.00	10
2240120	B M	W 207TH/W FORDHAM RD	HARLEM RIVER			WMO	5	S	6/30/2004	5.667	G	29682	\$42,742,080.00	12
2240137	B M	BROADWAY BRIDGE	HARLEM RIVER	T		WMO	3	S	10/13/2003	3.986	F	46848	\$67,461,120.00	12
2240138	B M	NYCTA IRT	HARLEM RVR/BROADWAY	T		WMO	3	S	10/24/2003	4.882	F	19520	\$28,108,800.00	12
2240180	B	WESTCHESTER AVE	BRONX RIVER			WO	1	S	6/11/2003	5.141	G	5476	\$7,885,440.00	2
2240200	B	SHORE ROAD	HUTCHINSON RIVER			WMO	7	S	9/3/2004	4.597	F	4800	\$120,000,000.00	28
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY			WO	7	S	10/20/2004	3.500	F	28900	\$41,616,000.00	28
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	8/13/2004	4.028	F	7300	\$10,512,000.00	7
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	8/10/2004	4.014	F	7300	\$10,512,000.00	6
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL			WMO	3	S	7/18/2003	6.613	V	5772	\$8,311,680.00	6
2240250	K	THIRD ST	GOWANUS CANAL			WMO	5	S	6/27/2003	4.958	F	4900	\$7,056,000.00	6
2240260	K	CARROLL ST	GOWANUS CANAL			WMO	2	S	8/12/2004	4.803	F	3000	\$4,320,000.00	6
2240270	K	UNION ST	GOWANUS CANAL			WMO	5	S	8/23/2004	4.153	F	4900	\$7,056,000.00	6
2240290	K	METROPOLITAN AVE	ENGLISH KILLS			WMO	5	S	8/31/2004	4.186	F	15245	\$21,952,800.00	1
2240301	K	CROPSY AVE	CONEY ISLAND CREEK			WO	3	S	7/7/2003	5.169	G	9400	\$13,536,000.00	13
2240302	K	CROPSY AVE	CONEY ISLAND CREEK			WO	3	S	9/22/2004	5.028	G	9400	\$13,536,000.00	13
2240310	K	THIRD AVE	GOWANUS CANAL			WO	1	S	7/2/2003	4.564	F	3200	\$4,608,000.00	6
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY			WO-PED	30	C	5/2/2003	4.070	F	4000	\$5,760,000	15
2240350	R	RICHMOND AVE	RICHMOND CREEK			WO	3	S	7/30/2003	6.153	V	32589	\$46,928,160.00	2
2240370	K Q	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L		WMO	12	S	11/2/2004	5.000	G	76106	\$109,592,640.00	2
2240390	K Q	GRAND ST BRIDGE	NEWTOWN CREEK			WMO	2	S	9/3/2004	4.486	F	5100	\$7,344,000.00	5
2240410	Q	BORDEN AVE	DUTCH KILLS			WMO	2	S	6/16/2004	3.958	F	8400	\$12,096,000.00	2
2240440	Q	NORTHERN BLVD	ALLEY CREEK			WO	2	S	6/2/2004	4.750	F	8300	\$11,952,000.00	11
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS			WMO	4	S	5/26/2004	5.167	G	11544	\$16,623,360.00	2
2240507	Q	ROOSEVELT AVE	678I - VAN WYCK EXPWY			WA	27	S	12/8/2004	3.254	F	84424	\$121,570,560.00	81
2240540	K	STILLWELL AVE	CONEY ISLAND CRK			WO	2	S	6/17/2003	6.292	V	17000	\$24,480,000.00	13
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER			WMO-PED	10	C	7/29/2003	4.049	F	12600	\$18,144,000	11
2240639	K Q	PULASKI BRIDGE	NEWTOWN CREEK			WMO	48	S	7/7/2004	4.817	F	205770	\$296,308,800.00	2
2240640	M Q	ROOSEVELT ISLAND	E. RIVER E. CHANNEL			WMO	8	S	6/15/2004	4.222	F	36500	\$52,560,000.00	8
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN			WO-PED	13	C	4/21/2004	4.333	F	5000	\$7,200,000	10
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL			WO	56	S	8/29/2003	4.423	F	183100	\$263,664,000.00	1
2241000	B	WESTCHESTER AVE	CONRAIL PT MORRIS	C		O	1	S	9/2/2004	5.085	G	1740	\$2,505,600.00	1
2241010	B	E 156TH STREET	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	4.556	F	2400	\$3,456,000.00	1
2241020	B	E 161ST STREET	CONRAIL PT MORRIS	C		O	1	S	8/31/2004	6.783	V	12800	\$18,432,000.00	1
2241030	B	E 163RD STREET	CONRAIL PT MORRIS	C		O	1	S	5/25/2004	4.778	F	3200	\$4,608,000.00	3
2241040	B	THIRD AVE	CONRAIL PT MORRIS	C		O	1	S	11/3/2004	4.563	F	2700	\$3,888,000.00	1
2241050	B	E 149TH ST/JACKSON AVE	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	4.850	F	65000	\$93,600,000.00	1
2241060	B	ST. MARYS & CONCORD	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	5.333	G	4500	\$6,480,000.00	1
2241070	B	WALES AVE	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	6.567	V	2535	\$3,650,400.00	1
2241080	B	SOUTHERN BLVD	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	4.185	F	3900	\$5,616,000.00	1
2241099	B	BRUCKNER BLVD	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	6.734	V	6700	\$9,648,000.00	1
2241110	B	MELROSE AVE	CONRAIL PT MORRIS	C		O	8	S	7/31/2003	6.208	V	37854	\$54,509,760.00	3
2241129	B	E 149TH ST	AMTRAK	A		O	2	S	8/3/2004	4.620	F	12575	\$18,108,000.00	1
2241139	B	LEGGETT AVE	AMTRAK	A		O	3	S	8/6/2004	4.690	F	28300	\$40,752,000.00	2
2241159	B	LONGWOOD AVE	AMTRAK	A		O	2	S	8/2/2004	6.042	V	10625	\$15,300,000.00	2
2241169	B	LAFAYETTE AVE	AMTRAK	A		O	1	S	8/5/2004	5.794	G	12000	\$17,280,000.00	2
2241170	B	TIFFANY ST	AMTRAK	A		O	1	S	11/4/2003	5.843	G	7267	\$10,464,480.00	2
2241180	B	BARRETTO ST	AMTRAK	A		O	1	S	7/26/2004	6.219	V	5313	\$7,650,720.00	2
2241190	B	HUNTS POINT AVE	AMTRAK	A		O	1	S	7/27/2004	4.984	F	13700	\$19,728,000.00	2
2241200	B	FAILE ST	AMTRAK	A		O	1	S	7/28/2004	5.797	G	6208	\$8,939,520.00	2
2241210	B	BRYANT AVE	AMTRAK	A		O	1	S	8/10/2004	3.153	F	5300	\$7,632,000.00	2
2241230	B	WESTCHESTER AVE	AMTRAK	A		O	3	S	8/11/2004	6.250	V	15600	\$22,464,000.00	2
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	P	O-PED	1	C	7/26/2004	4.121	F	4700	\$6,768,000	27
2241269	B	E 177TH ST	AMTRAK	A		O	3	S	8/12/2004	5.514	G	16606	\$23,912,640.00	9



INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2241270	B	EAST TREMONT AVE	AMTRAK	A		O	2	S	8/2/2004	5.556	G	22300	\$32,112,000.00	9
2241329	B	WHITE PLAINS ROAD	AMTRAK	A		O	1	S	8/13/2004	4.891	F	6900	\$9,936,000.00	9
2241330	B	UNIONPORT ROAD	AMTRAK	A		O	1	S	8/13/2004	4.875	F	4400	\$6,336,000.00	9
2241369	B	WILLIAMSBRIDGE RD	AMTRAK	A		O	2	S	8/5/2004	4.836	F	10400	\$14,976,000.00	11
2241380	B	PELHAM BAY PK PED	AMTRAK	A	P	O-PED	1	C	11/13/1978	5.109	G	4223	\$6,081,120	28
2241390	B	SHORE RD CIRCLE	AMTRAK	A		O	2	S	7/23/2004	3.254	F	4800	\$6,912,000.00	10
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	TCM		O	1	S	4/7/2004	3.844	F	16100	\$23,184,000.00	4
2241410	B	WALTON AVE	METRO NORTH RR HUD	M		O	1	S	4/6/2004	5.328	G	3600	\$5,184,000.00	4
2241420	B	GERARD AVE	METRO NORTH RR HUD	M		O	1	S	4/30/2004	6.766	V	5063	\$7,290,720.00	4
2241430	B	RIVER AVE	METRO NORTH RR HUD	M		O	1	S	6/19/2003	6.578	V	5040	\$7,257,600.00	4
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M		O	8	S	4/27/2004	4.761	F	12900	\$18,576,000.00	5
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M		O	5	S	7/8/2003	6.278	V	16052	\$23,114,880.00	7
2241489	B	W 225TH ST	CONRAIL PUTNAM	C		O	2	S	5/26/2004	5.313	G	10900	\$15,696,000.00	7
2241490	B	W 230TH ST	CONRAIL PUTNAM	C		O	1	S	4/8/2003	5.844	G	5600	\$8,064,000.00	8
2241509	B	W 231ST ST	CONRAIL PUTNAM	C		O	1	S	11/18/2004	5.765	G	4723	\$6,801,120.00	8
2241510	B	W 233RD ST	CONRAIL PUTNAM	C		O	1	S	4/11/2003	5.471	G	3760	\$5,414,400.00	8
2241520	B	W 234TH ST	CONRAIL PUTNAM	C		O	1	S	4/9/2003	5.569	G	3770	\$5,428,800.00	8
2241550	B	E 144TH ST	METRO NORTH RR HAR	M		O	2	S	6/11/2003	6.708	V	8290	\$11,937,600.00	1
2241560	B	E 149TH ST	METRO NORTH RR HAR	M		O	8	S	4/9/2004	4.625	F	27900	\$40,176,000.00	1
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M		O	1	S	4/8/2004	4.188	F	17800	\$25,632,000.00	1
2241600	B	E 158TH ST	METRO NORTH RR HAR	M		O	1	S	6/10/2003	5.233	G	3400	\$4,896,000.00	1
2241610	B	E 161ST ST	METRO NORTH RR HAR	M		O	1	S	6/10/2003	5.383	G	6600	\$9,504,000.00	1
2241620	B	E 162ND ST	METRO NORTH RR HAR	M		O	1	S	4/14/2004	4.984	F	4700	\$6,768,000.00	3
2241630	B	E 165TH ST	METRO NORTH RR HAR	M		O	1	S	4/15/2004	4.350	F	16400	\$23,616,000.00	3
2241650	B	E 167TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	5.863	G	3363	\$4,842,720.00	3
2241660	B	E 168TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	4.922	F	7700	\$11,088,000.00	3
2241670	B	E 169TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	4.500	F	3300	\$4,752,000.00	3
2241680	B	E 170TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2004	6.451	V	3150	\$4,536,000.00	3
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M		O-PED	2	C	7/30/2004	5.423	G	600	\$864,000	3
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M		O	1	S	3/22/2004	4.422	F	6300	\$9,072,000.00	3
2241720	B	E 173RD ST	METRO NORTH RR HAR	M		O	1	S	4/19/2004	4.391	F	3000	\$4,320,000.00	3
2241740	B	E 175TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2004	4.031	F	3600	\$5,184,000.00	3
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M		O	1	S	10/10/2003	6.700	V	7300	\$10,512,000.00	6
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	1	C	7/28/2004	5.921	G	700	\$1,008,000	6
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	6	C	7/27/2004	6.000	G	700	\$1,008,000	6
2241790	B	E 180TH ST	METRO NORTH RR HAR	M		O	1	S	4/15/2004	4.078	F	5000	\$7,200,000.00	6
2241800	B	E 183TH ST	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.234	F	3600	\$5,184,000.00	6
2241810	B	E 188TH ST	METRO NORTH RR HAR	M		O	1	S	4/19/2004	4.188	F	5300	\$7,632,000.00	6
2241820	B	E 187TH ST	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.750	F	3800	\$5,472,000.00	6
2241839	B	E 189TH ST	METRO NORTH RR HAR	M		O	1	S	6/9/2003	6.533	V	43157	\$62,146,080.00	6
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.578	F	6400	\$9,216,000.00	27
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M		O	2	S	4/20/2004	4.103	F	9000	\$12,960,000.00	12
2241870	B	E 233RD ST	METRO NORTH RR HAR	M		O	1	S	4/20/2004	5.157	G	7664	\$11,036,160.00	12
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M		O	28	S	11/7/2003	4.653	F	49500	\$71,280,000.00	12
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T		O	3	S	9/14/2004	4.917	F	13500	\$19,440,000.00	12
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T		O	1	S	9/14/2004	6.906	V	75000	\$108,000,000.00	11
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T		O	4	S	9/13/2004	6.500	V	46300	\$66,672,000.00	7
2241940	B	W 205TH ST	NYCTA IND YARDS	T		O	4	S	9/13/2004	6.778	V	32508	\$46,811,520.00	7
2241959	B	HUTCHINSON RVR PKWY	AMTRAK	A		O	1	S	8/6/2004	5.746	G	15444	\$22,239,360.00	10
2242010	B	BRONX PELHAM PKWY	BRONX RIVER			WO	1	S	5/18/2004	4.931	F	9200	\$13,248,000.00	27
2242029	B	SOUTHERN BLVD	BRONX PELHAM PKWY			O	2	S	4/13/2004	4.684	F	12900	\$18,576,000.00	27
2242030	B	CROTONA AVE	BRONX PELHAM PKWY			O	2	S	4/13/2004	5.447	G	7600	\$10,944,000.00	6
2242071	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/5/2004	4.700	F	1800	\$2,592,000.00	12
2242072	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/5/2004	5.033	G	1800	\$2,592,000.00	12
2242081	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/6/2004	4.467	F	2800	\$4,032,000.00	12
2242082	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/6/2004	4.467	F	2800	\$4,032,000.00	12
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER			WO	1	S	8/31/2004	4.172	F	4700	\$6,768,000.00	27
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		P	WO-PED	1	S	5/19/2004	4.967	F	2200	\$3,168,000.00	27
2242110	B	BOSTON ROAD	BRONX RIVER			WO	1	S	5/17/2004	4.273	F	6200	\$8,928,000.00	27
2242120	B	FTBG N OF RTE 1	BRONX RIVER		P	WO-PED	1	C	6/15/2002	4.029	F	1904	\$2,741,760	9
2242149	B	E TREMONT AVE	BRONX RIVER			WO	2	S	5/20/2004	4.722	F	12900	\$18,576,000.00	6
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	P	O-PED	5	C	7/29/2004	4.556	F	4200	\$6,048,000	4
2242210	B	S OF ALLERTON AVE	BRONX RIVER			WO	3	S	7/17/2004	4.763	F	6200	\$8,928,000.00	27

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2242220	B	SOUTHERN BLVD	BRONX RIVER			WO	2	S	3/2/2004	4.105	F	4800	\$6,912,000.00	27
2242259	B	GRAND CONCOURSE	E 161ST ST			O	1	S	10/18/2004	3.583	F	24100	\$34,704,000.00	4
2242260	B	EAGLE AVE	E 161ST ST			O	1	S	4/8/2004	5.234	G	2800	\$4,032,000.00	1
2242280	B	GRAND CONCOURSE	E 167TH ST			O	2	S	9/22/2004	4.544	F	42900	\$61,776,000.00	4
2242299	B	GRAND CONCOURSE	E 138TH ST			O	1	S	5/9/2003	5.600	G	9500	\$13,680,000.00	1
2242300	B	GRAND CONCOURSE	E 170TH ST			O	2	S	6/24/2004	4.789	F	39300	\$56,592,000.00	4
2242319	B	GRAND CONCOURSE	E 174TH ST	T		O	1	S	4/9/2004	4.067	F	14900	\$21,456,000.00	4
2242329	B	GRAND CONCOURSE	E 175TH ST	T		O	1	S	10/5/2004	4.800	F	11900	\$17,136,000.00	4
2242330	B	GRAND CONCOURSE	E TREMONT AVE			O	1	S	10/14/2003	6.483	V	11700	\$16,848,000.00	5
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE			O	2	S	10/20/2004	4.714	F	16500	\$23,760,000.00	7
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE			O	1	S	4/21/2004	4.567	F	10300	\$14,832,000.00	5
2242360	B	GRAND CONCOURSE	BURNSIDE AVE			O	2	S	10/21/2004	4.441	F	8400	\$12,096,000.00	5
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD			O	1	S	4/22/2004	4.765	F	8418	\$12,121,920.00	7
2242380	B	GRAND CONCOURSE	E 204TH ST			O	1	S	5/7/2003	5.766	G	9272	\$13,351,680.00	7
2242400	B	E 180TH ST	BRONX RIVER			WO	1	S	11/23/2004	4.810	F	4500	\$6,480,000.00	6
2242430	B	GUN HILL ROAD	BRONX BLVD			O	4	S	6/25/2004	4.982	F	9400	\$13,536,000.00	12
2242440	B	GUN HILL ROAD	BRONX RIVER			WO	1	S	3/1/2004	5.167	G	8700	\$12,528,000.00	12
2242459	B	E 233RD ST	BRONX RIVER			WO	1	S	5/27/2004	4.367	F	7000	\$10,080,000.00	12
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY			O	1	S	2/13/2004	5.467	G	5300	\$7,632,000.00	12
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T		O	4	S	10/4/2004	4.103	F	6100	\$8,784,000.00	55
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T		O	6	S	9/28/2004	4.000	F	48700	\$70,128,000.00	14
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/11/2003	4.158	F	6000	\$8,640,000.00	14
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/18/2003	4.500	F	20800	\$29,952,000.00	14
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/21/2003	4.545	F	18200	\$26,208,000.00	14
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	11/26/2003	3.982	F	2700	\$3,888,000.00	14
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	12/12/2003	4.044	F	2900	\$4,176,000.00	14
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	10/28/2004	5.490	G	4825	\$6,948,000.00	14
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	12/10/2003	5.809	G	4875	\$7,020,000.00	14
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T		O	3	S	10/11/2004	4.397	F	4100	\$5,904,000.00	14
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	10/14/2004	4.550	F	3000	\$4,320,000.00	14
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T		O	1	S	12/5/2003	6.578	V	2300	\$3,312,000.00	8
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T		O	1	S	12/4/2003	6.781	V	2200	\$3,168,000.00	9
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/21/2004	6.922	V	2460	\$3,542,400.00	9
2243200	K	UNION ST	FRANKLIN SHUTTLE	T		O	2	S	9/20/2004	5.065	G	4100	\$5,904,000.00	9
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T		O	2	S	9/17/2004	5.314	G	2500	\$3,600,000.00	9
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T		O-PED	3	C	9/26/2002	5.484	G	600	\$864,000	9
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T		O	3	S	12/3/2003	5.181	G	4800	\$6,912,000.00	9
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T		O	1	S	12/1/2003	6.353	V	2030	\$2,923,200.00	9
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T		O	1	S	9/16/2004	6.391	V	3657	\$5,266,080.00	9
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T		O	2	S	9/15/2004	5.196	G	11300	\$16,272,000.00	9
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T		O	1	S	9/22/2004	4.861	F	7700	\$11,088,000.00	9
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L		O	9	S	11/21/2004	5.528	G	12276	\$17,677,440.00	8
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L		O	7	S	11/20/2004	4.931	F	10823	\$15,585,120.00	8
2243310	K	2ND AVE	LIRR BAY RIDGE	N		O	6	S	11/14/2003	3.925	F	17000	\$24,480,000.00	10
2243320	K	3RD AVE	LIRR BAY RIDGE	N		O	4	S	8/25/2003	5.542	G	17230	\$24,811,200.00	10
2243330	K	4TH AVE	LIRR BAY RIDGE	NT		O	6	S	10/17/2003	5.819	G	13668	\$19,681,920.00	10
2243340	K	15TH AVE	LIRR BAY RIDGE	N		O	1	S	10/14/2004	4.872	F	3614	\$5,204,160.00	11
2243350	K	60TH ST	LIRR BAY RIDGE	N		O	1	S	8/20/2003	6.383	V	3900	\$5,616,000.00	11
2243360	K	16TH AVE	LIRR BAY RIDGE	N		O	1	S	12/8/2004	5.733	G	4345	\$6,256,800.00	11
2243370	K	17TH AVE	LIRR BAY RIDGE	N		O	1	S	12/1/2004	4.784	F	3406	\$4,904,640.00	12
2243380	K	18TH AVE	LIRR BAY RIDGE	N		O	1	S	12/2/2004	5.016	G	6006	\$8,648,640.00	12
2243390	K	52ND ST	LIRR BAY RIDGE	N		O	2	S	12/6/2004	6.467	V	2800	\$4,032,000.00	12
2243400	K	50TH ST	LIRR BAY RIDGE	N		O	2	S	8/14/2003	4.701	F	7100	\$10,224,000.00	12
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N		O	1	S	11/30/2004	5.422	G	2760	\$3,974,400.00	12
2243420	K	E 3RD ST	LIRR BAY RIDGE	N		O	1	S	8/28/2003	5.082	G	1500	\$2,160,000.00	12
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N		O	1	S	11/18/2004	5.218	G	7000	\$10,080,000.00	12
2243440	K	CONY ISLAND AVE	LIRR BAY RIDGE	N		O	1	S	11/17/2004	5.234	G	3231	\$4,652,640.00	12
2243450	K	E 14TH ST	LIRR BAY RIDGE	N		O	1	S	11/15/2004	5.383	G	1775	\$2,556,000.00	14
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N		O-PED	3	C	4/17/2002	3.650	F	900	\$1,296,000	14
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N		O	2	S	11/12/2004	5.000	G	5000	\$7,200,000.00	14
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N		O	6	S	11/11/2004	4.639	F	12000	\$17,280,000.00	14
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N		O	2	S	11/16/2004	5.186	G	4320	\$6,220,800.00	14
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N		O	2	S	8/12/2003	4.667	F	5700	\$8,208,000.00	18

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWN	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N		O	3	S	8/6/2003	6.055	V	4500	\$6,480,000.00	18
2243530	K	AVENUE H	LIRR BAY RIDGE	N		O	2	S	8/8/2003	6.338	V	35100	\$50,544,000.00	18
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L		O	75	S	7/14/2004	3.845	F	135100	\$194,544,000.00	16
2243570	K	86TH ST	LIRR & SEA BEACH	LT		O	1	S	8/9/2004	6.172	V	3840	\$5,529,600.00	13
2243580	K	5TH AVE	LIRR & SEA BEACH	LT		O	4	S	10/29/2004	4.353	F	12500	\$18,000,000.00	10
2243590	K	6TH AVE	LIRR & SEA BEACH	LT		O	5	S	10/14/2003	6.528	V	14200	\$20,448,000.00	10
2243600	K	7TH AVE	LIRR & SEA BEACH	LT		O	7	S	10/29/2004	5.556	G	18913	\$27,234,720.00	10
2243610	K	8TH AVE	LIRR & SEA BEACH	LT		O	4	S	11/13/2003	6.319	V	10834	\$15,600,960.00	10
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	LT		O	3	S	10/20/2004	5.492	G	14800	\$21,312,000.00	10
2243630	K	11TH AVE	LIRR & SEA BEACH	LT		O	5	S	10/26/2004	6.603	V	9700	\$13,968,000.00	10
2243640	K	13TH AVE	LIRR & SEA BEACH	LT		O	5	S	11/6/2003	4.694	F	16000	\$23,040,000.00	10
2243650	K	14TH AVE	LIRR BAY RIDGE	N		O	4	S	10/12/2004	6.967	V	10000	\$14,400,000.00	11
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N		O	1	S	10/13/2004	6.900	V	2481	\$3,572,640.00	11
2243670	K	15TH AVE	BMT SEA BEACH	T		O	6	S	11/29/2004	4.136	F	17300	\$24,912,000.00	11
2243680	K	16TH AVE	BMT SEA BEACH	T		O	4	S	9/9/2004	5.444	G	6816	\$9,815,040.00	11
2243690	K	17TH AVE	BMT SEA BEACH	T		O	4	S	9/13/2004	3.711	F	8500	\$12,240,000.00	11
2243700	K	18TH AVE	BMT SEA BEACH	T		O	4	S	10/20/2003	3.909	F	8700	\$12,528,000.00	11
2243710	K	19TH AVE	BMT SEA BEACH	T		O	4	S	9/1/2004	4.395	F	4800	\$6,912,000.00	11
2243720	K	20TH AVE	BMT SEA BEACH	T		O	6	S	8/19/2004	4.744	F	12500	\$18,000,000.00	11
2243730	K	65TH ST	BMT SEA BEACH	T		O	4	S	8/13/2004	5.947	G	12000	\$17,280,000.00	11
2243740	K	BAY PKWY	BMT SEA BEACH	T		O	4	S	8/11/2004	4.974	F	16800	\$24,192,000.00	11
2243750	K	AVENUE O	BMT SEA BEACH	T		O	1	S	10/22/2003	5.863	G	4658	\$6,707,520.00	11
2243760	K	AVENUE P	BMT SEA BEACH	T		O	1	S	10/29/2003	6.791	V	5544	\$7,983,360.00	11
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T		O	1	S	10/30/2003	6.767	V	5032	\$7,246,080.00	11
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T		O	1	S	10/31/2003	6.440	V	6960	\$10,022,400.00	11
2243790	K	AVENUE S	BMT SEA BEACH	T		O	1	S	11/5/2003	6.133	V	5360	\$7,718,400.00	15
2243800	K	AVENUE T	BMT SEA BEACH	T		O	1	S	11/6/2003	6.033	V	5360	\$7,718,400.00	11
2243810	K	AVENUE U	BMT SEA BEACH	T		O	1	S	8/27/2004	6.137	V	5880	\$8,467,200.00	15
2243820	K	21ST AVE	BMT SEA BEACH	T		O	4	S	8/26/2004	4.184	F	21400	\$30,816,000.00	11
2243839	K	4TH AVE	NYCTA BMT TRACKS	T		O	1	S	11/14/2003	6.633	V	5160	\$7,430,400.00	7
2243840	K	9TH AVE	NYCTA BMT YARD	T		O	5	S	10/27/2003	6.514	V	12440	\$17,913,600.00	12
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N		O	4	S	8/12/2003	4.294	F	6400	\$9,216,000.00	16
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N		O	2	S	11/8/2004	6.559	V	5700	\$8,208,000.00	16
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N		O	3	S	11/3/2004	4.471	F	5600	\$8,064,000.00	16
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N		O	3	S	11/4/2004	6.681	V	5400	\$7,776,000.00	16
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N		O	3	S	11/5/2004	5.309	G	5020	\$7,228,800.00	16
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N		O-PED	3	C	7/2/2004	5.125	G	2500	\$3,600,000	16
2243920	K	7TH AVE	NYCTA BMT YARD	T		O	2	S	10/21/2004	6.507	V	5200	\$7,488,000.00	7
2243940	K	9TH AVE	NYCTA IND SBWY	T		O	5	S	11/4/2003	4.737	F	11900	\$17,136,000.00	12
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		P	O	1	C	5/7/2002	4.367	F	900	\$1,296,000	55
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		P	O	1	S	4/7/2003	5.571	G	2500	\$3,600,000.00	55
2244030	K	EAST DRIVE	BRIDLE PATH		P	O	1	S	4/10/2003	5.041	G	2000	\$2,880,000.00	55
2244040	K	EAST DRIVE	EAST WOOD ARCH		P	O	1	C	6/30/2003	4.200	F	900	\$1,296,000	55
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		P	WO	3	S	4/16/2003	5.316	G	7400	\$10,656,000.00	55
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		P	O	1	C	6/10/2003	4.500	F	900	\$1,296,000	55
2244100	K	WEST FOOTBRIDGE	PROSPECT PK STREAM		P	WO-PED	1	C	9/9/2003	4.577	F	308	\$443,520	55
2244120	K	HILL DRIVE	PROSPECT PK LAKE		P	WO	3	S	4/18/2003	3.745	F	7800	\$11,232,000.00	55
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE		P	WO-PED	1	C	6/15/2002	5.000	G	1260	\$1,814,400	55
2244150	K	RIDGE BLVD	SHORE RD DRIVE			O	1	S	5/28/2003	6.867	V	4350	\$6,264,000.00	10
2244160	K	3RD AVE	SHORE RD DRIVE			O	1	S	5/28/2003	6.818	V	4360	\$6,278,400.00	10
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE			O	2	S	7/25/2003	4.737	F	5520	\$7,948,800.00	5
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE			O	2	S	7/25/2003	4.491	F	5600	\$8,064,000.00	16
2244440	K	SOUTH OF TILLARY ST	NAVY ST			O-PED	1	C	5/4/2004	4.480	F	6200	\$8,928,000	2
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB			O	1	S	10/25/2004	4.833	F	3800	\$5,472,000.00	5
2244470	K	SEELEY ST	PROSPECT AVE			O	1	S	7/10/2003	4.100	F	7700	\$11,088,000.00	7
2244480	K	5TH AVE	GREENWOOD CEMETERY			O	1	S	6/2/2003	5.000	G	3600	\$5,184,000.00	7
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL		O	39	S	11/22/2004	3.861	F	157500	\$226,800,000.00	4
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A		O	8	S	4/5/2004	4.639	F	16500	\$23,760,000.00	4
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A		O	2	S	6/3/2003	4.750	F	4620	\$6,652,800.00	4
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	6/5/2003	4.653	F	11800	\$16,992,000.00	4
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/20/2004	4.208	F	6500	\$9,360,000.00	4
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	9/15/2004	3.940	F	16400	\$23,616,000.00	4
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		P	O	1	C	7/30/2004	5.133	G	750	\$1,080,000	12

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2245050	M	FORT TRYON PARK	UNDERPASS		P	O	1	C	7/30/2004	4.867	F	750	\$1,080,000	12
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/28/2003	5.984	G	7600	\$10,944,000.00	4
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	9/16/2004	4.077	F	6200	\$8,928,000.00	4
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/16/2004	4.196	F	6300	\$9,072,000.00	4
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/8/2004	4.485	F	4100	\$5,904,000.00	4
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/8/2004	4.662	F	4300	\$6,192,000.00	4
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/9/2004	5.662	G	4100	\$5,904,000.00	4
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.441	F	4100	\$5,904,000.00	4
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.721	F	4100	\$5,904,000.00	4
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.618	F	4100	\$5,904,000.00	4
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	11/2/2004	4.500	F	4100	\$5,904,000.00	4
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/2/2004	4.882	F	4300	\$6,192,000.00	4
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/2/2004	5.088	G	4300	\$6,192,000.00	4
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	5.162	G	5100	\$7,344,000.00	4
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	4.588	F	4100	\$5,904,000.00	4
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A		O	2	S	12/2/2004	4.647	F	15400	\$22,176,000.00	4
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A		O	4	S	10/4/2004	4.841	F	10300	\$14,832,000.00	4
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	12/6/2004	4.838	F	9100	\$13,104,000.00	4
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	3	C	4/20/2004	3.509	F	1100	\$1,584,000	9
2245240	M	W 151ST ST FOOTBR	CONRAIL 30 ST BR		P	O-PED	2	C	6/8/2002	3.462	F	1020	\$1,468,800	9
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	11/14/2003	6.431	V	29170	\$42,004,800.00	12
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	2	C	4/22/2004	4.611	F	1500	\$2,160,000	12
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A		O-PED	3	C	4/21/2004	4.262	F	800	\$1,152,000	9
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	P	O-PED	6	C	4/26/2004	4.174	F	700	\$1,008,000	12
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M		O	1	S	9/1/2004	4.725	F	3200	\$4,608,000.00	8
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/24/2004	4.164	F	6200	\$8,928,000.00	4
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	4.647	F	4100	\$5,904,000.00	4
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	5.540	G	4700	\$6,768,000.00	4
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	5.485	G	4300	\$6,192,000.00	4
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	5.368	G	4400	\$6,336,000.00	4
2245380	M	E 66TH ST	PED WALK N. OF ZOO		P	O	1	S	6/2/2004	5.267	G	1500	\$2,160,000.00	8
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END			O	1	S	6/2/2004	4.900	F	1600	\$2,304,000.00	64
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/24/2004	4.042	F	9400	\$13,536,000.00	4
2245460	M	PARK AVE S.B.	E 45TH ST			O	1	S	7/26/2004	4.946	F	2400	\$3,456,000.00	5
2245470	M	PARK AVE N.B	E 45TH ST			O	1	S	7/27/2004	4.865	F	2400	\$3,456,000.00	5
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE			O	1	S	6/29/2004	5.333	G	10800	\$15,552,000.00	12
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		P	O	1	S	6/2/2004	5.267	G	2500	\$3,600,000.00	64
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH		P	O-PED	1	C	12/22/2004	5.000	G	1026	\$1,477,440	64
2246030	M	PEDESTRIAN BRIDGE	POND		P	O-PED	1	C	7/29/2004	4.310	F	1400	\$2,016,000	64
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		P	O	1	C	7/12/2004	4.533	F	1200	\$1,728,000	5
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		P	O	1	S	6/2/2004	5.267	G	2000	\$2,880,000.00	64
2246069	M	EAST DRIVE	PEDESTRIAN WALK		P	O	1	S	6/2/2004	4.500	F	2700	\$3,888,000.00	64
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		P	O	1	C	7/14/2004	6.000	G	1200	\$1,728,000	64
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		P	O	1	S	6/2/2004	4.667	F	2000	\$2,880,000.00	64
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		P	O-PED	1	C	2/14/2004	4.655	F	2300	\$3,312,000	64
2246100	M	CONTRAL DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.200	F	6000	\$8,640,000.00	64
2246110	M	EAST DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.567	F	6000	\$8,640,000.00	64
2246120	M	WEST DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.833	F	7900	\$11,376,000.00	64
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		P	O	1	C	7/15/2004	4.233	F	1200	\$1,728,000	64
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		P	O	1	S	2/11/2004	4.867	F	3600	\$5,184,000.00	64
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		P	O	3	S	6/2/2004	4.941	F	7300	\$10,512,000.00	64
2246160	M	PED BET 73ST&74ST	THE LAKE		P	WO-PED	1	C	6/1/2002	5.000	G	1655	\$2,383,200	64
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		P	O	1	S	2/24/2004	5.056	G	1900	\$2,736,000.00	64
2246230	M	EAST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/5/2004	4.533	F	6500	\$9,360,000.00	64
2246240	M	WEST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/5/2004	4.167	F	7200	\$10,368,000.00	64
2246250	M	EAST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/1/2004	4.433	F	5100	\$7,344,000.00	64
2246260	M	WEST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/3/2004	4.800	F	5100	\$7,344,000.00	64
2246270	M	EAST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/1/2004	3.967	F	7000	\$10,080,000.00	64
2246280	M	WEST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/1/2004	4.033	F	4700	\$6,768,000.00	64
2246320	M	FTBRG OPP 77TH ST	THE LAKE		P	WO-PED	3	C	12/29/2004	4.862	F	1125	\$1,620,000	64
2246330	M	WEST DRIVE	FEEDER TO LAKE		P	WO	1	S	2/23/2004	5.000	G	6700	\$9,648,000.00	64
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE		P	WO-PED	4	C	12/29/2004	4.871	F	455	\$655,200	64
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		P	O	1	C	7/15/2004	4.500	F	750	\$1,080,000	64



INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		P	O	1	S	2/25/2004	5.682	G	3100	\$4,464,000.00	64
2246380	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/3/2004	5.190	G	714	\$1,028,160	64
2246390	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/3/2004	4.627	F	1095	\$1,576,800	64
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		P	O-PED	1	C	10/23/2004	4.500	F	3700	\$5,328,000	64
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		P	O	1	S	2/27/2004	4.364	F	1739	\$2,504,160.00	8
2246430	M	WEST DRIVE	PED OPP 109TH ST		P	O	1	S	2/26/2004	4.317	F	1200	\$1,728,000.00	64
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		P	O-PED	1	C	10/23/2004	4.259	F	5900	\$8,496,000	64
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		P	O	1	S	2/27/2002	5.190	G	5000	\$7,200,000.00	64
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		P	O	2	S	2/13/2004	4.789	F	5800	\$8,352,000.00	64
2246470	M	EAST DRIVE	THE LOCH		P	WO	1	S	3/2/2004	4.700	F	1100	\$1,584,000.00	64
2246489	M	W 181 ST	RAMP TO WASH BR			O	1	S	2/10/2004	4.633	F	8200	\$11,808,000.00	12
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD			O	1	S	2/24/2004	4.061	F	5600	\$8,064,000.00	10
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		P	O	1	S	3/8/2004	4.267	F	6600	\$9,504,000.00	12
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		P	O	1	S	2/9/2004	5.133	G	2200	\$3,168,000.00	12
2246540	M	E 34TH ST	PARK AVE TUNNEL			OT	1	S	8/27/2004	4.033	F	36200	\$52,128,000.00	5
2246550	M	PARK AVE VIADUCT	E 42ND ST			O	10	S	12/22/2004	4.597	F	22150	\$31,896,000.00	6
2246560	M	TUDOR CITY PLACE	E 42ND ST			O	1	S	3/17/2004	5.133	G	6600	\$9,504,000.00	6
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL			OT	2	S	7/21/2004	4.843	F	92200	\$132,768,000.00	6
2246580	M	HIGH BRIDGE PDOVP	87I - HARLEM RIVER		P	WA-PED	11	P	10/1/85	5.651	G	34115	\$49,125,600	12
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.			O-PED	1	C	3/3/2004	4.600	F	1200	\$1,728,000	12
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST			O-PED	18	C	10/1/2004	4.720	F	2300	\$3,312,000	11
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS			O	27	S	6/25/2003	4.500	F	148300	\$213,552,000.00	9
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE			O	3	S	6/27/2003	4.852	F	7500	\$10,800,000.00	9
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		P	O	1	S	6/30/2004	6.826	V	911	\$1,311,840.00	12
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET		P	WO-PED	1	C	12/29/2004	4.931	F	285	\$410,400	12
2246710	M	W 153 ST	A.C. POWELL BLVD			O	1	S	2/25/2004	4.389	F	3082	\$4,438,080.00	10
2246720	M	RIVERSIDE DRIVE	W 158TH ST			O	77	S	11/19/2003	3.542	F	181400	\$261,216,000.00	9
2246970	M	RIVERSIDE DRIVE	W 96TH ST			O	3	S	6/9/2003	5.618	G	10600	\$15,264,000.00	7
2246980	M	RIVERSIDE DRIVE	W 138TH ST			O	1	S	3/5/2004	4.900	F	6700	\$9,648,000.00	9
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE			O-PED	5	C	7/19/2004	4.238	F	500	\$720,000	11
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L		O-PED	5	C	8/9/2004	4.333	F	500	\$720,000	4
2247040	Q	UNION ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	6.391	V	3313	\$4,770,720.00	7
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L		O	1	S	5/5/2004	5.863	G	4974	\$7,162,560.00	7
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L		O	1	S	5/6/2004	5.176	G	4200	\$6,048,000.00	7
2247070	Q	147TH ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	5.627	G	2800	\$4,032,000.00	7
2247080	Q	149TH ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	4.776	F	4100	\$5,904,000.00	7
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L		O	2	S	6/11/2003	5.386	G	4300	\$6,192,000.00	7
2247100	Q	150TH ST	LIRR N SIDE DIV	L		O	2	S	6/11/2003	6.588	V	7830	\$11,275,200.00	7
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	5.556	G	4000	\$5,760,000.00	7
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L		O	3	S	7/19/2003	4.444	F	14900	\$21,456,000.00	2
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L		O	1	S	6/13/2003	6.529	V	3379	\$4,865,760.00	11
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L		O	1	S	6/13/2003	5.881	G	4320	\$6,220,800.00	11
2247150	Q	65TH ST	LIRR N SIDE DIV	L		O	3	S	7/2/2003	6.542	V	6344	\$9,135,360.00	2
2247160	Q	65TH PLACE	LIRR N SHR DIV	L		O	3	S	7/2/2003	6.471	V	8381	\$12,068,640.00	2
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L		O	3	S	5/7/2004	5.288	G	6300	\$9,072,000.00	11
2247180	Q	GRAND AVE	LIRR MAIN LINE	L		O	3	S	5/25/2004	4.849	F	7415	\$10,677,600.00	4
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	8/3/2004	4.491	F	13000	\$18,720,000	4
2247220	Q	80TH ROAD	LIRR MAIN LINE	L		O	3	S	6/24/2003	5.000	G	4100	\$5,904,000.00	9
2247230	Q	82ND AVE	LIRR MAIN LINE	L		O	3	S	6/24/2003	5.443	G	4100	\$5,904,000.00	9
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L		O	3	S	6/25/2003	5.917	G	5460	\$7,862,400.00	9
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L		O	1	S	11/24/2004	6.183	V	4517	\$6,504,480.00	2
2247270	Q	21ST STREET	CONRAIL	C		O	6	S	7/7/2003	5.528	G	17590	\$25,329,600.00	2
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L		O	5	S	9/1/2004	4.292	F	20200	\$29,088,000.00	2
2247300	Q	THOMPSON AVE	AMTRAK YARD	L		O	14	S	9/8/2004	5.264	G	61280	\$88,243,200.00	2
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L		O	19	S	9/10/2004	6.577	V	92400	\$133,056,000.00	2
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL		O	22	S	7/30/2003	6.569	V	99036	\$142,611,840.00	2
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL		O	14	S	9/9/2003	6.556	V	48200	\$69,408,000.00	2
2247370	Q	37TH AVE	CONRAIL HELLGATE	C		O	1	S	8/6/2003	4.818	F	5300	\$7,632,000.00	2
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C		O	2	S	6/28/2004	4.958	F	5200	\$7,488,000.00	2
2247390	Q	41ST AVE	CONRAIL HELLGATE	C		O	2	S	8/6/2003	4.942	F	4400	\$6,336,000.00	2
2247400	Q	WOODSIDE AVE	CONRAIL	C		O	1	S	8/7/2003	5.067	G	8200	\$11,808,000.00	2
2247410	Q	43RD AVE	CONRAIL	C		O	1	S	8/8/2003	5.033	G	4800	\$6,912,000.00	2
2247420	Q	44TH AVE	CONRAIL	C		O	1	S	8/8/2003	5.033	G	5100	\$7,344,000.00	2

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD

2247430	Q	45TH AVE	CONRAIL	C		O	1	S	8/8/2003	5.510	G	2400	\$3,456,000.00	2
2247440	Q	GRAND AVE	CONRAIL	C		O	1	S	8/11/2003	6.567	V	3280	\$4,723,200.00	5
2247450	Q	57TH AVE	CONRAIL	C		O	1	S	8/11/2003	6.195	V	2248	\$3,237,120.00	5
2247460	Q	CALDWELL AVE	CONRAIL	C		O	1	S	6/29/2004	6.639	V	2243	\$3,229,920.00	5
2247470	Q	ELIOT AVE	CONRAIL	C		O	1	S	8/12/2003	5.250	G	3600	\$5,184,000.00	5
2247480	Q	JUNIPER BLVD SO	CONRAIL	C		O	1	S	8/12/2003	5.556	G	9000	\$12,960,000.00	5
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C		O	1	S	6/30/2004	5.455	G	6175	\$8,892,000.00	5
2247500	Q	METROPOLITAN AVE	CONRAIL	C		O	1	S	8/12/2003	4.167	F	18650	\$26,856,000.00	5
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L		O	4	S	5/19/2004	4.113	F	3200	\$4,608,000.00	5
2247540	Q	60TH ST	LIRR MONTAUK DIV	L		O	2	S	6/17/2003	5.264	G	5340	\$7,689,600.00	5
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L		O	2	S	6/18/2003	5.894	G	9550	\$13,752,000.00	5
2247570	Q	80TH ST	71ST TO 77TH AVE	L		O	5	S	5/3/2004	5.102	G	11725	\$16,884,000.00	5
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	P	O	5	S	5/14/2004	5.404	G	6000	\$8,640,000.00	9
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL		O	1	S	5/4/2004	6.983	V	3024	\$4,354,560.00	9
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L		O	3	S	2/11/2004	5.278	G	6725	\$9,684,000.00	4
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR			O-PED	8	C	7/8/2004	5.318	G	900	\$1,296,000	5
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL		O	9	S	9/10/2003	6.125	V	34100	\$49,104,000.00	2
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	8/2/2004	4.934	F	2293	\$3,301,920	5
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	P	O	6	S	4/23/2004	5.254	G	10000	\$14,400,000.00	9
2247680	Q	221ST ST	LIRR N SIDE DIV	L		O	3	S	6/12/2003	6.000	G	6050	\$8,712,000.00	11
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE			O	3	S	6/10/2004	4.472	F	19400	\$27,936,000.00	9
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE			O-PED	7	C	3/15/2004	4.718	F	5500	\$7,920,000	10
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD			O	2	S	5/7/2004	6.296	V	17000	\$24,480,000.00	10
2248040	Q	LINDEN BLVD	CONDUIT AVE			O	1	S	4/15/2004	5.233	G	3352	\$4,826,880.00	10
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD		P	O-PED	2	C	10/28/2004	4.556	F	2756	\$3,968,640	8
2248060	Q	MOTOR PKWY (PED)	BELL BLVD		P	O-PED	2	C	10/29/2004	4.778	F	2648	\$3,813,120	11
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD		P	O-PED	3	C	12/8/2004	4.293	F	2940	\$4,233,600	11
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD		P	O-PED	3	C	5/18/2002	4.839	F	2670	\$3,844,800	8
2248090	Q	FLSHG MDW PK PED.	LAWRENCE STREET		P	O-PED	3	C	5/11/2002	4.722	F	8418	\$12,121,920	7
2248100	Q	MOTOR PKWY (PED)	73RD AVE		P	O-PED	3	C	5/18/2002	4.794	F	2640	\$3,801,600	8
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK		P	O-PED	1	C	12/8/2004	4.582	F	963	\$1,386,720	13
2248129	Q	UNION TPK	CREEDMOORE HOSP RD			O	1	S	5/9/2003	4.867	F	3500	\$5,040,000.00	13
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD		P	WO-PED	4	C	4/20/2002	1.000	P	1891	\$2,723,040	81
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE		P	WO-PED	5	C	12/14/2004	4.741	F	4102	\$5,906,880	81
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD			O	2	S	7/7/2004	4.288	F	11500	\$16,560,000.00	6
2248160	Q	ELLIOT AVE	QUEENS BLVD			O	2	S	7/7/2004	4.922	F	13785	\$19,850,400.00	12
2248200	Q	RUST ST	FLUSHING AVE			O	1	S	5/12/2003	5.547	G	2940	\$4,233,600.00	5
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE			O	1	S	5/12/2003	5.125	G	2940	\$4,233,600.00	5
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB			O	1	S	5/19/2003	4.400	F	3600	\$5,184,000.00	84
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE			O	1	S	5/12/2003	5.250	G	2940	\$4,233,600.00	5
2248250	Q	102ND ST	HAWTREE BASIN			WO	3	S	7/15/2003	6.574	V	4900	\$7,056,000.00	10
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		P	WO	5	S	4/28/2004	4.891	F	4200	\$6,048,000.00	81
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH		P	O-PED	1	C	12/22/2004	3.667	F	1856	\$2,672,640	5
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST			O	1	S	2/11/2004	4.750	F	5900	\$8,496,000.00	9
2248300	Q	71ST AVE	COOPER AVE			O	1	S	5/9/2003	4.458	F	2800	\$4,032,000.00	5
2248340	Q	FOREST PARK DR	MYRTLE AVE		P	O	3	S	5/8/2003	5.081	G	5100	\$7,344,000.00	9
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN			WO	2	S	6/25/2003	5.158	G	6000	\$8,640,000.00	83
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE		P	WO-PED	5	C	8/17/1978	5.809	G	6321	\$9,102,240	81
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)			O	1	S	3/25/2004	6.250	V	5096	\$7,338,240.00	1
2249070	R	JOHN ST	B&O RAILROAD	O		O-PED	3	C	2/23/2004	6.806	V	5800	\$8,352,000	1
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O		O	4	S	4/14/2003	5.339	G	7900	\$11,376,000.00	1
2249100	R	GRANITE AVE	B&O RAILROAD	O		O	4	S	4/23/2004	6.034	V	7300	\$10,512,000.00	1
2249110	R	LAKE AVE	B&O RAILROAD	O		O	3	S	4/9/2003	5.926	G	5900	\$8,496,000.00	1
2249120	R	SIMONSON AVE	B&O RAILROAD	O		O	3	S	5/1/2003	6.111	V	5819	\$8,379,360.00	1
2249130	R	VAN NAME AVE	B&O RAILROAD	O		O	3	S	3/24/2004	5.492	G	5474	\$7,882,560.00	1
2249140	R	VAN PELT AVE	B&O RAILROAD	O		O	3	S	4/16/2003	5.780	G	5000	\$7,200,000.00	1
2249160	R	DE HART AVE	B&O RAILROAD	O		O	4	S	5/5/2003	6.500	V	6700	\$9,648,000.00	1
2249170	R	UNION AVE	B&O RAILROAD	O		O	4	S	5/8/2003	5.352	G	6500	\$9,360,000.00	1
2249180	R	HARBOR ROAD	B&O RAILROAD	O		O	4	S	5/6/2003	6.356	V	6615	\$9,525,600.00	1
2249200	R	SOUTH AVE	B&O RAILROAD	O		O	3	S	9/29/2003	6.927	V	8322	\$11,983,680.00	1
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	4/8/2004	4.710	F	400	\$576,000	3
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	4/2/2004	2.744	P	200	\$288,000	3
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S		O	1	S	12/2/2004	4.833	F	3700	\$5,328,000.00	3
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S		O-PED	12	C	6/11/2003	3.980	F	500	\$720,000	3
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S		O	4	S	10/16/2003	6.306	V	30420	\$43,804,800.00	3
2249270	R	RICHMMD VALLY ROAD	SIRT SOUTH SHORE	S		O	4	S	10/14/2003	5.299	G	9300	\$13,392,000.00	3
2249280	R	COZZINS BLVD PED BRDG	SIRT SOUTH SHORE	S		O-PED	7	C	6/17/2003	4.902	F	200	\$288,000	3
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S		O	1	S	10/15/2003	6.016	V	2200	\$3,168,000.00	3
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S		O	2	S	10/14/2003	4.955	F	4900	\$7,056,000.00	3

INVENTORY SORTED BY B.I.N.															
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD	
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S		O	3	S	10/17/2003	4.787	F	6500	\$9,360,000.00	3	
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S		O	2	S	10/19/2003	4.455	F	4500	\$6,480,000.00	3	
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	1	C	7/8/2004	4.725	F	300	\$432,000	3	
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S		O	1	S	12/3/2004	5.844	G	3042	\$4,380,480.00	3	
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S		O	3	S	10/18/2003	6.750	V	3950	\$5,688,000.00	3	
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S		O	3	S	10/19/2003	4.869	F	6900	\$9,936,000.00	3	
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/10/2003	4.684	F	600	\$864,000	3	
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S		O	2	S	10/23/2003	5.697	G	3700	\$5,328,000.00	2	
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S		O	2	S	10/24/2003	5.500	G	3800	\$5,472,000.00	2	
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S		O	2	S	10/25/2003	5.712	G	3800	\$5,472,000.00	2	
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S		O	2	S	10/18/2003	4.903	F	7600	\$10,944,000.00	2	
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S		O	3	S	10/19/2003	5.269	G	5900	\$8,496,000.00	2	
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	6/12/2003	4.459	F	800	\$1,152,000	2	
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S		O	1	S	10/25/2003	5.552	G	4500	\$6,480,000.00	2	
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S		O	1	S	10/26/2003	5.603	G	3000	\$4,320,000.00	2	
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S		O	2	S	10/26/2003	6.764	V	5100	\$7,344,000.00	2	
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S		O	3	S	12/7/2004	6.264	V	5270	\$7,588,800.00	2	
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S		O	2	S	12/6/2004	5.475	G	5378	\$7,744,320.00	1	
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S		O	10	S	10/21/2003	5.119	G	10020	\$14,428,800.00	1	
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	23	C	9/9/2004	5.686	G	1600	\$2,304,000	1	
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	4/6/2004	4.333	F	400	\$576,000	3	
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	12/2/2004	4.862	F	899	\$1,294,560	1	
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	12/2/2004	4.621	F	899	\$1,294,560	1	
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE		P	WO-PED	1	C	11/17/2004	4.586	F	972	\$1,399,680	1	
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM			WO	2	S	6/9/2003	4.933	F	7000	\$10,080,000.00	1	
2249770	R	S OF BROOKS LAKE	STREAM IN PARK		P	WO-PED	3	C	11/23/2004	5.129	G	696	\$1,002,240	1	
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		P	WO-PED	1	C	11/30/2004	4.947	F	800	\$1,152,000	1	
2249790	R	FB S OF FOREST AV	STREAM IN PARK		P	WO-PED	3	C	11/30/2004	5.000	G	658	\$947,520	1	
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		P	WO	1	S	9/9/2003	4.767	F	1600	\$2,304,000.00	1	
2249810	R	HYLAN BLVD	LEMON CREEK			WO	1	S	3/17/2004	6.422	V	11400	\$16,416,000.00	3	
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM			WO	1	S	5/9/2003	4.122	F	2000	\$2,880,000.00	3	
2249840	R	TOMPKINS AVE	GREENFIELD AVE			O	1	S	3/18/2004	5.106	G	2562	\$3,689,280.00	1	
2249860	R	SLATER BLVD	NEW CREEK			WO	1	S	4/14/2003	5.959	G	2037	\$2,933,280.00	2	
2249870	R	TRAVIS AVE	MAIN CREEK			WO	1	S	8/5/2003	6.100	V	1537	\$2,213,280.00	2	
2249880	R	CHELSEA ROAD	SAWMILL CREEK			WO	1	S	5/12/2003	6.981	V	2205	\$3,175,200.00	2	
2257569	M	MILLER HIGHWAY	TERRAIN			A	63	S	7/1/2003	5.000	G	264190	\$380,433,600.00	7	
2266129	Q	WINCHESTER BLVD S.B.	BCIP			A	1	S	4/6/2004	4.592	F	4400	\$6,336,000.00	11	
2266139	Q	WINCHESTER BLVD N.B.	BCIP			A	1	S	4/16/2004	4.633	F	6400	\$9,216,000.00	11	
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY			A	2	S	5/5/2004	4.172	F	9500	\$13,680,000.00	13	
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I			A	1	S	4/28/2004	4.438	F	2300	\$3,312,000.00	7	
2266229	M	HHP	PED UNDERPASS @ 148 ST			A	1	S	3/5/2004	5.476	G	1800	\$2,592,000.00	9	
2266230	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/2/2004	6.211	V	800	\$1,152,000.00	12	
2266240	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/3/2004	5.762	G	1100	\$1,584,000.00	12	
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST			A	2	S	5/7/2003	4.645	F	32900	\$47,376,000.00	1	
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A		O	9	S	12/10/2004	3.683	F	8800	\$12,672,000.00	4	
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY			A	1	S	5/12/2004	5.250	G	9508	\$13,691,520.00	13	
2267130	M	RIVERSIDE DRIVE	W 145TH ST			O	1	S	6/11/2003	4.867	F	5800	\$8,352,000.00	9	
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD			O	4	S	5/23/2003	4.746	F	7280	\$10,483,200.00	84	
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD			O	1	S	6/3/2003	5.167	G	7085	\$10,202,400.00	8	
2267240	M	HRD NB RAMP	HARLEM RIVER DR			A	51	S	10/8/2004	3.000	P	122900	\$176,976,000.00	12	
2267250	M	HHP	AMTRAK 30TH ST LINE	A		A	55	S	10/29/2004	3.710	F	40000	\$57,600,000.00	7	
2267380	M	WEST STREET	RECTOR ST			AT	1	S	10/14/2003	5.033	G	25760	\$37,094,400.00	1	
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		P	A	10	S	5/2/2003	4.593	F	27400	\$39,456,000.00	7	
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		P	A	34	S	5/13/2003	3.934	F	24130	\$34,747,200.00	7	
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		P	AR	4	S	5/16/2003	4.242	F	3131	\$4,508,640.00	7	
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		P	AR	21	S	5/23/2003	4.452	F	7114	\$10,244,160.00	7	
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	21	S	6/9/2003	4.726	F	9095	\$13,096,800.00	7	
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	4	S	5/29/2003	4.645	F	2601	\$3,745,440.00	7	
2267860	K	BROOKLYN BR APPROACH	SANDS STREET			O	1	S	6/17/2004	4.732	F	6490	\$9,345,600.00	2	
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		P	A-PED	35	C	4/17/2003	4.500	F	46184	\$66,504,960.00	6	
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY			O-PED	8	C	9/20/2004	5.925	G	3344	\$4,815,360.00	1	
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST			A	45	S	6/19/2003	4.292	F	78022	\$112,351,680.00	2	
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	69	S	7/16/2003	4.041	F	120734	\$173,856,960.00	2	
2268507	K	278I W.B. (B.Q.E.)	YORK ST			A	6	S	6/13/2003	4.262	F	9380	\$13,507,200.00	2	
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	11	S	5/19/2003	4.034	F	17956	\$25,856,640.00	2	
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST			A	7	S	7/22/2003	4.206	F	10988	\$15,822,720.00	2	

INVENTORY SORTED BY B.I.N.														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	5	S	11/11/2003	4.310	F	8375	\$12,060,000.00	2
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER			A	119	S	8/28/2003	4.415	F	30767	\$44,304,480.00	6
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE			O-PED	5	C	6/3/2003	5.837	G	1500	\$2,160,000.00	12
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)			O	1	S	6/3/2003	4.778	F	1470	\$2,116,800.00	13
2268920	R	AMBOY ROAD	LEMON CREEK			WO	1	S	3/17/2004	6.667	V	1310	\$1,886,400.00	3
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ			A-PED	3	C	10/13/2004	4.451	F	1200	\$1,728,000.00	1
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE			O	15	S	12/7/2004	4.754	F	14880	\$21,427,200.00	7
2269190	M	W.70TH STREET	AMTRAK	A		O	3	S	11/3/2003	6.583	V	17258	\$24,851,520.00	7
2269210	M	W.68TH STREET	AMTRAK	A		O	3	S	11/21/2003	6.746	V	5382	\$7,750,080.00	7
2269240	M	RIVERSIDE DRIVE	W. 155TH ST			O	1	S	6/10/2003	4.640	F	4397	\$6,331,680.00	9
2269260	K	W. 8TH STREET	SURF AVE.		P	O-PED	55	C	6/10/2004	3.846	F	14742	\$21,228,480.00	13
2269600	K	ERSKINE STREET	BSHP			A	1	S	10/29/2004	6.141	V	8258	\$11,891,520.00	5
2269730	R	PARKING EXIT RAMP	SIRT		F	O	10	S	11/30/2004	4.194	F	20727	\$29,846,880.00	1
2269740	R	BUS STATION NORTH	SIRT		F	O	12	S	11/16/2004	4.820	F	64605	\$93,031,200.00	1
2269750	R	BUS STATION SOUTH	SIRT		F	O	12	S	11/15/2004	4.520	F	154688	\$222,750,720.00	1
2269760	R	NORTH RAMP	SIRT		F	O	9	S	11/29/2004	4.347	F	17589	\$25,328,160.00	1
2269770	R	BUS STA ENTR RAMP	SIRT		F	O	19	S	12/1/2004	4.431	F	39333	\$56,639,520.00	1
2269780	R	PARKING ENTR RAMP	SIRT		F	O	3	S	11/1/2004	5.125	G	8589	\$12,368,160.00	1
2269790	R	BUS STATION EXIT RAMP	SIRT		F	O	7	S	11/20/2004	4.722	F	28721	\$41,358,240.00	1
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		P	A-PED	3	C	10/11/2004	3.213	F	900	\$1,296,000.00	8
2270030	B	E 156TH ST	ACCESS TO HOUSING		ED	O	16	S	12/17/2004	3.537	F	49696	\$71,562,240.00	1
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE			WO	3	S	6/26/2003	6.339	V	18302	\$26,354,880.00	13
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	5	C	8/11/2004	4.105	F	400	\$576,000.00	11
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	3	C	8/10/2004	4.164	F	600	\$864,000.00	7
M00001	M	PEDESTRIAN TUNNEL	BROADWAY TO			O-PED	1	C	3/9/2004	5.000	G	2000	\$2,880,000.00	12
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH			A	1	C	7/1/2004	4.833	F	900	\$1,296,000.00	7
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH			A	1	C	7/12/2004	4.900	F	900	\$1,296,000.00	7
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD			A	1	C	7/7/2004	4.467	F	1200	\$1,728,000.00	13
790		BRIDGES				4574			SPANS			14502232	\$20,996,302,080	



INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2241000	B	WESTCHESTER AVE	CONRAIL PT MORRIS	C		O	1	S	9/2/2004	5.085	G	1740	\$2,505,600.00	1
2241010	B	E 156TH STREET	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	4.556	F	2400	\$3,456,000.00	1
2241020	B	E 161ST STREET	CONRAIL PT MORRIS	C		O	1	S	8/31/2004	6.783	V	12800	\$18,432,000.00	1
2241040	B	THIRD AVE	CONRAIL PT MORRIS	C		O	1	S	11/3/2004	4.563	F	2700	\$3,888,000.00	1
2241050	B	E 149TH ST/JACKSON AVE	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	4.850	F	65000	\$93,600,000.00	1
2241060	B	ST. MARYS & CONCORD	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	5.333	G	4500	\$6,480,000.00	1
2241070	B	WALES AVE	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	6.567	V	2535	\$3,650,400.00	1
2241080	B	SOUTHERN BLVD	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	4.185	F	3900	\$5,616,000.00	1
2241099	B	BRUCKNER BLVD	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	6.734	V	6700	\$9,648,000.00	1
2241129	B	E 149TH ST	AMTRAK	A		O	2	S	8/3/2004	4.620	F	12575	\$18,108,000.00	1
2241550	B	E 144TH ST	METRO NORTH RR HAR	M		O	2	S	6/11/2003	6.708	V	8290	\$11,937,600.00	1
2241560	B	E 149TH ST	METRO NORTH RR HAR	M		O	8	S	4/9/2004	4.625	F	27900	\$40,176,000.00	1
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M		O	1	S	4/8/2004	4.188	F	17800	\$25,632,000.00	1
2241600	B	E 158TH ST	METRO NORTH RR HAR	M		O	1	S	6/10/2003	5.233	G	3400	\$4,896,000.00	1
2241610	B	E 161ST ST	METRO NORTH RR HAR	M		O	1	S	6/10/2003	5.383	G	6600	\$9,504,000.00	1
2242260	B	EAGLE AVE	E 161ST ST			O	1	S	4/8/2004	5.234	G	2800	\$4,032,000.00	1
2242299	B	GRAND CONCOURSE	E 138TH ST			O	1	S	5/9/2003	5.600	G	9500	\$13,680,000.00	1
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST			A	2	S	5/7/2003	4.645	F	32900	\$47,376,000.00	1
2270030	B	E 156TH ST	ACCESS TO HOUSING		ED	O	16	S	12/17/2/2004	3.537	F	49696	\$71,562,240.00	1
224005B	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	8/4/2003	4.000	F	12100	\$17,424,000.00	1
224006A	B	TO BRUCKNER BLVD	RELIEF			OR	11	S	6/23/2004	2.966	P	11100	\$15,984,000.00	1
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER			WMA	3	S	6/12/2003	5.528	G	12400	\$17,856,000.00	2
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER			WMA	8	S	6/13/2003	4.761	F	22300	\$32,112,000.00	2
2075351	B	BRUCKNER EXPWY SB	AMTRAK	A		A	1	S	8/9/2004	3.625	F	11600	\$16,704,000.00	2
2075352	B	BRUCKNER EXPWY NB	AMTRAK	A		A	1	S	8/9/2004	3.547	F	10900	\$15,696,000.00	2
2076929	B	BRUCKNER EXPWY	AMTRAK	A		A	1	S	5/8/2003	4.900	F	3800	\$5,472,000.00	2
2240180	B	WESTCHESTER AVE	BRONX RIVER			WO	1	S	6/11/2003	5.141	G	5476	\$7,885,440.00	2
2241139	B	LEGGETT AVE	AMTRAK	A		O	3	S	8/6/2004	4.690	F	28300	\$40,752,000.00	2
2241159	B	LONGWOOD AVE	AMTRAK	A		O	2	S	8/2/2004	6.042	V	10625	\$15,300,000.00	2
2241169	B	LAFAYETTE AVE	AMTRAK	A		O	1	S	8/5/2004	5.794	G	12000	\$17,280,000.00	2
2241170	B	TIFFANY ST	AMTRAK	A		O	1	S	11/4/2003	5.843	G	7267	\$10,464,480.00	2
2241180	B	BARRETTO ST	AMTRAK	A		O	1	S	7/26/2004	6.219	V	5313	\$7,650,720.00	2
2241190	B	HUNTS POINT AVE	AMTRAK	A		O	1	S	7/27/2004	4.984	F	13700	\$19,728,000.00	2
2241200	B	FAILE ST	AMTRAK	A		O	1	S	7/28/2004	5.797	G	6208	\$8,939,520.00	2
2241210	B	BRYANT AVE	AMTRAK	A		O	1	S	8/10/2004	3.153	F	5300	\$7,632,000.00	2
2241230	B	WESTCHESTER AVE	AMTRAK	A		O	3	S	8/11/2004	6.250	V	15600	\$22,464,000.00	2
2241030	B	E 163RD STREET	CONRAIL PT MORRIS	C		O	1	S	5/25/2004	4.778	F	3200	\$4,608,000.00	3
2241110	B	MELROSE AVE	CONRAIL PT MORRIS	C		O	8	S	7/31/2003	6.208	V	37854	\$54,509,760.00	3
2241620	B	E 162ND ST	METRO NORTH RR HAR	M		O	1	S	4/14/2004	4.984	F	4700	\$6,768,000.00	3
2241630	B	E 165TH ST	METRO NORTH RR HAR	M		O	1	S	4/15/2004	4.350	F	16400	\$23,616,000.00	3
2241650	B	E 167TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	5.863	G	3363	\$4,842,720.00	3
2241660	B	E 168TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	4.922	F	7700	\$11,088,000.00	3
2241670	B	E 169TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	4.500	F	3300	\$4,752,000.00	3
2241680	B	E 170TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2004	6.451	V	3150	\$4,536,000.00	3
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M		O-PED	2	C	7/30/2004	5.423	G	600	\$864,000	3
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M		O	1	S	3/22/2004	4.422	F	6300	\$9,072,000.00	3
2241720	B	E 173RD ST	METRO NORTH RR HAR	M		O	1	S	4/19/2004	4.391	F	3000	\$4,320,000.00	3
2241740	B	E 175TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2004	4.031	F	3600	\$5,184,000.00	3
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C		O	11	S	6/4/2004	5.306	G	30192	\$43,476,480.00	4
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	TCM		O	1	S	4/7/2004	3.844	F	16100	\$23,184,000.00	4
2241410	B	WALTON AVE	METRO NORTH RR HUD	M		O	1	S	4/6/2004	5.328	G	3600	\$5,184,000.00	4
2241420	B	GERARD AVE	METRO NORTH RR HUD	M		O	1	S	4/30/2004	6.766	V	5063	\$7,290,720.00	4
2241430	B	RIVER AVE	METRO NORTH RR HUD	M		O	1	S	6/19/2003	6.578	V	5040	\$7,257,600.00	4
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	P	O-PED	5	C	7/29/2004	4.556	F	4200	\$6,048,000	4
2242259	B	GRAND CONCOURSE	E 161ST ST			O	1	S	10/18/2004	3.583	F	24100	\$34,704,000.00	4
2242280	B	GRAND CONCOURSE	E 167TH ST			O	2	S	9/22/2004	4.544	F	42900	\$61,776,000.00	4
2242300	B	GRAND CONCOURSE	E 170TH ST			O	2	S	6/24/2004	4.789	F	39300	\$56,592,000.00	4
2242319	B	GRAND CONCOURSE	E 174TH ST	T		O	1	S	4/9/2004	4.067	F	14900	\$21,456,000.00	4
2242329	B	GRAND CONCOURSE	E 175TH ST	T		O	1	S	10/5/2004	4.800	F	11900	\$17,136,000.00	4
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M		O	8	S	4/27/2004	4.761	F	12900	\$18,576,000.00	5
2242330	B	GRAND CONCOURSE	E TREMONT AVE			O	1	S	10/14/2003	6.483	V	11700	\$16,848,000.00	5
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE			O	1	S	4/21/2004	4.567	F	10300	\$14,832,000.00	5
2242360	B	GRAND CONCOURSE	BURNSIDE AVE			O	2	S	10/21/2004	4.441	F	8400	\$12,096,000.00	5

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M		O	1	S	10/10/2003	6.700	V	7300	\$10,512,000.00	6
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	1	C	7/28/2004	5.921	G	700	\$1,008,000	6
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	6	C	7/27/2004	6.000	G	700	\$1,008,000	6
2241790	B	E 180TH ST	METRO NORTH RR HAR	M		O	1	S	4/15/2004	4.078	F	5000	\$7,200,000.00	6
2241800	B	E 183TH ST	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.234	F	3600	\$5,184,000.00	6
2241810	B	E 188TH ST	METRO NORTH RR HAR	M		O	1	S	4/19/2004	4.188	F	5300	\$7,632,000.00	6
2241820	B	E 187TH ST	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.750	F	3800	\$5,472,000.00	6
2241839	B	E 189TH ST	METRO NORTH RR HAR	M		O	1	S	6/9/2003	6.533	V	43157	\$62,146,080.00	6
2242030	B	CROTONA AVE	BRONX PELHAM PKWY			O	2	S	4/13/2004	5.447	G	7600	\$10,944,000.00	6
2242149	B	E TREMONT AVE	BRONX RIVER			WO	2	S	5/20/2004	4.722	F	12900	\$18,576,000.00	6
2242400	B	E 180TH ST	BRONX RIVER			WO	1	S	11/23/2004	4.810	F	4500	\$6,480,000.00	6
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T		A	3	S	5/5/2003	5.053	G	11800	\$16,992,000.00	7
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M		O	5	S	7/8/2003	6.278	V	16052	\$23,114,880.00	7
2241489	B	W 225TH ST	CONRAIL PUTNAM	C		O	2	S	5/26/2004	5.313	G	10900	\$15,696,000.00	7
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T		O	4	S	9/13/2004	6.500	V	46300	\$66,672,000.00	7
2241940	B	W 205TH ST	NYCTA IND YARDS	T		O	4	S	9/13/2004	6.778	V	32508	\$46,811,520.00	7
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE			O	2	S	10/20/2004	4.714	F	16500	\$23,760,000.00	7
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD			O	1	S	4/22/2004	4.765	F	8418	\$12,121,920.00	7
2242380	B	GRAND CONCOURSE	E 204TH ST			O	1	S	5/7/2003	5.766	G	9272	\$13,351,680.00	7
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE			O	15	S	12/7/2004	4.754	F	14880	\$21,427,200.00	7
2229440	B	HHP	KAPPOCK ST			A	1	S	9/22/2003	5.207	G	3900	\$5,616,000.00	8
2229450	B	232ND ST	HHP			A	2	S	9/18/2003	4.237	F	4900	\$7,056,000.00	8
2229460	B	236TH ST PED BRDG	HHP			A-PED	3	C	8/24/2004	5.106	G	2500	\$3,600,000	8
2229470	B	239TH ST	HHP			A	2	S	6/2/2003	4.711	F	6100	\$8,784,000.00	8
2229480	B	MANHATTAN COLL PKWY	HHP			A	3	S	4/30/2003	4.158	F	6200	\$8,928,000.00	8
2229490	B	246TH ST	HHP			A	2	S	4/29/2003	4.974	F	5600	\$8,064,000.00	8
2229500	B	252ND ST	HHP			A	2	S	2/25/2004	4.184	F	4500	\$6,480,000.00	8
2229510	B	RIVERDALE AVE	HHP			A	2	S	8/19/2003	4.053	F	5200	\$7,488,000.00	8
2229520	B	FIELDSTON ROAD	HHP			A	1	S	8/20/2003	5.700	G	6600	\$9,504,000.00	8
2229530	B	HHP	BROADWAY			A	1	S	8/21/2003	4.936	F	7500	\$10,800,000.00	8
2241490	B	W 230TH ST	CONRAIL PUTNAM	C		O	1	S	4/8/2003	5.844	G	5600	\$8,064,000.00	8
2241509	B	W 231ST ST	CONRAIL PUTNAM	C		O	1	S	11/18/2004	5.765	G	4723	\$6,801,120.00	8
2241510	B	W 233RD ST	CONRAIL PUTNAM	C		O	1	S	4/11/2003	5.471	G	3760	\$5,414,400.00	8
2241520	B	W 234TH ST	CONRAIL PUTNAM	C		O	1	S	4/9/2003	5.569	G	3770	\$5,428,800.00	8
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK			WMA	17	S	10/14/2004	3.821	F	39400	\$56,736,000.00	9
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A		A	13	S	10/28/2004	4.375	F	47430	\$68,299,200.00	9
2241269	B	E 177TH ST	AMTRAK	A		O	3	S	8/12/2004	5.514	G	16606	\$23,912,640.00	9
2241270	B	EAST TREMONT AVE	AMTRAK	A		O	2	S	8/2/2004	5.556	G	22300	\$32,112,000.00	9
2241329	B	WHITE PLAINS ROAD	AMTRAK	A		O	1	S	8/13/2004	4.891	F	6900	\$9,936,000.00	9
2241330	B	UNIONPORT ROAD	AMTRAK	A		O	1	S	8/13/2004	4.875	F	4400	\$6,336,000.00	9
2242120	B	FTBG N OF RTE 1	BRONX RIVER		P	WO-PED	1	C	6/15/2002	4.029	F	1904	\$2,741,760	9
206672A	B	174TH ST-NTH PED BRDG	895I - SHERIDAN EXPWY			A-PED	4	C	2/2/2004	4.889	F	1800	\$2,592,000	9
206672B	B	174TH ST-STH PED BRDG	895I - SHERIDAN EXPWY			A-PED	4	C	2/9/2004	5.056	G	1900	\$2,736,000	9
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY			A	2	S	10/31/2003	4.069	F	10200	\$14,688,000.00	10
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY			A	2	S	4/5/2004	4.389	F	15858	\$22,835,520.00	10
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY			A	2	S	9/20/2004	4.184	F	17600	\$25,344,000.00	10
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER			WMA	7	S	10/26/2004	5.375	G	60500	\$87,120,000.00	10
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	10/15/2003	4.737	F	7800	\$11,232,000.00	10
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	2/19/2004	5.105	G	7100	\$10,224,000.00	10
2241390	B	SHORE RD CIRCLE	AMTRAK	A		O	2	S	7/23/2004	3.254	F	4800	\$6,912,000.00	10
2241959	B	HUTCHINSON RVR PKWY	AMTRAK	A		O	1	S	8/6/2004	5.746	G	15444	\$22,239,360.00	10
2229560	B	BRONX PELHAM PKWY	AMTRAK,METRO NORTH	MA		A	3	S	11/16/2004	4.778	F	24591	\$35,411,040.00	11
2241369	B	WILLIAMSBRIDGE RD	AMTRAK	A		O	2	S	8/5/2004	4.836	F	10400	\$14,976,000.00	11
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T		O	1	S	9/14/2004	6.906	V	75000	\$108,000,000.00	11
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M		O	10	S	7/26/2003	4.211	F	57750	\$83,160,000.00	12
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER			WO	14	S	6/5/2003	4.528	F	95700	\$137,808,000.00	12
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M		O	2	S	4/20/2004	4.103	F	9000	\$12,960,000.00	12
2241870	B	E 233RD ST	METRO NORTH RR HAR	M		O	1	S	4/20/2004	5.157	G	7664	\$11,036,160.00	12
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M		O	28	S	11/7/2003	4.653	F	49500	\$71,280,000.00	12
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T		O	3	S	9/14/2004	4.917	F	13500	\$19,440,000.00	12
2242071	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/5/2004	4.700	F	1800	\$2,592,000.00	12
2242072	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/5/2004	5.033	G	1800	\$2,592,000.00	12
2242081	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/6/2004	4.467	F	2800	\$4,032,000.00	12
2242082	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/6/2004	4.467	F	2800	\$4,032,000.00	12

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2242430	B	GUN HILL ROAD	BRONX BLVD			O	4	S	6/25/2004	4.982	F	9400	\$13,536,000.00	12
2242440	B	GUN HILL ROAD	BRONX RIVER			WO	1	S	3/1/2004	5.167	G	8700	\$12,528,000.00	12
2242459	B	E 233RD ST	BRONX RIVER			WO	1	S	5/27/2004	4.367	F	7000	\$10,080,000.00	12
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY			O	1	S	2/13/2004	5.467	G	5300	\$7,632,000.00	12
2229540	B	VAN CRTLDT PARK	HHP		P	A-PED	2	C	9/17/2004	4.742	F	3900	\$5,616,000	26
2229550	B	VAN CRTLDT EQUES	HHP		P	A-PED	2	C	9/17/2004	5.178	G	2100	\$3,024,000	26
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH			A	1	S	2/12/2004	4.724	F	4300	\$6,192,000.00	26
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C		A	1	S	11/16/2004	4.229	F	5200	\$7,488,000.00	26
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP			A	2	S	10/22/2003	5.243	G	7400	\$10,656,000.00	26
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO			A	1	S	8/4/2003	5.276	G	6300	\$9,072,000.00	27
2230250	B	MOSHOLU PARKWAY	BRONX RIVER			A	5	S	2/26/2004	4.263	F	16300	\$23,472,000.00	27
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M		A	1	S	4/20/2004	6.203	V	8880	\$12,787,200.00	27
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE			A	1	S	4/23/2003	6.016	V	8480	\$12,211,200.00	27
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	P	O-PED	1	C	7/26/2004	4.121	F	4700	\$6,768,000	27
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.578	F	6400	\$9,216,000.00	27
2242010	B	BRONX PELHAM PKWY	BRONX RIVER			WA	1	S	5/18/2004	4.931	F	9200	\$13,248,000.00	27
2242029	B	SOUTHERN BLVD	BRONX PELHAM PKWY			O	2	S	4/13/2004	4.684	F	12900	\$18,576,000.00	27
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER			WO	1	S	8/31/2004	4.172	F	4700	\$6,768,000.00	27
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		P	WO-PED	1	S	5/19/2004	4.967	F	2200	\$3,168,000.00	27
2242110	B	BOSTON ROAD	BRONX RIVER			WO	1	S	5/17/2004	4.273	F	6200	\$8,928,000.00	27
2242210	B	S OF ALLERTON AVE	BRONX RIVER			WO	3	S	7/17/2004	4.763	F	6200	\$8,928,000.00	27
2242220	B	SOUTHERN BLVD	BRONX RIVER			WO	2	S	3/2/2004	4.105	F	4800	\$6,912,000.00	27
2240200	B	SHORE ROAD	HUTCHINSON RIVER			WMO	7	S	9/3/2004	4.597	F	4800	\$120,000,000.00	28
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY			WO	7	S	10/20/2004	3.500	F	28900	\$41,616,000.00	28
2241380	B	PELHAM BAY PK PED	AMTRAK	A	P	O-PED	1	C	11/13/1978	5.109	G	4223	\$6,081,120	28
1240090	B M	MACOMBS DAM BRIDGE	HARLEM RIVER			WMO	52	S	8/6/2003	4.169	F	211788	\$304,974,720.00	10
2240089	B M	145TH ST BRIDGE	HARLEM RIVER			WMO	8	S	6/11/2004	3.208	F	56700	\$81,648,000.00	10
2240059	B M	WILLIS AVENUE	HARLEM RIVER			WMO	26	S	8/27/2004	3.083	F	94700	\$136,368,000.00	11
2240069	B M	THIRD AVE BRIDGE	HARLEM RIVER			WMO	32	S	9/7/2004	7.000	V	79950	\$115,128,000.00	11
2240079	B M	MADISON AVE BRIDGE	HARLEM RIVER			WMO	31	S	9/1/2004	5.139	G	80000	\$115,200,000.00	11
2066919	B M	WASHINGTON BRIDGE	HARLEM RIVER			WO	9	S	11/16/2004	4.821	F	128339	\$184,808,160.00	12
2240120	B M	W 207TH/W FORDHAM RD	HARLEM RIVER			WMO	5	S	6/30/2004	5.667	G	29682	\$42,742,080.00	12
2240137	B M	BROADWAY BRIDGE	HARLEM RIVER	T		WMO	3	S	10/13/2003	3.986	F	46848	\$67,461,120.00	12
2240138	B M	NYCTA IRT	HARLEM RVR/BROADWAY	T		WMO	3	S	10/24/2003	4.882	F	19520	\$28,108,800.00	12
2240290	K	METROPOLITAN AVE	ENGLISH KILLS			WMO	5	S	8/31/2004	4.186	F	15245	\$21,952,800.00	1
2230410	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/14/2004	4.563	F	2500	\$3,600,000.00	2
2230420	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/14/2004	4.781	F	2500	\$3,600,000.00	2
2230430	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	2/2/2004	5.267	G	1100	\$1,584,000.00	2
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.			A	1	S	2/5/2004	5.200	G	2700	\$3,888,000.00	2
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.			A	1	S	2/6/2004	4.933	F	2500	\$3,600,000.00	2
2230460	K	278I (B.Q.E.)	PEARL ST			A	1	S	2/27/2004	5.333	G	4500	\$6,480,000.00	2
2230470	K	278I (B.Q.E.)	JAY ST			A	1	S	4/14/2004	4.900	F	5100	\$7,344,000.00	2
2230480	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	3/11/2004	5.241	G	8400	\$12,096,000.00	2
2230490	K	278I (B.Q.E.)	SANDS ST			A	1	S	3/15/2004	5.093	G	12600	\$18,144,000.00	2
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB			A	1	S	3/1/2004	5.567	G	1300	\$1,872,000.00	2
2230510	K	278I (B.Q.E.)	NASSAU ST			A	6	S	4/7/2004	4.444	F	51200	\$73,728,000.00	2
2230857	K	278I (B.Q.E.)	JORALEMON ST			A	1	S	5/4/2004	5.030	G	2100	\$3,024,000.00	2
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB			A	2	S	5/4/2004	4.177	F	5900	\$8,496,000.00	2
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)			A	1	S	4/26/2004	4.583	F	16500	\$23,760,000.00	2
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA			A	2	S	5/11/2004	4.309	F	4500	\$6,480,000.00	2
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB			A	2	S	5/11/2004	5.053	G	4500	\$6,480,000.00	2
2244440	K	SOUTH OF TILLARY ST	NAVY ST			O-PED	1	C	5/4/2004	4.480	F	6200	\$8,928,000	2
2267860	K	BROOKLYN BR APPROACH	SANDS STREET			O	1	S	6/17/2004	4.732	F	6490	\$9,345,600.00	2
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST			A	45	S	6/19/2003	4.292	F	78022	\$112,351,680.00	2
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	69	S	7/16/2003	4.041	F	120734	\$173,856,960.00	2
2268507	K	278I W.B. (B.Q.E.)	YORK ST			A	6	S	6/13/2003	4.262	F	9380	\$13,507,200.00	2
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	11	S	5/19/2003	4.034	F	17956	\$25,856,640.00	2
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST			A	7	S	7/22/2003	4.206	F	10988	\$15,822,720.00	2
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	5	S	11/11/2003	4.310	F	8375	\$12,060,000.00	2
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY			A	1	S	4/22/2004	4.667	F	4900	\$7,056,000.00	5
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	1	S	4/22/2004	4.933	F	3500	\$5,040,000.00	5
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	2	S	4/22/2004	4.974	F	4700	\$6,768,000.00	5

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2230220	K	HIGHLAND BLVD NB	VERMONT AVE			A	1	S	7/11/2003	6.254	V	3995	\$5,752,800.00	5
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE			O	2	S	7/25/2003	4.737	F	5520	\$7,948,800.00	5
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB			O	1	S	10/25/2004	4.833	F	3800	\$5,472,000.00	5
2269600	K	ERSKINE STREET	BSHP			A	1	S	10/29/2004	6.141	V	8258	\$11,891,520.00	5
2230350	K	SUMMIT ST PED BRDG	278I (B.Q.E.)			A-PED	2	S	3/8/2004	4.671	F	1400	\$2,016,000.00	6
2230360	K	UNION ST	278I (B.Q.E.)			A	2	S	3/9/2004	4.486	F	5000	\$7,200,000.00	6
2230370	K	SACKETT ST	278I (B.Q.E.)			A	2	S	3/23/2004	4.694	F	5000	\$7,200,000.00	6
2230380	K	KANE ST	278I (B.Q.E.)			A	2	S	3/25/2004	4.236	F	5000	\$7,200,000.00	6
2230390	K	CONGRESS ST	278I (B.Q.E.)			A	2	S	4/7/2004	4.250	F	5000	\$7,200,000.00	6
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	8/10/2004	4.014	F	7300	\$10,512,000.00	6
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL			WMO	3	S	7/18/2003	6.613	V	5772	\$8,311,680.00	6
2240250	K	THIRD ST	GOWANUS CANAL			WMO	5	S	6/27/2003	4.958	F	4900	\$7,056,000.00	6
2240260	K	CARROLL ST	GOWANUS CANAL			WMO	2	S	8/12/2004	4.803	F	3000	\$4,320,000.00	6
2240270	K	UNION ST	GOWANUS CANAL			WMO	5	S	8/23/2004	4.153	F	4900	\$7,056,000.00	6
2240310	K	THIRD AVE	GOWANUS CANAL			WO	1	S	7/2/2003	4.564	F	3200	\$4,608,000.00	6
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		P	A-PED	35	C	4/17/2003	4.500	F	46184	\$66,504,960.00	6
2066100	K	5TH AVE	27 X PROSPECT EXPWY			A	1	S	4/2/2004	5.208	G	8800	\$12,672,000.00	7
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	8/13/2004	4.028	F	7300	\$10,512,000.00	7
2243839	K	4TH AVE	NYCTA BMT TRACKS	T		O	1	S	11/14/2003	6.633	V	5160	\$7,430,400.00	7
2243920	K	7TH AVE	NYCTA BMT YARD	T		O	2	S	10/21/2004	6.507	V	5200	\$7,488,000.00	7
2244470	K	SEELEY ST	PROSPECT AVE			O	1	S	7/10/2003	4.100	F	7700	\$11,088,000.00	7
2244480	K	5TH AVE	GREENWOOD CEMETERY			O	1	S	6/2/2003	5.000	G	3600	\$5,184,000.00	7
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T		O	1	S	12/5/2003	6.578	V	2300	\$3,312,000.00	8
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L		O	9	S	11/21/2004	5.528	G	12276	\$17,677,440.00	8
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L		O	7	S	11/20/2004	4.931	F	10823	\$15,585,120.00	8
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T		O	1	S	12/4/2003	6.781	V	2200	\$3,168,000.00	9
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/21/2004	6.922	V	2460	\$3,542,400.00	9
2243200	K	UNION ST	FRANKLIN SHUTTLE	T		O	2	S	9/20/2004	5.065	G	4100	\$5,904,000.00	9
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T		O	2	S	9/17/2004	5.314	G	2500	\$3,600,000.00	9
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T		O-PED	3	C	9/26/2002	5.484	G	600	\$864,000	9
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T		O	3	S	12/3/2003	5.181	G	4800	\$6,912,000.00	9
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T		O	1	S	12/1/2003	6.353	V	2030	\$2,923,200.00	9
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T		O	1	S	9/16/2004	6.391	V	3657	\$5,266,080.00	9
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T		O	2	S	9/15/2004	5.196	G	11300	\$16,272,000.00	9
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T		O	1	S	9/22/2004	4.861	F	7700	\$11,088,000.00	9
2231249	K	BSHP	BAY RIDGE AVE			A	1	S	4/9/2004	3.667	F	4900	\$7,056,000.00	10
2231250	K	81ST ST PED BR	BSHP		P	A-PED	5	C	10/1/2004	4.483	F	3100	\$4,464,000	10
2231260	K	92ND ST PED BR	BSHP		P	A-PED	6	C	9/7/2004	4.016	F	3000	\$4,320,000	10
2231270	K	4TH AVE	BSHP			A	2	S	3/24/2004	4.842	F	6100	\$8,784,000.00	10
2243310	K	2ND AVE	LIRR BAY RIDGE	N		O	6	S	11/14/2003	3.925	F	17000	\$24,480,000.00	10
2243320	K	3RD AVE	LIRR BAY RIDGE	N		O	4	S	8/25/2003	5.542	G	17230	\$24,811,200.00	10
2243330	K	4TH AVE	LIRR BAY RIDGE	NT		O	6	S	10/17/2003	5.819	G	13668	\$19,681,920.00	10
2243580	K	5TH AVE	LIRR & SEA BEACH	LT		O	4	S	10/29/2004	4.353	F	12500	\$18,000,000.00	10
2243590	K	6TH AVE	LIRR & SEA BEACH	LT		O	5	S	10/14/2003	6.528	V	14200	\$20,448,000.00	10
2243600	K	7TH AVE	LIRR & SEA BEACH	LT		O	7	S	10/29/2004	5.556	G	18913	\$27,234,720.00	10
2243610	K	8TH AVE	LIRR & SEA BEACH	LT		O	4	S	11/13/2003	6.319	V	10834	\$15,600,960.00	10
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	LT		O	3	S	10/20/2004	5.492	G	14800	\$21,312,000.00	10
2243630	K	11TH AVE	LIRR & SEA BEACH	LT		O	5	S	10/26/2004	6.603	V	9700	\$13,968,000.00	10
2243640	K	13TH AVE	LIRR & SEA BEACH	LT		O	5	S	11/6/2003	4.694	F	16000	\$23,040,000.00	10
2244150	K	RIDGE BLVD	SHORE RD DRIVE			O	1	S	5/28/2003	6.867	V	4350	\$6,264,000.00	10
2244160	K	3RD AVE	SHORE RD DRIVE			O	1	S	5/28/2003	6.818	V	4360	\$6,278,400.00	10
2231290	K	BAY 8TH ST	BSHP			A	1	S	5/5/2003	5.984	G	4920	\$7,084,800.00	11
2231300	K	17TH AVE PED BRDG	BSHP		P	A-PED	1	C	2/5/2004	3.846	F	2100	\$3,024,000	11
2231319	K	BSHP	BAY PKWY			A	1	S	4/6/2004	4.395	F	7200	\$10,368,000.00	11
2243340	K	15TH AVE	LIRR BAY RIDGE	N		O	1	S	10/14/2004	4.872	F	3614	\$5,204,160.00	11
2243350	K	60TH ST	LIRR BAY RIDGE	N		O	1	S	8/20/2003	6.383	V	3900	\$5,616,000.00	11
2243360	K	16TH AVE	LIRR BAY RIDGE	N		O	1	S	12/8/2004	5.733	G	4345	\$6,256,800.00	11
2243650	K	14TH AVE	LIRR BAY RIDGE	N		O	4	S	10/12/2004	6.967	V	10000	\$14,400,000.00	11
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N		O	1	S	10/13/2004	6.900	V	2481	\$3,572,640.00	11
2243670	K	15TH AVE	BMT SEA BEACH	T		O	6	S	11/29/2004	4.136	F	17300	\$24,912,000.00	11
2243680	K	16TH AVE	BMT SEA BEACH	T		O	4	S	9/9/2004	5.444	G	6816	\$9,815,040.00	11
2243690	K	17TH AVE	BMT SEA BEACH	T		O	4	S	9/13/2004	3.711	F	8500	\$12,240,000.00	11
2243700	K	18TH AVE	BMT SEA BEACH	T		O	4	S	10/20/2003	3.909	F	8700	\$12,528,000.00	11
2243710	K	19TH AVE	BMT SEA BEACH	T		O	4	S	9/1/2004	4.395	F	4800	\$6,912,000.00	11



INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2243720	K	20TH AVE	BMT SEA BEACH	T		O	6	S	8/19/2004	4.744	F	12500	\$18,000,000.00	11
2243730	K	65TH ST	BMT SEA BEACH	T		O	4	S	8/13/2004	5.947	G	12000	\$17,280,000.00	11
2243740	K	BAY PKWY	BMT SEA BEACH	T		O	4	S	8/11/2004	4.974	F	16800	\$24,192,000.00	11
2243750	K	AVENUE O	BMT SEA BEACH	T		O	1	S	10/22/2003	5.863	G	4658	\$6,707,520.00	11
2243760	K	AVENUE P	BMT SEA BEACH	T		O	1	S	10/29/2003	6.791	V	5544	\$7,983,360.00	11
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T		O	1	S	10/30/2003	6.767	V	5032	\$7,246,080.00	11
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T		O	1	S	10/31/2003	6.440	V	6960	\$10,022,400.00	11
2243800	K	AVENUE T	BMT SEA BEACH	T		O	1	S	11/6/2003	6.033	V	5360	\$7,718,400.00	11
2243820	K	21ST AVE	BMT SEA BEACH	T		O	4	S	8/26/2004	4.184	F	21400	\$30,816,000.00	11
2243370	K	17TH AVE	LIRR BAY RIDGE	N		O	1	S	12/1/2004	4.784	F	3406	\$4,904,640.00	12
2243380	K	18TH AVE	LIRR BAY RIDGE	N		O	1	S	12/2/2004	5.016	G	6006	\$8,648,640.00	12
2243390	K	52ND ST	LIRR BAY RIDGE	N		O	2	S	12/6/2004	6.467	V	2800	\$4,032,000.00	12
2243400	K	50TH ST	LIRR BAY RIDGE	N		O	2	S	8/14/2003	4.701	F	7100	\$10,224,000.00	12
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N		O	1	S	11/30/2004	5.422	G	2760	\$3,974,400.00	12
2243420	K	E 3RD ST	LIRR BAY RIDGE	N		O	1	S	8/28/2003	5.082	G	1500	\$2,160,000.00	12
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N		O	1	S	11/18/2004	5.218	G	7000	\$10,080,000.00	12
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N		O	1	S	11/17/2004	5.234	G	3231	\$4,652,640.00	12
2243840	K	9TH AVE	NYCTA BMT YARD	T		O	5	S	10/27/2003	6.514	V	12440	\$17,913,600.00	12
2243940	K	9TH AVE	NYCTA IND SBWY	T		O	5	S	11/4/2003	4.737	F	11900	\$17,136,000.00	12
2231329	K	BSHP	26TH AVE			A	1	S	4/8/2004	4.800	F	6700	\$9,648,000.00	13
2231330	K	27TH AVE PED BRDG	BSHP		P	A-PED	1	C	7/1/2003	4.000	F	2100	\$3,024,000	13
2231340	K	CROPSEY AVE	BSHP			A	2	S	4/12/2004	5.000	G	13100	\$18,864,000.00	13
2231360	K	BSHP	OCEAN PKWY			A	2	S	12/6/2004	7.000	V	11800	\$16,992,000.00	13
2231370	K	GUIDER AV RAMP TO BSHP	BSHP			A	4	S	5/10/2004	3.903	F	12800	\$18,432,000.00	13
2231380	K	CONEY ISLAND AVE	BSHP			A	4	S	9/8/2003	6.292	V	19866	\$28,607,040.00	13
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	7/7/2003	5.169	G	9400	\$13,536,000.00	13
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	9/22/2004	5.028	G	9400	\$13,536,000.00	13
2240540	K	STILLWELL AVE	CONEY ISLAND CRK			WO	2	S	6/17/2003	6.292	V	17000	\$24,480,000.00	13
2243570	K	86TH ST	LIRR & SEA BEACH	LT		O	1	S	8/9/2004	6.172	V	3840	\$5,529,600.00	13
2269260	K	W. 8TH STREET	SURF AVE.		P	O-PED	55	C	6/10/2004	3.846	F	14742	\$21,228,480.00	13
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T		O	6	S	9/28/2004	4.000	F	48700	\$70,128,000.00	14
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/11/2003	4.158	F	6000	\$8,640,000.00	14
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/18/2003	4.500	F	20800	\$29,952,000.00	14
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/21/2003	4.545	F	18200	\$26,208,000.00	14
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	11/26/2003	3.982	F	2700	\$3,888,000.00	14
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	12/12/2003	4.044	F	2900	\$4,176,000.00	14
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	10/28/2004	5.490	G	4825	\$6,948,000.00	14
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	12/10/2003	5.809	G	4875	\$7,020,000.00	14
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T		O	3	S	10/11/2004	4.397	F	4100	\$5,904,000.00	14
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	10/14/2004	4.550	F	3000	\$4,320,000.00	14
2243450	K	E 14TH ST	LIRR BAY RIDGE	N		O	1	S	11/15/2004	5.383	G	1775	\$2,556,000.00	14
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N		O-PED	3	C	4/17/2002	3.650	F	900	\$1,296,000	14
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N		O	2	S	11/12/2004	5.000	G	5000	\$7,200,000.00	14
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N		O	6	S	11/11/2004	4.639	F	12000	\$17,280,000.00	14
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N		O	2	S	11/16/2004	5.186	G	4320	\$6,220,800.00	14
2231390	K	E 12TH ST	BSHP			A	4	S	4/16/2004	4.764	F	17200	\$24,768,000.00	15
2231409	K	BSHP	SHEEPSHEAD BAY ROAD			A	1	S	4/20/2004	4.807	F	6500	\$9,360,000.00	15
2231419	K	BSHP	OCEAN AVE			A	3	S	4/19/2004	4.486	F	14000	\$20,160,000.00	15
2231429	K	BSHP	BEDFORD AVE			A	3	S	4/21/2004	4.278	F	12000	\$17,280,000.00	15
2231439	K	BSHP	NOSTRAND AVE			A	3	S	5/10/2004	4.097	F	13000	\$18,720,000.00	15
2231449	K	KNAPP ST	BSHP			A	1	S	4/28/2004	4.469	F	9500	\$13,680,000.00	15
2233080	K	E 14 ST PED BR	BSHP			A-PED	14	C	7/19/2004	4.588	F	4700	\$6,768,000	15
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY			WO-PED	30	C	5/2/2003	4.070	F	4000	\$5,760,000	15
2243790	K	AVENUE S	BMT SEA BEACH	T		O	1	S	11/5/2003	6.133	V	5360	\$7,718,400.00	15
2243810	K	AVENUE U	BMT SEA BEACH	T		O	1	S	8/27/2004	6.137	V	5880	\$8,467,200.00	15
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L		O	75	S	7/14/2004	3.845	F	135100	\$194,544,000.00	16
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N		O	4	S	8/12/2003	4.294	F	6400	\$9,216,000.00	16
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N		O	2	S	11/8/2004	6.559	V	5700	\$8,208,000.00	16
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N		O	3	S	11/3/2004	4.471	F	5600	\$8,064,000.00	16
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N		O	3	S	11/4/2004	6.681	V	5400	\$7,776,000.00	16
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N		O	3	S	11/5/2004	5.309	G	5020	\$7,228,800.00	16
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N		O-PED	3	C	7/2/2004	5.125	G	2500	\$3,600,000	16
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE			O	2	S	7/25/2003	4.491	F	5600	\$8,064,000.00	16
2231479	K	BSHP	MILL BASIN			WMA	14	S	7/20/2004	3.254	F	73500	\$105,840,000.00	18

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2231489	K	BSHP	PAERDEGAT BASIN			WA	15	S	9/9/2004	3.130	F	58300	\$83,952,000.00	18
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N		O	2	S	8/12/2003	4.667	F	5700	\$8,208,000.00	18
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N		O	3	S	8/6/2003	6.055	V	4500	\$6,480,000.00	18
2243530	K	AVENUE H	LIRR BAY RIDGE	N		O	2	S	8/8/2003	6.338	V	35100	\$50,544,000.00	18
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T		O	4	S	10/4/2004	4.103	F	6100	\$8,784,000.00	55
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		P	O	1	C	5/7/2002	4.367	F	900	\$1,296,000	55
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		P	O	1	S	4/7/2003	5.571	G	2500	\$3,600,000.00	55
2244030	K	EAST DRIVE	BRIDLE PATH		P	O	1	S	4/10/2003	5.041	G	2000	\$2,880,000.00	55
2244040	K	EAST DRIVE	EAST WOOD ARCH		P	O	1	C	6/30/2003	4.200	F	900	\$1,296,000	55
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		P	WO	3	S	4/16/2003	5.316	G	7400	\$10,656,000.00	55
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		P	O	1	C	6/10/2003	4.500	F	900	\$1,296,000	55
2244100	K	WEST FOOTBRIDGE	PROSPECT PK STREAM		P	WO-PED	1	C	9/9/2003	4.577	F	308	\$443,520	55
2244120	K	HILL DRIVE	PROSPECT PK LAKE		P	WO	3	S	4/18/2003	3.745	F	7800	\$11,232,000.00	55
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE		P	WO-PED	1	C	6/15/2002	5.000	G	1260	\$1,814,400	55
2231450	K	BSHP	GERRITSEN INLET			WA	11	S	8/3/2004	3.687	F	46400	\$66,816,000.00	56
2231460	K	FLATBUSH AVE	BSHP			A	2	S	9/5/2003	6.618	V	14058	\$20,243,520.00	56
2231499	K	BSHP	ROCKAWAY PKWY			A	4	S	8/24/2004	4.111	F	11500	\$16,560,000.00	56
2231509	K	BSHP	FRESH CREEK			WA	5	S	8/4/2004	3.222	F	23000	\$33,120,000.00	56
2231519	K	PENNSYLVANIA AVE	BSHP			A	2	S	5/7/2003	6.194	V	6191	\$8,915,040.00	56
2240019	K M	BROOKLYN BRIDGE	278I (B.Q.E.)			WEO	75	S	11/2/2004	3.153	F	503788	\$725,454,720.00	3
2240027	K M	MANHATTAN BRIDGE(LL)	EAST RIVER	T		WEO	23	S	11/12/2002	3.847	F	616390	\$887,601,600.00	3
2240028	K M	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T		WEO	43	S	11/12/2002	4.243	F	587424	\$845,890,560.00	3
2240039	K M	WILLIAMSBURG BRIDGE	EAST RIVER	T		WEO	72	S	10/28/2004	4.556	F	824000	\$1,186,560,000.00	3
2240370	K Q	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L		WMO	12	S	11/2/2004	5.000	G	76106	\$109,592,640.00	2
2240639	K Q	PULASKI BRIDGE	NEWTOWN CREEK			WMO	48	S	7/7/2004	4.817	F	205770	\$296,308,800.00	2
2240390	K Q	GRAND ST BRIDGE	NEWTOWN CREEK			WMO	2	S	9/3/2004	4.486	F	5100	\$7,344,000.00	5
2232000	M	BATTERY PLACE	FDR DRIVE			AT	2	C	7/19/2004	4.500	F	75000	\$108,000,000	1
2267380	M	WEST STREET	RECTOR ST			AT	1	S	10/14/2003	5.033	G	25760	\$37,094,400.00	1
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY			O-PED	8	C	9/20/2004	5.925	G	3344	\$4,815,360.00	1
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ			A-PED	3	C	10/13/2004	4.451	F	1200	\$1,728,000.00	1
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST			AR	17	S	2/18/2004	3.776	F	102225	\$147,204,000.00	1
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST			AR	10	S	2/23/2004	3.821	F	44625	\$64,260,000.00	1
223201C	M	STH ST RMP TO FDR	SOUTH ST			AR	8	S	2/19/2004	4.701	F	39150	\$56,376,000.00	1
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.			AR	22	S	3/22/2004	5.393	G	15825	\$22,788,000.00	1
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.			OE	3	S	2/18/2004	4.250	F	10167	\$14,640,480.00	1
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY			OE	31	S	3/12/2004	4.148	F	51400	\$74,016,000.00	1
224001D	M	TO FDR DR N.B.	PEARL STREET			OE	30	S	5/14/2003	5.208	G	49600	\$71,424,000.00	1
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG			OE	3	S	4/7/2004	5.310	G	5200	\$7,488,000.00	1
224001G	M	TO PARK ROW	ROSE ST			OE	11	S	5/6/2003	4.736	F	16551	\$23,833,440.00	1
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		P	A	4	S	2/10/2004	4.156	F	4100	\$5,904,000.00	3
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		P	A-PED	9	C	8/15/2004	4.449	F	2900	\$4,176,000	3
2232040	M	HOUSTON ST	FDR DRIVE			A	2	S	3/10/2004	3.318	F	11010	\$15,854,400.00	3
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	3/14/2004	4.431	F	2200	\$3,168,000	3
2232020	M	E 10TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	12/16/2004	6.326	V	1632	\$2,350,080	3
223204A	M	FDR NB TO HOUSTON ST	RELIEF			AR	4	S	6/15/2004	4.100	F	6150	\$8,856,000.00	3
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF			AR	4	S	2/5/2004	4.417	F	7642	\$11,004,480.00	3
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG			OE	12	S	2/24/2004	3.881	F	6489	\$9,344,160.00	3
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL		O	39	S	11/22/2004	3.861	F	157500	\$226,800,000.00	4
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/28/2003	5.984	G	7600	\$10,944,000.00	4
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	9/16/2004	4.077	F	6200	\$8,928,000.00	4
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/16/2004	4.196	F	6300	\$9,072,000.00	4
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/8/2004	4.485	F	4100	\$5,904,000.00	4
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/8/2004	4.662	F	4300	\$6,192,000.00	4
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/9/2004	5.662	G	4100	\$5,904,000.00	4
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.441	F	4100	\$5,904,000.00	4
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.721	F	4100	\$5,904,000.00	4
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.618	F	4100	\$5,904,000.00	4
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	11/2/2004	4.500	F	4100	\$5,904,000.00	4
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/2/2004	4.882	F	4300	\$6,192,000.00	4
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/2/2004	5.088	G	4300	\$6,192,000.00	4
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	5.162	G	5100	\$7,344,000.00	4
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	4.588	F	4100	\$5,904,000.00	4

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A		O	2	S	12/2/2004	4.647	F	15400	\$22,176,000.00	4
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A		O	4	S	10/4/2004	4.841	F	10300	\$14,832,000.00	4
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	12/6/2004	4.838	F	9100	\$13,104,000.00	4
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/24/2004	4.164	F	6200	\$8,928,000.00	4
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	4.647	F	4100	\$5,904,000.00	4
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	5.540	G	4700	\$6,768,000.00	4
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	5.485	G	4300	\$6,192,000.00	4
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	5.368	G	4400	\$6,336,000.00	4
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/24/2004	4.042	F	9400	\$13,536,000.00	4
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A		O	8	S	4/5/2004	4.639	F	16500	\$23,760,000.00	4
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A		O	2	S	6/3/2003	4.750	F	4620	\$6,652,800.00	4
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	6/5/2003	4.653	F	11800	\$16,992,000.00	4
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/20/2004	4.208	F	6500	\$9,360,000.00	4
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	9/15/2004	3.940	F	16400	\$23,616,000.00	4
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A		O	9	S	12/10/2004	3.683	F	8800	\$12,672,000.00	4
2245460	M	PARK AVE S.B.	E 45TH ST			O	1	S	7/26/2004	4.946	F	2400	\$3,456,000.00	5
2245470	M	PARK AVE N.B	E 45TH ST			O	1	S	7/27/2004	4.865	F	2400	\$3,456,000.00	5
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		P	O	1	C	7/12/2004	4.533	F	1200	\$1,728,000.00	5
2246540	M	E 34TH ST	PARK AVE TUNNEL			OT	1	S	8/27/2004	4.033	F	36200	\$52,128,000.00	5
2232070	M	25TH ST PED BRDG	FDR DRIVE			A-PED	4	C	3/14/2004	4.594	F	1700	\$2,448,000.00	6
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		P	A-PED	10	C	3/7/2004	4.188	F	2800	\$4,032,000.00	6
2233040	M	E 60TH ST	FDR DRIVE			A	17	S	5/3/2004	3.409	F	24480	\$35,251,200.00	6
2246550	M	PARK AVE VIADUCT	E 42ND ST			O	10	S	12/22/2004	4.597	F	22150	\$31,896,000.00	6
2246560	M	TUDOR CITY PLACE	E 42ND ST			O	1	S	3/17/2004	5.133	G	6600	\$9,504,000.00	6
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL			OT	2	S	7/21/2004	4.843	F	92200	\$132,768,000.00	6
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER			A	119	S	8/28/2003	4.415	F	30767	\$44,304,480.00	6
224001E	M	TO PEARL ST	LAND ADJ TO BRDG			OE	3	S	5/12/2003	5.225	G	5300	\$7,632,000.00	6
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE			OE	13	S	7/22/2004	5.732	G	14800	\$21,312,000.00	6
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE			OE	13	S	7/23/2004	5.764	G	14800	\$21,312,000.00	6
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST			OE	10	S	7/29/2004	4.985	F	16720	\$24,076,800.00	6
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST			OE	12	S	8/25/2004	4.660	F	11781	\$16,964,640.00	6
224004J	M	25X	NYC GARAGE			OE	14	S	7/30/2004	4.537	F	22058	\$31,763,520.00	6
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A		A	145	S	12/7/2004	3.478	F	236100	\$339,984,000.00	7
2229290	M	W 79 ST	AMTRAK	A		A	1	S	10/13/2004	4.559	F	4500	\$6,480,000.00	7
2229309	M	HHP	RIVERSIDE PARK			A	1	S	2/20/2004	5.267	G	2400	\$3,456,000.00	7
2229311	M	HHP SB	RAMP TO 96 ST			A	1	S	2/26/2004	4.273	F	2000	\$2,880,000.00	7
2229312	M	HHP NB	RAMP TO 96 ST			A	1	S	2/27/2004	4.364	F	2000	\$2,880,000.00	7
2229321	M	HHP SB	RAMP TO 96 ST			A	1	S	3/8/2004	5.200	G	2000	\$2,880,000.00	7
2229322	M	HHP NB	RAMP TO 96 ST			A	1	S	3/8/2004	5.300	G	2000	\$2,880,000.00	7
2246970	M	RIVERSIDE DRIVE	W 96TH ST			O	3	S	6/9/2003	5.618	G	10600	\$15,264,000.00	7
2257569	M	MILLER HIGHWAY	TERRAIN			A	63	S	7/1/2003	5.000	G	264190	\$380,433,600.00	7
2267250	M	HHP	AMTRAK 30TH ST LINE	A		A	55	S	10/29/2004	3.710	F	40000	\$57,600,000.00	7
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		P	A	10	S	5/2/2003	4.593	F	27400	\$39,456,000.00	7
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		P	A	34	S	5/13/2003	3.934	F	24130	\$34,747,200.00	7
2269190	M	W.70TH STREET	AMTRAK	A		O	3	S	11/3/2003	6.583	V	17258	\$24,851,520.00	7
2269210	M	W.68TH STREET	AMTRAK	A		O	3	S	11/21/2003	6.746	V	5382	\$7,750,080.00	7
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK		P	A-PED	3	C	6/8/2002	4.000	F	3480	\$5,011,200.00	7
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		P	AR	4	S	5/16/2003	4.242	F	3131	\$4,508,640.00	7
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		P	AR	21	S	5/23/2003	4.452	F	7114	\$10,244,160.00	7
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	21	S	6/9/2003	4.726	F	9095	\$13,096,800.00	7
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	4	S	5/29/2003	4.645	F	2601	\$3,745,440.00	7
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH			A	1	C	7/1/2004	4.833	F	900	\$1,296,000.00	7
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH			A	1	C	7/12/2004	4.900	F	900	\$1,296,000.00	7
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		P	A-PED	13	C	3/7/2004	5.141	G	2100	\$3,024,000.00	8
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		P	A-PED	19	C	3/21/2004	6.182	V	1800	\$2,592,000.00	8
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		P	A-PED	9	C	3/21/2004	3.000	P	1700	\$2,448,000.00	8
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.			AT	56	S	6/18/2003	4.773	F	54302	\$78,194,880.00	8
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		P	A-PED	53	S	7/28/2003	3.571	F	93000	\$133,920,000.00	8
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST			AT	46	S	7/8/2004	2.415	P	70113	\$100,962,720.00	8
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M		O	1	S	9/1/2004	4.725	F	3200	\$4,608,000.00	8
2245380	M	E 66TH ST	PED WALK N. OF ZOO		P	O	1	S	6/2/2004	5.267	G	1500	\$2,160,000.00	8
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		P	O	1	S	2/27/2004	4.364	F	1739	\$2,504,160.00	8
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		P	A-PED	3	C	10/11/2004	3.213	F	900	\$1,296,000.00	8
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	3	C	4/20/2004	3.509	F	1100	\$1,584,000.00	9
2245240	M	W 151ST ST FOOTBR	CONRAIL 30 ST BR		P	O-PED	2	C	6/8/2002	3.462	F	1020	\$1,468,800.00	9
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A		O-PED	3	C	4/21/2004	4.262	F	800	\$1,152,000.00	9

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS			O	27	S	6/25/2003	4.500	F	148300	\$213,552,000.00	9
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE			O	3	S	6/27/2003	4.852	F	7500	\$10,800,000.00	9
2246720	M	RIVERSIDE DRIVE	W 158TH ST			O	77	S	11/19/2003	3.542	F	181400	\$261,216,000.00	9
2246980	M	RIVERSIDE DRIVE	W 138TH ST			O	1	S	3/5/2004	4.900	F	6700	\$9,648,000.00	9
2266229	M	HHP	PED UNDERPASS @ 148 ST			A	1	S	3/5/2004	5.476	G	1800	\$2,592,000.00	9
2267130	M	RIVERSIDE DRIVE	W 145TH ST			O	1	S	6/11/2003	4.867	F	5800	\$8,352,000.00	9
2269240	M	RIVERSIDE DRIVE	W. 155TH ST			O	1	S	6/10/2003	4.640	F	4397	\$6,331,680.00	9
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD			O	1	S	2/24/2004	4.061	F	5600	\$8,064,000.00	10
2246710	M	W 153 ST	A.C. POWELL BLVD			O	1	S	2/25/2004	4.389	F	3082	\$4,438,080.00	10
2232180	M	E 103RD ST PED BRDG	FDR DRIVE			A-PED	20	C	7/29/2003	5.000	G	6000	\$8,640,000	11
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		P	A-PED	14	C	2/2/2004	3.800	F	2600	\$3,744,000	11
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		P	A-PED	23	C	10/24/2004	4.500	F	2500	\$3,600,000	11
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.			A	11	S	3/23/2004	3.433	F	51000	\$73,440,000.00	11
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER			WMO- PED	10	C	7/29/2003	4.049	F	12600	\$18,144,000	11
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST			O-PED	18	C	10/1/2004	4.720	F	2300	\$3,312,000	11
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE			O-PED	5	C	7/19/2004	4.238	F	500	\$720,000	11
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR			OR	19	S	8/18/2004	4.119	F	29900	\$43,056,000.00	11
224007A	M	TO MADISON AVENUE	RELIEF			OR	9	S	4/30/2004	5.592	G	19880	\$28,627,200.00	11
2229349	M	HHP	W 158 ST	A		A	44	S	8/12/2004	4.268	F	140000	\$201,600,000.00	12
2229400	M	W 181ST ST PED BRDG	HHP N.B.		P	A-PED	6	C	2/5/2003	4.652	F	1500	\$2,160,000	12
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		P	O	1	C	7/30/2004	5.133	G	750	\$1,080,000	12
2245050	M	FORT TRYON PARK	UNDERPASS		P	O	1	C	7/30/2004	4.867	F	750	\$1,080,000	12
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	11/14/2003	6.431	V	29170	\$42,004,800.00	12
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	2	C	4/22/2004	4.611	F	1500	\$2,160,000	12
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	P	O-PED	6	C	4/26/2004	4.174	F	700	\$1,008,000	12
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE			O	1	S	6/29/2004	5.333	G	10800	\$15,552,000.00	12
2246489	M	W 181 ST	RAMP TO WASH BR			O	1	S	2/10/2004	4.633	F	8200	\$11,808,000.00	12
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		P	O	1	S	3/8/2004	4.267	F	6600	\$9,504,000.00	12
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		P	O	1	S	2/9/2004	5.133	G	2200	\$3,168,000.00	12
2246580	M	HIGH BRIDGE PDOVP	871 - HARLEM RIVER		P	WA-PED	11	P	10/1/85	5.651	G	34115	\$49,125,600	12
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.			O-PED	1	C	3/3/2004	4.600	F	1200	\$1,728,000	12
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		P	O	1	S	6/30/2004	6.826	V	911	\$1,311,840.00	12
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET		P	WO-PED	1	C	12/29/2004	4.931	F	285	\$410,400	12
2266230	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/2/2004	6.211	V	800	\$1,152,000.00	12
2266240	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/3/2004	5.762	G	1100	\$1,584,000.00	12
2267240	M	HRD NB RAMP	HARLEM RIVER DR			A	51	S	10/8/2004	3.000	P	122900	\$176,976,000.00	12
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE			O-PED	5	C	6/3/2003	5.837	G	1500	\$2,160,000.00	12
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE	A		AR	26	S	9/1/2004	3.875	F	10800	\$15,552,000.00	12
M00001	M	PEDESTRIAN TUNNEL	BROADWAY TO			O-PED	1	C	3/9/2004	5.000	G	2000	\$2,880,000.00	12
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END			O	1	S	6/2/2004	4.900	F	1600	\$2,304,000.00	64
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		P	O	1	S	6/2/2004	5.267	G	2500	\$3,600,000.00	64
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH		P	O-PED	1	C	12/22/2004	5.000	G	1026	\$1,477,440	64
2246030	M	PEDESTRIAN BRIDGE	POND		P	O-PED	1	C	7/29/2004	4.310	F	1400	\$2,016,000	64
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		P	O	1	S	6/2/2004	5.267	G	2000	\$2,880,000.00	64
2246069	M	EAST DRIVE	PEESTRIAN WALK		P	O	1	S	6/2/2004	4.500	F	2700	\$3,888,000.00	64
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		P	O	1	C	7/14/2004	6.000	G	1200	\$1,728,000	64
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		P	O	1	S	6/2/2004	4.667	F	2000	\$2,880,000.00	64
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		P	O-PED	1	C	2/14/2004	4.655	F	2300	\$3,312,000	64
2246100	M	CONTRAL DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.200	F	6000	\$8,640,000.00	64
2246110	M	EAST DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.567	F	6000	\$8,640,000.00	64
2246120	M	WEST DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.833	F	7900	\$11,376,000.00	64
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		P	O	1	C	7/15/2004	4.233	F	1200	\$1,728,000	64
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		P	O	1	S	2/11/2004	4.867	F	3600	\$5,184,000.00	64
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		P	O	3	S	6/2/2004	4.941	F	7300	\$10,512,000.00	64
2246160	M	PED BET 73ST&74ST	THE LAKE		P	WO-PED	1	C	6/1/2002	5.000	G	1655	\$2,383,200	64
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		P	O	1	S	2/24/2004	5.056	G	1900	\$2,736,000.00	64
2246230	M	EAST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/5/2004	4.533	F	6500	\$9,360,000.00	64
2246240	M	WEST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/5/2004	4.167	F	7200	\$10,368,000.00	64
2246250	M	EAST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/1/2004	4.433	F	5100	\$7,344,000.00	64
2246260	M	WEST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/3/2004	4.800	F	5100	\$7,344,000.00	64
2246270	M	EAST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/1/2004	3.967	F	7000	\$10,080,000.00	64
2246280	M	WEST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/1/2004	4.033	F	4700	\$6,768,000.00	64
2246320	M	FTBRG OPP 77TH ST	THE LAKE		P	WO-PED	3	C	12/29/2004	4.862	F	1125	\$1,620,000	64
2246330	M	WEST DRIVE	FEEDER TO LAKE		P	WO	1	S	2/23/2004	5.000	G	6700	\$9,648,000.00	64



INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE		P	WO-PED	4	C	12/29/2004	4.871	F	455	\$655,200	64
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		P	O	1	C	7/15/2004	4.500	F	750	\$1,080,000	64
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		P	O	1	S	2/25/2004	5.682	G	3100	\$4,464,000.00	64
2246380	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/3/2004	5.190	G	714	\$1,028,160	64
2246390	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/3/2004	4.627	F	1095	\$1,576,800	64
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		P	O-PED	1	C	10/23/2004	4.500	F	3700	\$5,328,000	64
2246430	M	WEST DRIVE	PED OPP 109TH ST		P	O	1	S	2/26/2004	4.317	F	1200	\$1,728,000.00	64
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		P	O-PED	1	C	10/23/2004	4.259	F	5900	\$8,496,000	64
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		P	O	1	S	2/27/2002	5.190	G	5000	\$7,200,000.00	64
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		P	O	2	S	2/13/2004	4.789	F	5800	\$8,352,000.00	64
2246470	M	EAST DRIVE	THE LOCH		P	WO	1	S	3/2/2004	4.700	F	1100	\$1,584,000.00	64
2240047	M Q	QUEENSBORO BRIDGE(LL)	EAST RIVER	L		WEO	53	S	1/23/2003	4.514	F	626900	\$902,736,000.00	6
2240048	M Q	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL			WEO	37	S	1/23/2003	4.547	F	322300	\$464,112,000.00	6
2240640	M Q	ROOSEVELT ISLAND	E. RIVER E. CHANNEL			WMO	8	S	6/15/2004	4.222	F	36500	\$52,560,000.00	8
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)			A	1	S	1/13/2004	4.167	F	4200	\$6,048,000.00	1
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)			A	1	S	1/13/2004	4.028	F	4200	\$6,048,000.00	1
2230620	Q	37TH ST	278I (B.Q.E.)			A	2	S	4/8/2004	4.667	F	5300	\$7,632,000.00	1
2230630	Q	35TH ST	278I (B.Q.E.)			A	4	S	7/16/2004	4.819	F	9000	\$12,960,000.00	1
2230640	Q	32ND ST	278I (B.Q.E.)			A	2	S	4/15/2003	4.986	F	8100	\$11,664,000.00	1
2230657	Q	31ST ST	278I (B.Q.E.)			A	2	S	7/16/2004	4.917	F	9500	\$13,680,000.00	1
2230690	Q	BQE EAST LEG NB	32ND AVE			A	1	S	6/3/2004	7.000	V	6160	\$8,870,400.00	1
2230700	Q	BQE EAST LEG	TO BQE WEST LEG			A	14	S	11/8/2004	6.915	V	16800	\$24,192,000.00	1
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE			A	1	S	8/28/2003	6.797	V	5240	\$7,545,600.00	1
2230720	Q	BQE EAST LEG	BQE NB WEST LEG			A	1	S	6/11/2003	6.667	V	20800	\$29,952,000.00	1
2230730	Q	31ST AVE	278I (B.Q.E.)			A	1	S	8/27/2003	6.800	V	5800	\$8,352,000.00	1
2230740	Q	BQE WEST LEG SB	31ST AVE			A	1	S	7/8/2003	7.000	V	5246	\$7,554,240.00	1
2230750	Q	BQE EAST LEG SB	31ST AVE			A	1	S	7/8/2003	6.068	V	2900	\$4,176,000.00	1
2230760	Q	BQE WEST LEG NB	31ST AVE			A	1	S	10/5/2004	7.000	V	2900	\$4,176,000.00	1
2230770	Q	BQE WEST LEG	30TH AVE			A	1	S	7/2/2003	7.000	V	6199	\$8,926,560.00	1
2230790	Q	BULOVA AVE	BQE WEST LEG			A	2	S	3/22/2004	5.667	G	3300	\$4,752,000.00	1
2230800	Q	49TH ST	BQE WEST LEG			A	2	S	3/22/2004	5.333	G	4900	\$7,056,000.00	1
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG			A	4	S	3/22/2004	4.221	F	8200	\$11,808,000.00	1
2230820	Q	47TH ST	GCP			A	2	S	4/20/2004	4.944	F	5700	\$8,208,000.00	1
2230830	Q	BQE WEST LEG	GCP			A	2	S	7/14/2004	4.861	F	7600	\$10,944,000.00	1
2230840	Q	44TH ST	GCP			A	2	S	4/16/2004	4.847	F	5000	\$7,200,000.00	1
2230890	Q	49TH ST	GCP			A	2	S	6/11/2004	4.778	F	5500	\$7,920,000.00	1
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL			WO	56	S	8/29/2003	4.423	F	183100	\$263,664,000.00	1
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)			OE	36	S	10/5/2004	4.634	F	8360	\$12,038,400.00	1
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L		O-PED	5	C	8/4/2004	3.091	F	700	\$1,008,000	2
2230520	Q	65TH PLACE	278I (B.Q.E.)			A	2	S	2/4/2004	4.338	F	11600	\$16,704,000.00	2
2230530	Q	QUEENS BLVD	278I (B.Q.E.)			A	2	S	8/25/2004	4.625	F	23500	\$33,840,000.00	2
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)			A	1	S	1/5/2004	5.266	G	7500	\$10,800,000.00	2
2230550	Q	69TH ST	278I (B.Q.E.)			A	2	S	3/11/2004	4.842	F	12600	\$18,144,000.00	2
2230560	Q	70TH ST	278I (B.Q.E.)			A	2	S	3/11/2004	5.125	G	8500	\$12,240,000.00	2
2230570	Q	41ST AVE	278I (B.Q.E.)			A	3	S	2/13/2004	4.931	F	8800	\$12,672,000.00	2
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)			A	2	S	2/13/2004	4.559	F	6600	\$9,504,000.00	2
2230590	Q	BROADWAY	278I (B.Q.E.)			O	2	S	4/27/2004	3.842	F	16000	\$23,040,000.00	2
2230669	Q	278I (B.Q.E.)	35TH AVE			A	1	S	8/29/2003	6.627	V	13135	\$18,914,400.00	2
2230679	Q	278I (B.Q.E.)	34TH AVE			A	3	S	5/12/2003	6.898	V	9500	\$13,680,000.00	2
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD			A	1	S	3/24/2004	6.683	V	27011	\$38,895,840.00	2
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.			A	1	S	6/18/2004	4.205	F	7900	\$11,376,000.00	2
2240410	Q	BORDEN AVE	DUTCH KILLS			WMO	2	S	6/16/2004	3.958	F	8400	\$12,096,000.00	2
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS			WMO	4	S	5/26/2004	5.167	G	11544	\$16,623,360.00	2
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L		O	3	S	7/19/2003	4.444	F	14900	\$21,456,000.00	2
2247150	Q	65TH ST	LIRR N SIDE DIV	L		O	3	S	7/2/2003	6.542	V	6344	\$9,135,360.00	2
2247160	Q	65TH PLACE	LIRR N SHR DIV	L		O	3	S	7/2/2003	6.471	V	8381	\$12,068,640.00	2
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L		O	1	S	11/24/2004	6.183	V	4517	\$6,504,480.00	2
2247270	Q	21ST STREET	CONRAIL	C		O	6	S	7/7/2003	5.528	G	17590	\$25,329,600.00	2
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L		O	5	S	9/1/2004	4.292	F	20200	\$29,088,000.00	2
2247300	Q	THOMPSON AVE	AMTRAK YARD	L		O	14	S	9/8/2004	5.264	G	61280	\$88,243,200.00	2
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L		O	19	S	9/10/2004	6.577	V	92400	\$133,056,000.00	2
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL		O	22	S	7/30/2003	6.569	V	99036	\$142,611,840.00	2
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL		O	14	S	9/9/2003	6.556	V	48200	\$69,408,000.00	2

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2247370	Q	37TH AVE	CONRAIL HELLGATE	C		O	1	S	8/6/2003	4.818	F	5300	\$7,632,000.00	2
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C		O	2	S	6/28/2004	4.958	F	5200	\$7,488,000.00	2
2247390	Q	41ST AVE	CONRAIL HELLGATE	C		O	2	S	8/6/2003	4.942	F	4400	\$6,336,000.00	2
2247400	Q	WOODSIDE AVE	CONRAIL	C		O	1	S	8/7/2003	5.067	G	8200	\$11,808,000.00	2
2247410	Q	43RD AVE	CONRAIL	C		O	1	S	8/8/2003	5.033	G	4800	\$6,912,000.00	2
2247420	Q	44TH AVE	CONRAIL	C		O	1	S	8/8/2003	5.033	G	5100	\$7,344,000.00	2
2247430	Q	45TH AVE	CONRAIL	C		O	1	S	8/8/2003	5.510	G	2400	\$3,456,000.00	2
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL		O	9	S	9/10/2003	6.125	V	34100	\$49,104,000.00	2
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE			OE	64	S	10/29/2004	4.906	F	104600	\$150,624,000.00	2
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)			OE	63	S	12/9/2004	4.652	F	63310	\$91,166,400.00	2
224004H	Q	TO 21ST ST FROM NY	22ND ST			OE	34	S	12/10/2004	4.310	F	48100	\$69,264,000.00	2
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE			OE	38	S	11/23/2004	5.016	G	59100	\$85,104,000.00	2
2230780	Q	BQE EAST LEG	30TH AVE			A	3	S	6/10/2003	6.746	V	7071	\$10,182,240.00	3
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L		O	3	S	6/23/2003	7.000	V	2760	\$3,974,400.00	4
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L		O-PED	5	C	8/9/2004	4.333	F	500	\$720,000	4
2247180	Q	GRAND AVE	LIRR MAIN LINE	L		O	3	S	5/25/2004	4.849	F	7415	\$10,677,600.00	4
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	8/3/2004	4.491	F	13000	\$18,720,000	4
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L		O	3	S	2/11/2004	5.278	G	6725	\$9,684,000.00	4
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L		O	2	S	5/21/2004	3.683	F	20900	\$30,096,000.00	5
2065930	Q	HAMILTON PLACE	495I (L.I.E.)			A	2	S	6/4/2004	6.347	V	11111	\$15,999,840.00	5
2065940	Q	GRAND AVE	495I (L.I.E.)			A	2	S	9/1/2004	5.264	G	12376	\$17,821,440.00	5
2065950	Q	69TH STREET	495I (L.I.E.)			A	2	S	5/30/2003	5.389	G	10336	\$14,883,840.00	5
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY			A	1	S	5/7/2004	5.611	G	5000	\$7,200,000.00	5
2230050	Q	CYP HILLS CEM WEST	JACKIE ROBINSON PKWY			A	3	S	4/8/2004	3.955	F	4400	\$6,336,000.00	5
2230070	Q	CYP HILLS CEM EAST	JACKIE ROBINSON PKWY			A	3	S	4/8/2004	4.114	F	4400	\$6,336,000.00	5
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY			A	1	S	1/7/2004	5.483	G	4200	\$6,048,000.00	5
2247440	Q	GRAND AVE	CONRAIL	C		O	1	S	8/11/2003	6.567	V	3280	\$4,723,200.00	5
2247450	Q	57TH AVE	CONRAIL	C		O	1	S	8/11/2003	6.195	V	2248	\$3,237,120.00	5
2247460	Q	CALDWELL AVE	CONRAIL	C		O	1	S	6/29/2004	6.639	V	2243	\$3,229,920.00	5
2247470	Q	ELIOT AVE	CONRAIL	C		O	1	S	8/12/2003	5.250	G	3600	\$5,184,000.00	5
2247480	Q	JUNIPER BLVD SO	CONRAIL	C		O	1	S	8/12/2003	5.556	G	9000	\$12,960,000.00	5
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C		O	1	S	6/30/2004	5.455	G	6175	\$8,892,000.00	5
2247500	Q	METROPOLITAN AVE	CONRAIL	C		O	1	S	8/12/2003	4.167	F	18650	\$26,856,000.00	5
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L		O	4	S	5/19/2004	4.113	F	3200	\$4,608,000.00	5
2247540	Q	60TH ST	LIRR MONTAUK DIV	L		O	2	S	6/17/2003	5.264	G	5340	\$7,689,600.00	5
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L		O	2	S	6/18/2003	5.894	G	9550	\$13,752,000.00	5
2247570	Q	80TH ST	71ST TO 77TH AVE	L		O	5	S	5/3/2004	5.102	G	11725	\$16,884,000.00	5
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR			O-PED	8	C	7/8/2004	5.318	G	900	\$1,296,000	5
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	8/2/2004	4.934	F	2293	\$3,301,920	5
2248200	Q	RUST ST	FLUSHING AVE			O	1	S	5/12/2003	5.547	G	2940	\$4,233,600.00	5
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE			O	1	S	5/12/2003	5.125	G	2940	\$4,233,600.00	5
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE			O	1	S	5/12/2003	5.250	G	2940	\$4,233,600.00	5
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH		P	O-PED	1	C	12/22/2004	3.667	F	1856	\$2,672,640	5
2248300	Q	71ST AVE	COOPER AVE			O	1	S	5/9/2003	4.458	F	2800	\$4,032,000.00	5
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L		O-PED	3	C	8/5/2004	4.414	F	1300	\$1,872,000	6
2066002	Q	495I (2066000)	WOODHAVEN BLVD			A	2	S	6/5/2003	6.197	V	25200	\$36,288,000.00	6
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD			O	2	S	7/7/2004	4.288	F	11500	\$16,560,000.00	6
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)			A	1	S	7/8/2004	4.683	F	2500	\$3,600,000.00	7
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER			WO	40	S	8/30/2004	4.817	F	71900	\$103,536,000.00	7
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER			WO	40	S	8/30/2004	4.507	F	78894	\$113,607,360.00	7
2231900	Q	BCIP	FORT TOTTEN ENTRANCE			A	1	S	6/15/2004	4.672	F	4900	\$7,056,000.00	7
2231910	Q	UTOPIA PKWY	BCIP			A	2	S	2/5/2004	5.136	G	7200	\$10,368,000.00	7
2231920	Q	160TH ST	BCIP			A	2	S	4/24/2003	5.972	G	5550	\$7,992,000.00	7
2231930	Q	FRANCIS LEWIS BLVD	BCIP			A	3	S	1/14/2004	4.773	F	9100	\$13,104,000.00	7
2231940	Q	CLINTONVILLE ST	BCIP			A	2	S	1/14/2004	4.727	F	7400	\$10,656,000.00	7
2231950	Q	150TH ST	BCIP			A	2	S	1/14/2004	4.773	F	5900	\$8,496,000.00	7
2231960	Q	149TH ST	BCIP			A	2	S	1/27/2004	4.977	F	6210	\$8,942,400.00	7
2231970	Q	14TH AVE	BCIP			A	2	S	1/27/2004	4.750	F	8100	\$11,664,000.00	7
2231980	Q	147TH ST	BCIP			A	2	S	1/27/2004	4.773	F	6300	\$9,072,000.00	7
2247040	Q	UNION ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	6.391	V	3313	\$4,770,720.00	7
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L		O	1	S	5/5/2004	5.863	G	4974	\$7,162,560.00	7
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L		O	1	S	5/6/2004	5.176	G	4200	\$6,048,000.00	7
2247070	Q	147TH ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	5.627	G	2800	\$4,032,000.00	7
2247080	Q	149TH ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	4.776	F	4100	\$5,904,000.00	7
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L		O	2	S	6/11/2003	5.386	G	4300	\$6,192,000.00	7

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2247100	Q	150TH ST	LIRR N SIDE DIV	L		O	2	S	6/11/2003	6.588	V	7830	\$11,275,200.00	7
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	5.556	G	4000	\$5,760,000.00	7
2248090	Q	FLSHG MDW PK PED.	LAWRENCE STREET		P	O-PED	3	C	5/11/2002	4.722	F	8418	\$12,121,920	7
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I			A	1	S	4/28/2004	4.438	F	2300	\$3,312,000.00	7
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	3	C	8/10/2004	4.164	F	600	\$864,000.00	7
205580A	Q	N.BLVD WB TO 678I SB	VACANT LAND			AR	16	S	9/2/2004	5.571	G	8600	\$12,384,000.00	7
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD		P	O-PED	2	C	10/28/2004	4.556	F	2756	\$3,968,640	8
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD		P	O-PED	3	C	5/18/2002	4.839	F	2670	\$3,844,800	8
2248100	Q	MOTOR PKWY (PED)	73RD AVE		P	O-PED	3	C	5/18/2002	4.794	F	2640	\$3,801,600	8
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD			O	1	S	6/3/2003	5.167	G	7085	\$10,202,400.00	8
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T		A	5	S	4/23/2004	4.857	F	90000	\$129,600,000.00	9
2247220	Q	80TH ROAD	LIRR MAIN LINE	L		O	3	S	6/24/2003	5.000	G	4100	\$5,904,000.00	9
2247230	Q	82ND AVE	LIRR MAIN LINE	L		O	3	S	6/24/2003	5.443	G	4100	\$5,904,000.00	9
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L		O	3	S	6/25/2003	5.917	G	5460	\$7,862,400.00	9
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	P	O	5	S	5/14/2004	5.404	G	6000	\$8,640,000.00	9
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL		O	1	S	5/4/2004	6.983	V	3024	\$4,354,560.00	9
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	P	O	6	S	4/23/2004	5.254	G	10000	\$14,400,000.00	9
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE			O	3	S	6/10/2004	4.472	F	19400	\$27,936,000.00	9
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST			O	1	S	2/11/2004	4.750	F	5900	\$8,496,000.00	9
2248340	Q	FOREST PARK DR	MYRTLE AVE		P	O	3	S	5/8/2003	5.081	G	5100	\$7,344,000.00	9
2231559	Q	CROSS BAY BLVD	BSHP			A	4	S	4/6/2004	5.278	G	23205	\$33,415,200.00	10
2231560	Q	S CONDUIT BLVD	BSOP			A	2	S	4/6/2004	5.690	G	15776	\$22,717,440.00	10
2231570	Q	COHANCY ST	BSOP			A	2	S	4/6/2004	4.636	F	6400	\$9,216,000.00	10
2231580	Q	AQUEDUCT RCTK RAMP	BSOP			A	4	S	6/24/2004	4.264	F	14000	\$20,160,000.00	10
2231590	Q	130TH ST	BSOP			A	2	S	2/20/2004	4.750	F	6800	\$9,792,000.00	10
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN			WO-PED	13	C	4/21/2004	4.333	F	5000	\$7,200,000.00	10
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE			O-PED	7	C	3/15/2004	4.718	F	5500	\$7,920,000.00	10
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD			O	2	S	5/7/2004	6.296	V	17000	\$24,480,000.00	10
2248040	Q	LINDEN BLVD	CONDUIT AVE			O	1	S	4/15/2004	5.233	G	3352	\$4,826,880.00	10
2248250	Q	102ND ST	HAWTREE BASIN			WO	3	S	7/15/2003	6.574	V	4900	\$7,056,000.00	10
2231860	Q	W ALLEY ROAD	BCIP			A	2	S	9/26/2003	5.568	G	7200	\$10,368,000.00	11
2231870	Q	NORTHERN BLVD	BCIP			A	2	S	8/17/2004	6.431	V	8951	\$12,889,440.00	11
2231880	Q	CROCHERON PK PED	BCIP		P	A-PED	9	C	10/5/2004	4.750	F	2300	\$3,312,000	11
2231890	Q	28TH AVE PED BRDG	BCIP		P	A-PED	24	C	9/21/2004	5.150	G	7600	\$10,944,000	11
2240440	Q	NORTHERN BLVD	ALLEY CREEK			WO	2	S	6/2/2004	4.750	F	8300	\$11,952,000.00	11
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L		O	1	S	6/13/2003	6.529	V	3379	\$4,865,760.00	11
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L		O	1	S	6/13/2003	5.881	G	4320	\$6,220,800.00	11
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L		O	3	S	5/7/2004	5.288	G	6300	\$9,072,000.00	11
2247680	Q	221ST ST	LIRR N SIDE DIV	L		O	3	S	6/12/2003	6.000	G	6050	\$8,712,000.00	11
2248060	Q	MOTOR PKWY (PED)	BELL BLVD		P	O-PED	2	C	10/29/2004	4.778	F	2648	\$3,813,120	11
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD		P	O-PED	3	C	12/8/2004	4.293	F	2940	\$4,233,600	11
2266129	Q	WINCHESTER BLVD S.B.	BCIP			A	1	S	4/6/2004	4.592	F	4400	\$6,336,000.00	11
2266139	Q	WINCHESTER BLVD N.B.	BCIP			A	1	S	4/16/2004	4.633	F	6400	\$9,216,000.00	11
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	5	C	8/11/2004	4.105	F	400	\$576,000.00	11
2248160	Q	ELLIOT AVE	QUEENS BLVD			O	2	S	7/7/2004	4.922	F	13785	\$19,850,400.00	12
2231610	Q	GUY R. BREWER BLVD	BSOP			A	2	S	5/13/2003	6.833	V	12342	\$17,772,480.00	13
2231620	Q	FARMERS BLVD	BSOP			A	2	S	6/4/2004	4.568	F	6400	\$9,216,000.00	13
2231630	Q	SPRINGFIELD BLVD	BSOP			A	2	S	4/15/2004	4.682	F	8500	\$12,240,000.00	13
2231640	Q	225TH ST	BSOP			A	2	S	5/6/2004	4.727	F	7000	\$10,080,000.00	13
2231650	Q	SUNRISE HWY W.B.	BLP E.B.			A	1	S	4/7/2004	4.623	F	4100	\$5,904,000.00	13
2231660	Q	SUNRISE HWY W.B.	BLP W.B.			A	2	S	4/7/2004	4.531	F	5350	\$7,704,000.00	13
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.			A	1	S	1/8/2004	4.917	F	4000	\$5,760,000.00	13
2231680	Q	N CONDUIT AVE WB	BLP W.B.			A	2	S	1/8/2004	4.932	F	6500	\$9,360,000.00	13
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.			A	1	S	3/26/2004	5.333	G	6000	\$8,640,000.00	13
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.			A	1	S	3/26/2004	4.867	F	6000	\$8,640,000.00	13
2231710	Q	MERRICK BLVD	BLP E.B.			A	1	S	3/26/2004	4.533	F	6000	\$8,640,000.00	13
2231720	Q	MERRICK BLVD	BLP W.B.			A	1	S	3/26/2004	4.200	F	6000	\$8,640,000.00	13
2231730	Q	130TH AVE	BLP E.B.			A	1	S	1/7/2004	5.267	G	4400	\$6,336,000.00	13
2231740	Q	130TH AVE	BLP W.B.			A	1	S	1/7/2004	4.667	F	4400	\$6,336,000.00	13
2231750	Q	LINDEN BLVD	BCIP			A	2	S	2/10/2004	4.295	F	6700	\$9,648,000.00	13
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE			A	1	S	3/12/2004	4.442	F	7300	\$10,512,000.00	13
2231770	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	3/12/2004	4.781	F	3200	\$4,608,000.00	13
2231780	Q	HEMPSTEAD AVE	BCIP			A	2	S	4/22/2004	4.210	F	14200	\$20,448,000.00	13
2231790	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	1/7/2004	4.656	F	3400	\$4,896,000.00	13
2231800	Q	SUPERIOR ROAD	BCIP			A	2	S	3/22/2004	4.364	F	7000	\$10,080,000.00	13
2231819	Q	JAMAICA AVE	BCIP			A	2	S	2/11/2004	4.773	F	11500	\$16,560,000.00	13
2231829	Q	BRADDOCK AVE	BCIP			A	2	S	2/11/2004	4.909	F	10600	\$15,264,000.00	13
2231840	Q	HILLSIDE AVE	BCIP			A	2	S	4/30/2004	4.079	F	9672	\$13,927,680.00	13
2231850	Q	UNION TPK	BCIP			A	2	S	6/11/2004	4.318	F	13600	\$19,584,000.00	13
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK		P	O-PED	1	C	12/8/2004	4.582	F	963	\$1,386,720	13
2248129	Q	UNION TPK	CREEDMOORE HOSP RD			O	1	S	5/9/2003	4.867	F	3500	\$5,040,000.00	13
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY			A	2	S	5/5/2004	4.172	F	9500	\$13,680,000.00	13
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY			A	1	S	5/12/2004	5.250	G	9508	\$13,691,520.00	13

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)			O	1	S	6/3/2003	4.778	F	1470	\$2,116,800.00	13
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE			WO	3	S	6/26/2003	6.339	V	18302	\$26,354,880.00	13
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD			A	1	C	7/7/2004	4.467	F	1200	\$1,728,000.00	13
2240507	Q	ROOSEVELT AVE	678I - VAN WYCK EXPWY			WA	27	S	12/8/2004	3.254	F	84424	\$121,570,560.00	81
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD		P	WO-PED	4	C	4/20/2002	1.000	P	1891	\$2,723,040	81
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE		P	WO-PED	5	C	12/14/2004	4.741	F	4102	\$5,906,880	81
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		P	WO	5	S	4/28/2004	4.891	F	4200	\$6,048,000.00	81
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE		P	WO-PED	5	C	8/17/1978	5.809	G	6321	\$9,102,240	81
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY			A	1	S	3/5/2004	5.611	G	6400	\$9,216,000.00	82
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE			A	2	S	1/29/2004	5.321	G	8673	\$12,489,120.00	82
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY			A	1	S	2/25/2004	5.984	G	5359	\$7,716,960.00	82
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY			A	1	S	3/23/2004	5.389	G	4400	\$6,336,000.00	82
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN			WO	2	S	6/25/2003	5.158	G	6000	\$8,640,000.00	83
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB			O	1	S	5/19/2003	4.400	F	3600	\$5,184,000.00	84
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD			O	4	S	5/23/2003	4.746	F	7280	\$10,483,200.00	84
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)			O	1	S	3/25/2004	6.250	V	5096	\$7,338,240.00	1
2249070	R	JOHN ST	B&O RAILROAD	O		O-PED	3	C	2/23/2004	6.806	V	5800	\$8,352,000	1
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O		O	4	S	4/14/2003	5.339	G	7900	\$11,376,000.00	1
2249100	R	GRANITE AVE	B&O RAILROAD	O		O	4	S	4/23/2004	6.034	V	7300	\$10,512,000.00	1
2249110	R	LAKE AVE	B&O RAILROAD	O		O	3	S	4/9/2003	5.926	G	5900	\$8,496,000.00	1
2249120	R	SIMONSON AVE	B&O RAILROAD	O		O	3	S	5/1/2003	6.111	V	5819	\$8,379,360.00	1
2249130	R	VAN NAME AVE	B&O RAILROAD	O		O	3	S	3/24/2004	5.492	G	5474	\$7,882,560.00	1
2249140	R	VAN PELT AVE	B&O RAILROAD	O		O	3	S	4/16/2003	5.780	G	5000	\$7,200,000.00	1
2249160	R	DE HART AVE	B&O RAILROAD	O		O	4	S	5/5/2003	6.500	V	6700	\$9,648,000.00	1
2249170	R	UNION AVE	B&O RAILROAD	O		O	4	S	5/8/2003	5.352	G	6500	\$9,360,000.00	1
2249180	R	HARBOR ROAD	B&O RAILROAD	O		O	4	S	5/6/2003	6.356	V	6615	\$9,525,600.00	1
2249200	R	SOUTH AVE	B&O RAILROAD	O		O	3	S	9/29/2003	6.927	V	8322	\$11,983,680.00	1
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S		O	2	S	12/6/2004	5.475	G	5378	\$7,744,320.00	1
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S		O	10	S	10/21/2003	5.119	G	10020	\$14,428,800.00	1
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	23	C	9/9/2004	5.686	G	1600	\$2,304,000	1
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	12/2/2004	4.862	F	899	\$1,294,560	1
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	12/2/2004	4.621	F	899	\$1,294,560	1
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE		P	WO-PED	1	C	11/17/2004	4.586	F	972	\$1,399,680	1
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM			WO	2	S	6/9/2003	4.933	F	7000	\$10,080,000.00	1
2249770	R	S OF BROOKS LAKE	STREAM IN PARK		P	WO-PED	3	C	11/23/2004	5.129	G	696	\$1,002,240	1
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		P	WO-PED	1	C	11/30/2004	4.947	F	800	\$1,152,000	1
2249790	R	FB S OF FOREST AV	STREAM IN PARK		P	WO-PED	3	C	11/30/2004	5.000	G	658	\$947,520	1
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		P	WO	1	S	9/9/2003	4.767	F	1600	\$2,304,000.00	1
2249840	R	TOMPKINS AVE	GREENFIELD AVE			O	1	S	3/18/2004	5.106	G	2562	\$3,689,280.00	1
2269730	R	PARKING EXIT RAMP	SIRT		F	O	10	S	11/30/2004	4.194	F	20727	\$29,846,880.00	1
2269740	R	BUS STATION NORTH	SIRT		F	O	12	S	11/16/2004	4.820	F	64605	\$93,031,200.00	1
2269750	R	BUS STATION SOUTH	SIRT		F	O	12	S	11/15/2004	4.520	F	154688	\$222,750,720.00	1
2269760	R	NORTH RAMP	SIRT		F	O	9	S	11/29/2004	4.347	F	17589	\$25,328,160.00	1
2269770	R	BUS STA ENTR RAMP	SIRT		F	O	19	S	12/1/2004	4.431	F	39333	\$56,639,520.00	1
2269780	R	PARKING ENTR RAMP	SIRT		F	O	3	S	11/1/2004	5.125	G	8589	\$12,368,160.00	1
2269790	R	BUS STATION EXIT RAMP	SIRT		F	O	7	S	11/20/2004	4.722	F	28721	\$41,358,240.00	1
2240350	R	RICHMOND AVE	RICHMOND CREEK			WO	3	S	7/30/2003	6.153	V	32589	\$46,928,160.00	2
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S		O	2	S	10/23/2003	5.697	G	3700	\$5,328,000.00	2
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S		O	2	S	10/24/2003	5.500	G	3800	\$5,472,000.00	2
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S		O	2	S	10/25/2003	5.712	G	3800	\$5,472,000.00	2
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S		O	2	S	10/18/2003	4.903	F	7600	\$10,944,000.00	2
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S		O	3	S	10/19/2003	5.269	G	5900	\$8,496,000.00	2
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	6/12/2003	4.459	F	800	\$1,152,000	2
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S		O	1	S	10/25/2003	5.552	G	4500	\$6,480,000.00	2
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S		O	1	S	10/26/2003	5.603	G	3000	\$4,320,000.00	2
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S		O	2	S	10/26/2003	6.764	V	5100	\$7,344,000.00	2
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S		O	3	S	12/7/2004	6.264	V	5270	\$7,588,800.00	2
2249860	R	SLATER BLVD	NEW CREEK			WO	1	S	4/14/2003	5.959	G	2037	\$2,933,280.00	2
2249870	R	TRAVIS AVE	MAIN CREEK			WO	1	S	8/5/2003	6.100	V	1537	\$2,213,280.00	2
2249880	R	CHELSEA ROAD	SAWMILL CREEK			WO	1	S	5/12/2003	6.981	V	2205	\$3,175,200.00	2
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	4/8/2004	4.710	F	400	\$576,000	3
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	4/2/2004	2.744	P	200	\$288,000	3
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S		O	1	S	12/2/2004	4.833	F	3700	\$5,328,000.00	3
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S		O-PED	12	C	6/11/2003	3.980	F	500	\$720,000	3
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S		O	4	S	10/16/2003	6.306	V	30420	\$43,804,800.00	3
2249270	R	RICHMMD VALLY ROAD	SIRT SOUTH SHORE	S		O	4	S	10/14/2003	5.299	G	9300	\$13,392,000.00	3
2249280	R	COZZINS BLVD PED BRDG	SIRT SOUTH SHORE	S		O-PED	7	C	6/17/2003	4.902	F	200	\$288,000	3
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S		O	1	S	10/15/2003	6.016	V	2200	\$3,168,000.00	3
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S		O	2	S	10/14/2003	4.955	F	4900	\$7,056,000.00	3
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S		O	3	S	10/17/2003	4.787	F	6500	\$9,360,000.00	3
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S		O	2	S	10/19/2003	4.455	F	4500	\$6,480,000.00	3
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	1	C	7/8/2004	4.725	F	300	\$432,000	3

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S		O	1	S	12/3/2004	5.844	G	3042	\$4,380,480.00	3
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S		O	3	S	10/18/2003	6.750	V	3950	\$5,688,000.00	3
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S		O	3	S	10/19/2003	4.869	F	6900	\$9,936,000.00	3
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/10/2003	4.684	F	600	\$864,000	3
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	4/6/2004	4.333	F	400	\$576,000	3
2249810	R	HYLAN BLVD	LEMON CREEK			WO	1	S	3/17/2004	6.422	V	11400	\$16,416,000.00	3
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM			WO	1	S	5/9/2003	4.122	F	2000	\$2,880,000.00	3
2268920	R	AMBOY ROAD	LEMON CREEK			WO	1	S	3/17/2004	6.667	V	1310	\$1,886,400.00	3
790		BRIDGES				4574			SPANS			14502232	\$20,996,302,080	



INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2248250	Q	102ND ST	HAWTREE BASIN			WO	3	S	7/15/2003	6.574	V	4900	\$7,056,000.00	10
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A		O	2	S	12/2/2004	4.647	F	15400	\$22,176,000.00	4
2243630	K	11TH AVE	LIRR & SEA BEACH	LT		O	5	S	10/26/2004	6.603	V	9700	\$13,968,000.00	10
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL		O	39	S	11/22/2004	3.861	F	157500	\$226,800,000.00	4
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE			O-PED	5	C	7/19/2004	4.238	F	500	\$720,000	11
2231730	Q	130TH AVE	BLP E.B.			A	1	S	1/7/2004	5.267	G	4400	\$6,336,000.00	13
2231740	Q	130TH AVE	BLP W.B.			A	1	S	1/7/2004	4.667	F	4400	\$6,336,000.00	13
2231590	Q	130TH ST	BSOP			A	2	S	2/20/2004	4.750	F	6800	\$9,792,000.00	10
2243640	K	13TH AVE	LIRR & SEA BEACH	LT		O	5	S	11/6/2003	4.694	F	16000	\$23,040,000.00	10
2240089	B M	145TH ST BRIDGE	HARLEM RIVER			WMO	8	S	6/11/2004	3.208	F	56700	\$81,648,000.00	10
2231980	Q	147TH ST	BCIP			A	2	S	1/27/2004	4.773	F	6300	\$9,072,000.00	7
2247070	Q	147TH ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	5.627	G	2800	\$4,032,000.00	7
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L		O	2	S	6/11/2003	5.386	G	4300	\$6,192,000.00	7
2231960	Q	149TH ST	BCIP			A	2	S	1/27/2004	4.977	F	6210	\$8,942,400.00	7
2247080	Q	149TH ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	4.776	F	4100	\$5,904,000.00	7
2231970	Q	14TH AVE	BCIP			A	2	S	1/27/2004	4.750	F	8100	\$11,664,000.00	7
2243650	K	14TH AVE	LIRR BAY RIDGE	N		O	4	S	10/12/2004	6.967	V	10000	\$14,400,000.00	11
2231950	Q	150TH ST	BCIP			A	2	S	1/14/2004	4.773	F	5900	\$8,496,000.00	7
2247100	Q	150TH ST	LIRR N SIDE DIV	L		O	2	S	6/11/2003	6.588	V	7830	\$11,275,200.00	7
2243670	K	15TH AVE	BMT SEA BEACH	T		O	6	S	11/29/2004	4.136	F	17300	\$24,912,000.00	11
2243340	K	15TH AVE	LIRR BAY RIDGE	N		O	1	S	10/14/2004	4.872	F	3614	\$5,204,160.00	11
2231920	Q	160TH ST	BCIP			A	2	S	4/24/2003	5.972	G	5550	\$7,992,000.00	7
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN			WO-PED	13	C	4/21/2004	4.333	F	5000	\$7,200,000	10
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH			O-PED	3	C	8/10/2004	4.164	F	600	\$864,000.00	7
2243680	K	16TH AVE	BMT SEA BEACH	T		O	4	S	9/9/2004	5.444	G	6816	\$9,815,040.00	11
2243360	K	16TH AVE	LIRR BAY RIDGE	N		O	1	S	12/8/2004	5.733	G	4345	\$6,256,800.00	11
206672A	B	174TH ST-NTH PED BRDG	89SI - SHERIDAN EXPWY			A-PED	4	C	2/2/2004	4.889	F	1800	\$2,592,000	9
206672B	B	174TH ST-STH PED BRDG	89SI - SHERIDAN EXPWY			A-PED	4	C	2/9/2004	5.056	G	1900	\$2,736,000	9
2243690	K	17TH AVE	BMT SEA BEACH	T		O	4	S	9/13/2004	3.711	F	8500	\$12,240,000.00	11
2243370	K	17TH AVE	LIRR BAY RIDGE	N		O	1	S	12/1/2004	4.784	F	3406	\$4,904,640.00	12
2231300	K	17TH AVE PED BRDG	BSHP		P	A-PED	1	C	2/5/2004	3.846	F	2100	\$3,024,000	11
2243700	K	18TH AVE	BMT SEA BEACH	T		O	4	S	10/20/2003	3.909	F	8700	\$12,528,000.00	11
2243380	K	18TH AVE	LIRR BAY RIDGE	N		O	1	S	12/2/2004	5.016	G	6006	\$8,648,640.00	12
2243710	K	19TH AVE	BMT SEA BEACH	T		O	4	S	9/1/2004	4.395	F	4800	\$6,912,000.00	11
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	P	O-PED	1	C	7/26/2004	4.121	F	4700	\$6,768,000	27
2243720	K	20TH AVE	BMT SEA BEACH	T		O	6	S	8/19/2004	4.744	F	12500	\$18,000,000.00	11
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH			O-PED	5	C	8/11/2004	4.105	F	400	\$576,000.00	11
2243820	K	21ST AVE	BMT SEA BEACH	T		O	4	S	8/26/2004	4.184	F	21400	\$30,816,000.00	11
2247270	Q	21ST STREET	CONRAIL	C		O	6	S	7/7/2003	5.528	G	17590	\$25,329,600.00	2
2247680	Q	221ST ST	LIRR N SIDE DIV	L		O	3	S	6/12/2003	6.000	G	6050	\$8,712,000.00	11
2231640	Q	225TH ST	BSOP			A	2	S	5/6/2004	4.727	F	7000	\$10,080,000.00	13
2229450	B	232ND ST	HHP			A	2	S	9/18/2003	4.237	F	4900	\$7,056,000.00	8
2229460	B	236TH ST PED BRDG	HHP			A-PED	3	C	8/24/2004	5.106	G	2500	\$3,600,000	8
2229470	B	239TH ST	HHP			A	2	S	6/2/2003	4.711	F	6100	\$8,784,000.00	8
2229490	B	246TH ST	HHP			A	2	S	4/29/2003	4.974	F	5600	\$8,064,000.00	8
2229500	B	252ND ST	HHP			A	2	S	2/25/2004	4.184	F	4500	\$6,480,000.00	8
2232070	M	25TH ST PED BRDG	FDR DRIVE			A-PED	4	C	3/14/2004	4.594	F	1700	\$2,448,000	6
224004J	M	25X	NYC GARAGE			OE	14	S	7/30/2004	4.537	F	22058	\$31,763,520.00	6
2230679	Q	278I (B.Q.E.)	34TH AVE			A	3	S	5/12/2003	6.898	V	9500	\$13,680,000.00	2
2230669	Q	278I (B.Q.E.)	35TH AVE			A	1	S	8/29/2003	6.627	V	13135	\$18,914,400.00	2
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.			A	1	S	2/5/2004	5.200	G	2700	\$3,888,000.00	2
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.			A	1	S	2/6/2004	4.933	F	2500	\$3,600,000.00	2
2230470	K	278I (B.Q.E.)	JAY ST			A	1	S	4/14/2004	4.900	F	5100	\$7,344,000.00	2
2230857	K	278I (B.Q.E.)	JORALEMON ST			A	1	S	5/4/2004	5.030	G	2100	\$3,024,000.00	2
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB			A	2	S	5/4/2004	4.177	F	5900	\$8,496,000.00	2
2230510	K	278I (B.Q.E.)	NASSAU ST			A	6	S	4/7/2004	4.444	F	51200	\$73,728,000.00	2
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD			A	1	S	3/24/2004	6.683	V	27011	\$38,895,840.00	2
2230460	K	278I (B.Q.E.)	PEARL ST			A	1	S	2/27/2004	5.333	G	4500	\$6,480,000.00	2
2230430	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	2/2/2004	5.267	G	1100	\$1,584,000.00	2
2230480	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	3/11/2004	5.241	G	8400	\$12,096,000.00	2
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB			A	1	S	3/1/2004	5.567	G	1300	\$1,872,000.00	2
2230490	K	278I (B.Q.E.)	SANDS ST			A	1	S	3/15/2004	5.093	G	12600	\$18,144,000.00	2
2230410	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/14/2004	4.563	F	2500	\$3,600,000.00	2
2230420	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/14/2004	4.781	F	2500	\$3,600,000.00	2
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	69	S	7/16/2003	4.041	F	120734	\$173,856,960.00	2
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	11	S	5/19/2003	4.034	F	17956	\$25,856,640.00	2

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	5	S	11/11/2003	4.310	F	8375	\$12,060,000.00	2
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB			A	2	S	5/11/2004	5.053	G	4500	\$6,480,000.00	2
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE			A	1	S	8/28/2003	6.797	V	5240	\$7,545,600.00	1
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA			A	2	S	5/11/2004	4.309	F	4500	\$6,480,000.00	2
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST			A	45	S	6/19/2003	4.292	F	78022	\$112,351,680.00	2
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST			A	7	S	7/22/2003	4.206	F	10988	\$15,822,720.00	2
2268507	K	278I W.B. (B.Q.E.)	YORK ST			A	6	S	6/13/2003	4.262	F	9380	\$13,507,200.00	2
2231330	K	27TH AVE PED BRDG	BSHP		P	A-PED	1	C	7/1/2003	4.000	F	2100	\$3,024,000	13
2231890	Q	28TH AVE PED BRDG	BCIP		P	A-PED	24	C	9/21/2004	5.150	G	7600	\$10,944,000	11
2243310	K	2ND AVE	LIRR BAY RIDGE	N		O	6	S	11/14/2003	3.925	F	17000	\$24,480,000.00	10
2230730	Q	31ST AVE	278I (B.Q.E.)			A	1	S	8/27/2003	6.800	V	5800	\$8,352,000.00	1
2230657	Q	31ST ST	278I (B.Q.E.)			A	2	S	7/16/2004	4.917	F	9500	\$13,680,000.00	1
2230640	Q	32ND ST	278I (B.Q.E.)			A	2	S	4/15/2003	4.986	F	8100	\$11,664,000.00	1
2230630	Q	35TH ST	278I (B.Q.E.)			A	4	S	7/16/2004	4.819	F	9000	\$12,960,000.00	1
2247370	Q	37TH AVE	CONRAIL HELLGATE	C		O	1	S	8/6/2003	4.818	F	5300	\$7,632,000.00	2
2230620	Q	37TH ST	278I (B.Q.E.)			A	2	S	4/8/2004	4.667	F	5300	\$7,632,000.00	1
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL		O	9	S	9/10/2003	6.125	V	34100	\$49,104,000.00	2
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL		O	14	S	9/9/2003	6.556	V	48200	\$69,408,000.00	2
2243320	K	3RD AVE	LIRR BAY RIDGE	N		O	4	S	8/25/2003	5.542	G	17230	\$24,811,200.00	10
2244160	K	3RD AVE	SHORE RD DRIVE			O	1	S	5/28/2003	6.818	V	4360	\$6,278,400.00	10
2230570	Q	41ST AVE	278I (B.Q.E.)			A	3	S	2/13/2004	4.931	F	8800	\$12,672,000.00	2
2247390	Q	41ST AVE	CONRAIL HELLGATE	C		O	2	S	8/6/2003	4.942	F	4400	\$6,336,000.00	2
2247410	Q	43RD AVE	CONRAIL	C		O	1	S	8/8/2003	5.033	G	4800	\$6,912,000.00	2
2247420	Q	44TH AVE	CONRAIL	C		O	1	S	8/8/2003	5.033	G	5100	\$7,344,000.00	2
2230840	Q	44TH ST	GCP			A	2	S	4/16/2004	4.847	F	5000	\$7,200,000.00	1
2247430	Q	45TH AVE	CONRAIL	C		O	1	S	8/8/2003	5.510	G	2400	\$3,456,000.00	2
2230820	Q	47TH ST	GCP			A	2	S	4/20/2004	4.944	F	5700	\$8,208,000.00	1
2066002	Q	495I (2066000)	WOODHAVEN BLVD			A	2	S	6/5/2003	6.197	V	25200	\$36,288,000.00	6
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L		O	5	S	9/1/2004	4.292	F	20200	\$29,088,000.00	2
2230800	Q	49TH ST	BQE WEST LEG			A	2	S	3/22/2004	5.333	G	4900	\$7,056,000.00	1
2230890	Q	49TH ST	GCP			A	2	S	6/11/2004	4.778	F	5500	\$7,920,000.00	1
2231270	K	4TH AVE	BSHP			A	2	S	3/24/2004	4.842	F	6100	\$8,784,000.00	10
2243330	K	4TH AVE	LIRR BAY RIDGE	NT		O	6	S	10/17/2003	5.819	G	13668	\$19,681,920.00	10
2243839	K	4TH AVE	NYCTA BMT TRACKS	T		O	1	S	11/14/2003	6.633	V	5160	\$7,430,400.00	7
2243400	K	50TH ST	LIRR BAY RIDGE	N		O	2	S	8/14/2003	4.701	F	7100	\$10,224,000.00	12
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L		O-PED	5	C	8/4/2004	3.091	F	700	\$1,008,000	2
2243390	K	52ND ST	LIRR BAY RIDGE	N		O	2	S	12/6/2004	6.467	V	2800	\$4,032,000.00	12
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	8/3/2004	4.491	F	13000	\$18,720,000	4
2247450	Q	57TH AVE	CONRAIL	C		O	1	S	8/11/2003	6.195	V	2248	\$3,237,120.00	5
2066100	K	5TH AVE	27 X PROSPECT EXPWY			A	1	S	4/2/2004	5.208	G	8800	\$12,672,000.00	7
2244480	K	5TH AVE	GREENWOOD CEMETERY			O	1	S	6/2/2003	5.000	G	3600	\$5,184,000.00	7
2243580	K	5TH AVE	LIRR & SEA BEACH	LT		O	4	S	10/29/2004	4.353	F	12500	\$18,000,000.00	10
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	8/2/2004	4.934	F	2293	\$3,301,920	5
2243350	K	60TH ST	LIRR BAY RIDGE	N		O	1	S	8/20/2003	6.383	V	3900	\$5,616,000.00	11
2247540	Q	60TH ST	LIRR MONTAUX DIV	L		O	2	S	6/17/2003	5.264	G	5340	\$7,689,600.00	5
2230520	Q	65TH PLACE	278I (B.Q.E.)			A	2	S	2/4/2004	4.338	F	11600	\$16,704,000.00	2
2247160	Q	65TH PLACE	LIRR N SHR DIV	L		O	3	S	7/2/2003	6.471	V	8381	\$12,068,640.00	2
2243730	K	65TH ST	BMT SEA BEACH	T		O	4	S	8/13/2004	5.947	G	12000	\$17,280,000.00	11
2247150	Q	65TH ST	LIRR N SIDE DIV	L		O	3	S	7/2/2003	6.542	V	6344	\$9,135,360.00	2
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L		O-PED	3	C	8/5/2004	4.414	F	1300	\$1,872,000	6
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I			A	1	S	4/28/2004	4.438	F	2300	\$3,312,000.00	7
2230550	Q	69TH ST	278I (B.Q.E.)			A	2	S	3/11/2004	4.842	F	12600	\$18,144,000.00	2
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C		O	1	S	6/30/2004	5.455	G	6175	\$8,892,000.00	5
2065950	Q	69TH STREET	495I (L.I.E.)			A	2	S	5/30/2003	5.389	G	10336	\$14,883,840.00	5
2243590	K	6TH AVE	LIRR & SEA BEACH	LT		O	5	S	10/14/2003	6.528	V	14200	\$20,448,000.00	10
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L		O	9	S	11/21/2004	5.528	G	12276	\$17,677,440.00	8
2230560	Q	70TH ST	278I (B.Q.E.)			A	2	S	3/11/2004	5.125	G	8500	\$12,240,000.00	2
2248300	Q	71ST AVE	COOPER AVE			O	1	S	5/9/2003	4.458	F	2800	\$4,032,000.00	5
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		P	O	3	S	6/2/2004	4.941	F	7300	\$10,512,000.00	64
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		P	O	1	S	2/11/2004	4.867	F	3600	\$5,184,000.00	64
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		P	O	2	S	2/13/2004	4.789	F	5800	\$8,352,000.00	64
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		P	O	1	S	2/27/2002	5.190	G	5000	\$7,200,000.00	64
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		P	A	10	S	5/2/2003	4.593	F	27400	\$39,456,000.00	7
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		P	AR	21	S	5/23/2003	4.452	F	7114	\$10,244,160.00	7

INVENTORY SORTED BY FEATURE CARRIED														
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226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		P	AR	4	S	5/16/2003	4.242	F	3131	\$4,508,640.00	7
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		P	A	34	S	5/13/2003	3.934	F	24130	\$34,747,200.00	7
2243600	K	7TH AVE	LIRR & SEA BEACH	LT		O	7	S	10/29/2004	5.556	G	18913	\$27,234,720.00	10
2243920	K	7TH AVE	NYCTA BMT YARD	T		O	2	S	10/21/2004	6.507	V	5200	\$7,488,000.00	7
2247220	Q	80TH ROAD	LIRR MAIN LINE	L		O	3	S	6/24/2003	5.000	G	4100	\$5,904,000.00	9
2247570	Q	80TH ST	71ST TO 77TH AVE	L		O	5	S	5/3/2004	5.102	G	11725	\$16,884,000.00	5
2231250	K	81ST ST PED BR	BSHP		P	A-PED	5	C	10/1/2004	4.483	F	3100	\$4,464,000	10
2247230	Q	82ND AVE	LIRR MAIN LINE	L		O	3	S	6/24/2003	5.443	G	4100	\$5,904,000.00	9
2243570	K	86TH ST	LIRR & SEA BEACH	LT		O	1	S	8/9/2004	6.172	V	3840	\$5,529,600.00	13
2243610	K	8TH AVE	LIRR & SEA BEACH	LT		O	4	S	11/13/2003	6.319	V	10834	\$15,600,960.00	10
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L		O	3	S	6/23/2003	7.000	V	2760	\$3,974,400.00	4
2231260	K	92ND ST PED BR	BSHP		P	A-PED	6	C	9/7/2004	4.016	F	3000	\$4,320,000	10
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L		O-PED	5	C	8/9/2004	4.333	F	500	\$720,000	4
2243840	K	9TH AVE	NYCTA BMT YARD	T		O	5	S	10/27/2003	6.514	V	12440	\$17,913,600.00	12
2243940	K	9TH AVE	NYCTA IND SBWY	T		O	5	S	11/4/2003	4.737	F	11900	\$17,136,000.00	12
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD			O	1	S	2/24/2004	4.061	F	5600	\$8,064,000.00	10
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S		O	3	S	10/17/2003	4.787	F	6500	\$9,360,000.00	3
2268920	R	AMBOY ROAD	LEMON CREEK			WO	1	S	3/17/2004	6.667	V	1310	\$1,886,400.00	3
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L		O	4	S	5/19/2004	4.113	F	3200	\$4,608,000.00	5
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S		O	2	S	10/19/2003	4.455	F	4500	\$6,480,000.00	3
2231580	Q	AQUEDUCT RCTK RAMP	BSOP			A	4	S	6/24/2004	4.264	F	14000	\$20,160,000.00	10
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM			WO	1	S	5/9/2003	4.122	F	2000	\$2,880,000.00	3
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S		O	1	S	12/2/2004	4.833	F	3700	\$5,328,000.00	3
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG			A	4	S	3/22/2004	4.221	F	8200	\$11,808,000.00	1
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L		O	75	S	7/14/2004	3.845	F	135100	\$194,544,000.00	16
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE			O	2	S	7/25/2003	4.737	F	5520	\$7,948,800.00	5
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE			O	2	S	7/25/2003	4.491	F	5600	\$8,064,000.00	16
2243530	K	AVENUE H	LIRR BAY RIDGE	N		O	2	S	8/8/2003	6.338	V	35100	\$50,544,000.00	18
2243750	K	AVENUE O	BMT SEA BEACH	T		O	1	S	10/22/2003	5.863	G	4658	\$6,707,520.00	11
2243760	K	AVENUE P	BMT SEA BEACH	T		O	1	S	10/29/2003	6.791	V	5544	\$7,983,360.00	11
2243790	K	AVENUE S	BMT SEA BEACH	T		O	1	S	11/5/2003	6.133	V	5360	\$7,718,400.00	15
2243800	K	AVENUE T	BMT SEA BEACH	T		O	1	S	11/6/2003	6.033	V	5360	\$7,718,400.00	11
2243810	K	AVENUE U	BMT SEA BEACH	T		O	1	S	8/27/2004	6.137	V	5880	\$8,467,200.00	15
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S		O	3	S	10/19/2003	5.269	G	5900	\$8,496,000.00	2
2241180	B	BARRETTO ST	AMTRAK	A		O	1	S	7/26/2004	6.219	V	5313	\$7,650,720.00	2
2232000	M	BATTERY PLACE	FDR DRIVE			AT	2	C	7/19/2004	4.500	F	75000	\$108,000,000	1
2231290	K	BAY 8TH ST	BSHP			A	1	S	5/5/2003	5.984	G	4920	\$7,084,800.00	11
2243740	K	BAY PKWY	BMT SEA BEACH	T		O	4	S	8/11/2004	4.974	F	16800	\$24,192,000.00	11
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE			A	1	S	3/12/2004	4.442	F	7300	\$10,512,000.00	13
2231900	Q	BCIP	FORT TOTTEN ENTRANCE			A	1	S	6/15/2004	4.672	F	4900	\$7,056,000.00	7
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD			A	1	C	7/7/2004	4.467	F	1200	\$1,728,000.00	13
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	10/15/2003	4.737	F	7800	\$11,232,000.00	10
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	2/19/2004	5.105	G	7100	\$10,224,000.00	10
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S		O	2	S	10/23/2003	5.697	G	3700	\$5,328,000.00	2
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB			O	1	S	5/19/2003	4.400	F	3600	\$5,184,000.00	84
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N		O	6	S	11/11/2004	4.639	F	12000	\$17,200,000.00	14
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.578	F	6400	\$9,216,000.00	27
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T		O	4	S	9/13/2004	6.500	V	46300	\$66,672,000.00	7
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	4/6/2004	4.333	F	400	\$576,000	3
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L		O	1	S	6/13/2003	5.881	G	4320	\$6,220,800.00	11
2231770	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	3/12/2004	4.781	F	3200	\$4,608,000.00	13
2231790	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	1/7/2004	4.656	F	3400	\$4,896,000.00	13
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S		O-PED	12	C	6/11/2003	3.980	F	500	\$720,000	3
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	11/26/2003	3.982	F	2700	\$3,888,000.00	14
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N		O	3	S	11/5/2004	5.309	G	5020	\$7,228,800.00	16
2240410	Q	BORDEN AVE	DUTCH KILLS			WMO	2	S	6/16/2004	3.958	F	8400	\$12,096,000.00	2
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER			WO	14	S	6/5/2003	4.528	F	95700	\$137,808,000.00	12
2242110	B	BOSTON ROAD	BRONX RIVER			WO	1	S	5/17/2004	4.273	F	6200	\$8,928,000.00	27
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		P	WO-PED	1	S	5/19/2004	4.967	F	2200	\$3,168,000.00	27
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L		O	1	S	5/5/2004	5.863	G	4974	\$7,162,560.00	7
2230780	Q	BQE EAST LEG	30TH AVE			A	3	S	6/10/2003	6.746	V	7071	\$10,182,240.00	3
2230720	Q	BQE EAST LEG	BQE NB WEST LEG			A	1	S	6/11/2003	6.667	V	20800	\$29,952,000.00	1
2230700	Q	BQE EAST LEG	TO BQE WEST LEG			A	14	S	11/8/2004	6.915	V	16800	\$24,192,000.00	1
2230690	Q	BQE EAST LEG NB	32ND AVE			A	1	S	6/3/2004	7.000	V	6160	\$8,870,400.00	1
2230750	Q	BQE EAST LEG SB	31ST AVE			A	1	S	7/8/2003	6.068	V	2900	\$4,176,000.00	1
2230770	Q	BQE WEST LEG	30TH AVE			A	1	S	7/2/2003	7.000	V	6199	\$8,926,560.00	1
2230830	Q	BQE WEST LEG	GCP			A	2	S	7/14/2004	4.861	F	7600	\$10,944,000.00	1

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2230760	Q	BQE WEST LEG NB	31ST AVE			A	1	S	10/5/2004	7.000	V	2900	\$4,176,000.00	1
2230740	Q	BQE WEST LEG SB	31ST AVE			A	1	S	7/8/2003	7.000	V	5246	\$7,554,240.00	1
2231829	Q	BRADDOCK AVE	BCIP			A	2	S	2/11/2004	4.909	F	10600	\$15,264,000.00	13
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE		P	WO-PED	1	C	11/17/2004	4.586	F	972	\$1,399,680	1
2230590	Q	BROADWAY	278I (B.Q.E.)			O	2	S	4/27/2004	3.842	F	16000	\$23,040,000.00	2
2240137	B M	BROADWAY BRIDGE	HARLEM RIVER	T		WMO	3	S	10/13/2003	3.986	F	46848	\$67,461,120.00	12
2242072	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/5/2004	5.033	G	1800	\$2,592,000.00	12
2242082	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/6/2004	4.467	F	2800	\$4,032,000.00	12
2242071	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/5/2004	4.700	F	1800	\$2,592,000.00	12
2242081	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/6/2004	4.467	F	2800	\$4,032,000.00	12
2229560	B	BRONX PELHAM PKWY	AMTRAK,METRO NORTH	MA		A	3	S	11/16/2004	4.778	F	24591	\$35,411,040.00	11
2242010	B	BRONX PELHAM PKWY	BRONX RIVER			WA	1	S	5/18/2004	4.931	F	9200	\$13,248,000.00	27
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY			A	2	S	9/20/2004	4.184	F	17600	\$25,344,000.00	10
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO			A	1	S	8/4/2003	5.276	G	6300	\$9,072,000.00	27
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N		O	3	S	8/6/2003	6.055	V	4500	\$6,480,000.00	18
2267860	K	BROOKLYN BR APPROACH	SANDS STREET			O	1	S	6/17/2004	4.732	F	6490	\$9,345,600.00	2
2240019	K M	BROOKLYN BRIDGE	278I (B.Q.E.)			WEO	75	S	11/2/2004	3.153	F	503788	\$725,454,720.00	3
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		P	A-PED	35	C	4/17/2003	4.500	F	46184	\$66,504,960.00	6
2241099	B	BRUCKNER BLVD	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	6.734	V	6700	\$9,648,000.00	1
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST			A	2	S	5/7/2003	4.645	F	32900	\$47,376,000.00	1
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK			WMA	17	S	10/14/2004	3.821	F	39400	\$56,736,000.00	9
2076929	B	BRUCKNER EXPWY	AMTRAK	A		A	1	S	5/8/2003	4.900	F	3800	\$5,472,000.00	2
2075352	B	BRUCKNER EXPWY NB	AMTRAK	A		A	1	S	8/9/2004	3.547	F	10900	\$15,696,000.00	2
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER			WMA	8	S	6/13/2003	4.761	F	22300	\$32,112,000.00	2
2075351	B	BRUCKNER EXPWY SB	AMTRAK	A		A	1	S	8/9/2004	3.625	F	11600	\$16,704,000.00	2
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER			WMA	3	S	6/12/2003	5.528	G	12400	\$17,856,000.00	2
2241210	B	BRYANT AVE	AMTRAK	A		O	1	S	8/10/2004	3.153	F	5300	\$7,632,000.00	2
2231329	K	BSHP	26TH AVE			A	1	S	4/8/2004	4.800	F	6700	\$9,648,000.00	13
2231319	K	BSHP	BAY PKWY			A	1	S	4/6/2004	4.395	F	7200	\$10,368,000.00	11
2231249	K	BSHP	BAY RIDGE AVE			A	1	S	4/9/2004	3.667	F	4900	\$7,056,000.00	10
2231429	K	BSHP	BEDFORD AVE			A	3	S	4/21/2004	4.278	F	12000	\$17,280,000.00	15
2231509	K	BSHP	FRESH CREEK			WA	5	S	8/4/2004	3.222	F	23000	\$33,120,000.00	56
2231450	K	BSHP	GERRITSEN INLET			WA	11	S	8/3/2004	3.687	F	46400	\$66,816,000.00	56
2231479	K	BSHP	MILL BASIN			WMA	14	S	7/20/2004	3.254	F	73500	\$105,840,000.00	18
2231439	K	BSHP	NOSTRAND AVE			A	3	S	5/10/2004	4.097	F	13000	\$18,720,000.00	15
2231419	K	BSHP	OCEAN AVE			A	3	S	4/19/2004	4.486	F	14000	\$20,160,000.00	15
2231360	K	BSHP	OCEAN PKWY			A	2	S	12/6/2004	7.000	V	11800	\$16,992,000.00	13
2231489	K	BSHP	PAERDEGAT BASIN			WA	15	S	9/9/2004	3.130	F	58300	\$83,952,000.00	18
2231499	K	BSHP	ROCKAWAY PKWY			A	4	S	8/24/2004	4.111	F	11500	\$16,560,000.00	56
2231409	K	BSHP	SHEEPSHEAD BAY ROAD			A	1	S	4/20/2004	4.807	F	6500	\$9,360,000.00	15
2230790	Q	BULOVA AVE	BQE WEST LEG			A	2	S	3/22/2004	5.667	G	3300	\$4,752,000.00	1
2269770	R	BUS STA ENTR RAMP	SIRT		F	O	19	S	12/1/2004	4.431	F	39333	\$56,639,520.00	1
2269790	R	BUS STATION EXIT RAMP	SIRT		F	O	7	S	11/20/2004	4.722	F	28721	\$41,358,240.00	1
2269740	R	BUS STATION NORTH	SIRT		F	O	12	S	11/16/2004	4.820	F	64605	\$93,031,200.00	1
2269750	R	BUS STATION SOUTH	SIRT		F	O	12	S	11/15/2004	4.520	F	154688	\$222,750,720.00	1
2247460	Q	CALDWELL AVE	CONRAIL	C		O	1	S	6/29/2004	6.639	V	2243	\$3,229,920.00	5
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L		O	7	S	11/20/2004	4.931	F	10823	\$15,585,120.00	8
2240260	K	CARROLL ST	GOWANUS CANAL			WMO	2	S	8/12/2004	4.803	F	3000	\$4,320,000.00	6
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T		O-PED	3	C	9/26/2002	5.484	G	600	\$864,000	9
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/18/2003	4.500	F	20800	\$29,952,000.00	14
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/10/2003	4.684	F	600	\$864,000	3
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		P	O	1	S	6/2/2004	5.267	G	2000	\$2,880,000.00	64
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		P	WO	3	S	4/16/2003	5.316	G	7400	\$10,656,000.00	55
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		P	O	1	C	7/15/2004	4.233	F	1200	\$1,728,000	64
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY			O-PED	8	C	9/20/2004	5.925	G	3344	\$4,815,360.00	1
2249880	R	CHELSEA ROAD	SAWMILL CREEK			WO	1	S	5/12/2003	6.981	V	2205	\$3,175,200.00	2
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/21/2003	4.545	F	18200	\$26,208,000.00	14
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY			WO	7	S	10/20/2004	3.500	F	28900	\$41,616,000.00	28
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M		O	1	S	3/22/2004	4.422	F	6300	\$9,072,000.00	3
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		P	O	1	C	6/10/2003	4.500	F	900	\$1,296,000	55
2231940	Q	CLINTONVILLE ST	BCIP			A	2	S	1/14/2004	4.727	F	7400	\$10,656,000.00	7
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S		O	3	S	12/7/2004	6.264	V	5270	\$7,588,800.00	2
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		P	O	1	C	7/15/2004	4.500	F	750	\$1,080,000	64
2231570	Q	COHANCY ST	BSOP			A	2	S	4/6/2004	4.636	F	6400	\$9,216,000.00	10
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)			A	1	S	4/26/2004	4.583	F	16500	\$23,760,000.00	2

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M		O	1	S	4/8/2004	4.188	F	17800	\$25,632,000.00	1
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB			O	1	S	10/25/2004	4.833	F	3800	\$5,472,000.00	5
2231380	K	CONEY ISLAND AVE	BSHP			A	4	S	9/8/2003	6.292	V	19866	\$28,607,040.00	13
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N		O	1	S	11/17/2004	5.234	G	3231	\$4,652,640.00	12
2230390	K	CONGRESS ST	278I (B.Q.E.)			A	2	S	4/7/2004	4.250	F	5000	\$7,200,000.00	6
2246100	M	CONTRAL DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.200	F	6000	\$8,640,000.00	64
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		P	O	1	S	2/9/2004	5.133	G	2200	\$3,168,000.00	12
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		P	A	4	S	2/10/2004	4.156	F	4100	\$5,904,000.00	3
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L		O	1	S	6/13/2003	6.529	V	3379	\$4,865,760.00	11
2243110	K	CORTEYOU ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	12/12/2003	4.044	F	2900	\$4,176,000.00	14
2249280	R	COZZINS BLVD PED BRDG	SIRT SOUTH SHORE	S		O-PED	7	C	6/17/2003	4.902	F	200	\$288,000	3
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		P	O	1	C	7/14/2004	6.000	G	1200	\$1,728,000	64
2231880	Q	CROCHERON PK PED	BCIP		P	A-PED	9	C	10/5/2004	4.750	F	2300	\$3,312,000	11
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	11/11/2003	4.158	F	6000	\$8,640,000.00	14
2231340	K	CROPSEY AVE	BSHP			A	2	S	4/12/2004	5.000	G	13100	\$18,864,000.00	13
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	7/7/2003	5.169	G	9400	\$13,536,000.00	13
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	9/22/2004	5.028	G	9400	\$13,536,000.00	13
2231559	Q	CROSS BAY BLVD	BSHP			A	4	S	4/6/2004	5.278	G	23205	\$33,415,200.00	10
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD			O	2	S	5/7/2004	6.296	V	17000	\$24,480,000.00	10
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY			A	1	S	5/12/2004	5.250	G	9508	\$13,691,520.00	13
2242030	B	CROTONA AVE	BRONX PELHAM PKWY			O	2	S	4/13/2004	5.447	G	7600	\$10,944,000.00	6
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T		O	3	S	12/3/2003	5.181	G	4800	\$6,912,000.00	9
2230070	Q	CYP HILLS CEM EAST	JACKIE ROBINSON PKWY			A	3	S	4/8/2004	4.114	F	4400	\$6,336,000.00	5
2230050	Q	CYP HILLS CEM WEST	JACKIE ROBINSON PKWY			A	3	S	4/8/2004	3.955	F	4400	\$6,336,000.00	5
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY			A	1	S	5/7/2004	5.611	G	5000	\$7,200,000.00	5
2249160	R	DE HART AVE	B&O RAILROAD	O		O	4	S	5/5/2003	6.500	V	6700	\$9,648,000.00	1
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		P	A-PED	9	C	8/15/2004	4.449	F	2900	\$4,176,000	3
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C		O	11	S	6/4/2004	5.306	G	30192	\$43,476,480.00	4
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	12/10/2003	5.809	G	4875	\$7,020,000.00	14
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	10/28/2004	5.490	G	4825	\$6,948,000.00	14
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L		O	3	S	5/7/2004	5.288	G	6300	\$9,072,000.00	11
2232180	M	E 103RD ST PED BRDG	FDR DRIVE			A-PED	20	C	7/29/2003	5.000	G	6000	\$8,640,000	11
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	12/16/2004	6.326	V	1632	\$2,350,080	3
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		P	A-PED	14	C	2/2/2004	3.800	F	2600	\$3,744,000	11
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		P	A-PED	23	C	10/24/2004	4.500	F	2500	\$3,600,000	11
2231390	K	E 12TH ST	BSHP			A	4	S	4/16/2004	4.764	F	17200	\$24,768,000.00	15
2233080	K	E 14 ST PED BR	BSHP			A-PED	14	C	7/19/2004	4.588	F	4700	\$6,768,000	15
2241550	B	E 144TH ST	METRO NORTH RR HAR	M		O	2	S	6/11/2003	6.708	V	8290	\$11,937,600.00	1
2241129	B	E 149TH ST	AMTRAK	A		O	2	S	8/3/2004	4.620	F	12575	\$18,108,000.00	1
2241560	B	E 149TH ST	METRO NORTH RR HAR	M		O	8	S	4/9/2004	4.625	F	27900	\$40,176,000.00	1
2241050	B	E 149TH ST/JACKSON AVE	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	4.850	F	65000	\$93,600,000.00	1
2243450	K	E 14TH ST	LIRR BAY RIDGE	N		O	1	S	11/15/2004	5.383	G	1775	\$2,556,000.00	14
2270030	B	E 156TH ST	ACCESS TO HOUSING		ED	O	16	S	12/17/2004	3.537	F	49696	\$71,562,240.00	1
2241010	B	E 156TH STREET	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	4.556	F	2400	\$3,456,000.00	1
2241600	B	E 158TH ST	METRO NORTH RR HAR	M		O	1	S	6/10/2003	5.233	G	3400	\$4,896,000.00	1
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N		O-PED	3	C	4/17/2002	3.650	F	900	\$1,296,000	14
2241610	B	E 161ST ST	METRO NORTH RR HAR	M		O	1	S	6/10/2003	5.383	G	6600	\$9,504,000.00	1
2241020	B	E 161ST STREET	CONRAIL PT MORRIS	C		O	1	S	8/31/2004	6.783	V	12800	\$18,432,000.00	1
2241620	B	E 162ND ST	METRO NORTH RR HAR	M		O	1	S	4/14/2004	4.984	F	4700	\$6,768,000.00	3
2241030	B	E 163RD STREET	CONRAIL PT MORRIS	C		O	1	S	5/25/2004	4.778	F	3200	\$4,608,000.00	3
2241630	B	E 165TH ST	METRO NORTH RR HAR	M		O	1	S	4/15/2004	4.350	F	16400	\$23,616,000.00	3
2241650	B	E 167TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	5.863	G	3363	\$4,842,720.00	3
2241660	B	E 168TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	4.922	F	7700	\$11,088,000.00	3
2241670	B	E 169TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2004	4.500	F	3300	\$4,752,000.00	3
2241680	B	E 170TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2004	6.451	V	3150	\$4,536,000.00	3
2241720	B	E 173RD ST	METRO NORTH RR HAR	M		O	1	S	4/19/2004	4.391	F	3000	\$4,320,000.00	3
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A		A	13	S	10/28/2004	4.375	F	47430	\$68,299,200.00	9
2241740	B	E 175TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2004	4.031	F	3600	\$5,184,000.00	3
2241269	B	E 177TH ST	AMTRAK	A		O	3	S	8/12/2004	5.514	G	16606	\$23,912,640.00	9
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	1	C	7/28/2004	5.921	G	700	\$1,008,000	6
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	6	C	7/27/2004	6.000	G	700	\$1,008,000	6
2242400	B	E 180TH ST	BRONX RIVER			WO	1	S	11/23/2004	4.810	F	4500	\$6,480,000.00	6
2241790	B	E 180TH ST	METRO NORTH RR HAR	M		O	1	S	4/15/2004	4.078	F	5000	\$7,200,000.00	6
2241800	B	E 183TH ST	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.234	F	3600	\$5,184,000.00	6
2241820	B	E 187TH ST	METRO NORTH RR HAR	M		O	1	S	4/16/2004	4.750	F	3800	\$5,472,000.00	6



INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2241810	B	E 188TH ST	METRO NORTH RR HAR	M		O	1	S	4/19/2004	4.188	F	5300	\$7,632,000.00	6
2241839	B	E 189TH ST	METRO NORTH RR HAR	M		O	1	S	6/9/2003	6.533	V	43157	\$62,146,080.00	6
2242459	B	E 233RD ST	BRONX RIVER			WO	1	S	5/27/2004	4.367	F	7000	\$10,080,000.00	12
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY			O	1	S	2/13/2004	5.467	G	5300	\$7,632,000.00	12
2241870	B	E 233RD ST	METRO NORTH RR HAR	M		O	1	S	4/20/2004	5.157	G	7664	\$11,036,160.00	12
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M		O	28	S	11/7/2003	4.653	F	49500	\$71,280,000.00	12
2246540	M	E 34TH ST	PARK AVE TUNNEL			OT	1	S	8/27/2004	4.033	F	36200	\$52,128,000.00	5
2243420	K	E 3RD ST	LIRR BAY RIDGE	N		O	1	S	8/28/2003	5.082	G	1500	\$2,160,000.00	12
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		P	A-PED	10	C	3/7/2004	4.188	F	2800	\$4,032,000	6
2233040	M	E 60TH ST	FDR DRIVE			A	17	S	5/3/2004	3.409	F	24480	\$35,251,200.00	6
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		P	A-PED	13	C	3/7/2004	5.141	G	2100	\$3,024,000	8
2245380	M	E 66TH ST	PED WALK N. OF ZOO		P	O	1	S	6/2/2004	5.267	G	1500	\$2,160,000.00	8
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	3/14/2004	4.431	F	2200	\$3,168,000	3
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		P	A-PED	19	C	3/21/2004	6.182	V	1800	\$2,592,000	8
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		P	A-PED	9	C	3/21/2004	3.000	P	1700	\$2,448,000	8
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		P	A-PED	3	C	10/11/2004	3.213	F	900	\$1,296,000.00	8
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M		O	1	S	9/1/2004	4.725	F	3200	\$4,608,000.00	8
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		P	O-PED	1	C	10/23/2004	4.500	F	3700	\$5,328,000	64
2242149	B	E TREMONT AVE	BRONX RIVER			WO	2	S	5/20/2004	4.722	F	12900	\$18,576,000.00	6
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY			A	2	S	10/31/2003	4.069	F	10200	\$14,688,000.00	10
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M		O	1	S	10/10/2003	6.700	V	7300	\$10,512,000.00	6
2242260	B	EAGLE AVE	E 161ST ST			O	1	S	4/8/2004	5.234	G	2800	\$4,032,000.00	1
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		P	O	1	C	7/12/2004	4.533	F	1200	\$1,728,000	5
2244030	K	EAST DRIVE	BRIDLE PATH		P	O	1	S	4/10/2003	5.041	G	2000	\$2,880,000.00	55
2244040	K	EAST DRIVE	EAST WOOD ARCH		P	O	1	C	6/30/2003	4.200	F	900	\$1,296,000	55
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		P	O	1	S	2/24/2004	5.056	G	1900	\$2,736,000.00	64
2246069	M	EAST DRIVE	PEDESTRIAN WALK		P	O	1	S	6/2/2004	4.500	F	2700	\$3,888,000.00	64
2246470	M	EAST DRIVE	THE LOCH		P	WO	1	S	3/2/2004	4.700	F	1100	\$1,584,000.00	64
2246110	M	EAST DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.567	F	6000	\$8,640,000.00	64
2246230	M	EAST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/5/2004	4.533	F	6500	\$9,360,000.00	64
2246250	M	EAST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/1/2004	4.433	F	5100	\$7,344,000.00	64
2246270	M	EAST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/1/2004	3.967	F	7000	\$10,080,000.00	64
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	12/2/2004	4.621	F	899	\$1,294,560	1
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE			O	1	S	4/21/2004	4.567	F	10300	\$14,832,000.00	5
2241270	B	EAST TREMONT AVE	AMTRAK	A		O	2	S	8/2/2004	5.556	G	22300	\$32,112,000.00	9
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T		O	3	S	9/14/2004	4.917	F	13500	\$19,440,000.00	12
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T		O	1	S	9/22/2004	4.861	F	7700	\$11,088,000.00	9
2247470	Q	ELIOT AVE	CONRAIL	C		O	1	S	8/12/2003	5.250	G	3600	\$5,184,000.00	5
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L		O	2	S	6/18/2003	5.894	G	9550	\$13,752,000.00	5
2248160	Q	ELLIOT AVE	QUEENS BLVD			O	2	S	7/7/2004	4.922	F	13785	\$19,850,400.00	12
2269600	K	ERSKINE STREET	BSHP		A	1	S	10/29/2004	6.141	V	8258	\$11,891,520.00	5	
2241200	B	FAILE ST	AMTRAK	A		O	1	S	7/28/2004	5.797	G	6208	\$8,939,520.00	2
2231620	Q	FARMERS BLVD	BSOP			A	2	S	6/4/2004	4.568	F	6400	\$9,216,000.00	13
2249790	R	FB S OF FOREST AV	STREAM IN PARK		P	WO-PED	3	C	11/30/2004	5.000	G	658	\$947,520	1
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST			AR	17	S	2/18/2004	3.776	F	102225	\$147,204,000.00	1
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.			AT	56	S	6/18/2003	4.773	F	54302	\$78,194,880.00	8
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST			AT	46	S	7/8/2004	2.415	P	70113	\$100,962,720.00	8
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER			A	119	S	8/28/2003	4.415	F	30767	\$44,304,480.00	6
223204A	M	FDR NB TO HOUSTON ST	RELIEF		AR	A	4	S	6/15/2004	4.100	F	6150	\$8,856,000.00	3
2229520	B	FIELDSTON ROAD	HHP			A	1	S	8/20/2003	5.700	G	6600	\$9,504,000.00	8
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S		O	2	S	10/26/2003	6.764	V	5100	\$7,344,000.00	2
2231460	K	FLATBUSH AVE	BSHP			A	2	S	9/5/2003	6.618	V	14058	\$20,243,520.00	56
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T		O	2	S	9/15/2004	5.196	G	11300	\$16,272,000.00	9
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N		O	2	S	8/12/2003	4.667	F	5700	\$8,208,000.00	18
2248090	Q	FLSHG MDW PK PED.	LAWRENCE STREET		P	O-PED	3	C	5/11/2002	4.722	F	8418	\$12,121,920	7
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE			O	1	S	5/12/2003	5.125	G	2940	\$4,233,600.00	5
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		P	WO	5	S	4/28/2004	4.891	F	4200	\$6,048,000.00	81
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE		P	WO-PED	5	C	12/14/2004	4.741	F	4102	\$5,906,880	81
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD		P	WO-PED	4	C	4/20/2002	1.000	P	1891	\$2,723,040	81
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE		P	WO-PED	5	C	8/17/1978	5.809	G	6321	\$9,102,240	81
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		P	WO-PED	1	C	11/30/2004	4.947	F	800	\$1,152,000	1
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		P	WO	1	S	9/9/2003	4.767	F	1600	\$2,304,000.00	1
2248340	Q	FOREST PARK DR	MYRTLE AVE		P	O	3	S	5/8/2003	5.081	G	5100	\$7,344,000.00	9
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	P	O	6	S	4/23/2004	5.254	G	10000	\$14,400,000.00	9
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	P	O	5	S	5/14/2004	5.404	G	6000	\$8,640,000.00	9
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	LT		O	3	S	10/20/2004	5.492	G	14800	\$21,312,000.00	10
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		P	O	1	C	7/30/2004	5.133	G	750	\$1,080,000	12

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2245050	M	FORT TRYON PARK	UNDERPASS		P	O	1	C	7/30/2004	4.867	F	750	\$1,080,000	12
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		P	O	1	S	3/8/2004	4.267	F	6600	\$9,504,000.00	12
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	10/14/2004	4.550	F	3000	\$4,320,000.00	14
2231930	Q	FRANCIS LEWIS BLVD	BCIP			A	3	S	1/14/2004	4.773	F	9100	\$13,104,000.00	7
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.			A	1	S	3/26/2004	5.333	G	6000	\$8,640,000.00	13
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.			A	1	S	3/26/2004	4.867	F	6000	\$8,640,000.00	13
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD			O	1	S	6/3/2003	5.167	G	7085	\$10,202,400.00	8
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	6/12/2003	4.459	F	800	\$1,152,000	2
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR			OR	19	S	8/18/2004	4.119	F	29900	\$43,056,000.00	11
2242120	B	FTBG N OF RTE 1	BRONX RIVER		P	WO-PED	1	C	6/15/2002	4.029	F	1904	\$2,741,760	9
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE		P	WO-PED	1	C	6/15/2002	5.000	G	1260	\$1,814,400	55
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH		P	O-PED	1	C	12/22/2004	5.000	G	1026	\$1,477,440	64
2246320	M	FTBRG OPP 77TH ST	THE LAKE		P	WO-PED	3	C	12/29/2004	4.862	F	1125	\$1,620,000	64
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	21	S	6/9/2003	4.726	F	9095	\$13,096,800.00	7
2241420	B	GERARD AVE	METRO NORTH RR HUD	M		O	1	S	4/30/2004	6.766	V	5063	\$7,290,720.00	4
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S		O	1	S	12/3/2004	5.844	G	3042	\$4,380,480.00	3
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N		O	2	S	11/8/2004	6.559	V	5700	\$8,208,000.00	16
2065940	Q	GRAND AVE	495I (L.I.E.)			A	2	S	9/1/2004	5.264	G	12376	\$17,821,440.00	5
2247440	Q	GRAND AVE	CONRAIL	C		O	1	S	8/11/2003	6.567	V	3280	\$4,723,200.00	5
2247180	Q	GRAND AVE	LIRR MAIN LINE	L		O	3	S	5/25/2004	4.849	F	7415	\$10,677,600.00	4
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD			O	1	S	4/22/2004	4.765	F	8418	\$12,121,920.00	7
2242360	B	GRAND CONCOURSE	BURNSIDE AVE			O	2	S	10/21/2004	4.441	F	8400	\$12,096,000.00	5
2242299	B	GRAND CONCOURSE	E 138TH ST			O	1	S	5/9/2003	5.600	G	9500	\$13,680,000.00	1
2242259	B	GRAND CONCOURSE	E 161ST ST			O	1	S	10/18/2004	3.583	F	24100	\$34,704,000.00	4
2242280	B	GRAND CONCOURSE	E 167TH ST			O	2	S	9/22/2004	4.544	F	42900	\$61,776,000.00	4
2242300	B	GRAND CONCOURSE	E 170TH ST			O	2	S	6/24/2004	4.789	F	39300	\$56,592,000.00	4
2242319	B	GRAND CONCOURSE	E 174TH ST	T		O	1	S	4/9/2004	4.067	F	14900	\$21,456,000.00	4
2242329	B	GRAND CONCOURSE	E 175TH ST	T		O	1	S	10/5/2004	4.800	F	11900	\$17,136,000.00	4
2242380	B	GRAND CONCOURSE	E 204TH ST			O	1	S	5/7/2003	5.766	G	9272	\$13,351,680.00	7
2242330	B	GRAND CONCOURSE	E TREMONT AVE			O	1	S	10/14/2003	6.483	V	11700	\$16,848,000.00	5
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE			O	2	S	10/20/2004	4.714	F	16500	\$23,760,000.00	7
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	TCM		O	1	S	4/7/2004	3.844	F	16100	\$23,184,000.00	4
2240390	K Q	GRAND ST BRIDGE	NEWTOWN CREEK			WMO	2	S	9/3/2004	4.486	F	5100	\$7,344,000.00	5
2249100	R	GRANITE AVE	B&O RAILROAD	O		O	4	S	4/23/2004	6.034	V	7300	\$10,512,000.00	1
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S		O	3	S	10/18/2003	6.750	V	3950	\$5,688,000.00	3
2240370	K Q	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L		WMO	12	S	11/2/2004	5.000	G	76106	\$109,592,640.00	2
2231370	K	GUIDER AV RAMP TO BSHP	BSHP			A	4	S	5/10/2004	3.903	F	12800	\$18,432,000.00	13
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M		O	2	S	4/20/2004	4.103	F	9000	\$12,960,000.00	12
2242430	B	GUN HILL ROAD	BRONX BLVD			O	4	S	6/25/2004	4.982	F	9400	\$13,536,000.00	12
2242440	B	GUN HILL ROAD	BRONX RIVER			WO	1	S	3/1/2004	5.167	G	8700	\$12,528,000.00	12
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T		O	1	S	9/14/2004	6.906	V	75000	\$108,000,000.00	11
2231610	Q	GUY R. BREWER BLVD	BSOP			A	2	S	5/13/2003	6.833	V	12342	\$17,772,480.00	13
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S		O	3	S	10/19/2003	4.869	F	6900	\$9,936,000.00	3
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	8/13/2004	4.028	F	7300	\$10,512,000.00	7
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	8/10/2004	4.014	F	7300	\$10,512,000.00	6
2065930	Q	HAMILTON PLACE	495I (L.I.E.)			A	2	S	6/4/2004	6.347	V	11111	\$15,999,840.00	5
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S		O	10	S	10/21/2003	5.119	G	10020	\$14,428,800.00	1
2249180	R	HARBOR ROAD	B&O RAILROAD	O		O	4	S	5/6/2003	6.356	V	6615	\$9,525,600.00	1
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.			A	11	S	3/23/2004	3.433	F	51000	\$73,440,000.00	11
2231780	Q	HEMPSTEAD AVE	BCIP			A	2	S	4/22/2004	4.210	F	14200	\$20,448,000.00	13
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY			A	2	S	5/5/2004	4.172	F	9500	\$13,680,000.00	13
2267250	M	HHP	AMTRAK 30TH ST LINE	A		A	55	S	10/29/2004	3.710	F	40000	\$57,600,000.00	7
2229530	B	HHP	BROADWAY			A	1	S	8/21/2003	4.936	F	7500	\$10,800,000.00	8
2229440	B	HHP	KAPPOCK ST			A	1	S	9/22/2003	5.207	G	3900	\$5,616,000.00	8
2266229	M	HHP	PED UNDERPASS @ 148 ST			A	1	S	3/5/2004	5.476	G	1800	\$2,592,000.00	9
2266230	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/2/2004	6.211	V	800	\$1,152,000.00	12
2266240	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/3/2004	5.762	G	1100	\$1,584,000.00	12
2229309	M	HHP	RIVERSIDE PARK			A	1	S	2/20/2004	5.267	G	2400	\$3,456,000.00	7
2229349	M	HHP	W 158 ST	A		A	44	S	8/12/2004	4.268	F	140000	\$201,600,000.00	12
2229312	M	HHP NB	RAMP TO 96 ST			A	1	S	2/27/2004	4.364	F	2000	\$2,880,000.00	7
2229322	M	HHP NB	RAMP TO 96 ST			A	1	S	3/8/2004	5.300	G	2000	\$2,880,000.00	7
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH			A	1	C	7/12/2004	4.900	F	900	\$1,296,000.00	7
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH			A	1	C	7/1/2004	4.833	F	900	\$1,296,000.00	7
2229311	M	HHP SB	RAMP TO 96 ST			A	1	S	2/26/2004	4.273	F	2000	\$2,880,000.00	7
2229321	M	HHP SB	RAMP TO 96 ST			A	1	S	3/8/2004	5.200	G	2000	\$2,880,000.00	7
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A		A	145	S	12/7/2004	3.478	F	236100	\$339,984,000.00	7
2246580	M	HIGH BRIDGE PDOVP	87I - HARLEM RIVER		P	WA-PED	11	P	10/1/85	5.651	G	34115	\$49,125,600	12
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY			A	1	S	4/22/2004	4.667	F	4900	\$7,056,000.00	5

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2230220	K	HIGHLAND BLVD NB	VERMONT AVE			A	1	S	7/11/2003	6.254	V	3995	\$5,752,800.00	5
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	1	S	4/22/2004	4.933	F	3500	\$5,040,000.00	5
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	2	S	4/22/2004	4.974	F	4700	\$6,768,000.00	5
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH		P	O-PED	1	C	12/22/2004	3.667	F	1856	\$2,672,640	5
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T		O	1	S	10/31/2003	6.440	V	6960	\$10,022,400.00	11
2244120	K	HILL DRIVE	PROSPECT PK LAKE		P	WO	3	S	4/18/2003	3.745	F	7800	\$11,232,000.00	55
2231840	Q	HILLSIDE AVE	BCIP			A	2	S	4/30/2004	4.079	F	9672	\$13,927,680.00	13
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL		O	22	S	7/30/2003	6.569	V	99036	\$142,611,840.00	2
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE			WO	3	S	6/26/2003	6.339	V	18302	\$26,354,880.00	13
2232040	M	HOUSTON ST	FDR DRIVE			A	2	S	3/10/2004	3.318	F	11010	\$15,854,400.00	3
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF			AR	4	S	2/5/2004	4.417	F	7642	\$11,004,480.00	3
2267240	M	HRD NB RAMP	HARLEM RIVER DR			A	51	S	10/8/2004	3.000	P	122900	\$176,976,000.00	12
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S		O	2	S	10/14/2003	4.955	F	4900	\$7,056,000.00	3
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS			WMO	4	S	5/26/2004	5.167	G	11544	\$16,623,360.00	2
2241190	B	HUNTS POINT AVE	AMTRAK	A		O	1	S	7/27/2004	4.984	F	13700	\$19,728,000.00	2
2241959	B	HUTCHINSON RVR PKWY	AMTRAK	A		O	1	S	8/6/2004	5.746	G	15444	\$22,239,360.00	10
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER			WMA	7	S	10/26/2004	5.375	G	60500	\$87,120,000.00	10
2249810	R	HYLAN BLVD	LEMON CREEK			WO	1	S	3/17/2004	6.422	V	11400	\$16,416,000.00	3
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST			O	1	S	2/11/2004	4.750	F	5900	\$8,496,000.00	9
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	P	O-PED	6	C	4/26/2004	4.174	F	700	\$1,008,000	12
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		P	O	1	S	6/30/2004	6.826	V	911	\$1,311,840.00	12
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET		P	WO-PED	1	C	12/29/2004	4.931	F	285	\$410,400	12
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY			A	1	S	1/7/2004	5.483	G	4200	\$6,048,000.00	5
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE			A	2	S	1/29/2004	5.321	G	8673	\$12,489,120.00	82
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L		O	1	S	11/24/2004	6.183	V	4517	\$6,504,480.00	2
2231819	Q	JAMAICA AVE	BCIP			A	2	S	2/11/2004	4.773	F	11500	\$16,560,000.00	13
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T		A	3	S	5/5/2003	5.053	G	11800	\$16,992,000.00	7
2249070	R	JOHN ST	B&O RAILROAD	O		O-PED	3	C	2/23/2004	6.806	V	5800	\$8,352,000	1
2247480	Q	JUNIPER BLVD SO	CONRAIL	C		O	1	S	8/12/2003	5.556	G	9000	\$12,960,000.00	5
2230380	K	KANE ST	278I (B.Q.E.)			A	2	S	3/25/2004	4.236	F	5000	\$7,200,000.00	6
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T		O	1	S	10/30/2003	6.767	V	5032	\$7,246,080.00	11
2231449	K	KNAPP ST	BSHP			A	1	S	4/28/2004	4.469	F	9500	\$13,680,000.00	15
2241169	B	LA FAYETTE AVE	AMTRAK	A		O	1	S	8/5/2004	5.794	G	12000	\$17,280,000.00	2
2249110	R	LAKE AVE	B&O RAILROAD	O		O	3	S	4/9/2003	5.926	G	5900	\$8,496,000.00	1
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L		O	3	S	6/25/2003	5.917	G	5460	\$7,862,400.00	9
2241139	B	LEGGETT AVE	AMTRAK	A		O	3	S	8/6/2004	4.690	F	28300	\$40,752,000.00	2
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N		O	4	S	8/12/2003	4.294	F	6400	\$9,216,000.00	16
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S		O	1	S	10/25/2003	5.552	G	4500	\$6,480,000.00	2
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/21/2004	6.922	V	2460	\$3,542,400.00	9
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T		O	4	S	10/4/2004	4.103	F	6100	\$8,784,000.00	55
2231750	Q	LINDEN BLVD	BCIP			A	2	S	2/10/2004	4.295	F	6700	\$9,648,000.00	13
2248040	Q	LINDEN BLVD	CONDUIT AVE			O	1	S	4/15/2004	5.233	G	3352	\$4,826,880.00	10
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N		O-PED	3	C	7/2/2004	5.125	G	2500	\$3,600,000	16
2241159	B	LONGWOOD AVE	AMTRAK	A		O	2	S	8/2/2004	6.042	V	10625	\$15,300,000.00	2
1240090	B M	MACOMBS DAM BRIDGE	HARLEM RIVER			WMO	52	S	8/6/2003	4.169	F	211788	\$304,974,720.00	10
2240079	B M	MADISON AVE BRIDGE	HARLEM RIVER			WMO	31	S	9/1/2004	5.139	G	80000	\$115,200,000.00	11
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	4/8/2004	4.710	F	400	\$576,000	3
2240027	K M	MANHATTAN BRIDGE(LL)	EAST RIVER	T		WEO	23	S	11/12/2002	3.847	F	616390	\$887,601,600.00	3
2240028	K M	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T		WEO	43	S	11/12/2002	4.243	F	587424	\$845,890,560.00	3
2229480	B	MANHATTAN COLL PKWY	HHP			A	3	S	4/30/2003	4.158	F	6200	\$8,928,000.00	8
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY			A	1	S	3/23/2004	5.389	G	4400	\$6,336,000.00	82
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM			WO	2	S	6/9/2003	4.933	F	7000	\$10,080,000.00	1
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE			O	15	S	12/7/2004	4.754	F	14880	\$21,427,200.00	7
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N		O	1	S	11/30/2004	5.422	G	2760	\$3,974,400.00	12
2241110	B	MELROSE AVE	CONRAIL PT MORRIS	C		O	8	S	7/31/2003	6.208	V	37854	\$54,509,760.00	3
2231710	Q	MERRICK BLVD	BLP E.B.			A	1	S	3/26/2004	4.533	F	6000	\$8,640,000.00	13
2231720	Q	MERRICK BLVD	BLP W.B.			A	1	S	3/26/2004	4.200	F	6000	\$8,640,000.00	13
2247500	Q	METROPOLITAN AVE	CONRAIL	C		O	1	S	8/12/2003	4.167	F	18650	\$26,856,000.00	5
2240290	K	METROPOLITAN AVE	ENGLISH KILLS			WMO	5	S	8/31/2004	4.186	F	15245	\$21,952,800.00	1
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L		O	2	S	5/21/2004	3.683	F	20900	\$30,096,000.00	5
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S		O	1	S	10/26/2003	5.603	G	3000	\$4,320,000.00	2
2257569	M	MILLER HIGHWAY	TERRAIN			A	63	S	7/1/2003	5.000	G	264190	\$380,433,600.00	7
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	23	C	9/9/2004	5.686	G	1600	\$2,304,000	1
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T		O	1	S	12/1/2003	6.353	V	2030	\$2,923,200.00	9
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O		O	4	S	4/14/2003	5.339	G	7900	\$11,376,000.00	1
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ			A-PED	3	C	10/13/2004	4.451	F	1200	\$1,728,000.00	1
2230250	B	MOSHOLU PARKWAY	BRONX RIVER			A	5	S	2/26/2004	4.263	F	16300	\$23,472,000.00	27

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C		A	1	S	11/16/2004	4.229	F	5200	\$7,488,000.00	26
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH			A	1	S	2/12/2004	4.724	F	4300	\$6,192,000.00	26
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M		A	1	S	4/20/2004	6.203	V	8880	\$12,787,200.00	27
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP			A	2	S	10/22/2003	5.243	G	7400	\$10,656,000.00	26
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE			A	1	S	4/23/2003	6.016	V	8480	\$12,211,200.00	27
2248100	Q	MOTOR PKWY (PED)	73RD AVE		P	O-PED	3	C	5/18/2002	4.794	F	2640	\$3,801,600	8
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK		P	O-PED	1	C	12/8/2004	4.582	F	963	\$1,386,720	13
2248060	Q	MOTOR PKWY (PED)	BELL BLVD		P	O-PED	2	C	10/29/2004	4.778	F	2648	\$3,813,120	11
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD		P	O-PED	2	C	10/28/2004	4.556	F	2756	\$3,968,640	8
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD		P	O-PED	3	C	5/18/2002	4.839	F	2670	\$3,844,800	8
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD		P	O-PED	3	C	12/8/2004	4.293	F	2940	\$4,233,600	11
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	5.556	G	4000	\$5,760,000.00	7
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L		O	3	S	2/11/2004	5.278	G	6725	\$9,684,000.00	4
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY			A	1	S	3/5/2004	5.611	G	6400	\$9,216,000.00	82
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.			A	1	S	1/8/2004	4.917	F	4000	\$5,760,000.00	13
2231680	Q	N CONDUIT AVE WB	BLP W.B.			A	2	S	1/8/2004	4.932	F	6500	\$9,360,000.00	13
205580A	Q	N.BLVD WB TO 6781 SB	VACANT LAND			AR	16	S	9/2/2004	5.571	G	8600	\$12,384,000.00	7
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	1	C	7/8/2004	4.725	F	300	\$432,000	3
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M		O	10	S	7/26/2003	4.211	F	57750	\$83,160,000.00	12
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S		O	2	S	10/18/2003	4.903	F	7600	\$10,944,000.00	2
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N		O	1	S	10/13/2004	6.900	V	2481	\$3,572,640.00	11
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T		O	3	S	10/11/2004	4.397	F	4100	\$5,904,000.00	14
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL			WMO	3	S	7/18/2003	6.613	V	5772	\$8,311,680.00	6
2269760	R	NORTH RAMP	SIRT		F	O	9	S	11/29/2004	4.347	F	17589	\$25,328,160.00	1
2240440	Q	NORTHERN BLVD	ALLEY CREEK			WO	2	S	6/2/2004	4.750	F	8300	\$11,952,000.00	11
2231870	Q	NORTHERN BLVD	BCIP			A	2	S	8/17/2004	6.431	V	8951	\$12,889,440.00	11
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER			WO	40	S	8/30/2004	4.507	F	78894	\$113,607,360.00	7
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER			WO	40	S	8/30/2004	4.817	F	71900	\$103,536,000.00	7
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N		O	2	S	11/16/2004	5.186	G	4320	\$6,220,800.00	14
2240138	B M	NYCTA IRT	HARLEM RVR/BROADWAY	T		WMO	3	S	10/24/2003	4.882	F	19520	\$28,108,800.00	12
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N		O	2	S	11/12/2004	5.000	G	5000	\$7,200,000.00	14
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY			WO-PED	30	C	5/2/2003	4.070	F	4000	\$5,760,000	15
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N		O	1	S	11/18/2004	5.218	G	7000	\$10,080,000.00	12
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S		O	4	S	10/16/2003	6.306	V	30420	\$43,804,800.00	3
2245470	M	PARK AVE N.B	E 45TH ST			O	1	S	7/27/2004	4.865	F	2400	\$3,456,000.00	5
2245460	M	PARK AVE S.B.	E 45TH ST			O	1	S	7/26/2004	4.946	F	2400	\$3,456,000.00	5
2246550	M	PARK AVE VIADUCT	E 42ND ST			O	10	S	12/22/2004	4.597	F	22150	\$31,896,000.00	6
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL		O	1	S	5/4/2004	6.983	V	3024	\$4,354,560.00	9
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER			WO	1	S	8/31/2004	4.172	F	4700	\$6,768,000.00	27
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.			OE	3	S	2/18/2004	4.250	F	10167	\$14,640,480.00	1
2269780	R	PARKING ENTR RAMP	SIRT		F	O	3	S	11/1/2004	5.125	G	8589	\$12,368,160.00	1
2269730	R	PARKING EXIT RAMP	SIRT		F	O	10	S	11/30/2004	4.194	F	20727	\$29,846,880.00	1
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T		O	6	S	9/28/2004	4.000	F	48700	\$70,128,000.00	14
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L		O	1	S	5/6/2004	5.176	G	4200	\$6,048,000.00	7
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG			OE	12	S	2/24/2004	3.881	F	6489	\$9,344,160.00	3
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG			OE	3	S	4/7/2004	5.310	G	5200	\$7,488,000.00	1
2246160	M	PED BET 73ST&74ST	THE LAKE		P	WO-PED	1	C	6/1/2002	5.000	G	1655	\$2,383,200	64
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK		P	A-PED	3	C	6/8/2002	4.000	F	3480	\$5,011,200	7
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		P	O-PED	1	C	2/14/2004	4.655	F	2300	\$3,312,000	64
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR			O-PED	8	C	7/8/2004	5.318	G	900	\$1,296,000	5
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		P	O-PED	1	C	10/23/2004	4.259	F	5900	\$8,496,000	64
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE		P	WO-PED	4	C	12/29/2004	4.871	F	455	\$655,200	64
2246380	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/3/2004	5.190	G	714	\$1,028,160	64
2246390	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/3/2004	4.627	F	1095	\$1,576,800	64
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST			O-PED	18	C	10/1/2004	4.720	F	2300	\$3,312,000	11
2246030	M	PEDESTRIAN BRIDGE	POND		P	O-PED	1	C	7/29/2004	4.310	F	1400	\$2,016,000	64
M00001	M	PEDESTRIAN TUNNEL	BROADWAY TO			O-PED	1	C	3/9/2004	5.000	G	2000	\$2,880,000.00	12
2241380	B	PELHAM BAY PK PED	AMTRAK	A	P	O-PED	1	C	11/13/1978	5.109	G	4223	\$6,081,120	28
2231519	K	PENNSYLVANIA AVE	BSHP			A	2	S	5/7/2003	6.194	V	6191	\$8,915,040.00	56
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N		O	3	S	11/3/2004	4.471	F	5600	\$8,064,000.00	16
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T		O	2	S	9/17/2004	5.314	G	2500	\$3,600,000.00	9
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		P	A-PED	53	S	7/28/2003	3.571	F	93000	\$133,920,000.00	8
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		P	O	1	C	5/7/2002	4.367	F	900	\$1,296,000	55
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE			O-PED	5	C	6/3/2003	5.837	G	1500	\$2,160,000.00	12
2240639	K Q	PULASKI BRIDGE	NEWTOWN CREEK			WMO	48	S	7/7/2004	4.817	F	205770	\$296,308,800.00	2
2230530	Q	QUEENS BLVD	2781 (B.Q.E.)			A	2	S	8/25/2004	4.625	F	23500	\$33,840,000.00	2
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.			A	1	S	6/18/2004	4.205	F	7900	\$11,376,000.00	2

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L		O	19	S	9/10/2004	6.577	V	92400	\$133,056,000.00	2
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T		A	5	S	4/23/2004	4.857	F	90000	\$129,600,000.00	9
2240047	M Q	QUEENSBORO BRIDGE(LL)	EAST RIVER	L		WEO	53	S	1/23/2003	4.514	F	626900	\$902,736,000.00	6
2240048	M Q	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL			WEO	37	S	1/23/2003	4.547	F	322300	\$464,112,000.00	6
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.			AR	22	S	3/22/2004	5.393	G	15825	\$22,788,000.00	1
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE			AR	26	S	9/1/2004	3.875	F	10800	\$15,552,000.00	12
2249270	R	RICHMOND VALLEY ROAD	SIRT SOUTH SHORE	S		O	4	S	10/14/2003	5.299	G	9300	\$13,392,000.00	3
2240350	R	RICHMOND AVE	RICHMOND CREEK			WO	3	S	7/30/2003	6.153	V	32589	\$46,928,160.00	2
2244150	K	RIDGE BLVD	SHORE RD DRIVE			O	1	S	5/28/2003	6.867	V	4350	\$6,264,000.00	10
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL			WO	56	S	8/29/2003	4.423	F	183100	\$263,664,000.00	1
2241430	B	RIVER AVE	METRO NORTH RR HUD	M		O	1	S	6/19/2003	6.578	V	5040	\$7,257,600.00	4
2229510	B	RIVERDALE AVE	HHP			A	2	S	8/19/2003	4.053	F	5200	\$7,488,000.00	8
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS			O	27	S	6/25/2003	4.500	F	148300	\$213,552,000.00	9
2246980	M	RIVERSIDE DRIVE	W 138TH ST			O	1	S	3/5/2004	4.900	F	6700	\$9,648,000.00	9
2267130	M	RIVERSIDE DRIVE	W 145TH ST			O	1	S	6/11/2003	4.867	F	5800	\$8,352,000.00	9
2246720	M	RIVERSIDE DRIVE	W 158TH ST			O	77	S	11/19/2003	3.542	F	181400	\$261,216,000.00	9
2246970	M	RIVERSIDE DRIVE	W 96TH ST			O	3	S	6/9/2003	5.618	G	10600	\$15,264,000.00	7
2269240	M	RIVERSIDE DRIVE	W. 155TH ST			O	1	S	6/10/2003	4.640	F	4397	\$6,331,680.00	9
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN			WO	2	S	6/25/2003	5.158	G	6000	\$8,640,000.00	83
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)			A	2	S	2/13/2004	4.559	F	6600	\$9,504,000.00	2
2240507	Q	ROOSEVELT AVE	678I - VAN WYCK EXPWY			WA	27	S	12/8/2004	3.254	F	84424	\$121,570,560.00	81
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C		O	2	S	6/28/2004	4.958	F	5200	\$7,488,000.00	2
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD			O	4	S	5/23/2003	4.746	F	7280	\$10,483,200.00	84
2240640	M Q	ROOSEVELT ISLAND	E. RIVER E. CHANNEL			WMO	8	S	6/15/2004	4.222	F	36500	\$52,560,000.00	8
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S		O	2	S	10/25/2003	5.712	G	3800	\$5,472,000.00	2
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S		O	2	S	10/24/2003	5.500	G	3800	\$5,472,000.00	2
2248200	Q	RUST ST	FLUSHING AVE			O	1	S	5/12/2003	5.547	G	2940	\$4,233,600.00	5
2231560	Q	S CONDUIT BLVD	BSOP			A	2	S	4/6/2004	5.690	G	15776	\$22,717,440.00	10
2242210	B	S OF ALLERTON AVE	BRONX RIVER			WO	3	S	7/17/2004	4.763	F	6200	\$8,928,000.00	27
2249770	R	S OF BROOKS LAKE	STREAM IN PARK		P	WO-PED	3	C	11/23/2004	5.129	G	696	\$1,002,240	1
2230370	K	SACKETT ST	278I (B.Q.E.)			A	2	S	3/23/2004	4.694	F	5000	\$7,200,000.00	6
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	4	S	5/29/2003	4.645	F	2601	\$3,745,440.00	7
2244470	K	SEELEY ST	PROSPECT AVE			O	1	S	7/10/2003	4.100	F	7700	\$11,088,000.00	7
2249290	Q	SEGUINE AVE	SIRT SOUTH SHORE	S		O	1	S	10/15/2003	6.016	V	2200	\$3,168,000.00	3
2248240	R	SERVICE RD TURNAROUND	OVER FLUSHING AVE			O	1	S	5/12/2003	5.250	G	2940	\$4,233,600.00	5
2241390	B	SHORE RD CIRCLE	AMTRAK	A		O	2	S	7/23/2004	3.254	F	4800	\$6,912,000.00	10
2240200	B	SHORE ROAD	HUTCHINSON RIVER			WMO	7	S	9/3/2004	4.597	F	4800	\$120,000,000.00	28
2249120	R	SIMONSON AVE	B&O RAILROAD	O		O	3	S	5/1/2003	6.111	V	5819	\$8,379,360.00	1
2249860	R	SLATER BLVD	NEW CREEK			WO	1	S	4/14/2003	5.959	G	2037	\$2,933,280.00	2
2249200	R	SOUTH AVE	B&O RAILROAD	O		O	3	S	9/29/2003	6.927	V	8322	\$11,983,680.00	1
2244440	K	SOUTH OF TILLARY ST	NAVY ST			O-PED	1	C	5/4/2004	4.480	F	6200	\$8,928,000.00	2
2242029	B	SOUTHERN BLVD	BRONX PELHAM PKWY			O	2	S	4/13/2004	4.684	F	12900	\$18,576,000.00	27
2242220	B	SOUTHERN BLVD	BRONX RIVER			WO	2	S	3/2/2004	4.105	F	4800	\$6,912,000.00	27
2241080	B	SOUTHERN BLVD	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	4.185	F	3900	\$5,616,000.00	1
2231630	Q	SPRINGFIELD BLVD	BSOP			A	2	S	4/15/2004	4.682	F	8500	\$12,240,000.00	13
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)			O	1	S	6/3/2003	4.778	F	1470	\$2,116,800.00	13
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T		O	1	S	12/4/2003	6.781	V	2200	\$3,168,000.00	9
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M		O-PED	2	C	7/30/2004	5.423	G	600	\$864,000.00	3
2241060	B	ST. MARYS & CONCORD	CONRAIL PT MORRIS	C		O	1	S	9/3/2004	5.333	G	4500	\$6,480,000.00	1
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)			A	1	S	1/13/2004	4.028	F	4200	\$6,048,000.00	1
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)			A	1	S	1/13/2004	4.167	F	4200	\$6,048,000.00	1
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T		O	1	S	12/5/2003	6.578	V	2300	\$3,312,000.00	8
223201C	M	STH ST RMP TO FDR	SOUTH ST			AR	8	S	2/19/2004	4.701	F	39150	\$56,376,000.00	1
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST			AR	10	S	2/23/2004	3.821	F	44625	\$64,260,000.00	1
2240540	K	STILLWELL AVE	CONY ISLAND CRK			WO	2	S	6/17/2003	6.292	V	17000	\$24,480,000.00	13
2230350	K	SUMMIT ST PED BRDG	278I (B.Q.E.)			A-PED	2	S	3/8/2004	4.671	F	1400	\$2,016,000.00	6
2231650	Q	SUNRISE HWY W.B.	BLP E.B.			A	1	S	4/7/2004	4.623	F	4100	\$5,904,000.00	13
2231660	Q	SUNRISE HWY W.B.	BLP W.B.			A	2	S	4/7/2004	4.531	F	5350	\$7,704,000.00	13
2231800	Q	SUPERIOR ROAD	BCIP			A	2	S	3/22/2004	4.364	F	7000	\$10,080,000.00	13
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N		O	3	S	11/4/2004	6.681	V	5400	\$7,776,000.00	16
2241040	B	THIRD AVE	CONRAIL PT MORRIS	C		O	1	S	11/3/2004	4.563	F	2700	\$3,888,000.00	1
2240310	K	THIRD AVE	GOWANUS CANAL			WO	1	S	7/2/2003	4.564	F	3200	\$4,608,000.00	6
2240069	B M	THIRD AVE BRIDGE	HARLEM RIVER			WMO	32	S	9/7/2004	7.000	V	79950	\$115,128,000.00	11
2240250	K	THIRD ST	GOWANUS CANAL			WMO	5	S	6/27/2003	4.958	F	4900	\$7,056,000.00	6
2247300	Q	THOMPSON AVE	AMTRAK YARD	L		O	14	S	9/8/2004	5.264	G	61280	\$88,243,200.00	2
2241170	B	TIFFANY ST	AMTRAK	A		O	1	S	11/4/2003	5.843	G	7267	\$10,464,480.00	2
224004H	Q	TO 21ST ST FROM NY	22ND ST			OE	34	S	12/10/2004	4.310	F	48100	\$69,264,000.00	2
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY			OE	31	S	3/12/2004	4.148	F	51400	\$74,016,000.00	1
224005B	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	8/4/2003	4.000	F	12100	\$17,424,000.00	1
224006A	B	TO BRUCKNER BLVD	RELIEF			OR	11	S	6/23/2004	2.966	P	11100	\$15,984,000.00	1



INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE			OE	13	S	7/23/2004	5.764	G	14800	\$21,312,000.00	6
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST			OE	10	S	7/29/2004	4.985	F	16720	\$24,076,800.00	6
224001D	M	TO FDR DR N.B.	PEARL STREET			OE	30	S	5/14/2003	5.208	G	49600	\$71,424,000.00	1
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE			O	1	S	6/29/2004	5.333	G	10800	\$15,552,000.00	12
224007A	M	TO MADISON AVENUE	RELIEF			OR	9	S	4/30/2004	5.592	G	19880	\$28,627,200.00	11
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE			OE	64	S	10/29/2004	4.906	F	104600	\$150,624,000.00	2
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)			OE	36	S	10/5/2004	4.634	F	8360	\$12,038,400.00	1
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)			OE	63	S	12/9/2004	4.652	F	63310	\$91,166,400.00	2
224001G	M	TO PARK ROW	ROSE ST			OE	11	S	5/6/2003	4.736	F	16551	\$23,833,440.00	1
224001E	M	TO PEARL ST	LAND ADJ TO BRDG			OE	3	S	5/12/2003	5.225	G	5300	\$7,632,000.00	6
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE			OE	13	S	7/22/2004	5.732	G	14800	\$21,312,000.00	6
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST			OE	12	S	8/25/2004	4.660	F	11781	\$16,964,640.00	6
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE			OE	38	S	11/23/2004	5.016	G	59100	\$85,104,000.00	2
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)			O	1	S	3/25/2004	6.250	V	5096	\$7,338,240.00	1
2249840	R	TOMPKINS AVE	GREENFIELD AVE			O	1	S	3/18/2004	5.106	G	2562	\$3,689,280.00	1
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S		O	2	S	12/6/2004	5.475	G	5378	\$7,744,320.00	1
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	4/2/2004	2.744	P	200	\$288,000.00	3
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		P	O	1	S	2/27/2004	4.364	F	1739	\$2,504,160.00	8
2249870	R	TRAVIS AVE	MAIN CREEK			WO	1	S	8/5/2003	6.100	V	1537	\$2,213,280.00	2
2246560	M	TUDOR CITY PLACE	E 42ND ST			O	1	S	3/17/2004	5.133	G	6600	\$9,504,000.00	6
2249170	R	UNION AVE	B&O RAILROAD	O		O	4	S	5/8/2003	5.352	G	6500	\$9,360,000.00	1
2230360	K	UNION ST	278I (B.Q.E.)			A	2	S	3/9/2004	4.486	F	5000	\$7,200,000.00	6
2243200	K	UNION ST	FRANKLIN SHUTTLE	T		O	2	S	9/20/2004	5.065	G	4100	\$5,904,000.00	9
2240270	K	UNION ST	GOWANUS CANAL			WMO	5	S	8/23/2004	4.153	F	4900	\$7,056,000.00	6
2247040	Q	UNION ST	LIRR N SIDE DIV	L		O	1	S	6/11/2003	6.391	V	3313	\$4,770,720.00	7
2231850	Q	UNION TPKE	BCIP			A	2	S	6/11/2004	4.318	F	13600	\$19,584,000.00	13
2248129	Q	UNION TPKE	CREEDMOORE HOSP RD			O	1	S	5/9/2003	4.867	F	3500	\$5,040,000.00	13
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY			A	1	S	2/25/2004	5.984	G	5359	\$7,716,960.00	82
2241330	B	UNIONPORT ROAD	AMTRAK	A		O	1	S	8/13/2004	4.875	F	4400	\$6,336,000.00	9
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL			OT	2	S	7/21/2004	4.843	F	92200	\$132,768,000.00	6
2231910	Q	UTOPIA PKWY	BCIP			A	2	S	2/5/2004	5.136	G	7200	\$10,368,000.00	7
2229550	B	VAN CRTLDT EQUES	HHP		P	A-PED	2	C	9/17/2004	5.178	G	2100	\$3,024,000.00	26
2229540	B	VAN CRTLDT PARK	HHP		P	A-PED	2	C	9/17/2004	4.742	F	3900	\$5,616,000.00	26
2249130	R	VAN NAME AVE	B&O RAILROAD	O		O	3	S	3/24/2004	5.492	G	5474	\$7,882,560.00	1
2249140	R	VAN PELT AVE	B&O RAILROAD	O		O	3	S	4/16/2003	5.780	G	5000	\$7,200,000.00	1
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE			O	3	S	6/27/2003	4.852	F	7500	\$10,800,000.00	9
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	3	C	4/20/2004	3.509	F	1100	\$1,584,000.00	9
2245240	M	W 151ST ST FOOTBR	CONRAIL 30 ST BR		P	O-PED	2	C	6/8/2002	3.462	F	1020	\$1,468,800.00	9
2246710	M	W 153 ST	A.C. POWELL BLVD			O	1	S	2/25/2004	4.389	F	3082	\$4,438,080.00	10
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A		O-PED	3	C	4/21/2004	4.262	F	800	\$1,152,000.00	9
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	11/14/2003	6.431	V	29170	\$42,004,800.00	12
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	2	C	4/22/2004	4.611	F	1500	\$2,160,000.00	12
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.			O-PED	1	C	3/3/2004	4.600	F	1200	\$1,728,000.00	12
2246489	M	W 181 ST	RAMP TO WASH BR			O	1	S	2/10/2004	4.633	F	8200	\$11,808,000.00	12
2229400	M	W 181ST ST PED BRDG	HHP N.B.		P	A-PED	6	C	2/5/2003	4.652	F	1500	\$2,160,000.00	12
2241940	B	W 205TH ST	NYCTA IND YARDS	T		O	4	S	9/13/2004	6.778	V	32508	\$46,811,520.00	7
2240120	B M	W 207TH/W FORDHAM RD	HARLEM RIVER			WMO	5	S	6/30/2004	5.667	G	29682	\$42,742,080.00	12
2241489	B	W 225TH ST	CONRAIL PUTNAM	C		O	2	S	5/26/2004	5.313	G	10900	\$15,696,000.00	7
2241490	B	W 230TH ST	CONRAIL PUTNAM	C		O	1	S	4/8/2003	5.844	G	5600	\$8,064,000.00	8
2241509	B	W 231ST ST	CONRAIL PUTNAM	C		O	1	S	11/18/2004	5.765	G	4723	\$6,801,120.00	8
2241510	B	W 233RD ST	CONRAIL PUTNAM	C		O	1	S	4/11/2003	5.471	G	3760	\$5,414,400.00	8
2241520	B	W 234TH ST	CONRAIL PUTNAM	C		O	1	S	4/9/2003	5.569	G	3770	\$5,428,800.00	8
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A		O	9	S	12/10/2004	3.683	F	8800	\$12,672,000.00	4
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A		O	8	S	4/5/2004	4.639	F	16500	\$23,760,000.00	4
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A		O	2	S	6/3/2003	4.750	F	4620	\$6,652,800.00	4
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	6/5/2003	4.653	F	11800	\$16,992,000.00	4
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/20/2004	4.208	F	6500	\$9,360,000.00	4
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	9/15/2004	3.940	F	16400	\$23,616,000.00	4
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/28/2003	5.984	G	7600	\$10,944,000.00	4
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	9/16/2004	4.077	F	6200	\$8,928,000.00	4
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/16/2004	4.196	F	6300	\$9,072,000.00	4
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/24/2004	4.042	F	9400	\$13,536,000.00	4
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/24/2004	4.164	F	6200	\$8,928,000.00	4
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A		O	4	S	10/4/2004	4.841	F	10300	\$14,832,000.00	4
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/8/2004	4.485	F	4100	\$5,904,000.00	4
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/8/2004	4.662	F	4300	\$6,192,000.00	4
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/9/2004	5.662	G	4100	\$5,904,000.00	4
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.441	F	4100	\$5,904,000.00	4
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.721	F	4100	\$5,904,000.00	4
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	4/21/2004	4.618	F	4100	\$5,904,000.00	4
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	11/2/2004	4.500	F	4100	\$5,904,000.00	4
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	4.647	F	4100	\$5,904,000.00	4
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/2/2004	4.882	F	4300	\$6,192,000.00	4

INVENTORY SORTED BY FEATURE CARRIED														
BIN	BO RO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHR OWNR	TYPE	SPANS	R T N G S R C	INSPECTION DATE	RATING	VRB L RTN G	DECK AREA	REPLACEMENT COST	CD
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/2/2004	5.088	G	4300	\$6,192,000.00	4
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	5.162	G	5100	\$7,344,000.00	4
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	11/10/2004	5.540	G	4700	\$6,768,000.00	4
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	5.485	G	4300	\$6,192,000.00	4
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	5.368	G	4400	\$6,336,000.00	4
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	12/6/2004	4.838	F	9100	\$13,104,000.00	4
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/6/2004	4.588	F	4100	\$5,904,000.00	4
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END			O	1	S	6/2/2004	4.900	F	1600	\$2,304,000.00	64
2229290	M	W 79 ST	AMTRAK	A		A	1	S	10/13/2004	4.559	F	4500	\$6,480,000.00	7
2231860	Q	W ALLEY ROAD	BCIP			A	2	S	9/26/2003	5.568	G	7200	\$10,368,000.00	11
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		P	O	1	S	4/7/2003	5.571	G	2500	\$3,600,000.00	55
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M		O	5	S	7/8/2003	6.278	V	16052	\$23,114,880.00	7
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M		O	8	S	4/27/2004	4.761	F	12900	\$18,576,000.00	5
2269260	K	W. 8TH STREET	SURF AVE.		P	O-PED	55	C	6/10/2004	3.846	F	14742	\$21,228,480.00	13
2269210	M	W.68TH STREET	AMTRAK	A		O	3	S	11/21/2003	6.746	V	5382	\$7,750,080.00	7
2269190	M	W.70TH STREET	AMTRAK	A		O	3	S	11/3/2003	6.583	V	17258	\$24,851,520.00	7
2241070	B	WALES AVE	CONRAIL PT MORRIS	C		O	1	S	11/5/2004	6.567	V	2535	\$3,650,400.00	1
2241410	B	WALTON AVE	METRO NORTH RR HUD	M		O	1	S	4/6/2004	5.328	G	3600	\$5,184,000.00	4
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER			WMO- PED	10	C	7/29/2003	4.049	F	12600	\$18,144,000	11
2243250	B	WASHINGTON AVE	FRANKLIN SHUTTLE	T		O	1	S	9/16/2004	6.391	V	3657	\$5,266,080.00	9
2066919	B M	WASHINGTON BRIDGE	HARLEM RIVER			WO	9	S	11/16/2004	4.821	F	128339	\$184,808,160.00	12
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		P	O	1	S	6/2/2004	4.667	F	2000	\$2,880,000.00	64
2246330	M	WEST DRIVE	FEEDER TO LAKE		P	WO	1	S	2/23/2004	5.000	G	6700	\$9,648,000.00	64
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		P	O	1	S	6/2/2004	5.267	G	2500	\$3,600,000.00	64
2246430	M	WEST DRIVE	PED OPP 109TH ST		P	O	1	S	2/26/2004	4.317	F	1200	\$1,728,000.00	64
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		P	O	1	S	2/25/2004	5.682	G	3100	\$4,464,000.00	64
2246120	M	WEST DRIVE	TRANSVERSE RD #1		P	O	1	S	3/31/2004	4.833	F	7900	\$11,376,000.00	64
2246240	M	WEST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/5/2004	4.167	F	7200	\$10,368,000.00	64
2246260	M	WEST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/3/2004	4.800	F	5100	\$7,344,000.00	64
2246280	M	WEST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/1/2004	4.033	F	4700	\$6,768,000.00	64
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	12/2/2004	4.862	F	899	\$1,294,560	1
2244100	K	WEST FOOTBRIDGE	PROSPCT PK STREAM		P	WO-PED	1	C	9/9/2003	4.577	F	308	\$443,520	55
2267380	M	WEST STREET	RECTOR ST			AT	1	S	10/14/2003	5.033	G	25760	\$37,094,400.00	1
2241230	B	WESTCHESTER AVE	AMTRAK	A		O	3	S	8/11/2004	6.250	V	15600	\$22,464,000.00	2
2240180	B	WESTCHESTER AVE	BRONX RIVER			WO	1	S	6/11/2003	5.141	G	5476	\$7,885,440.00	2
2241000	B	WESTCHESTER AVE	CONRAIL PT MORRIS	C		O	1	S	9/2/2004	5.085	G	1740	\$2,505,600.00	1
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY			A	2	S	4/5/2004	4.389	F	15858	\$22,835,520.00	10
2241329	B	WHITE PLAINS ROAD	AMTRAK	A		O	1	S	8/13/2004	4.891	F	6900	\$9,936,000.00	9
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE			O-PED	7	C	3/15/2004	4.718	F	5500	\$7,920,000	10
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)			A	1	S	7/8/2004	4.683	F	2500	\$3,600,000.00	7
2241369	B	WILLIAMSBRIDGE RD	AMTRAK	A		O	2	S	8/5/2004	4.836	F	10400	\$14,976,000.00	11
2240039	K M	WILLIAMSBURG BRIDGE	EAST RIVER	T		WEO	72	S	10/28/2004	4.556	F	824000	\$1,186,560,000.00	3
2240059	B M	WILLIS AVENUE	HARLEM RIVER			WMO	26	S	8/27/2004	3.083	F	94700	\$136,368,000.00	11
2266139	Q	WINCHESTER BLVD N.B.	BCIP			A	1	S	4/16/2004	4.633	F	6400	\$9,216,000.00	11
2266129	Q	WINCHESTER BLVD S.B.	BCIP			A	1	S	4/6/2004	4.592	F	4400	\$6,336,000.00	11
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE			O	3	S	6/10/2004	4.472	F	19400	\$27,936,000.00	9
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD			O	2	S	7/7/2004	4.288	F	11500	\$16,560,000.00	6
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)			A	1	S	1/5/2004	5.266	G	7500	\$10,800,000.00	2
2247400	Q	WOODSIDE AVE	CONRAIL	C		O	1	S	8/7/2003	5.067	G	8200	\$11,808,000.00	2
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L		O	3	S	7/19/2003	4.444	F	14900	\$21,456,000.00	2
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	P	O-PED	5	C	7/29/2004	4.556	F	4200	\$6,048,000	4
790	BRIDGES					4574			SPANS			14502232	\$20,996,302,080	

STATEN ISLAND CULVERTS							
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED		BRIDGE TYPE	SPANS	SOURCE
R00003	R	DELAFIELD AVE	RAYMOND PLACE		O	1	CITY
R00004	R	DICKIE AVE	NEAR COLUMBUS PLACE		O	1	CITY
R00005	R	BIDWELL AVE	COLUMBUS PLACE		O	1	CITY
R00006	R	LIVERMORE AVE	WATCHOGUE ROAD		O	1	CITY
R00010	R	GALLOWAY AVE	MARIANNE ST		O	1	CITY
R00011	R	FOREST AVE	CRYSTAL AVE		O	1	CITY
R00013	R	NAUGHTON AVE	PATTERSON AVE		O	3	CITY
R00015	R	OLYMPIA BLVD	SLATER AVE		O	1	CITY
R00016	R	GRAHAM BLVD	JAY ST		O	2	CITY
R00021	R	HUNTER AVE	IDLESE PLACE		O	1	CITY
R00022	R	IDLESE PLACE	HUNTER AVE		O	1	CITY
R00023	R	MIDLAND AVE	HYLAN BLVD		O	1	CITY
R00024	R	LINCOLN AVE	SANILAC ST		O	1	CITY
R00025	R	GREELEY AVE	SANILAC ST		O	1	CITY
R00027	R	ELEANOR ST	ROCKLAND AVE		O	1	CITY
R00031	R	TARLTON ST	GREAT KILLS LANE		O	1	CITY
R00032	R	SEGUINE AVE	PURDY PLACE		O	1	CITY
R00034	R	ROCKLAND AVE	BRIELLE AVE		O	1	CITY
R00035	R	BRADLEY AVE	WILLOWBROOK ROAD		O	1	CITY
R00036	R	AMBOY ROAD	ARBUTUS AVE		O	1	CITY
R00038	R	MAGUIRE AVE	DEPEW PLACE		O	1	CITY
R00039	R	MAGUIRE AVE	DEPEW PLACE		O	1	CITY
R00040	R	113 MAGUIRE AVE	DEPEW PLACE		O	1	CITY
R00041	R	93 FOSTER ROAD	AMBOY ROAD		O	1	CITY
R00042	R	LEDYARD PLACE	LACONIA AVE		O	1	CITY
R00044	R	REID AVE	HURBERT ST		O	1	CITY
R00046	R	RICHMOND TERRACE	SNUG HARBOR		O	2	CITY
R00047	R	SIMONSON AVE	WALKER ST		O	1	CITY
R00048	R	VAN NAME AVE	WALKER AVE		O	1	CITY
R00049	R	VAN PELT AVE	WALKER ST		O	1	CITY
R00050	R	UNION AVE	NETHERLAND AVE		O	1	CITY
R00051	R	HARBOR ROAD	DUBLIN PLACE		O	1	CITY
R00055	R	TRAVIS AVE	VICTORY BLVD		O	1	CITY
R00056	R	RICHMOND TERR	WESTERN AVE		WO	1	CITY
R00059	R	WESTERN AVE	RR BRIDGE		WO	1	CITY
R00060	R	SIGNS ROAD	VICTORY BLVD		O	1	CITY
R00062	R	KISSEL AVE	SNUG HARBOR ROAD		O	1	CITY
R00065	R	HENDERSON AVE	WESTBURY AVE		O	1	CITY
R00068	R	FOREST AVE	RANDALL AVE		O	1	CITY
R00069	R	GREGG PLACE	RANDALL AVE		O	1	CITY
R00076	R	ROOSEVELT AVE	HAROLD ST		O	1	CITY
R00077	R	BUCHANAN AVE	HAROLD ST		O	1	CITY
R00078	R	WILLOW BROOK ROAD	FILLMORE AVE		O	1	CITY
R00079	R	FILLMORE AVE	WILLOW BROOK ROAD		O	1	CITY
R00084	R	ARTHUR KILL ROAD	MULDOON AVE		O	1	CITY
R00085	R	ARTHUR KILL ROAD	150' N.W. ELLIS ROAD		O	1	CITY
R00086	R	ARTHUR KILL ROAD	ENGLEWOOD ST		O	1	CITY
R00095	R	MEISNER AVE	ROCKLAND AVE		O	1	CITY
R00096	R	ROCKLAND AVE	MANOR ROAD		O	1	CITY
R00097	R	RICHMOND HILL ROAD	RICHMOND ROAD		O	1	CITY
R00101	R	ST ANDREWS ROAD	LIGHTHOUSE AVE		O	1	CITY
R00103	R	AULTMAN AVE	ST GEORGE ROAD		O	2	CITY
R00104	R	ST. GEORGE ROAD	ASCOTT AVE		O	1	CITY
R00106	R	ARTHUR KILL ROAD	RICHMONDTOWN ROAD		O	1	CITY
R00111	R	ELTINGVILLE BLVD	KATAN AVE		O	2	CITY
R00114	R	SWEET BROOK ROAD	RIDGEWOOD ROAD		O	1	CITY
R00115	R	VICTORY BLVD	CLOVES LAKE PARK		O	3	CITY
R00122	R	ARTHUR KILL ROAD	RIDGEWOOD AVE		O	1	CITY
R00129	R	LAMOKA AVE	DEMOPOLIS AVE		O	1	CITY
R00130	R	DEMOPOLIS AVE	LAMOKA AVE		O	2	CITY
R00133	R	ARDEN AVE	HALPIN AVE		O	1	CITY
R00135	R	HYLAN BLVD	CORNELIA AVE		O	1	CITY
R00136	R	SNUG HARBOR ROAD	KISSEL AVE		O	1	CITY
R00137	R	RICHMOND TERRACE	WESTERN AVE		O	2	CITY
R00138	R	HOLLAND AVE	BENJAMIN PLACE		O	1	CITY
R00139	R	DE PEW PL	MAGUIRE AVE		O	1	CITY
R00141	R	ALTER AVE	STORM&GRND FED STREAM		O	1	CITY

A brief glossary of the terms most commonly used in bridge design, construction and maintenance is presented below. Cross-references are indicated through the use of BLOCK LETTERING.

### **ABUTMENT**

Walls of reinforced concrete or masonry. Abutments support a bridge's SUPERSTRUCTURE and APPROACHES, as well as retain the embankments that are positioned at the extreme ends of a multi-span bridge.



Hamilton Avenue Bridge Abutment.  
(Credit: NYSDOT)

### **AGGREGATE**

Inert material such as sand or stone that is mixed with cement, lime and water to produce grout or mortar.

### **ALIGNMENT**

The relative horizontal and vertical positioning between the bridge and APPROACHES.

### **ANCHORAGE**

A solid mass, usually comprised of concrete, that encases a grillage of heavy steel bars into which the ends of a suspension bridge's main CABLES are anchored. Anchorages are designed to resist the pull of the cables.

### **APPROACH**

Roadway at each end of a bridge, beyond the ABUTMENT, providing access to the bridge.

### **ARTERIAL BRIDGE**

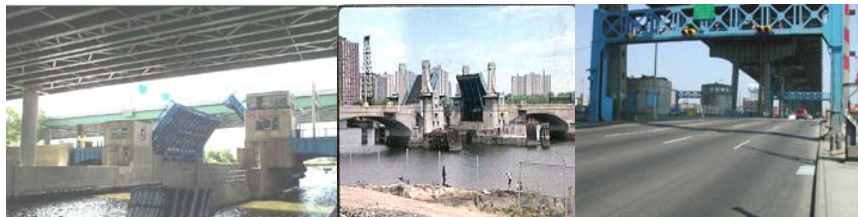
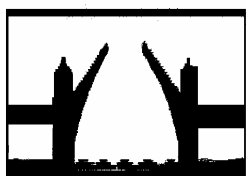
Any bridge upon which an arterial highway runs as it crosses streets, water, railroads, etc.

### **BACKFILL**

Material used to refill an excavated area.

### **BASCULE BRIDGES**

Bascule bridges are movable bridges, typically referred to as "draw bridges" which rotate the superstructure vertically. The movable leaf of the structure - known as a *bascule* - is counterbalanced by weights of such size that minimal power is required for operation - just enough to overcome inertia, frictional resistance, wind and snow loads. Such bridges are relatively speedy to operate and provide unlimited vertical clearance. Examples of bascule bridges currently under the jurisdiction of the New York City Department of Transportation include the **Unionport**, **Pelham**, **Hamilton Avenue**, Third Street, Union Street, and Greenpoint Avenue Bridges.



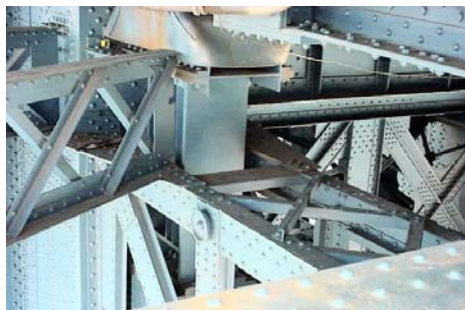
Unionport, Pelham, and Hamilton Avenue Bridges. (Unionport and Hamilton Credit: NYSDOT)

**BEAM**

A linear structural member designed to span from one support to another.

**BEARINGS**

Designed to transmit the load from the SUPERSTRUCTURE to the SUBSTRUCTURE. Divided into two types, expansion and fixed, bearings are needed to ensure that certain elements are not forced to take more load than that for which they were designed and that the bridge can move slightly under load and temperature changes as needed.



Truss Bearing on Manhattan Bridge.  
(Credit: NYSDOT)

**BID**

A contractor's formal proposal, including prices, to perform the work set out in the project SPECIFICATIONS.

**BOX BEAM**

A hollow structural beam with a square, rectangular, or trapezoidal cross-section.

**BRIDGE**

A structure connecting two points, greater than 20 feet in distance, which carries vehicular and/or pedestrian traffic over water, a descending slope, or another road.

**CABLE**

A steel rope, composed of parallel or twisted wires, used to support the road deck of SUSPENSION BRIDGES or CABLE STAYED BRIDGES.



Inspector on Manhattan Bridge Cable.  
(Credit: NYSDOT)

**CABLE STAYED BRIDGES**

Bridges in which the superstructure is directly supported by cables, or stays, passing over or attached to towers located at the main piers.

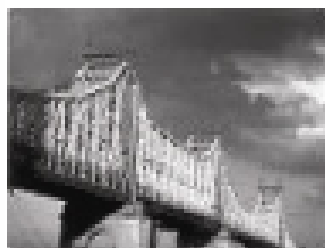
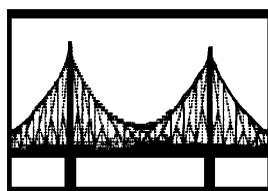
**CAMELBACK TRUSS**

A TRUSS having a curved top chord and straight bottom chord meeting at each end. There is a camelback truss on the Macombs Dam Bridge.



### **CANTILEVER BRIDGES**

A cantilever is a BEAM that is supported only on one end. In a cantilever bridge, the tree branch-like beams project toward each other, forming a span of the bridge when connected in the center. Bridges of this type are economical to build because they require less material in construction and less condemnation of property is necessary for the narrow piers which are sufficient for support. Typically, no falsework is required during construction and the bridge does not exceed 1,800 feet in length. NYCDOT's **Queensboro Bridge** is a notable example of this type of structure.



### **CATCH BASIN**

A receptacle, commonly box shaped and fitted with a grilled inlet and a pipe outlet drain, designed to collect the rain water and floating debris from the roadway surface and retain the solid material so that it may be periodically removed.

### **CHANGE ORDER**

An approved modification of the SPECIFICATIONS or the costs in a construction contract.

### **CHIPPING HAMMER**

A welder's compressed-air tool for cleaning steel after welding. It is also used by bridge inspectors.

### **CLEARANCE**

The unobstructed vertical and horizontal space provided between two objects.

### **COMPRESSION**

The stress resulting from a pushing force on a structure.

### **CONDITION RATING**

A judgment of a structure's condition in comparison to its original as-built condition.

### **COPING**

The material forming the top layer of a masonry unit which protects the masonry below from penetrating water.

### **CORE**

A cylindrical sample of concrete removed from a bridge component for the purpose of destructive testing.

### **CORROSION**

The general disintegration of surface metal through oxidation.

### **CRITICAL PATH**

The set of activities that must be completed on time for the contract completion date to be met. Activities on the critical path have no slack time.

### **CULVERT**

Any structure under the roadway with a clear opening of twenty feet or less, measured along the center of the roadway.

### **DEAD LOAD**

The weight of the bridge itself without any traffic or external loads.

### **DECK**

The supporting slab and wearing surface of a bridge.

### **DESIGN-BUILD CONTRACTS**

A delivery procedure where one company is retained to perform both design and construction, thus expediting the capital bridge rehabilitation program.

### **DRAINAGE SYSTEM**

A collection of surface and/or subsurface drains and pumps that are used to remove surface or ground water.

### **EFFLORESCENCE**

White salts that water movement brings to the surface of porous construction materials.

### **ELECTRICAL MAINTENANCE**

Preventive maintenance to electrical systems on the East River bridges (e.g., travelers, lighting systems) and the movable bridges (e.g., contacts, relays, switches, controls, limit switches, and lighting systems).

### **EXPANSION JOINTS**

Located throughout a bridge, expansion joints are located in the deck, directly above the BEARINGS. Expansion joints allow parts of the structure to expand independently and therefore relieve stresses that may otherwise cause damage.

### **EYEBARS**

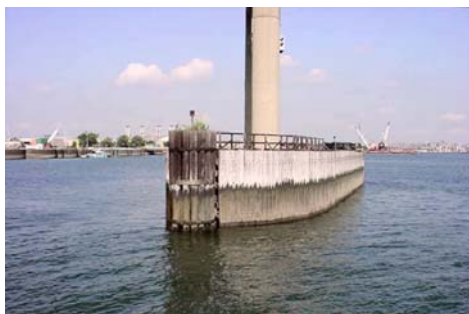
Steel bars with each end shaped like the eyes of giant needles. They provide total anchorage of the suspension cable and are buried deep within the ANCHORAGE structure.

### **FACE**

The outer, exposed surface of a MASONRY unit.

### **FENDER**

A structure that acts as a buffer to protect the portions of a bridge exposed to floating debris and water-borne traffic from collision damage.



Rikers Island Dolphin & Fender System.  
(Credit: NYSDOT)

### **FIRE HAZARD**

Accumulation of debris, where the debris is of sufficient quantity, in a location where, if it caught fire, it would compromise the structural integrity of the bridge.

### **FIXED PRICE CONTRACT**

A contract with an overall predetermined price for the project work.

### **FLAG CONDITIONS**

A "Flag" is a hazardous or potentially hazardous condition on a bridge. A "Flag" is classified as either Red, Yellow, or Safety. A "Red Flag" requires prompt evaluation and, possibly, corrective action. A "Yellow Flag" is used to report a potentially hazardous structural condition, which if left unresolved will most likely become a danger to the soundness of the bridge and a hazard to the public. In the case of a "Safety Flag", there is no danger of partial or complete structural failure of the bridge; however, if left unattended, those conditions can present a vehicular or pedestrian hazard.

### **FLOORBEAMS**

Horizontal members placed crosswise to the bridge's major BEAMS, girders, or TRUSSES to support the deck.



South Transit Floorbeams, Stringers, and Bracing Members on the Manhattan Bridge.  
(Credit: NYSDOT)

### **FOOTINGS**

Part of the substructure known as the bridge foundation, they are masses of reinforced concrete which can be found beneath the ABUTMENTS and PIER and which spread the load to allow the soil to support the structure above.

### **FULL STEEL PAINTING**

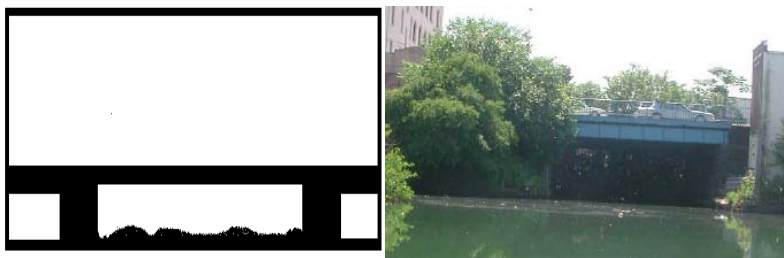
A bridge painting technique that involves cleaning of steel surfaces using approved environmentally safe paint removal techniques (blasting, power tools, or hand tools). A full primer, intermediate and finish coat are applied using combinations of brush, roller, or (if necessary) spray painting.

### **GENERAL CONTRACTOR**

has overall responsibility for a construction project. The general contractor may break down the project into smaller pieces to be handled by subcontractors.

### **GIRDER SPAN BRIDGES**

are primarily employed in bridging short distances, and may be classified as either simple or continuous. The steel girders carry the roadway and roadway load to end supports. The Midtown Highway, Hook Creek, Little Neck and **Brooklyn Third Avenue Bridges** are of this type.



Third Avenue Bridge in Brooklyn. (Credit: NYSDOT)

### **GRADE**

The degree of inclination of the ground surface.

### **GRIZZLY**

A coarse screen used to remove oversize pieces from asphalt or earth.

### **GUTTER**

A paved drain commonly constructed in conjunction with the curbs of the roadway.

**JERSEY BARRIER**

A low, gradually narrowing, reinforced concrete wall used as a highway divider and as a means of preventing a vehicle from crossing a median or leaving the roadway. These barriers were first used on the New Jersey Turnpike.

**LIVE LOAD**

The weight of the traffic crossing a bridge and of other external loads applied to the structure (excluding the weight of the bridge itself.)

**LUBRICATION MAINTENANCE**

Lubrication of mechanical parts of the East River bridges (e.g., travelers, cables, solid rod suspenders, and EYEBARS), and the movable bridges (e.g., bearings, brakes, limit switches, and gates).

**MARINE BORERS**

Mollusks and crustaceans which live in water and destroy wood by digesting it.

**MASONRY**

Construction materials made of concrete, brick, tile, or stone.

**MEDIAN**

A strip of land between opposing lanes of roadway traffic; also known as a median strip.

**MILESTONE**

A measurable goal which marks a point of achievement on the way to completing the project.

**MONITORING INSPECTION**

Inspection of a condition known have a potential for developing into a hazard to the structure or the public.

**MOVABLE BRIDGE**

A type of bridge which carries vehicular or pedestrian traffic over a navigable waterway, and which opens to permit the passage of a ship, barge or boat.

**MOVING LOAD**

A LIVE LOAD that is moving, for example, vehicular traffic.

**NECKLACE LIGHTS**

The necklace lights are those lights on the main cables of suspension bridges which, when illuminated at night, resemble a necklace.

**NONDESTRUCTIVE TESTING**

A method of checking the structural quality of materials that does not damage them.

**OPERATOR'S HOUSE**

The building containing the power plant and operating machinery and devices required for the operator's (bridge tender's) work in executing the complete cycle of opening and closing a MOVABLE BRIDGE span.

**PANEL POINT**

The point at which two members of a TRUSS cross.

**PARAPET**

A low wall along the outmost edge of the roadway of a bridge to protect vehicles and pedestrians.

**PEDESTRIAN BRIDGES**

Bridges designed and constructed to provide means of crossing for pedestrian traffic only.

**PIER**

Part of a bridge's substructure, piers are the intermediate supports or columns which support a multi-span bridge. Piers may be composed of steel or reinforced concrete, and can appear as columns or solid walls.



Left Side of Pier 1 of Hamilton Avenue Bridge. Pier 17 of Rikers Island Bridge.  
(Credit: NYSDOT)

## **PILES**

A concrete, steel or timber column located beneath the footings of a bridge and embedded in the soil. Piles are employed in bridges only if the soil directly below the footing is not firm enough to support the bridge loads.

## **PLUMB BOB**

A weight hanging on a string (plumb line), used by bridge inspectors to show the direction of the vertical distance.

## **POINTING**

The compacting of the mortar in the outermost portion of a joint and the troweling of its exposed surface to secure water tightness or desired architectural effect.

## **PORTLAND CEMENT CONCRETE**

The most common concrete used in construction. It was patented in England in 1820, and is so named because when hard, it resembles Portland stones from Dorset.

## **POTHOLE**

A hole in a roadway or pavement, usually caused by heavy vehicular traffic or weathering.

## **PRECAST CONCRETE**

Concrete members that are cast and cured before being placed into their final positions on the construction site.

## **PREVENTIVE MAINTENANCE**

Preventive maintenance involves cleaning, protecting, and performing minor repairs of bridge components to prevent deterioration from becoming so extensive that major REHABILITATION or RECONSTRUCTION is needed. Specified interval maintenance, such as cleaning DRAINAGE SYSTEMS and lubrication, are done on a scheduled basis. Other maintenance is carried out when inspectors point out the need for it, such as resealing an EXPANSION JOINT or replacing the wearing surface. Preventive maintenance tasks on the bridges include: the cleaning of drainage systems, gratings, and expansion joints; the washing of the deck area and salt splash zones; full-steel, salt splash, and spot painting; the patching of sidewalks; the maintenance of electrical devices; and the oiling of mechanical components.

## **PRIMER**

The first layer of paint used to cover the unsealed surface. This is followed by at least one more coat of paint.

## **PUNCH LIST**

A catalogue of minor items still outstanding at the end of a construction project.

## **QUALITY ASSURANCE**

An independent evaluation of a service (i.e., an inspection) to establish that a pre-described level of quality has been met.

## **RAILING**

A fence-like construction built at the outermost edge of the roadway or the sidewalk portion of a bridge to protect pedestrians and vehicles.



### **RAILROAD FORCE ACCOUNTS**

Railroad force accounts are contracts between the Agency and railroads by which the railroads supply flag personnel so the Division can perform repair work on bridges that cross over railroad tracks.

### **REBAR, or REINFORCING BAR**

Steel bars placed within concrete to add strength (tensile load-bearing capacity) to the structure.

### **RECONSTRUCTION**

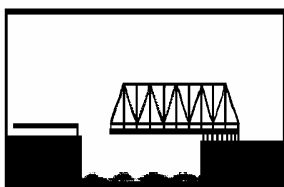
Reconstruction of severely deteriorated bridges includes extensive rehabilitation, as well as partial or complete replacement, either in-kind or newly designed.

### **REHABILITATION**

Extending the useful life of a bridge by painting, repairing or replacing the DECK or selected elements of the SUBSTRUCTURE or SUPERSTRUCTURE. This type of work is performed primarily on those structures not classified as deficient, but which contain specific components that have low condition ratings.

### **RETRACTILE BRIDGES**

Retractable bridges are movable bridges that are mounted on tracks that are positioned to one side of a navigational channel. To open, the bridge is withdrawn or "retracted" to shore. Although fascinating to observe and efficient to operate, retractile bridges are considered obsolete because of the expansive land areas that must be condemned in order to accommodate their tracks. The New York City Department of Transportation currently possesses two retractile bridges - the **Borden Avenue** and **Carroll Street** bridges, rare examples of the bridge builders' art.



(Carroll Street Credit: NYSDOT)

### **RETARDING AGENT**

A chemical added to mortar to slow down the set.

### **RIPRAP**

Irregularly broken, random-sized pieces of rock used for a foundation or to prevent soil erosion.

### **ROADWAY**

The portion of the road intended for the use of vehicular traffic.

### **ROCKER BEARING**

A bridge support that accommodates expansion and contraction of the superstructure through a rocking action.

### **SADDLE**

A special curved casting atop a SUSPENSION BRIDGE tower into which the cables are placed to avoid sharp bends in directional changes of the cable.

### **SALT SPLASH ZONE PAINTING**

A bridge painting process that involves preparation of the area to be painted by power wash, using clean water or steam. After power washing, hand and power tools are used in areas which have started to show deterioration from accumulated de-icing agents. Solvent cleaning is done in locations where oil and grease need to be removed from the steel surface. A spot PRIMER coat and finish coat are then applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.

### **SCUPPER**

An opening in the floor portion of a bridge to provide means for rain or other water accumulated upon the roadway surface to drain through it into the space beneath the structure.



Scuppers on the Pulaski and Madison Avenue Bridges. (Credit: NYSDOT)

**SET**

When the consistency of mortar changes from plastic to hard.

**SHORING**

Temporary bracing to support a structure.

**SOFFIT**

The underside of a structural component, such as a beam or arch.

**SPALLING**

The flaking or breaking out of concrete parallel to the main surface, caused by a blow, or by the action of weather or pressure.

**SPAN**

The distance between consecutive supports of a bridge.

**SPECIFICATIONS OR SPECS**

A detailed listing of required construction materials and methods to be used in the project. This information is a supplement to the blue prints and working drawings.

**SPLAY CASTING**

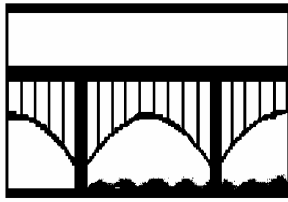
A steel or cast-iron collar fitted around a bridge suspension CABLE at the location where it spreads out (splays) into separate bundles of wires which are then attached to the ANCHORAGE EYEBARS. It is used to control the degree and location of the splay. These castings are usually located at the entry point of the cable into the anchorage chamber.

**SPOT PAINTING**

When the surface to be painted is contaminated with de-icing salts, sea salt, bird excrement, or other corrosive agents, the area is prepared by power washing, using clean water or steam. When grease or oil is present, it is removed by solvents. Mechanical cleaning with hand and/or power tools is performed in the areas containing deteriorated paint. A spot PRIMER coat and a single finish coat are applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.

**STEEL ARCH BRIDGES**

Steel arch bridges consist of either a single arch or a series of arches fashioned from steel or concrete. Aesthetically one of the more attractive bridge types. Arch structures can prove economical to construct if the bridge spans between high ABUTMENTS. At present, there is only one bridge of this kind in steel under the guardianship of the NYCDOT; the twin-arched **Washington Bridge**, positioned over the Harlem River at 181<sup>st</sup> Street. This bridge opened to traffic in December 1888 and, with its approaches, is 2,375 feet long.



Washington Bridge. (Second View Credit: NYSDOT)

## **STEM**

The vertical part of a retaining wall, usually made of concrete or masonry.

## **STOPPING SIGHT DISTANCE**

The distance required for a vehicle to stop before hitting a stationary object in its path. It is equal to the distance required for the driver to react and apply the brakes plus the distance required for the vehicle to stop once the brakes are applied.

## **STRAIN GAUGE TESTING**

Small strips of material (imagine a small band-aid) are glued onto part of a structure to measure the stress in the material under load. Inside the small "band-aid" are tiny electrical wires. When a structure is under load it stretches (tension) or contracts (compression). When this happens, the resistance in the tiny wires in the strain gauge changes, resulting in a change in the wire's current. What is actually being measured are changes in the electrical current in the tiny wires. Knowing the physical properties of the structural member that the gauge is attached to, (such as steel), a calculation can then be made to convert these changes in current to changes in stress. The readings are taken with special instruments that record the information over the desired period of time or loading sequences.



Division Engineers Installing Strain Gauges in 1995 on the Greenpoint Avenue Bridge

## **STRAND**

Comprised of hundreds of thin wires laid parallel to form a bundle, strands comprise the base element in the CABLES, or main cables, on a SUSPENSION BRIDGE or cable stayed bridge.

## **STRINGER**

A part of a bridge's SUPERSTRUCTURE, a stringer is essentially a BEAM parallel to the span used to support the road DECK.



Stringers on the Manhattan Bridge.  
(Credit: NYSDOT)

## **SUBSTRUCTURE**

The name given to those elements below a bridge's road deck system, namely the ABUTMENTS, ANCHORAGES, BEARINGS, and PIERS.

## **SUPERSTRUCTURE**

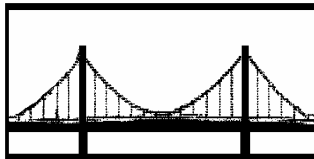
The superstructure is all that part of a structure above the bearings of simple and continuous spans, skewbacks of arches and top of footings of rigid frames; excluding backwalls, WINGWALLS and wing protection railings.

## **SUSPENDER**

A wire rope or a short vertical rod that enables the forces of the roadway of a SUSPENSION BRIDGE to be translated into an axial force in the supporting CABLES.

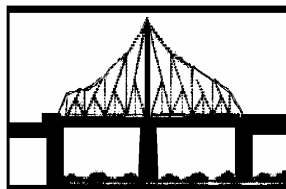
## **SUSPENSION BRIDGES**

Suspension bridges are high level bridges with spans that usually exceed 1,500 feet in length. Supported by large wire CABLES that are anchored to masses of concrete and which pass over the tops of towers, the road DECK is suspended at regular intervals by smaller cables called suspenders. While the main cables carry the entire live and dead load, stiffening TRUSSES are required to distribute the live load and prevent excessive deflection at any point. The Brooklyn, Manhattan and **Williamsburg** Bridges are noted New York City examples of this type.



## **SWING BRIDGES**

Swing bridges are movable bridges that are supported on a center PIER in the center of a waterway, and are opened by rotating the SUPERSTRUCTURE horizontally on wheels riding on a circular track. Two channels are provided on either side of the bridge for navigational ease when the bridge is in the open position. Because swing bridges are slow to operate and restrict channel width, they are rarely constructed today. Examples of swing bridges in New York City include the Third Avenue, Madison Avenue, 145th Street, **University Heights**, **Grand Street** and Macombs Dam Bridges.



(Grand Street Credit: NYSDOT)

### **THERMAL CAPACITY**

The ability of MASONRY to hold heat and/or cold.

### **TIME AND MATERIALS CONTRACT**

A contract in which the contractor's labor and material costs are reimbursed at a predetermined rate of profit.

### **TORSION**

Twisting force usually caused by unbalanced or asymmetrical loading.

### **TOWER**

Often the most majestic element in a SUSPENSION or cable stayed bridge, the **tower** serves as a support for the structure's main CABLES.



Williamsburg Bridge Tower. Inspectors on Manhattan Bridge Tower.  
(Manhattan Credit: NYSDOT)

### **TRAVELER MAINTENANCE**

The maintenance of a traveler (movable underdeck platform) that runs under the East River Bridges so maintenance, inspections and repairs can be performed to the underside of the bridge.



Manhattan Bridge Traveler  
(Credit: NYSDOT)

### **TRUSS**

A rigid framework built of interconnecting steel beams, creating a large "girder" to support the floor system and transfer loads to the substructure over a longer span.

### **TRUSS BRIDGES**

Truss bridges possess road decks that are supported by Steel TRUSSES that rest on PIERS and ABUTMENTS, and which span short distances. The 174th Street Bridge in the Bronx is an example of a truss bridge.

### **VERTICAL LIFT BRIDGES**

Vertical lift bridges are movable bridges which have road DECKS that operate in much the same fashion as an elevator. Comprised of supporting end CABLES that are attached at one end to the road DECK and at the other to rotating drums, these bridges are raised and lowered to allow for the safe passage of marine traffic. The **103rd Street - Wards Island Pedestrian Bridge**, **Ninth Street Bridge**, and Broadway Bridge are examples of this type of bridge.





(Ninth Street Credit: Bojidar Yanev)

### **VIADUCT BRIDGES**

Viaduct bridges are multi-span bridges containing two end spans and any number of intermediate SPANS. The end spans are supported by an ABUTMENT on one end and a PIER on the other. The intermediate spans held aloft by piers.

### **WELD**

To fasten together metals by bonding with molten metal.

### **WINGWALL**

Walls of reinforced concrete or stone that prevent the soil behind the ABUTMENT from eroding away and leaving a void beneath the approaches of the bridge. Also known as a retaining wall.



Broadway Bridge & Bay Ridge Avenue Bridge Wingwalls. (Credit: NYSDOT)

### **WINTER INSPECTION**

Inspection of a site known to have a greater hazard potential during winter. This may be due to low ambient temperatures, accidental or deliberately set fires.

(Glossary Photo Credits Unless Otherwise Noted: Peter Basich)

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*

### Bridge Protection through Dirt and Water Control

#### Cleaning of Abutment and Pier Tops

Removal of debris, dirt and vegetation from abutment and pier tops; cleaning and lubrication of bridge bearings.

#### Debris Removal

Removal of spilled trash; removal of rocks, wood, plastic or metal objects, tires, mufflers, wheel covers, and other traffic droppings; removal of paper products, bottles, cans, accumulated dirt and other trash. Debris removal is also required for walkways and plazas. For movable bridges and bridges over water, the protective fender systems need to be cleared of debris. The removal of debris from bridges is an important and critical component of maintenance. Debris can cause safety and hazard conditions. In addition, debris traps moisture and salts on the structure and prevents proper drainage.



Manhattan Bridge Tower After Debris Removal



Hutchinson River Parkway Under Westchester Avenue.  
(Credit: Anthony Napolitano)

#### Cleaning of Drainage System

Removal of debris, dirt and vegetation from drainage systems, including gutter gratings, gutters and leaders, scuppers, down spouts and scupper piping systems. The cleaning of surface gratings and gutters requires hand tools, brooms and brushes. In some cases, an air compressor might be needed to blow out some gutters. Cleaning the scuppers and scupper piping systems requires specialized equipment.



Drain Truck on Brooklyn Bridge Ramp. (Credit: Peter Basich)

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Cleaning Catch Basins on the Manhattan Bridge

### **Cleaning of Expansion Joints**

Removal of debris and dirt from the troughs using compressed air or water; and cleaning and resealing of the joints. Performed on all bridges. Expansion joints are located at the surface level where they are subjected to impact and vibration and are exposed not only to the elements such as water, dust, grit, ultra-violet rays and ozone, but also to the effect of chemicals such as salt solutions, cement alkalis and petroleum derivatives. In addition to regular lubrication of moving parts, penetration of water, silt and grit must be effectively prevented or provision made for their removal.



Expansion Joint Cleaning on the Manhattan Bridge. Clean Expansion Joint on the Manhattan Bridge

### **Cleaning of Open Grating Decks**

Removal of debris and dirt from open-grating decks and washing with high-pressure water jets.

### **Sweeping**

Sweeping each bridge with a mechanical sweeper along each curb.

Sweeping each bridge with a mechanical



## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Mechanical Sweeper – Side and Rear Views. (Credit: Peter Basich)

**Washing of Decks and Salt Splash Zones** Washing of decks and salt splash zones to remove remnants of de-icing salts; use of compressed air and water jets to clean tight corners.

### Roadway Surface Maintenance

**Crack Sealing in Pavement and Curbline Sealing** Cleaning of cracks and filling them with sealant; sealing with mastic material along the curb line to prevent water leakage onto bridge components. This maintenance function is sensitive to weather conditions.

**Repair of Sidewalks and Curbs** Sidewalk repair to restore sidewalk to original condition. Curb repair to be undertaken along with this task.



Repaired Bullnose Curb and Sidewalk at Crotona Avenue. (Credit: Joseph Saverino)

**Replacement of Wearing Surfaces** Removal of old wearing surface; preparation of exposed concrete slab or steel plate; installation of new wearing surface. The wearing surface is a two-inch course of bituminous concrete. Also includes minor deck repair, cleaning and waterproofing of deck.

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Asphalt Trailer and Tar Kettle. (Credit: Peter Basich)



Masonry Crews and Highway Repairers Repairing Recurrent Potholes on the Eastbound Brooklyn-Queens Expressway, Just Past the Middagh Street Underpass. Break-Out and Removal of the Old Asphalt Roadway and Concrete Deck. (Credit: Anthony Napolitano)



Installing New Concrete With Rebar in the Cutout on the Eastbound BQE. (Credit: Anthony Napolitano)



Rolling and Tamping the Asphalt on the Eastbound BQE. (Credit: Anthony Napolitano)



## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Sealing the Edges of the Cutout With Asphalt Cement to Prevent Water From Seeping In. Closeup of Part of the Completed Concrete Deck Repair on the Eastbound BQE. (Credit: Anthony Napolitano)

### Electrical and Mechanical Component Maintenance of the 4 East River Bridges and 25 Movable Bridges

#### Maintenance of Electrical Devices

Checking and servicing electrical systems such as travelers, relays, auxiliary contacts, meters, overload relays, time delay relays, span and tail locks, brake systems, transmitters, transformers, fuses, wiring, resistors, etc. Also includes checking interior anchorage lighting, caution lighting, navigation lighting, and necklace lighting. During inspection, the travelers of the East River Bridges are operated to ensure proper calibration of electric motors. If motors are not calibrated properly, the travelers may rotate and jam along their guides. Many of the movable bridges are very old and replacement parts are difficult to find or may not be available any longer. When necessary, Division personnel fabricate machine parts such as shafts, and brake and warning gate components. In addition to inspection of systems, the electrical technicians replace poor condition components with electric systems before corrective maintenance is required. This preventive maintenance strategy avoids disruption of bridge service to motorists. This is important, because once corrective maintenance is necessary, it may require the bridge to be out of service for lengthy periods.

#### Maintenance of Mechanical Components

Cleaning and lubrication of all movable parts and bridge cables for the four East River Bridges and the twenty-five movable bridges. Cleaning and lubrication of travelers; cleaning, wedging and oiling of the main cable strands and eyebars; cleaning of truss bearings; cleaning and lubricating air and fire line valves. Cleaning and lubrication is required to keep components from corroding and becoming immobile. Allowing components to seize could cause operating failure and introduce unsafe structural stresses.



Inspecting the Eyebars in the Brooklyn Anchorage of the Manhattan Bridge. (Credit: NYSDOT)

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*

### Steel Protection – Painting\*\*

**Total Paint Removal and Repainting** Constructing negative pressure containment (Class 1A); washing and surface blasting to commercial-blast or near-white metal condition (Society for Protective Coating SP-6 or SP-10); constructing Class 3P containment; power tool cleaning to bare metal condition (Society for Protective Coating SP-11 or SP-15); lead monitoring and disposal; applying lead-free paint; primer, intermediate coat and top coat. Surface preparation is accomplished by abrasive blasting. The containment materials include tarps, plywood, scaffolding, and cables. Equipment includes blasting machines, needle guns, spray pumps, compressors, dust collectors, filters, and ductwork.



Abrasive Blasting. Platform Installed for Painting of the East 241<sup>st</sup> Street Bridge.



Containment on Queensboro Bridge Manhattan Ramp. (Credit: Peter Basich)

The Division treats all lead paint waste as hazardous waste, and stores and disposes of it according to the Resource Conservation and Recovery Act (RCRA). Waste is stored in approved leak-proof drums and containers which are, in turn stored temporarily in a fenced, secured area on-site until they are transferred to a disposal/recycling facility.

**Full-Steel (Overcoating)** Overcoating of the entire bridge. Solvent cleaning and cleaning of steel surfaces in areas with deteriorated paint is conducted using approved environmentally safe paint removal techniques, and either power tools, hand tools or combination hand/power tools. Power tool cleaning is performed in a Class 3P containment, and hand tool cleaning in a Class 4 containment. Combination hand/power tool cleaning is performed in a Class 3P containment. A localized primer coat and a single finish coat are then applied by brush, roller, or spray over the entire bridge.

**Spot Painting** When the surface to be painted is contaminated with de-icing salts, sea salt, bird excrement, or other corrosive agents, the area is prepared by power washing, using clean water

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*

or steam. When grease or oil is present, it is removed by solvents. Mechanical cleaning with hand and/or power tools is performed in the areas containing deteriorated paint. Power tool cleaning is performed in a Class 3P containment, and hand tool cleaning in a Class 4 containment. Combination hand/power tool cleaning is performed in a Class 3P containment. A spot primer coat and a single finish coat are applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.

**Salt Splash/Spot Painting** This is a new process that combines salt splash with spot painting. It involves preparation of the area to be painted by power wash, using clean water or steam. Solvent cleaning is done in locations where oil and grease need to be removed from the steel surface. Areas to be power washed and painted are: the superstructure (up to six feet upwards from the deck), the underdeck steel (up to three feet from each side of the center line of the expansion joints), and the outside of the bridge's steel faces. In addition to these painted areas, we now perform localized surface preparation and painting of any deteriorated locations as mentioned in our spot painting definition above. After power washing, hand and power tools are used in areas that have started to show deterioration from accumulated de-icing agents. Power tool cleaning is performed in a Class 3P containment, and hand tool cleaning in a Class 4 containment. Combination hand/power tool cleaning is performed in a Class 3P containment. A spot primer coat and finish coat are then applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.



Spot Cleaning Before Painting on the Williamsburg Bridge. Primer Coating on the Williamsburg Bridge.



Containment Examples



## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Bridge Painters at the 11<sup>th</sup> Avenue Viaduct. Bridge Painters Frane Capalija and Goncalo Lima; Supervisor Bridge Painter Georgeios Ploumis; Deputy Director of In-House Painting Earlene Powell; and Bridge Painters Milan Radovic, Krunoslav Golubovic, and Henry Bollin. (Credit: Jure Dzida)

\*Consortium of Civil Engineering Departments of New York City Colleges and Universities. *Preventive Maintenance Management System For New York City Bridges: Update 1998. Technical Report No. 98-1. 1999.* \*\*Descriptions modified in November 2003.

## *MAINTENANCE PERSONNEL RESOURCES IN 2004*

Preventive maintenance, corrective repair, flag repair, and painting work on the bridges and other structures within the City is performed by mechanics and supervisors in a variety of trades. The bridge operators provide safe and expedient passage to all marine and vehicular traffic under and on movable bridges. A breakdown of this work force by trade is:

	SUPERVISORS	MECHANICS
BRICKLAYERS	2	4
BRIDGE OPERATORS (INCLUDES ASSISTANTS)	19	69
BRIDGE PAINTERS	6	35
BRIDGE REPAIRERS/RIVETERS	2	36
CARPENTERS	2	14
CEMENT MASONS	-	6
DEBRIS REMOVERS	-	1
ELECTRICIANS (INCLUDES HELPERS)	2	23
HIGHWAY REPAIRERS (INCLUDES ASSISTANTS & SEASONAL WORKERS)	23	87
MACHINISTS	-	2
MOTOR GRADER OPERATORS	-	1
OILERS	-	14
STATIONARY ENGINEERS (ELECTRIC)	-	1
TRACTOR OPERATORS	-	1
TRAFFIC DEVICE MAINTAINERS	-	3
<b>TOTALS</b>	<b>56 SUPERVISORS</b>	<b>297 MECHANICS</b>



## *MAINTENANCE PERSONNEL RESOURCES IN 1900*

A breakdown of the Department of Bridges work force by trade in 1900:

	SUPERVISORS	MECHANICS
AXEMAN		8
BLACKSMITH	1	2
BOILERMAKER		1
BRICK MASON	1	4
BRIDGE TENDER	15	137
CARPENTER	1	23
DOCKBUILDER		1
DRIVER		11
FIREMAN		18
FITTER		3
GATEMAN		7
INSPECTOR (INCLUDING STEEL)		10
LABORER (INCLUDES HELPERS)	7	111
LEVELER		4
LINEMAN		3
MACHINIST (INCLUDING HELPERS)		13
MASONRY INSPECTOR		7
MECHANIC	1	2
PAINTER	1	16
RIGGER		11
RIVETER	1	6
RODMAN		4
SHIP CARPENTER		4
SOUNDER		4
STABLEHAND		3
STEAM ENGINEER (INCLUDES DYNAMO)		15
STONE CUTTER/STONE MASON	1	2
SUPERINTENDENT ELECTRIC LIGHT	1	
SUPERVISOR (INCLUDES ASSTS)	12	
TOOLMAN		2
TRANSITMAN		7
TRIMMER		2
<b>TOTALS</b>	<b>42 SUPERVISORS</b>	<b>441 MECHANICS</b>

## BRIDGE INSPECTION EQUIPMENT LIST\*

Inspector Equipment	Inspection Team Equipment	Inspection Van Equipment
Boots-Knee High Dust Masks (Disposable) Safety Goggles Hard Hat With Liner Rain Hat & Jacket OSHA Approved Respirator & Filters Work Gloves Long Cuff Work Gloves Unlined Work Gloves Lined Chipping Hammer Clip Boards Deceleration Lanyards Flashlight (2 "D" Cell) Safety Vest Belt With Two Drop Forged D-Rings Level 9" (Magnetic) Tool Bags (24") Class III Body Harness Lanyards Bridge Inspection Manual (New York State) Technical Advisories For Inspection Manual Emergency Procedure Instructions	5 Boro Map Binoculars Telephone Directory Broom Camera 35mm Digital Camera Hand Compass Screwdriver Set (Regular) Screwdriver Set (Phillips) Dye Penetrant Kit Lantern D-Meter With Test Block Marking Paint Spray Retract Survey Rod 25' Sledge Hammer (8 lbs.) Thermometer Spray Penetrating Oil Cell Phone/Radio Vernier Calipers Wrenches 12" Tool Pouch Lumber Crayons Awl Spray Paint Calipers Drafting Equipment Hacksaw Hacksaw Blades (Extra) Paint Scraper Inspection Mirror Level 24" Pliers 8" Plumb Bob Pocket Knife Ruler 25' or 30' (Metal) Ruler 100' (Fiberglass) Scraper Blades (Extra) Snips Wire Brush Folding Ruler 8' Rope ½" With 100' Coil Handheld Computer	Clip Boards Flashlight (3 "D" Cell) Fire Extinguisher First Aid Kit 3 Flags Step Ladder 6' or 8' 10 Traffic Cones Tool Chest  <b>Put In Trucks By Highway Repairers When Needed</b> Generator Oil For Generator Approved Safety Gasoline Can Bolt Cutter Extension Ladder 32' Extension Ladder 24' Extension Ladder 16' Shovel  Push Broom  Dust Pan & Sweep Broom Water Cooler Flood Lights

\*New York City Department of Transportation, Division of Bridges. *Bridge Inspections, Research & Development Section Equipment Checklist*. 2003.

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**JANUARY**

<i>"Romance and Cigarettes"</i>	Motion Picture	Manhattan Bridge
<i>"Martini's Shot"</i>	Short Film	Queensboro Bridge Roadway

**FEBRUARY**

<i>Daimler Chrysler Commercial</i>	Television	Queensboro Bridge Roadway
<i>"We Love 'Sex and the City' "</i>	Television	Brooklyn Bridge Walkway
<i>Brooklyn Family</i>	Still Photography	Brooklyn Bridge Walkway
<i>"Poison Tree"</i>	Short Film	Williamsburg Bridge Walkway
<i>"Anonymous Content"</i>	Motion Picture	Brooklyn Bridge Walkway
<i>Visionnaire Magazine</i>	Still Photography	Brooklyn Bridge Walkway

**MARCH**

<i>"Coalition"</i>	Motion Picture	Williamsburg Bridge Walkway
<i>"Forward Movement"</i>	Short Film	Manhattan Bridge Walkway
<i>Arrow Clothing</i>	Still Photography	Brooklyn Bridge Walkway
<i>"Jonny Zero"</i>	Television Pilot	Williamsburg Bridge Walkway
<i>Newsday Commercial</i>	Television	Brooklyn Bridge Walkway
<i>"Good Morning Television"</i>	Television	Brooklyn Bridge Walkway
<i>British Airways Commercial</i>	Television	Manhattan Bridge
<i>Lincoln Mercury Commercial</i>	Still Photography	Brooklyn Bridge Roadway
<i>The Royal Bank of Scotland</i>	Still Photography	Brooklyn Bridge Walkway
<i>Matinique Catalogue</i>	Still Photography	Brooklyn Bridge Walkway
<i>"X-Change"</i>	Television Documentary	Brooklyn Bridge Walkway
<i>"The DeMarco Affairs"</i>	Television	Brooklyn Bridge
<i>Diet Coke Commercial</i>	Television	Queensboro Bridge Roadway

**APRIL**

<i>Diet Coke Commercial</i>	Television	Queensboro Bridge Roadway
<i>"Martini's Shot"</i>	Short Film	Queensboro Bridge Roadway
<i>Beasty Boys</i>	Music Video	Brooklyn Bridge Walkway
<i>Marie Claire Magazine</i>	Still Photography	Williamsburg Bridge Walkway
<i>Cosmopolitan Magazine (Italy)</i>	Still Photography	Brooklyn Bridge Walkway
<i>"The Alarm"</i>	Music Video	Brooklyn Bridge Walkway
<i>"The Life of Father Mychal Judge"</i>	Television Documentary	Brooklyn Bridge Walkway
<i>"A Lot Like Love"</i>	Motion Picture	Brooklyn Bridge
<i>Japan Airlines</i>	Still Photography	Brooklyn Bridge Walkway
<i>NYC Department of Health</i>	Still Photography	Brooklyn Bridge Walkway
<i>"Virginal Young Blondes"</i>	Short Film	Brooklyn Bridge
<i>"Love"</i>	Short Film	Carroll Street Bridge Walkway
<i>"I'd Rather We Remain Friends"</i>	Motion Picture	Brooklyn Bridge Roadway
<i>"The Next"</i>	Television	Brooklyn Bridge Walkway
<i>Irish National Lottery Commercial</i>	Television	Brooklyn Bridge
<i>New York State Lottery Commercial</i>	Television	Queensboro Bridge Roadway
<i>Tiffany &amp; Company</i>	Still Photography	Brooklyn Bridge Walkway
<i>"Sound Barrier"</i>	Short Film	Greenpoint Avenue Bridge Walkway

**MAY**

<i>"High Speed Society"</i>	Television Documentary	Manhattan Bridge Walkway and Bicycle Path
<i>"Romance and Cigarettes"</i>	Motion Picture	Roosevelt Island Bridge Williamsburg Bridge

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MOTION PICTURE, TELEVISION, VIDEO, & STILL PHOTOGRAPHY HIGHLIGHTS

<b>"Life on the Ledge"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>Hunting World Catalogue</b>	Still Photography	Brooklyn Bridge Walkway Queensboro Bridge Walkway Brooklyn Bridge Walkway
<b>Watchtower Bible and Tract Society of NY</b>	Still Photography	
<b>"The Last Fishermen of New York"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>"The Baxter"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"Isaac Mizrahi Show"</b>	Television	Brooklyn Bridge Walkway
<b>"Kiss of Life"</b>	Short Film	Brooklyn Bridge Walkway and Bicycle Path
<b>"New Morning"</b>	Television	Brooklyn Bridge Walkway
<b>"The Date"</b>	Short Film	Queensboro Bridge Roadway
<b>JUNE</b>		
<b>Prima Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Tokyo Jonetsutairku"</b>	Television	Brooklyn Bridge Walkway
<b>TSI Catalogue</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Just-Be-Me-Vacation"</b>	Television	Queensboro Bridge Walkway
<b>Best Montana Catalogue</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Irish Language"</b>	Television	Brooklyn Bridge Walkway
<b>"Painting Mozart"</b>	Short Film	Brooklyn Bridge Walkway
<b>"Sound Barrier"</b>	Short Film	Greenpoint Avenue Bridge
<b>Grazia Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Switched"</b>	Television	Manhattan Bridge Walkway
<b>"Nice Package"</b>	Television	Manhattan Bridge Roadway
<b>Corvette Commercial</b>	Television	Queensboro Bridge Roadway Park Avenue Tunnel
<b>"Yoga in America"</b>	Documentary	Brooklyn Bridge Walkway Manhattan Bridge Walkway
<b>"The Perfect Man"</b>	Motion Picture	Brooklyn Bridge Roadway
<b>Glamour Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>AR Magazine</b>	Still Photography	Manhattan Bridge Walkway
<b>Condé Nast Traveler Magazine</b>	Still Photography	Manhattan Bridge Walkway Brooklyn Bridge Walkway
<b>"Lowenthal"</b>	Short Film	Williamsburg Bridge Walkway
<b>"Victim 001"</b>	Video	Brooklyn Bridge Walkway
<b>JULY</b>		
<b>"Cool In Your Code"</b>	Television	Brooklyn Bridge Walkway
<b>Teen Vogue Magazine</b>	Still Photography	Williamsburg Bridge Walkway
<b>"Blindness"</b>	Short Film	Brooklyn Bridge Walkway
<b>Esquire Magazine (Greece)</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Forcing Spring"</b>	Short Film	Queensboro Bridge Walkway
<b>Boy Scouts of America</b>	Video	Brooklyn Bridge Walkway
<b>"Kaptain Knievel" Stunt Tour</b>	Television	Brooklyn Bridge
<b>AUGUST</b>		
<b>New York &amp; Co. Commercial</b>	Television	Brooklyn Bridge Walkway
<b>Watchtower Bible and Tract Society of NY</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Clubhouse"</b>	Television	Brooklyn Bridge
<b>"Mega Structures"</b>	Television	Brooklyn Bridge Roadway
<b>"Top Secret"</b>	Television	Brooklyn Bridge Walkway
<b>"The Next"</b>	Television	Brooklyn Bridge Walkway
<b>Price Waterhouse Annual Report</b>	Still Photography	Brooklyn Bridge Walkway

MOTION PICTURE, TELEVISION, VIDEO, & STILL PHOTOGRAPHY HIGHLIGHTS

<b>"Snap Pop"</b>	Short Film	Brooklyn Bridge Walkway
<b>"Lord of War"</b>	Motion Picture	Dover Street Yard
<b>"Satellite"</b>	Motion Picture	Pulaski Bridge
<b>"Get Outta Town"</b>	Television	Brooklyn Bridge Walkway
<b>"How Clean is Your House?"</b>	Television	Brooklyn Bridge Walkway
<b>U.S. Open - Publicity</b>	Video	Brooklyn Bridge Walkway
<b>Urban Agriculture "Heifer International"</b>	Video	Brooklyn Bridge Walkway
<b>"A Baby Story"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>"How to Sleep Better"</b>	Television	Brooklyn Bridge Walkway
<b>"Backpackers"</b>	Video Pilot	Brooklyn Bridge Walkway
<b>"Meet the Fockers"</b>	Motion Picture	Manhattan Bridge Roadway
<b>"Manhunt: the Search for America's Most Gorgeous Male Model"</b>	Television	Brooklyn Bridge Walkway
<b>"Punching at the Sun"</b>	Short Film	55 <sup>th</sup> Avenue Pedestrian Bridge
<b>"Jonny Zero"</b>	Television	Williamsburg Bridge
<b>"Jane's New York"</b>	Television	Brooklyn Bridge Roadway
<b>"Uncle Vanya"</b>	Digital Film	Brooklyn Bridge Walkway
<b>SEPTEMBER</b>		
<b>Honda Motors</b>	Digital Still Photography	Brooklyn Bridge Roadway
<b>"Jonny Zero"</b>	Television	Williamsburg Bridge
<b>"History of the Mafia"</b>	Television	Brooklyn Bridge Walkway
<b>"Punching at the Sun"</b>	Short Film	55 <sup>th</sup> Avenue Pedestrian Bridge
<b>"The Holocaust Memorial Project"</b>	Television	Brooklyn Bridge Walkway and Roadway
<b>"The Big I Conference"</b>	Video	Brooklyn Bridge Walkway
<b>"Ten Takes on New York"</b>	Short Film	Brooklyn Bridge Walkway
<b>"Fantastic Four"</b>	Motion Picture	Brooklyn Bridge Roadway
<b>Ocean Style Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>Bank of New York Commercial</b>	Television	Williamsburg Bridge Walkway
<b>Cingular Commercial</b>	Television	Brooklyn Bridge Walkway
<b>"Mobito4"</b>	Video	Brooklyn Bridge Walkway
<b>"Brian Kennedy Song"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>"Knocking"</b>	Documentary	Williamsburg Bridge Walkway
<b>"Law &amp; Order"</b>	Television	Brooklyn Bridge Walkway
<b>"The Life of Grace Kelly"</b>	Television Documentary	Williamsburg Bridge Roadway
<b>"The Baxter"</b>	Motion Picture	Brooklyn Bridge
<b>Elegant Bride Magazine</b>	Still Photography	Manhattan Bridge
<b>"The Life of Grace Kelly"</b>	Television Documentary	Brooklyn Bridge
<b>"The Baxter"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>Elegant Bride Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>OCTOBER</b>		
<b>"Blind Justice"</b>	Television	Manhattan Bridge
<b>"Booming Out: Rebuilding the World"</b>	Television Documentary	Manhattan Bridge Walkway
<b>Haitian Mass Choir</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Crushed Out"</b>	Video	Brooklyn Bridge Walkway
<b>"Ultimate Engineering"</b>	Television Documentary	Third Avenue Bridge
<b>"Damaged Goods"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"Die Patriarchin"</b>	Television	Manhattan Bridge Walkway
<b>"Arcadia"</b>	Still Photography	Brooklyn Bridge Walkway
<b>"The American Ruling Class"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>"Perspectives"</b>	Television	Williamsburg Bridge Walkway
<b>"The Virtual Magician"</b>	Television	Brooklyn Bridge Walkway
<b>"The Bachelorette"</b>	Television	Brooklyn Bridge Walkway



*MOTION PICTURE, TELEVISION, VIDEO, & STILL PHOTOGRAPHY HIGHLIGHTS*

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<b>"Visions of New York City"</b>	Television	Manhattan Bridge Roadway
<b>BMW Motorcycle Brochure</b>	Still Photography	Manhattan Bridge Roadway
<b>"Otherwise Engaged"</b>	Motion Picture	Williamsburg Bridge Roadway
<b>"The Honeymooners"</b>	Motion Picture	Brooklyn Bridge Walkway and Esplanade

**NOVEMBER**

<b>River Island Clothing Catalogue</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Shoegirl"</b>	Short Film	Brooklyn Bridge Walkway
<b>"Jo Boley Wo Nehal"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"I Walk Alone"</b>	Short Film	Brooklyn Bridge Walkway
<b>"How Low Can You Go?"</b>	Television	Brooklyn Bridge Walkway
<b>Glamour Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Hope and a Little Sugar"</b>	Motion Picture	Williamsburg Bridge Walkway
<b>"Mr. &amp; Mrs. Smith"</b>	Motion Picture	Queensboro Bridge Roadway
<b>"Sad Serenade"</b>	Television	Manhattan Bridge Roadway
<b>"Two for the Money"</b>	Motion Picture	Brooklyn Bridge Roadway
		Brooklyn Bridge Walkway and Bicycle Path
<b>"Julian &amp; Charlie"</b>	Motion Picture	Brooklyn Bridge Walkway
		Williamsburg Bridge Walkway
<b>VSE Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Forever &amp; Ever, Mary"</b>	Motion Picture	Brooklyn Bridge Walkway

**DECEMBER**

<b>"Liliana , Rebecca"</b>	Short Film	Manhattan Bridge Roadway
<b>"Divorce Lawyer"</b>	Television	Brooklyn Bridge Roadway
<b>Vanity Fair Magazine</b>	Still Photography	Manhattan Bridge Walkway
<b>"Paparazzo"</b>	Motion Picture	Brooklyn Bridge Roadway
<b>"Law &amp; Order: Special Victims Unit"</b>	Television	Carroll Street Bridge
<b>"Orpheus Descending"</b>	Short Film	Brooklyn Bridge Walkway and Roadway
		Manhattan Bridge Walkway
		Williamsburg Bridge Walkway
		Queensboro Bridge Walkway

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## In Memoriam

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The 2004 edition of the New York City Bridges And Tunnels Annual Condition Report is dedicated to the memory of the following employees, whose wisdom and dedication to their work will be sorely missed. Their passing reminds us that the people of the Division of Bridges are the strength of the Agency, providing a tradition of quality service to the public.

**Peter Johe, Administrative Engineer M-III, former Director of Flags and later  
the Director of East River Bridges**

December 2, 1958 -- February 1, 2004

15 ½ years service

Mr. Johe first served as Engineer-in-Charge of BQR Bridges in our in-house maintenance and repair section. This was when the Division was first formed and we undertook the very aggressive program to "Open the Closed Bridges." The in-house group's most ambitious project of this program was the rebuilding of the Carroll Street Bridge over the Gowanus Canal in time for its 100<sup>th</sup> birthday in September 1989. Under Peter's leadership this historical movable bridge was completely rehabilitated and restored to service on time.

After a few years as E-I-C of BQR Bridges, Mr. Johe transferred to the Flags Unit and in 1994, became Director of Flags. His responsibilities included the development and implementation of design plans for the structural repair of bridges and the supervision of a large staff of professional and skilled trade employees. He oversaw the response to all emergencies which involved structural flagged conditions on the bridges.

In 1997, Peter joined the Bridge Construction Division as Director of East River Bridges. He later became Director of East River Bridges for both design and construction when the Division of Bridges was reorganized in 1998.

Mr. Johe will be remembered for his contributions to the East River Bridge program, and his passion for repairing our city's infrastructure system. We will miss his wit and humor but especially his sharp intelligence.

**Douglas Baptist, Supervisor Bridge Painter**

January 23, 1953 -- November 13, 2004

14 years service

Mr. Baptist joined the Division's Bridge Painting team in 1990, and was promoted to Supervisor Bridge Painter in 1996. He earned the respect of coworkers and subordinates alike. His two proud sons, inspired by his work, also became painters. Mr. Baptist was known as an honest man of integrity and will be remembered as a respected team leader.



Peter Johe



Douglas Baptist





## 2004 INVENTORY LOCATION MAPS

Four years ago, we added a new feature to the Inventory Location Maps; Community Board borders. With this added feature, the reader will be able to identify within which Community Boards bridges are located.

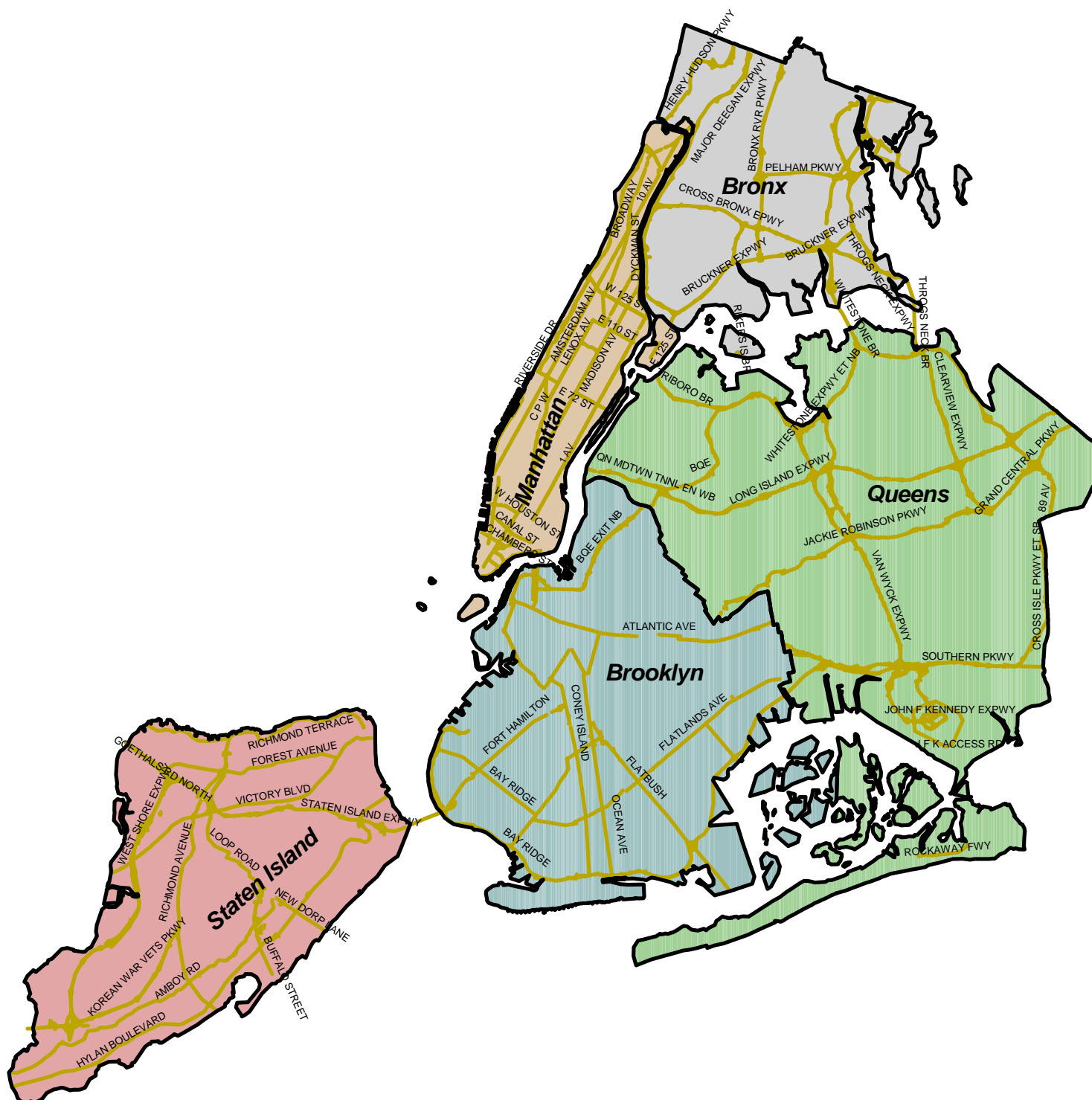
On these maps, all Community Boards consist of three (3) digits. The first digit is for map plotting purposes. The next two digits identify the Community Board. In cases of certain parks and airports, the Community Board number does not correspond with any Community Board. These exceptions are:

<b>Bronx</b>	26=Van Cortlandt Park	<b>Brooklyn</b>	55=Prospect Park
	27=Bronx Park		56=Gateway Nat'l Rec. Area/Floyd Bennett Field
	28=Pelham Bay Park	<b>Queens</b>	81=Alley Pond Park
<b>Manhattan</b>	64= Central Park		82=Cunningham Park
			83=JFK Airport
			84= Gateway Nat'l Rec. Area/Fort Tilden-Jacob Riis Park

The Community Board listings correspond to those listed in the inventory, which begins on page 165.


As this is still a work in progress, some structures that fall on Community Board dividing lines are shown in only one Community Board. As the plotting of the maps is refined and further research conducted, all Community Boards a structure is in will be identified.

# ALL BOROUGH MAP

 Major Roadways

## Five Boroughs

☐ Bronx

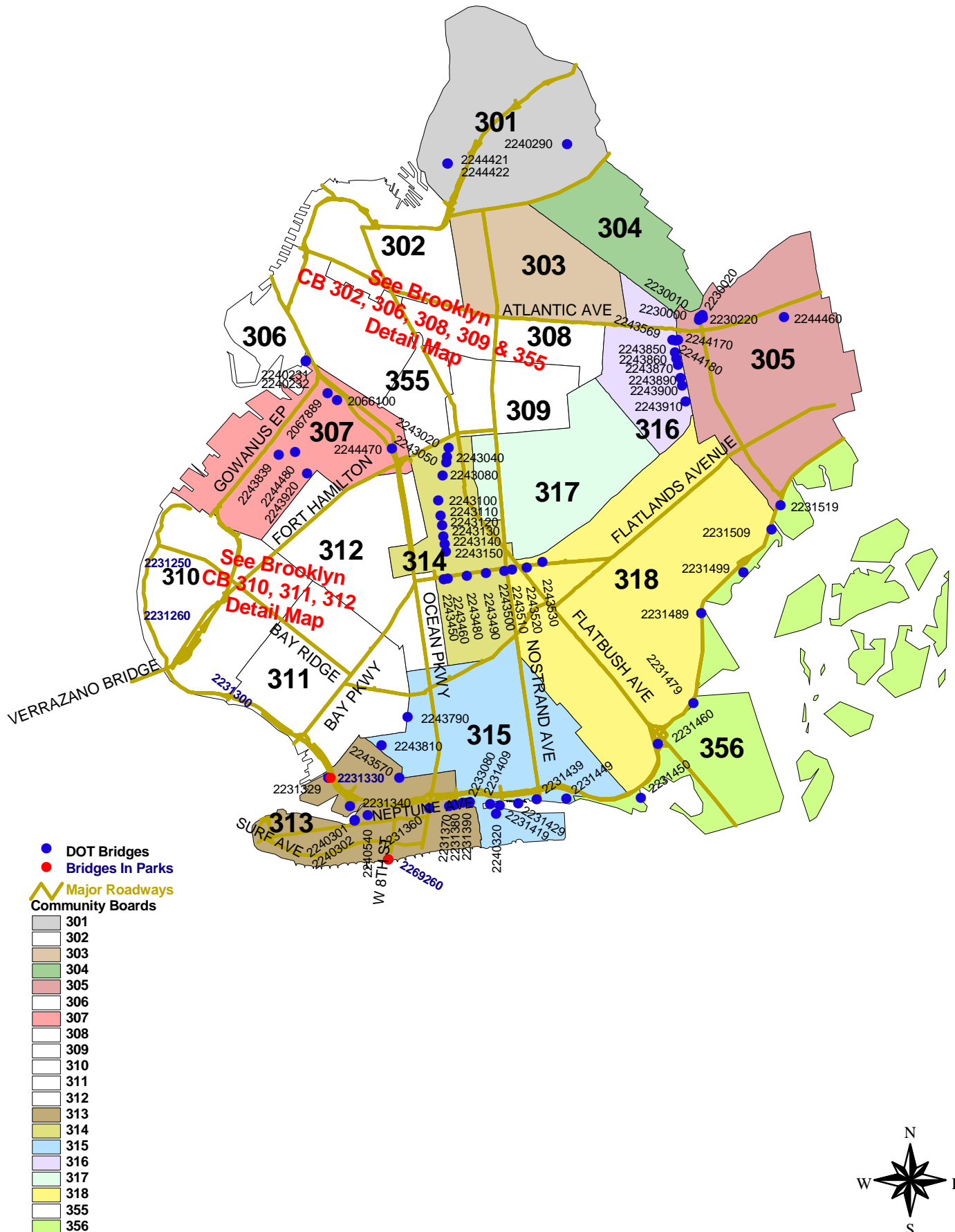
 Brooklyn

 **Manhatt**

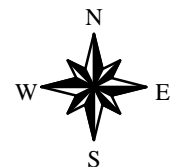
Queens  
Staten Island



# BROOKLYN



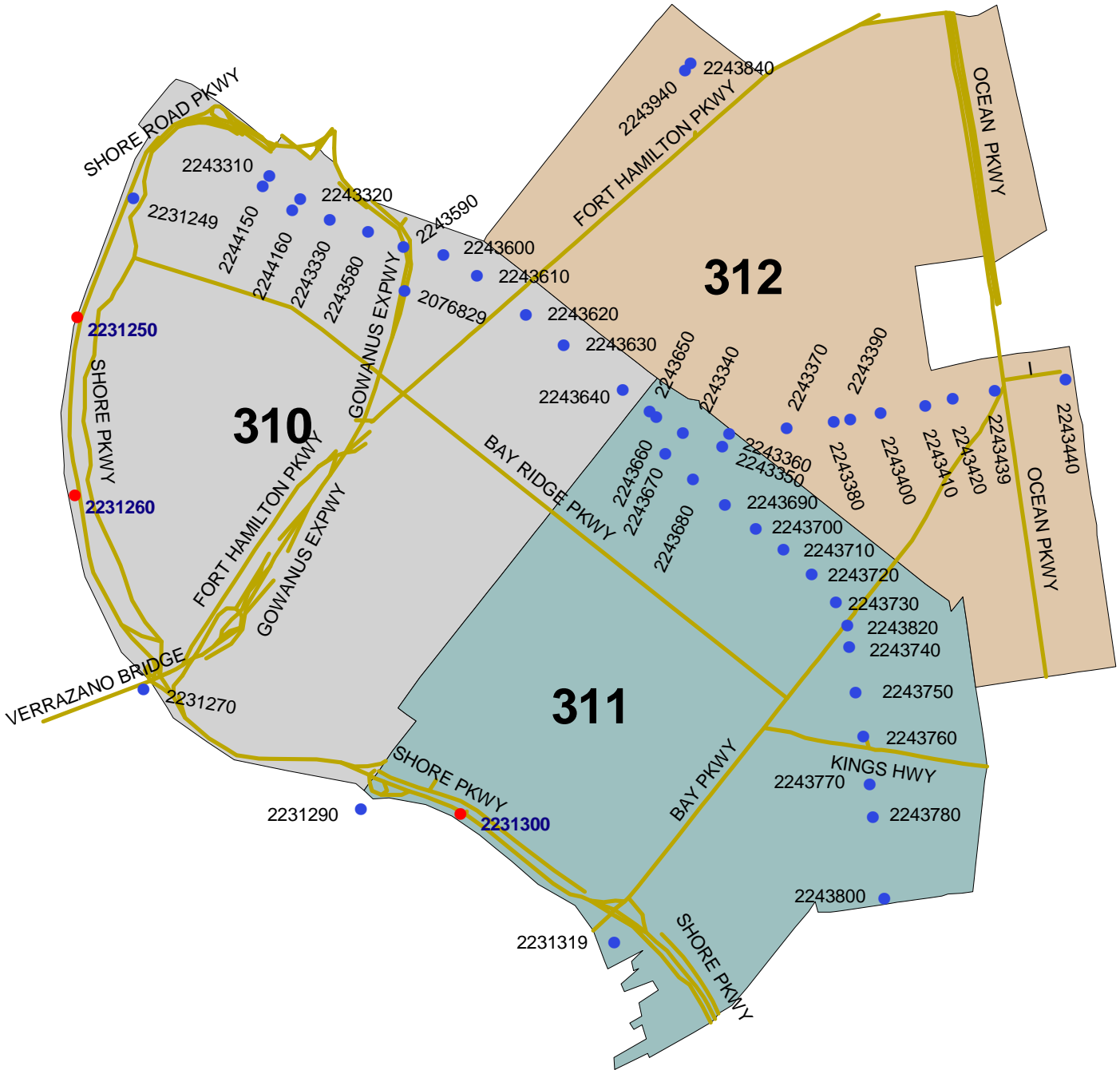
The map displays the Gowanus Expressway area in Brooklyn, with various streets and neighborhood boundaries. The map is divided into several colored regions: 302 (grey), 306 (light blue), 308 (tan), 309 (green), and 355 (pink). Major streets include Kent Ave, Flatbush Ave, Atlantic Ave, Parkside Ave, Nostrand Ave, Gowanus Expwy, and BQE. Numerous blue and red dots are scattered across the map, representing specific locations or data points. The map also shows the Gowanus Expressway and the Gowanus Canal.



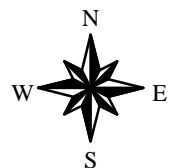
# BROOKLYN

## CB 310, 311, 312

### DETAIL

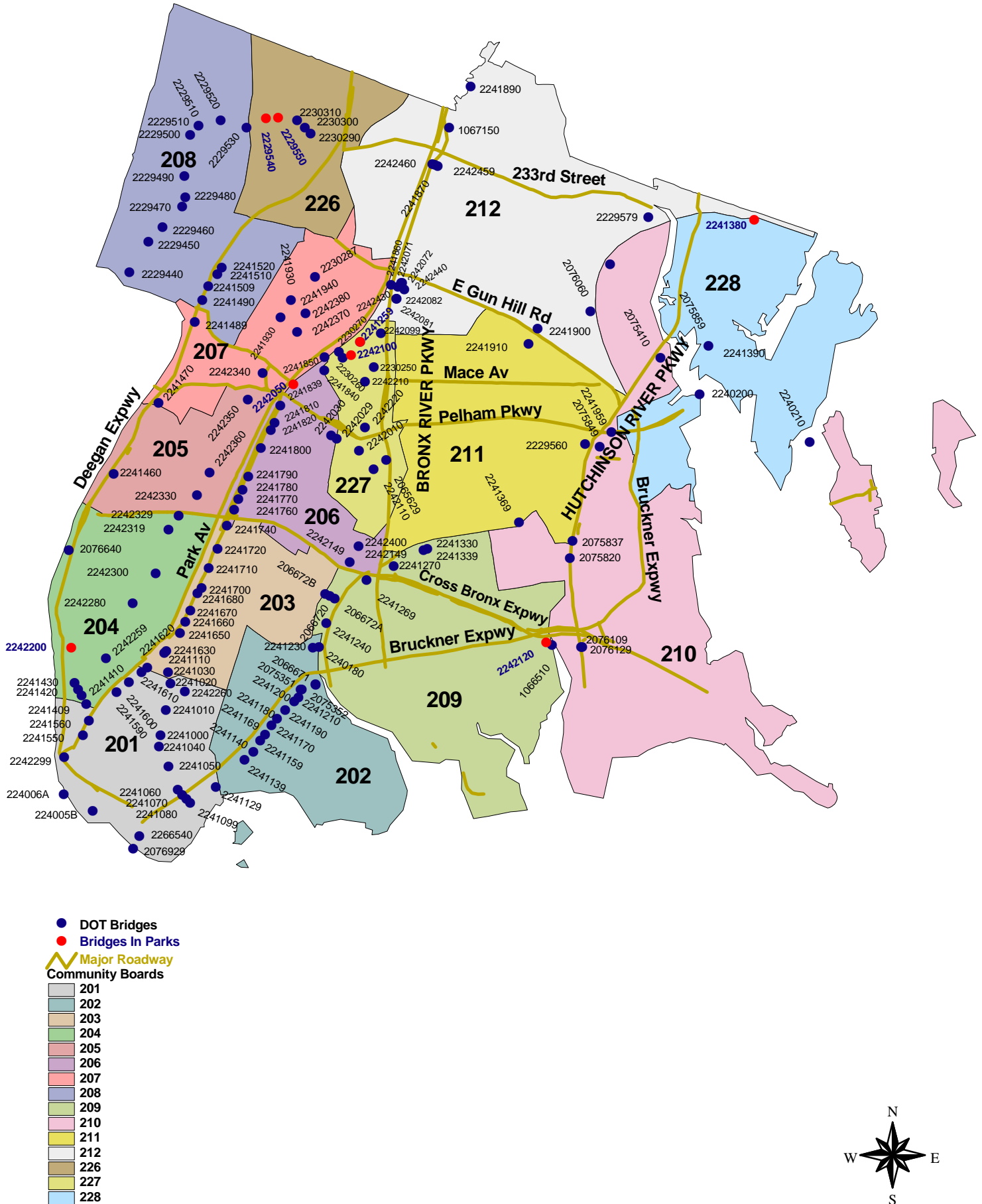


- DOT Bridges
- Bridges In Parks
- Major Roadways
- Community Boards
- 310
- 311
- 312

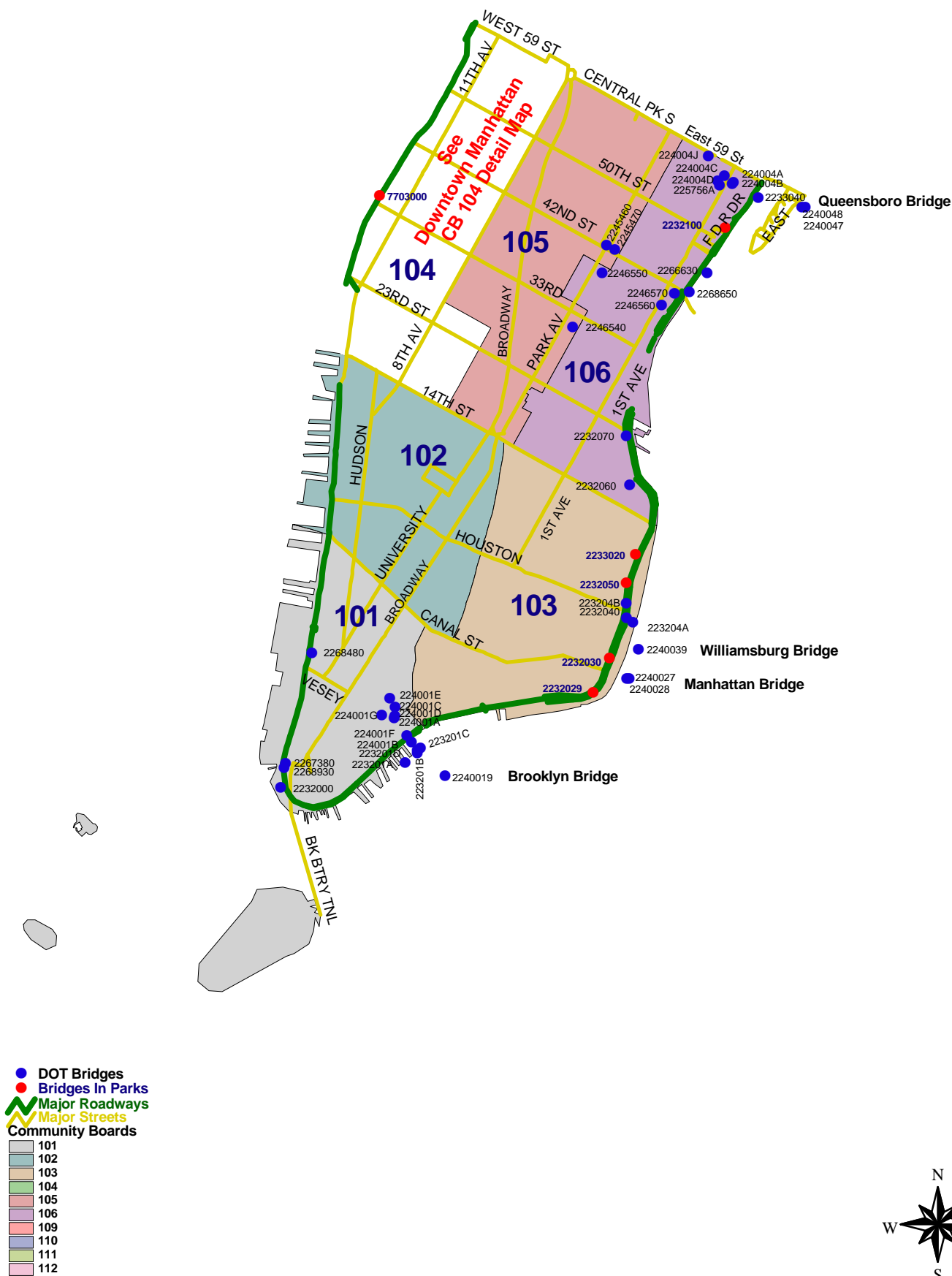




# BRONX



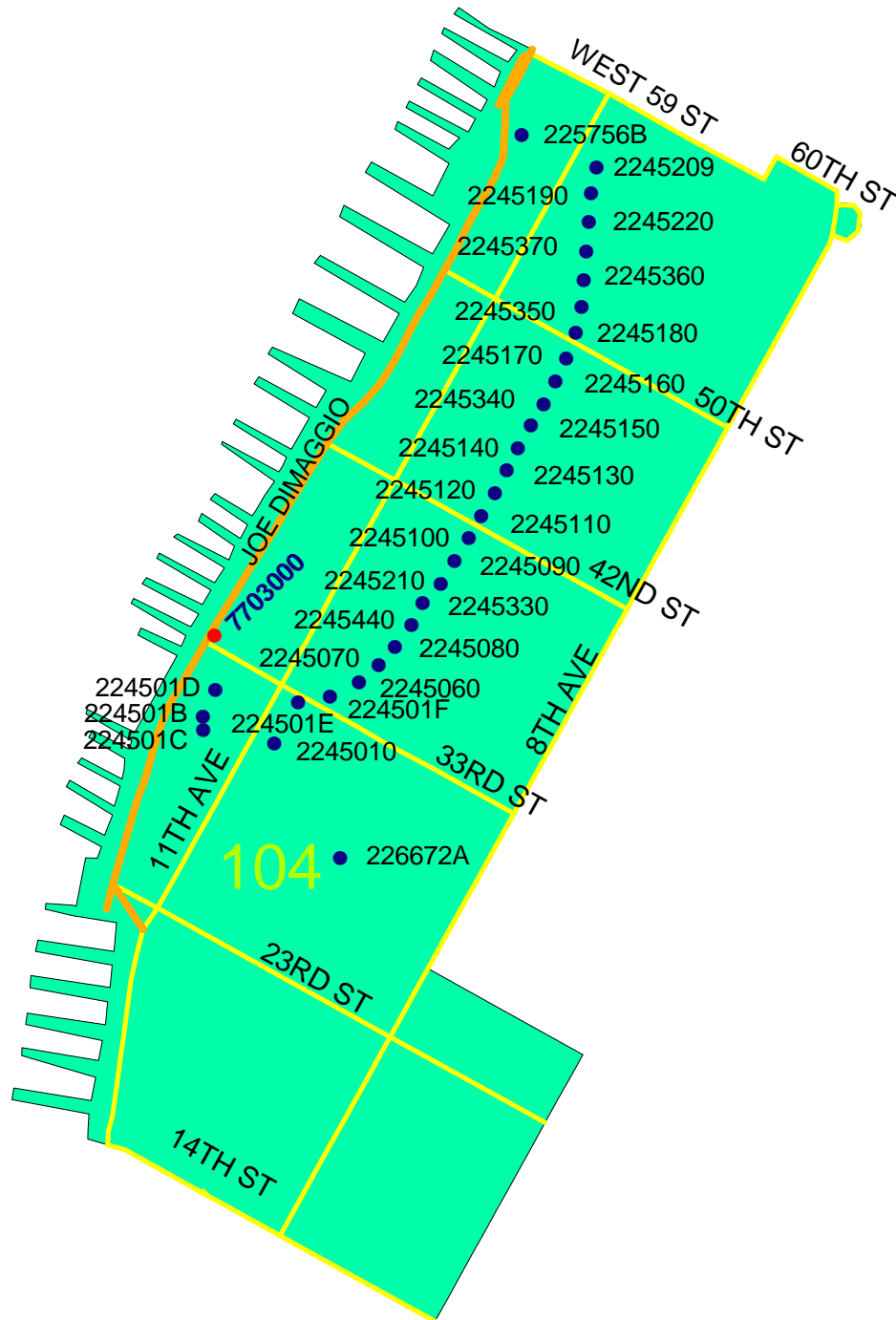
# DOWNTOWN MANHATTAN



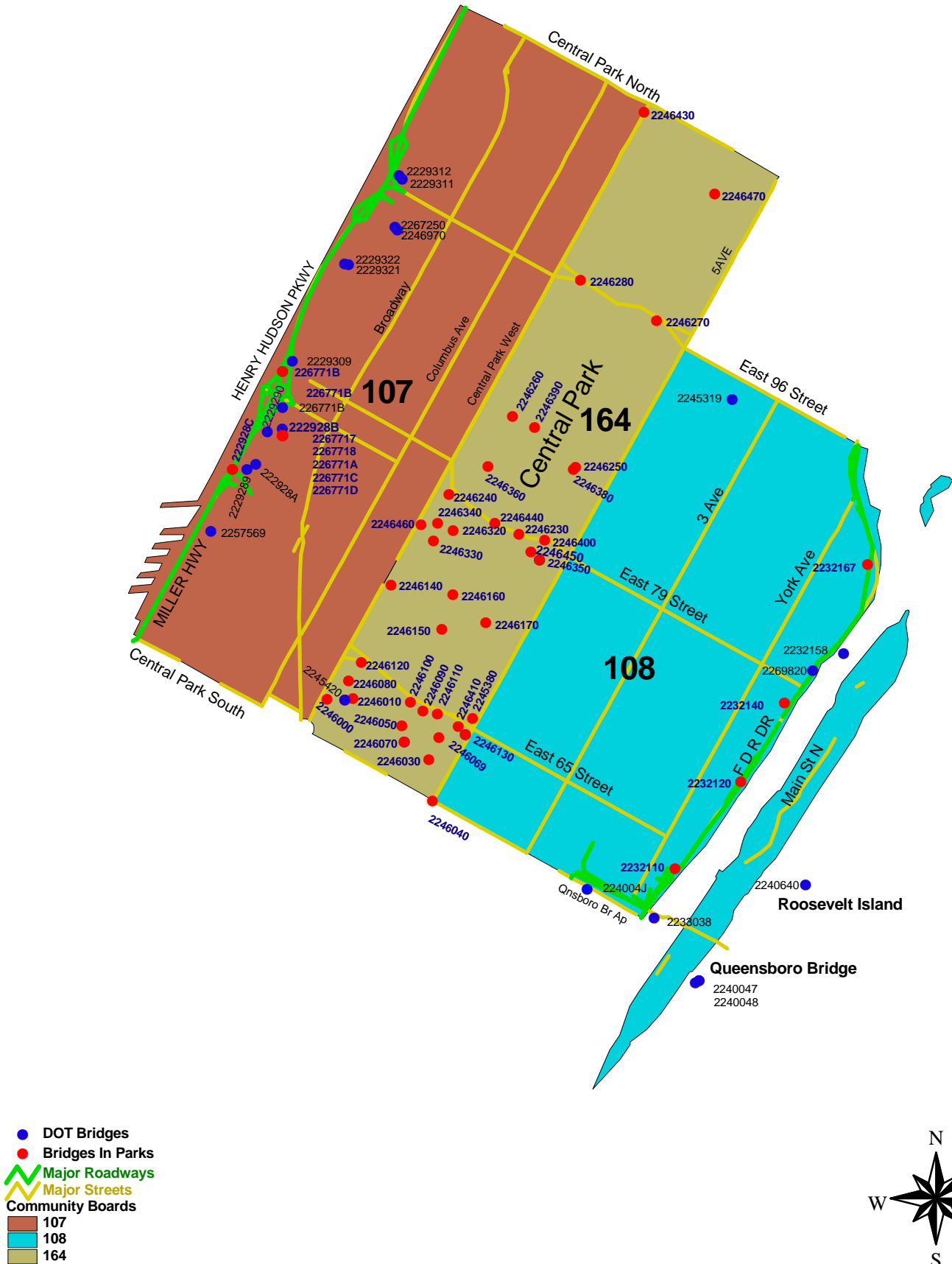
# DOWNTOWN MANHATTAN

## CB 104

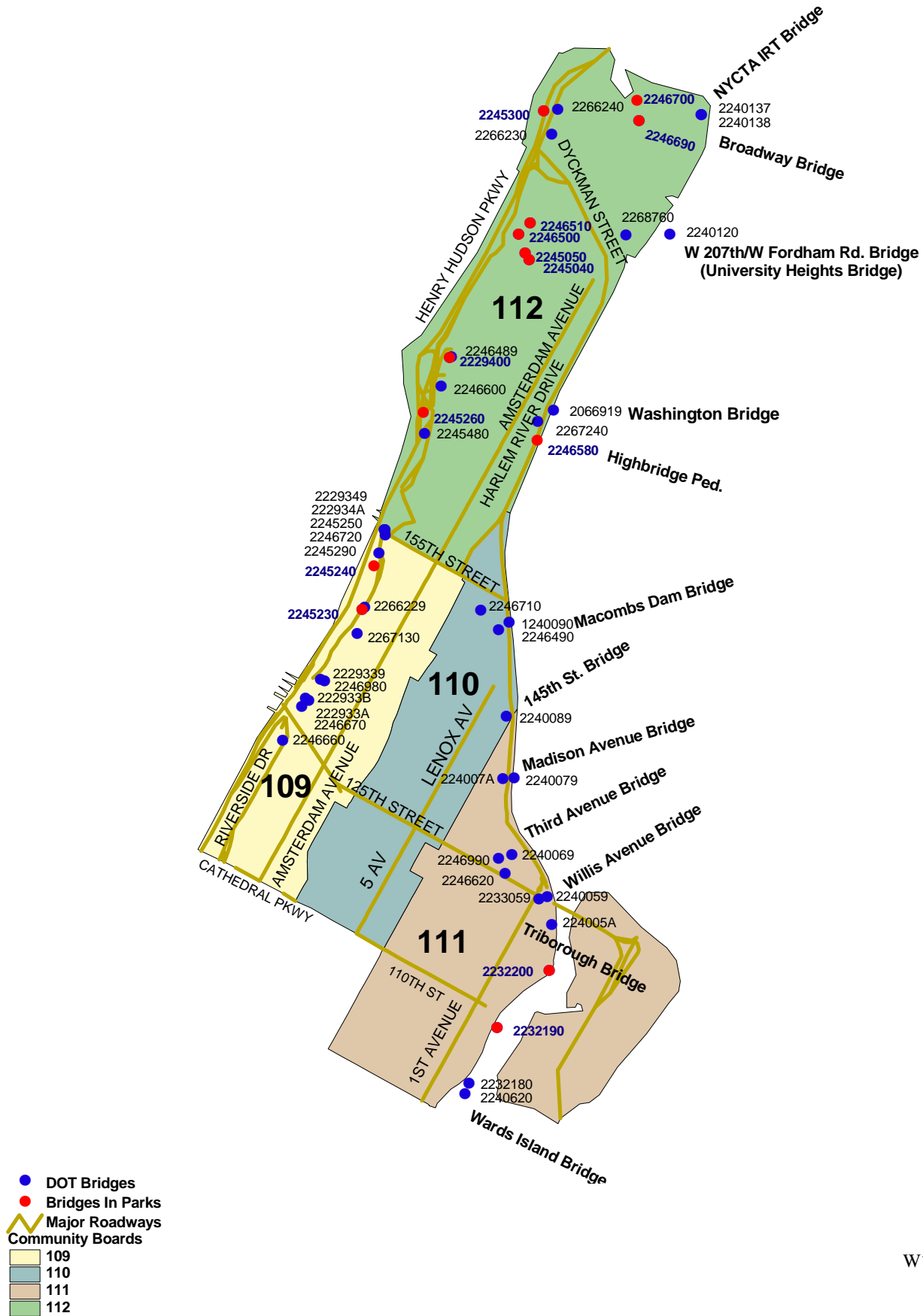
### DETAIL



# MIDTOWN MANHATTAN

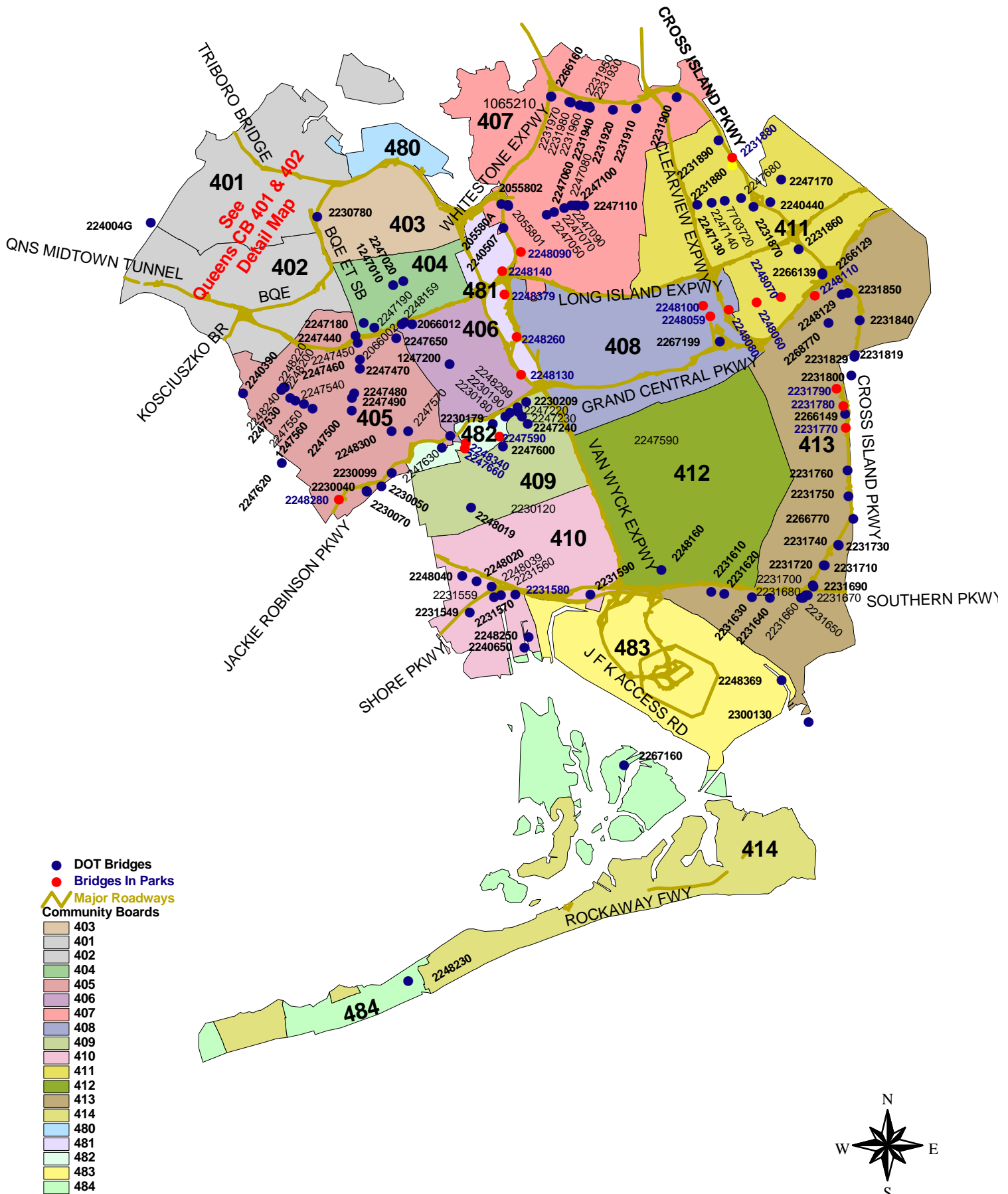


# UPTOWN MANHATTAN

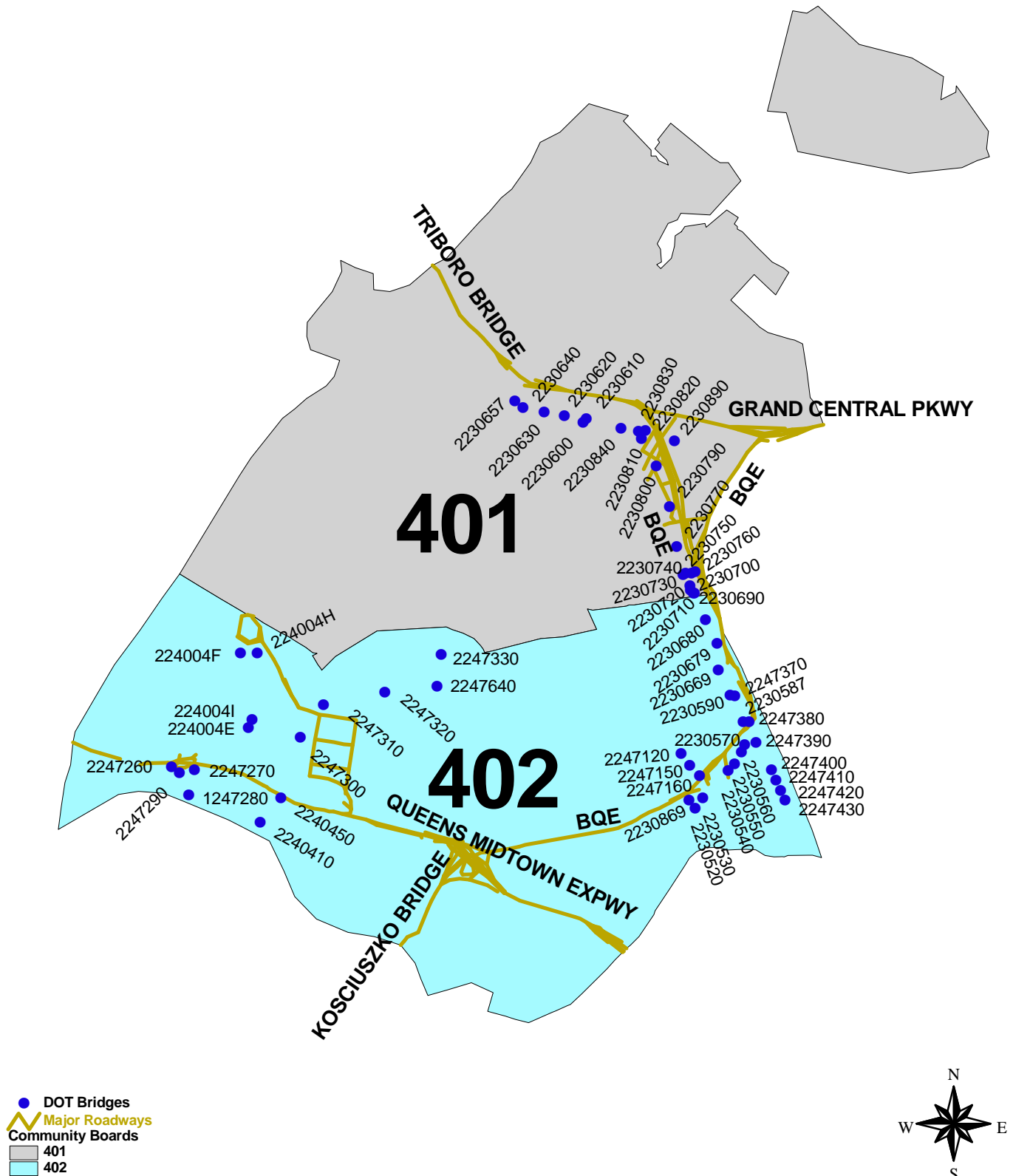




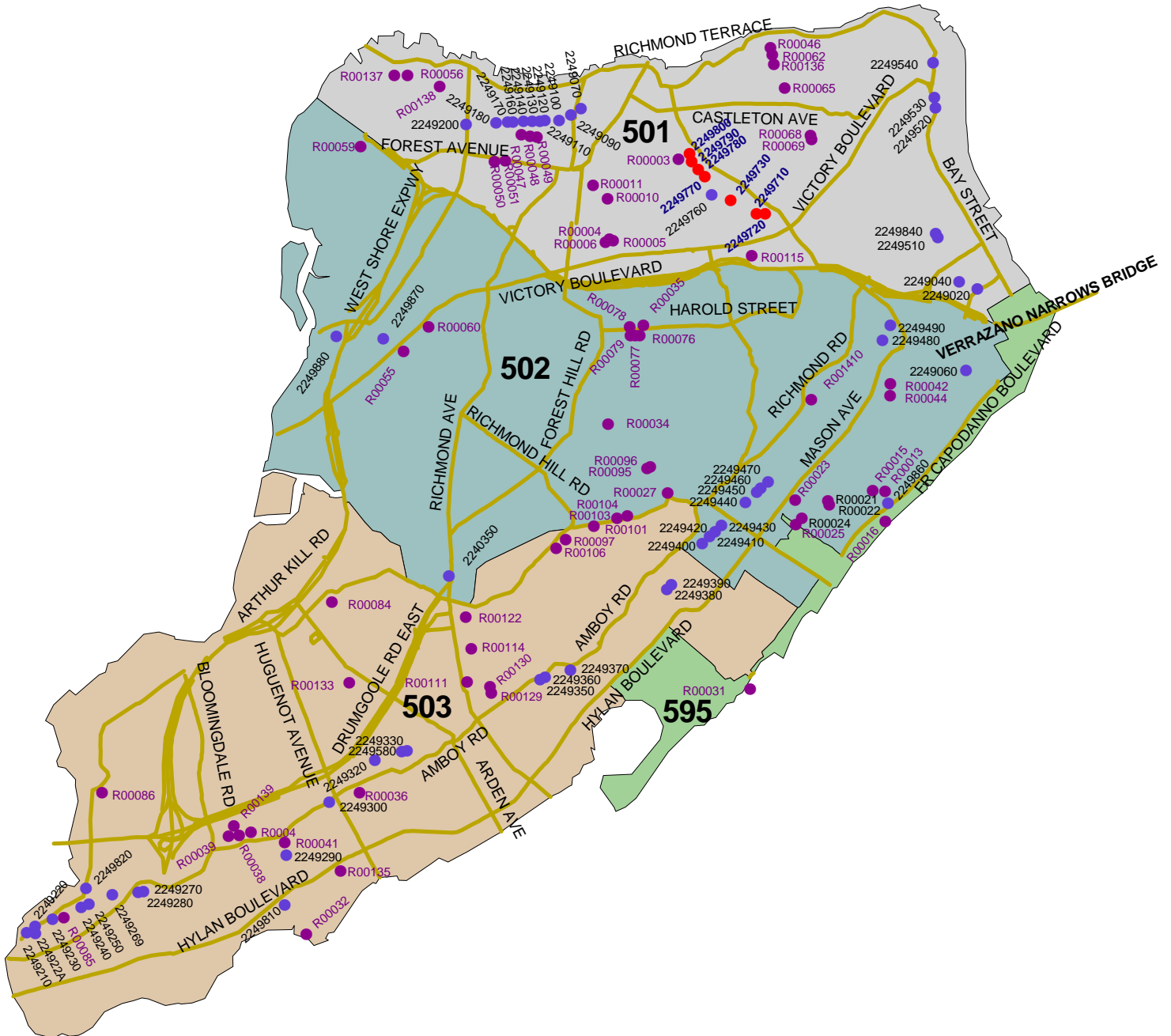
# QUEENS



# QUEENS CB 401 & 402 DETAIL



# STATEN ISLAND



- DOT Bridges
- Bridges in Parks
- Culverts
- Major Roadways
- Community Boards
- 501
- 502
- 503
- 595

