

# 2007

**Bridges & Tunnels**  
**ANNUAL**  
**Condition Report**



**New York City**  
**Michael R. Bloomberg**  
**Mayor**



**New York City**  
**Department of Transportation**  
**Janette Sadik-Khan**  
**Commissioner**



# **NEW YORK CITY DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES 2007 BRIDGES AND TUNNELS ANNUAL CONDITION REPORT**



Manhattan Bridge in October 2007. (Credit: Michele N. Vulcan)

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Brooklyn Bridge Flag in October 2007. (Credit: Peter Basich)

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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 2007 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 2007 calendar year.

The City's bridges are safe and in their best condition in generations. Our bridges are extremely well managed, they are being rebuilt and upgraded by experts and are subject to one of the strongest inspection systems in the United States. We have a very strong bridge capital investment program, which has turned overall City bridge conditions around and will continue to bring more bridges into good repair. DOT has been an early adopter of high-tech bridge monitoring equipment and techniques, and DOT's Division of Bridges is now further enhancing its inspection capabilities with additional technology and expertise.

The Division of Bridges includes 809 DOT employees, who manage the City's capital bridge program and conduct bridge inspections, monitoring and maintenance. Our bridges include, among many others, the notable East River and Harlem River Bridges, the Belt Parkway Bridges, and pedestrian bridges and elevated roadways located City-wide.

Since 2000, the City has invested about \$3 billion in bridge capital reconstruction projects which has included a number of projects to rehabilitate the East River Bridges, namely the Brooklyn, Manhattan, Williamsburg and Queensboro Bridges. Over the last few years DOT has also completely replaced other major bridges, including the Third Avenue, Macombs Dam and 145<sup>th</sup> Street spans over the Harlem River.

Looking forward over the next two years we will be investing more than \$2 billion in additional capital reconstruction projects on our bridges, including the Willis Avenue Bridge, the Brooklyn Bridge ramps and painting, the Manhattan Bridge, the Belt Parkway bridges, the ramps at the St. George Ferry Terminal and the 153<sup>rd</sup> Street Bridge in the Bronx, a new vehicular cable-stayed bridge and the first of its kind in New York State. Over the next ten years, DOT has \$5.8 billion in the Ten Year Capital Strategy plan to spend on bridge reconstruction projects, including \$309 million provided as part of PlaNYC 2030 for bridge infrastructure state of good repair.

The City has been at the forefront of utilizing new technology to assist us in the monitoring of our bridges. For example, utilizing strain gauges to monitor the orthotropic deck of the Williamsburg Bridge and crack propagation on the Manhattan and Brooklyn Bridges and X-ray diffraction to test stresses in critical steel members on the East River bridges. We are also using fiber optic sensors to monitor the forces in suspenders on the Manhattan Bridge and stresses in girders on the Paerdegat Bridge. Ultrasonic testing is another technology that we are applying on the eyebars of the Queensboro Bridge to examine the condition of the critical details in the top chord of the truss. Lastly, a new package of technologies will be tested for effectiveness on monitoring the condition of the high-strength wires in the Manhattan Bridge cables.

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, 22,247 square feet of concrete were used to renew sidewalks, curbs, and road decks; some 9,363 cubic yards of debris were removed; 1,316 bridge drains were cleaned; and crews eliminated 6,611,453 square feet of graffiti. DOT crews also eliminated 452 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 Platinum Award for the rehabilitation of the Metropolitan Avenue Bridge over English Kills.
- The New York Tri-State Metro Chapter of the Design Build Institute of America selected the re-decking project on the Belt Parkway Bridge over Mill Basin as the Transportation (Highways/Bridges) Project of the Year. In addition, NYCDOT was selected as the Owner of the Year, acknowledging our being at the forefront in developing and fine-tuning our Design-Build process.

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,

A handwritten signature in black ink, appearing to read 'Janette Sadik-Khan', followed by a period.

Janette Sadik-Khan  
Commissioner

## EXECUTIVE SUMMARY

### Inventory

In calendar year 2007, the inventory of bridges under the jurisdiction of the Division increased to 789. NYCDOT owns, operates, and/or maintains 758 non-movable bridges, 25 movable bridges, and six tunnels. 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.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Poor</b>	<b>24</b>	<b>16</b>	<b>13</b>	<b>9</b>	<b>8</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>3</b>
<b>Fair</b>	516	507	481	459	451	429	456	458	456	459
<b>Good</b>	154	160	180	196	202	209	212	210	210	215
<b>Vgood</b>	<b>75</b>	<b>81</b>	<b>85</b>	<b>88</b>	<b>94</b>	<b>111</b>	<b>116</b>	<b>118</b>	<b>118</b>	<b>111</b>
<b>Closed</b>										1
	<b>769</b>	<b>764</b>	<b>759</b>	<b>752</b>	<b>755</b>	<b>753</b>	<b>*790</b>	<b>790</b>	<b>787</b>	<b>789</b>

\* 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."

The City has three bridges that were rated "poor" after their last inspections. A poor rating means that there are components of the bridge that must be rehabilitated; it does not mean that the bridge is unsafe. If a bridge was deemed unsafe, it would be closed. The term "structural deficiency" is an engineering term-of-art used by the Federal government to indicate a defect requiring corrective action. According to the FHWA, "structurally deficient" means there are elements of the bridge that need to be monitored and/or repaired. The fact that a bridge is "deficient" does not imply that it is likely to collapse or that it is unsafe. It means they must be monitored, inspected, and maintained." Because we use the New York State rating system, we do not use that term and instead use the terms "very good", "good", "fair" and "poor". As with the Federal term, the terms "fair" and "poor" describe the condition of bridge elements and whether they are functioning as designed. Although these elements are not considered hazardous, the ratings are used to determine whether the elements require repair or rehabilitation. Again, any bridge deemed unsafe would be shut to the public.

The three City bridges that are rated "poor" include the movable Belt Parkway Bridge over Mill Basin, which is scheduled to be replaced with a fixed structure with a 60-foot clearance over Mean High Water, obviating the need for opening and closing the structure to accommodate tall vessels. This bridge is part of the seven-bridge Belt Parkway Program. Group 2 (Gerritsen Inlet and Mill Basin Bridges) is expected to start in summer 2010, and to be complete in summer 2014.

The second is a pedestrian bridge at 78<sup>th</sup> Street over the FDR Drive. The columns on this bridge have been shored and there is shielding under the concrete to protect against spalling. As a result, the bridge remains safe until its reconstruction which is expected to begin in about a year.

The third bridge is the Brooklyn Bridge. It was given a "poor" rating during its last inspection because there are certain elements of the bridge that need to be rehabilitated. While the main spans are in good condition, the decks on both the Manhattan and Brooklyn ramps to the bridge are aging and will be replaced during a rehabilitation project beginning in 2010. It should be noted that of the 75 spans of the bridge, only 6 spans contribute to the low condition rating. None of them are among the three suspended spans (i.e. between the anchorages).



### **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).

2007 was a year in which the use of incentives/disincentives resulted in the early completion of one bridge project:

Contract #11 on the Manhattan Bridge - The roadway was reopened on October 1, 2007. The contractor will be paid the maximum incentive of \$3.9 million for early completion of the work related to the opening of the lower roadway.

### **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 twenty-two spray trucks, six plow trucks and several smaller plows. Ten of the spray trucks are combination spray/plow trucks with a 1,000 gallon tank capacity, and five are spray-spreader/plow trucks with a 360 gallon spray capacity, and a nine cubic yard spreader capacity. There are twenty chemical storage tanks, with a total storage capacity of 114,250 gallons.

In the winter of 2006-2007, a total of 51,300 gallons of potassium acetate and 62 tons of sodium acetate were applied on the roadways of all four East River Bridges.

### **Hamilton Avenue Asphalt Plant Emergency Repairs**

In late 2007, the existing support system for the conveyor platform of the Roadway Repair and Maintenance Division's Hamilton Avenue Asphalt Plant exhibited some settlement. This rendered the plant inoperable. Our staff was requested to perform the urgent total design of a new support system. The Surveying Unit conducted field measurements of the damaged structure on December 7, 11, 20, and 21, 2007. Within two weeks, the In-House Design staff designed the system and prepared fabrication drawings for the Bridge Maintenance, Inspections and Operations Bureau. The Division's In-House Repair personnel then fabricated and installed the side frames, bracings, and I-beams necessary to restore operations at the facility. Additional emergency repairs were also made to the drum, conveyor belt, and hopper. Upon completion, Division bridge painters painted the new steel. The plant is now operational and 400 tons of asphalt were processed on January 21, 2008.

### **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 final design is in progress. Mitigation work for the impact of the construction on the bodies of water will be done under a separate contract. The construction work is expected to commence in November 2008.

### **2007 Awards**

In 2007, the outstanding work of the Division was recognized by the receipt of several awards. In March 2007, the American Council of Engineering Companies of New York selected the rehabilitation of the Metropolitan Avenue Bridge over English Kills for a Platinum Award (in the structural systems category) in its 2007 Engineering Excellence Awards.

In October 2007, the New York Tri-State Metro Chapter of the Design Build Institute of America selected the re-decking project on the Belt Parkway Bridge over Mill Basin as the Transportation (Highways/Bridges) Project of the Year. In addition, NYCDOT was selected as the Owner of the Year, acknowledging our being at the forefront in developing and fine-tuning our Design-Build process.

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 789 bridges (including 6 tunnels), and 61 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. In addition, the Component Rehabilitation Unit will be administering a new capital When and Where contract. The When and Where Unit will be responsible for the active construction and daily monitoring and supervision of the contract.

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 salt splash/spot painting. Spot painting was eliminated in Fiscal Year 2008. In the old cycle, salt splash/spot painting was performed five years after full steel painting, and spot painting was performed four years after salt splash/spot. Three years after spot, we once again performed full steel painting. The interval between full steel applications was twelve years.



## ***DIVISION OVERVIEW***

In the new cycle, salt splash/spot painting is performed four years after full steel painting, and again four years later. After another four years, we once again perform full steel painting. The interval between full steel applications remains twelve years.

It was determined that the painters were performing salt splash/spot even if the cycle only called for spot. The interval from full steel to salt splash/spot was shortened due to a shorter than expected durability of the paint in the salt splash zone after full steel painting.

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.

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, as well as a new capital contract. 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 section also supervises the repair work performed during night hours to reduce the impact on traffic and on public safety.

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.

## ***DIVISION OVERVIEW***

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*.

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 City bridge construction 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 drafting, microfilming, and digital media standards for the archiving of bridge records. It reviews design, as-built and shop drawings prepared by consulting firms, as well as digital CDs, microfilm and indexes. This unit maintains original plan files, upgrades the records database and converts original drawings into electronic media formats. It also answers requests for information regarding records of 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. It is involved in the preparation of Total Design Packages for the rehabilitation/reconstruction of poorly rated bridges. This unit also reviews superload truck permit applications, performs load analyses for the City’s bridges, reviews load postings for City owned bridges and provides architectural review of various projects. It is also responsible for inspecting City-owned retaining walls, identifying walls in poor condition, and creating an inventory of all City-owned retaining walls. Retaining walls in poor condition requiring immediate attention are referred to in-house repair staff or When and Where contractors. Information on poorly rated retaining walls is also forwarded to the New York City Department of Design and Construction (DDC) for permanent rehabilitation. Walls of questionable ownership are researched for ownership and jurisdiction. Thus far, 617 City owned retaining walls (along major streets) have been inspected and inventoried; 25 of which have been found to be in poor condition. DDC has been requested to accelerate the rehabilitation of these walls. A consultant has been assisting the unit in the inspection, condition assessment, temporary repair design, inventorying and budgeting for the permanent rehabilitation of the retaining walls.

The unit currently provides engineering review supervision of private developers’ projects supervision such as the Atlantic Yards Project, the Eastside Access Project, the Riverside South Project, and the Yankee Development Project. 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.

## ***DIVISION OVERVIEW***

The *Land Acquisition Unit* reviews and maintains a database of easement issues, right-of-way, and Uniform Land Use Review Procedures (ULURP). This unit also reviews Design reports and Environmental Impact Statement (EIS) of various other Agency projects with respect to their impact on City-owned bridges.

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. Through its engineers at bridge construction sites, Quality Assurance ensures that only acceptable materials are incorporated into rehabilitation/reconstruction work in strict accordance with plans, specifications and acceptable construction practice. Current major projects include the Manhattan, Williamsburg, 145<sup>th</sup> Street, Willis Avenue, Roosevelt Island, 20<sup>th</sup> Avenue, Hamilton Avenue, and Grand Concourse Bridges, as well as the Brooklyn Bridge travelers.

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 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 continues to monitor waste water discharge for numerous projects involving the generation and disposal of waste water, such as the Willis Avenue and Roosevelt Island bridges. The unit is responsible for discharge monitoring in conjunction with the NYS SPDES Discharge Permits for discharges at the Eastern Boulevard Bridge, Hunters Point Avenue Bridge, Greenpoint Avenue Bridge, Cropsey Avenue Bridge, Hamilton Avenue Bridge, Manhattan Plaza Underpass, Battery Park Underpass, and the Metropolitan Avenue Bridge. The unit continues to provide environmental oversight and compliance on major capital projects such as the Willis Avenue Bridge, Hamilton Avenue Bridge, Roosevelt Island Bridge, Manhattan Bridge, Williamsburg Bridge and the Queensboro Bridge, as well as Component Rehabilitation, Roadway Bridge, and Design/Build projects.



## ***DIVISION OVERVIEW***

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 789 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 and Bridge Management** 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 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; engages in special programs such as non-destructive monitoring of sensitive bridge components by advanced techniques; 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.

This Section is also 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, MTA Bridges

## ***DIVISION OVERVIEW***

and Tunnels, 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. This section 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 2007 Bridge Operations effected a total of 5,552 openings, 4,652 of which allowed 8,176 vessels to pass beneath the bridges. The remaining 900 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 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 and 59 Maiden Lane 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.

## ***DIVISION OVERVIEW***

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 325 (41%) of City-owned bridges. Careful cooperation between the NYCDOT and the various railroad agencies that service the metropolitan area is required. 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.

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.

A tracking process for change orders has been implemented that significantly reduces the time for the approval process.



## DIVISION OVERVIEW

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 (renewals only), 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.



In February 2007, a Permit Was Issued for the Move of a Boiler to Co-op City in the Bronx. The Boiler was Unloaded From a Barge at the Agency Conner Street Facility, and Was Later Delivered by Truck to Its Final Destination. The Total Weight of the Vehicle With the Boiler was Approximately 380,000 Pounds.



In April 2007, Permits Were Issued for the Visit of the New Orleans Streetcar "Desire" to New York City. The Streetcar Was Featured on "Good Morning America," and Was Available for Touring For Several Days Thereafter. (Credit: David Paul Gerber)



Child Exiting the Streetcar "Desire."

### JANUARY

#### ***Springfield Boulevard Bridge over Belt Parkway (Queens)***

Cleaning and painting of the bridge, which began in December 2006, was completed on January 11, 2007.

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

From January 16 through January 20, 2007, Division ironworkers repaired the plant's conveyor belt and hoppers, and installed plates.

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

Anti-icing crews were deployed on the East River bridges on January 18, 20, 21, and 22, 2007. During the January 20 deployment, seven applications of anti-icing chemicals were made. Icicle patrols monitored the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, the FDR Drive, the Battery Park Underpass, and the Division's other tunnels.

#### ***State Assemblymember John Lavelle Tribute***

The American flags on the Brooklyn Bridge, which had been lowered to half-mast by Division painters on December 27, 2006 in tribute to former President Gerald R. Ford, remained at half-mast in tribute to State Assemblymember John Lavelle, who died on January 24, 2007. Mr. Lavelle, 57, served in the Assembly for the 61<sup>st</sup> District since 2001. The flags remained at half-mast through January 29, 2007.



Brooklyn Bridge Flag at Half-Mast.

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

Anti-icing crews were deployed on the East River bridges on January 27, 28, and 30, 2007. During the January 28 deployment, five applications of anti-icing chemicals were made; during the January 30 deployment one application was made. Icicle patrols monitored the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, the FDR Drive, the Battery Park Underpass, and the Division's other tunnels.

#### ***130<sup>th</sup> Avenue Bridges over Laurelton Parkway (NB & SB) (Queens)***

Cleaning and painting of these bridges began and was completed in January 2007.

## FEBRUARY

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

The float-in of the swing span was successfully performed on February 9, 2007.



Moving the New 145<sup>th</sup> Street Swing Span From South of the Third Avenue Bridge to the Site. Passing Under a Metro-North Railroad Bridge.



Floating In the New 145th Street Span in February 2007. (Close-up Credit: Bojidar Yaney)

### **Grand Concourse Bridge over East 161<sup>st</sup> Street (Bronx)**

Stage IIB reconstruction began on February 10, 2007 with the commencement of work on the east side of the Grand Concourse from 161<sup>st</sup> to 166<sup>th</sup> Streets.

#### **Anti-Icing**

Anti-icing crews were deployed on the East River bridges on February 1 and 2, 2007, and bridge decks were checked during the February 7 flurries; no applications of chemicals were made during this period. Icicle patrols monitored the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, the FDR Drive, the Battery Park Underpass, and the Division's other tunnels.

#### **Anti-Icing**

Anti-icing crews were deployed on the East River bridges on February 12 and again on February 13 and 14, 2007. During the latter period, 27 applications of anti-icing chemicals were made. Priority overpasses and pedestrian walkways were cleared, and icicle patrols monitored the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, the FDR Drive, the Battery Park Underpass, and the Division's other tunnels.

#### **Anti-Icing**

Anti-icing crews were deployed on the East River bridges the night of February 17, 2007; no application of chemicals was necessary. Icicle patrols monitored the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, the FDR Drive, the Battery Park Underpass, and the Division's other tunnels.



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

On February 19, 2007, a crane barge in the vicinity broke loose from its mooring and wedged itself under the east leaf of the bridge. At low tide, the bridge was opened and the Coast Guard had the barge removed. The bridge was out of service to marine traffic from 7:20 a.m. to 3:30 p.m. There was only slight damage to the catwalk.



Barge Stuck Under the Greenpoint Avenue Bridge. Coast Guard Arriving to Investigate.

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

On February 24, 2007, Division ironworkers repaired the plant's bin grates, chutes, and shelves.

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

Anti-icing crews were deployed on the East River bridges the nights of February 22 and 25, 2007; during the latter ten applications of chemicals were made. Icicle patrols monitored the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, the FDR Drive, the Battery Park Underpass, and the Division's other tunnels.

## ***MARCH***

### ***Award***

In March 2007, the American Council of Engineering Companies of New York selected the rehabilitation of the Metropolitan Avenue Bridge over English Kills for a Platinum Award in the structural systems category in its 2007 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.

The \$39 million rehabilitation project began on October 10, 2003. The project's scope of work included 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 was carried out in three stages. 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. Stage II reconstruction of the bridge began on February 16, 2005. This stage included the demolition and reconstruction of the south half of the structure and mechanical systems. The bridge was re-opened to all lanes of traffic at 5 AM on November 18, 2005.

Incentives and disincentives were tied to the completion of Stage I and Stage II and the opening of each half of the bridge to traffic. The contractor received the maximum project incentive of \$900,000. The reconstruction of this bridge was substantially completed on September 18, 2006.



Bridge Opening With New Machinery And New Warning And Safety Gates.



Tugboat Pushing a Barge Under the Open Metropolitan Avenue Bridge.



Northeast View of the Metropolitan Avenue Bridge.

### ***Mosholu Parkway Retaining Wall at Major Deegan Expressway (Bronx)***

On March 2, 2007, in response to a report of a partial wall collapse, we inspected this State-owned wall. It was determined that the wall itself was sound, and what collapsed was façade. The State later removed the remaining façade and repaired the wall with formliner.



Inspecting the Mosholu Parkway Retaining Wall.

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

Anti-icing crews were deployed on the East River bridges on March 5 and March 7, 2007; during the latter ten applications of chemicals were made. Priority overpasses were cleared, and icicle patrols were active on the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, the FDR Drive, and the Battery Park Underpass.

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

On March 10, 2007, Division ironworkers repaired the plant's scale, drum, and hopper. On March 17, 2007, they repaired the drum and conveyor belt.

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

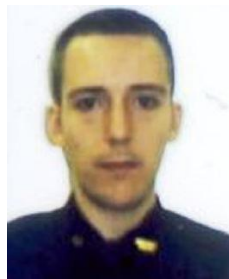
A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of March 12, 2007.

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

On March 16, 2007, 5.5 inches of snow fell in Central Park, 4.5 inches at La Guardia Airport, and 2.7 inches at JFK Airport. Anti-icing crews were deployed on the East River bridges from 5:00 AM on March 16 until noon the following day; 18 applications of anti-icing chemicals were made. Priority overpasses were cleared, and icicle patrols were active on the Cross-Bronx Expressway, the Brooklyn-Queens Expressway, and the FDR Drive, as well as on selected bridges.

### ***Auxiliary Officers Nicholas T. Pekearo and Yevgeniy Marshalik Tribute***

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on March 16, 2007, in tribute to 6<sup>th</sup> Precinct Auxiliary Police Officers Nicholas T. Pekearo, 28, an aspiring writer, and Yevgeniy Marshalik, 19, a New York University student, who lost their lives in the line of duty during a shooting in Greenwich Village, Manhattan on March 14, 2007. They were the sixth and seventh auxiliary officers to die in the line of duty since the auxiliary police force was organized in 1951. Mr. Pekearo had been with the force since 2003, and Mr. Marshalik had been an auxiliary officer for 13 months. Mayor Michael R. Bloomberg granted them the City Award for Heroic Acts, a discretionary award outlined in the New York City Administrative Code. The award is eligible to individuals, other than peace officers, who sustain death or injuries while attempting to prevent the commission of a crime, preserve the peace or prevent public disturbances. The flags were raised on March 19, 2007.



Mr. Pekearo



Mr. Marshalik

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

On March 27, 2007, after a sizable through-hole developed, it was decided that a portion of the deck needed to be removed and replaced. The repairs were completed at 4:00 PM on March 28. Division crews took advantage of the closure to plate several other developing holes.



Willis Avenue Through-Hole Repairs. (Credit: Mohammad Awal)

### ***Queensboro Bridge***

March 30, 2007 marked the 98<sup>th</sup> anniversary of the opening of the bridge.



Queensboro Bridge.  
(Credit: Russell Holcomb)

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

Cleaning and painting of the bridge, which began in August 2006, was completed in March 2007.

### ***Henry Hudson Parkway Bridges (NB & SB) over the Ramp to 96<sup>th</sup> Street (Manhattan)***

Cleaning and painting of these bridges began and was completed in March 2007.

## ***APRIL***

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

Anti-icing crews were deployed on the East River bridges on April 7, 2007 from 3:00 AM until noon; no applications of chemicals were necessary.

### ***Grand Concourse Bridge over East 170<sup>th</sup> Street (Bronx)***

Cleaning and painting of the bridge, which began in January 2007, was completed on April 11, 2007.

### ***Manhattan Bridge***

The final existing floorbeam of the lower roadway was removed and replaced on April 18, 2007.





Removal and Replacement of the Final Existing Manhattan Bridge Lower Roadway Floorbeam.



Placing the Final Floorbeam Into Position. Engineer-In-Charge Brian Gill (in Center) and Inspection Staff on the Lower Roadway.

### ***Virginia Polytechnic Institute and State University Victims Tribute***

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on April 19, 2007, in tribute to the 30 students and two professors at Virginia Polytechnic Institute and State University in Blacksburg, Virginia, who were shot to death on April 16 by another student with two guns. This mass shooting was the deadliest act of criminal gun violence in American history. Faculty, graduate and undergraduate victims who were killed in the attack included citizens from Egypt, Peru, Indonesia, India, Lebanon and Israel. The flags were raised on April 23, 2007.

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

On April 20 and 21, 2007, Division ironworkers repaired the plant's hopper, trap door, and dryer.

### ***Sixth Annual "Take Our Children to Work Day"***

On April 26, 2007, as part of the Agency's sixth annual "Take Our Children to Work Day," Division personnel hosted children at the Carroll Street Bridge in Brooklyn, the Staten Island Ferry, and at Division headquarters at 2 Rector Street.



Chief Bridge Officer Henry Perahia With the Children. (Credit: Ghanshyam Patel)





Supervisor Bridge Operator Mohamed Adel Tork and Deputy Director of In-House painting Earlene Powell on the Carroll Street Bridge With the Children. (Credit: Ghanshyam Patel)



Children on the Staten Island Ferry. View of the Brooklyn Bridge From the Ferry. Children and Deputy Director Powell Visiting a Financial District Icon on their return to Division Headquarters. (Credit: Ghanshyam Patel)

### ***Rose Avenue and New Dorp Lane Bridges over SIRT South Shore (Staten Island)***

On April 10, 2007, Division inspectors issued safety flags for loose and falling concrete, and Division personnel began the emergency repair work to remove the loose concrete and install shielding under the bridge decks. This work was completed on April 28, 2007.



Inspecting the New Dorp Lane Bridge.

### ***Flatbush Avenue Bridge over Belt Parkway (Brooklyn)***

Cleaning and painting of the bridge, which began in April 2007, was completed on April 30, 2007.



Painting Flatbush Avenue Bridge over Belt Parkway. (Credit: Earlene Powell)

## ***Site of Former Chestnut Avenue Bridge over Staten Island Railroad (Staten Island)***

In April 2007, after the collapse of an abandoned abutment at the former bridge site due to heavy rains, Division personnel removed the remaining wall and fencing, and re-graded the embankment to prevent material from fouling the tracks. The Division of Traffic Operations and Consolidated Edison were also called in to remove a utility pole, which had become unstable. Before the pole was taken down, the street light was removed. The runoff was caused by the two heavy rainstorms. The west abutment was found to be in good repair, and no further action on the Division's part was required.



Department and Consolidated Edison Personnel at the Former Bridge Site. Executive Director of Bridge Preventive Maintenance and Repair Thomas Whitehouse (Fourth From Left, in Last Photo.)

## ***Henry Hudson Parkway Bridge over Broadway (Bronx)***

Cleaning and painting of the bridge, which began in November 2006, was completed in April 2007.

## **MAY**

## ***Macombs Dam Bridge over the Harlem River (Bronx/Manhattan)***

May 1, 2007 marked the 112<sup>th</sup> anniversary of the opening of the bridge.





Macombs Dam Bridge. (Elevation Credit: Michele N. Vulcan)

## ***Whitelaw Pedestrian Bridge over Conduit Avenue (Queens)***

Cleaning and painting of the bridge, which began in April 2007, was completed on May 4, 2007.



Bridge Painters Reynaldo Grant, Joao Silva, Robert Avellino, Louis Masucci, Brian Kavanagh, and Joao Nascimento at the Whitelaw Pedestrian Bridge. Bridge Painter Reynaldo Grant.  
(Credit: Earlene Powell)



Bridge Painter Brian Kavanagh at the Whitelaw Pedestrian Bridge. Section of the Bridge.  
(Credit: Earlene Powell)

## ***30<sup>th</sup> Annual Five Borough Bike Tour***

In preparation for the 42-mile Five Borough Bike Tour on May 6, 2007, Division personnel placed fresh asphalt on the Pulaski Bridge, placed barrels around the portions of the uneven north upper roadway of the Queensboro Bridge, checked the ramping of plates on the Harlem River Drive, and swept the Madison Avenue, Third Avenue, Queensboro, and Pulaski Bridges.

The Five Borough Bike Tour is produced by Bike New York and the New York City Department of Transportation. Bike New York is a non-profit organization that promotes and encourages bicycling and bicycle safety through education, public events, and collaboration with community and government organizations. Best known for the Five Borough Bike Tour, Bike New York also organizes smaller rides and runs a Bicycle Education Program offering free classes and workshops for adults and children.



Mayor Michael R. Bloomberg at the Gracie Mansion Reception on May 15, 2007 in Honor of the 30<sup>th</sup> Anniversary of the Five Borough Bike Tour. Deputy Chief Engineer Russell Holcomb and Director of Bridge Preventive Maintenance Paul Schwartz.

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

On May 19 and 26, 2007, Division ironworkers repaired the plant's drum, chute, and conveyor belt.

### ***Park Avenue Viaduct over East 42nd Street (Manhattan)***

Cleaning and painting of the bridge, which recommenced in November 2006, was completed on May 22, 2007.

### ***Brooklyn Bridge***

May 24, 2007 marked the 124<sup>th</sup> birthday of the bridge.



Water Taxi Near the Brooklyn Bridge. (Credit: Peter Basich)  
Roebling Memorial Plaque. (Credit: Michele N. Vulcan)

### ***Woodhaven Boulevard Bridge over Atlantic Avenue (Queens)***

Cleaning and painting of the bridge, which began in April 2007, was completed on May 26, 2007.



Bridge Painters Frank Hollen, Albert Pappas, Nicholas Krevatas, Henry Bollin, and Branko Grzancic, Supervisor Bridge Painter Georgeios Ploumis, and Bridge Painter Brain Kenny at the Woodhaven Boulevard Bridge. Supervisor Bridge Painter Georgeios Ploumis.  
(Credit: Earlene Powell)

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 10:16 AM on May 27, 2007. It was returned to service at 11:00 PM that night.

### ***Macombs Dam Bridge over the Harlem River (Bronx/Manhattan)***

The reconstruction of this bridge, which began in April 1999, was substantially completed on May 29, 2007.



Macombs Dam Bridge in May 2007.

## ***JUNE***

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

On June 2, 14, 15, and 16, 2007, Division ironworkers repaired the plant's main drum.

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

All four lanes of the bridge were opened to vehicular traffic at 7:00 AM on June 16, 2007.





Division and Contractor Personnel at the Reopening of the 145<sup>th</sup> Street Bridge, Including: Civil Engineer Rafeek Shaker (2<sup>nd</sup> From Left), Chief Bridge Officer Henry Perahia (4<sup>th</sup> From Left), Deputy Chief Engineer Jay Patel (7<sup>th</sup> From Left), Administrative Engineer Robert Collyer (5<sup>th</sup> From Right), Civil Engineer Hani Faouri (2<sup>nd</sup> From Right), and Assistant Civil Engineer Khalid Mohammed (On Right). New Bridge Ready for Traffic.



New 145<sup>th</sup> Street Bridge Open for Marine Traffic.

### ***Firefighter Daniel F. Pujdak Tribute***

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on June 22, 2007, in tribute to Firefighter Daniel F. Pujdak of Ladder Company 146 in Brooklyn. Firefighter Pujdak, 23, was fatally injured while battling an all-hands fire in the Williamsburg section of Brooklyn on June 21. Firefighter Pujdak was the 1,135<sup>th</sup> member of the New York City Fire Department to make the supreme sacrifice in the Department's 143-year history. The flags remained at half-mast until June 27, 2007.



Firefighter Pujdak

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 2:55 PM on June 26, 2007. It was returned to service at 10:20 PM that night.

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 4:55 PM on June 27, 2007. It was returned to service at 8:18 PM that night.

## CHRONOLOGY

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 3:07 AM on June 27, 2007. It was returned to service at 11:58 PM on June 28, 2007.

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 12:05 PM on June 27, 2007. It was returned to service at 12:52 PM that afternoon. Further heat expansion closed the bridge to marine traffic from 3:20 PM on June 27, 2007 until 10:25 AM on June 28.

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

On June 30, 2007, Division ironworkers repaired the plant's drum, silo, and bins.

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

Stage I reconstruction of the bridge began on June 30, 2007.

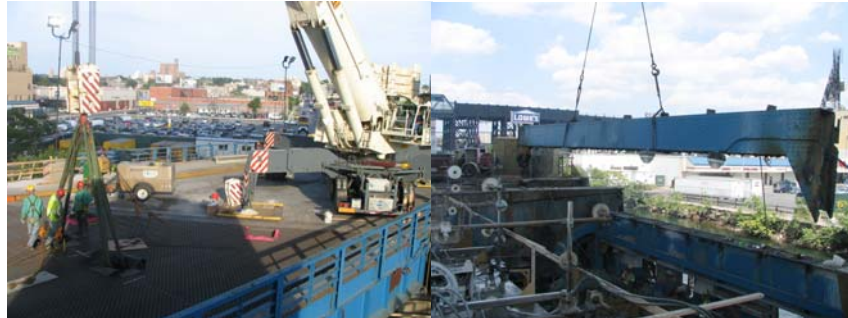
### ***Guy R. Brewer Boulevard Bridge over Belt Parkway (Queens)***

Cleaning and painting of the bridge, which began in May 2007, was completed in June 2007.

### JULY

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

The Manhattan-bound bascule span was removed in halves on July 2 and July 6, 2007.



Removing the East Span in July 2007.

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 12:54 PM on July 10, 2007. It was returned to service at 8:10 PM that night. Further heat expansion closed the bridge to marine traffic from 4:10 PM until 9:57 PM on July 14.

#### ***Officer Russel Timoshenko Tribute***

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on July 15, 2007, in tribute to Police Officer Russel Timoshenko of the 71<sup>st</sup> Precinct, who was fatally shot in Crown Heights, Brooklyn on July 9, 2007 while making a routine traffic stop. He succumbed to his injuries on July 14, 2007. Officer Timoshenko, 23, and a 1 ½ year veteran of the department, was posthumously promoted to the rank of Detective by Police Commissioner Ray Kelly. Officer Timoshenko was the 713<sup>th</sup> police officer to die in the line of duty. The flags remained at half-mast until July 20, 2007.



Police Officer Timoshenko

#### ***Manhattan Bridge Female Ironworker***

Ambra Melendez, a contractor ironworker working on the Manhattan Bridge, and one of only 18 female ironworkers in New York City, was the subject of a feature in the July 17, 2007 edition of the Daily News.





Ambra Melendez on the Manhattan Bridge.  
(Credit: Hasan Ahmed)

### ***West 252<sup>nd</sup> Street Bridge over Henry Hudson Parkway (Bronx)***

At about 4:30 AM on July 23, 2007, the Communications Center reported that a truck traveling south on the Parkway hit the bridge. The responding engineer found that the truck had hit the contractor's shield under the bridge. There was no structural damage to the bridge, but the steel beams of the shield exhibited scratch marks. The road was fully reopened about 6:20 AM. The contractor subsequently made minor repairs to the shielding.



Debris Under the West 252<sup>nd</sup> Street Bridge  
Construction Shield After Accident.  
(Credit: Mohammad Awal)

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 2:45 PM on July 25, 2007. It was returned to service at 7:00 PM that evening.

### ***9<sup>th</sup> Street Bridge over Gowanus Canal (Brooklyn)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 7:30 AM on July 31, 2007. It was returned to service at 1:25 AM on August 1, 2007. Further heat expansion closed the bridge to marine traffic from 2:15 PM on August 1, 2007 until 1:08 AM on August 2.

### ***Linden Boulevard Bridge over Conduit Avenue (Queens)***

Cleaning and painting of the bridge, which began in June 2007, was completed in July 2007.

### ***Sunrise Highway WB Bridge over Laurelton Parkway EB & Sunrise Highway WB Bridge over Laurelton Parkway WB (Queens)***

Cleaning and painting of these bridges, which began in May 2007, was completed in July 2007.

## AUGUST

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

Due to heat expansion, the bridge was closed to marine traffic beginning at 2:50 PM on August 1, 2007. It was returned to service at 3:25 AM on August 2.

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

On August 6, 2007, Division ironworkers repaired the plant's adjusting rod and motor drive. On August 24 and 25, 2007, they repaired the plant's scales, drum, and bins.

### ***Manhattan Bridge***

The north bikeway, which was closed since October 9, 2006 to enable the rehabilitation of the tower canopies and balconies over the bikeway, was reopened on August 6, 2007. The south walkway then reverted to pedestrian use only.

### ***9<sup>th</sup> Street Bridge over Gowanus Canal (Brooklyn)***

Due to heat expansion, the bridge was closed to marine traffic beginning at 2:50 PM on August 7, 2007. It was returned to service at 2:10 AM on August 8, 2007. Further heat expansion closed the bridge to marine traffic from 3:05 AM until 6:20 AM, and from 5:20 PM until 10:40 PM that night.

### ***Pearl Street Triangle Plaza (Manhattan)***

The Department, the DUMBO Improvement District, and local artists worked together to transform a barren parking island on Pearl Street at the side of the Manhattan Bridge into a vibrant pedestrian space. The plaza opened on August 9, 2007. The asphalt triangle was transformed with a green-painted floor, café tables and chairs, umbrellas and planters filled with flowers and trees. Great granite blocks from the Williamsburg Bridge now delineate the space, which also showcases a large abstract sculpture.



Pearl Street Triangle Plaza. (Credit: Peter Basich)

### ***Firefighters Robert Beddia and Joseph Graffagnino Tribute***

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on August 20, 2007, in tribute to Firefighters Robert Beddia and Joseph Graffagnino of Engine Company 24 and Ladder Company 5 of Battalion 2 in Manhattan. Firefighter Beddia, 53, a 23 year veteran of the department, and Firefighter Graffagnino, 33, an 8 year veteran, died in the line of duty while battling a seven alarm fire in the Deutsche Bank building on Liberty Street at Ground Zero on August 18. They were the 15<sup>th</sup> and 16<sup>th</sup> members from their firehouse to fall victim to fatal fires since 1994. That year, three firefighters died in an apartment blaze on Watts Street. Eleven more perished on September 11, 2001. Firefighters Beddia and Graffagnino were the 1,136<sup>th</sup> and 1,137<sup>th</sup> members of the New York City Fire Department to make the supreme sacrifice in the Department's 143-year history. The flags remained at half-mast until August 25, 2007.



### ***Grand Concourse Bridge over East 161<sup>st</sup> Street (Bronx)***

Stage IIIA reconstruction began on August 25, 2007.

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

A Notice to Proceed for the replacement of this bridge was issued to the contractor with a start date of August 27, 2007.

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

The Manhattan-bound span reopened three days earlier than scheduled on the morning of August 31, 2007.



Deputy Chief Engineer of East River and Movable Bridges Jay Patel, Administrative Engineer Robert Collyer, and Chief Bridge Officer Henry Perahia at the Reopening of the Hamilton Avenue Manhattan-Bond Span. Open Span. Traffic on New Span.

### ***Bruckner Expressway Southbound & Northbound over Amtrak & CSX (Bronx)***

The nighttime emergency project to remove loose underdeck concrete, which began in July 2007, was completed in August 2007.

### ***Shawn Samuels***

Shawn Samuels, a Bridge Operator working since 2004, was the subject of the “Staff Spotlight” feature in the August 2007 edition of ‘Byways,’ the official Agency newsletter.



Bridge Operator  
Shawn Samuels.

### **SEPTEMBER**

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

The Brooklyn Bridge flags flew at half-mast on September 11, 2007 to commemorate Patriot Day.



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

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

On September 14 and 15, 2007, Division ironworkers performed emergency repairs on the plant's rap bin, chute, and conveyor belt. On September 22, 28, and 29, 2007, they performed emergency repairs on the plant's paddles, hopper, and crusher.

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

Cleaning and painting of the bridge, which began in April 2007, was completed in September 2007.





Painting the Belt Parkway Over Ocean Avenue Bridge. (Credit: Earlene Powell) Bridge Painter Brian Casey, Deputy Director of In-House Painting Earlene Powell, Bridge Painters Anthony Attore and Samuel Martinez, and Supervisor Bridge Painter David Yanolatus.

### ***Union Turnpike Bridge over Jackie Robinson Parkway (Queens)***

Cleaning and painting of the bridge, which began in July 2007, was completed in September 2007.

## **OCTOBER**

### ***Manhattan Bridge***

The lower roadway, closed on October 15, 2006, reopened on Monday October 1, 2007, earlier than the scheduled completion date of October 14, 2007.



The Completed Lower Roadway on the Brooklyn Side  
And Near the Manhattan Colonnade.

### ***Awards***

On October 9, 2007, the New York Tri-State Metro Chapter of the Design Build Institute of America honored the Design-Build re-decking project on the Belt Parkway Bridge over Mill Basin as the chapter's Transportation (Highways/Bridges) Project of the Year. 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.

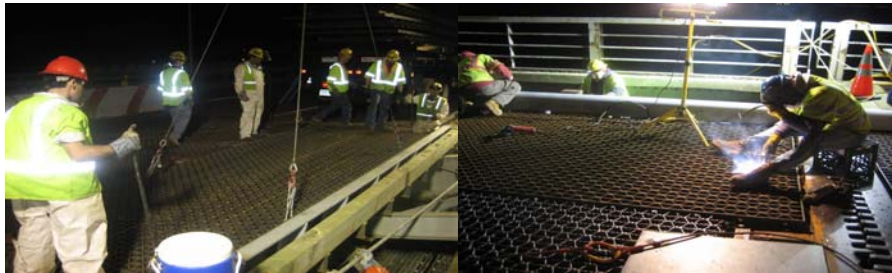
A Notice to Proceed for the project to replace the rapidly deteriorating bridge grid deck was issued to the contractor with a start date of October 25, 2005. The design was completed, and grid panel fabrication was underway at the end of 2005. Panel replacement began in spring 2006, and was completed on November 10, 2006. The project work expanded to address safety flags involving fender system work, as well as steel repair work. The replacement of the bridge grid deck was substantially completed on December 22, 2006. The new deck will serve traffic needs until April 2012. At that time, a new bridge carrying the Belt Parkway over Mill Basin will have been built and the existing one will be demolished.



Aerial View of the Belt Parkway Over Mill Basin Bridge. Director of Design-Build/Emergency Contracts Chris Sklavounakis and Deputy Director of Design-Build Beatriz Duran at the Award Ceremony.



Work Zone Protection Barrier. Below Deck Access For Panel Replacement. Removing Rivets.



Landing Panel On The Span. Welding New Panel At Toe Joint.

The second award presented by the Chapter on October 9, 2007 was for “Owner of the Year”, which acknowledged NYCDOT for being at the forefront in developing and fine-tuning our Design-Build process.

### ***Grand Concourse Bridge over East 161<sup>st</sup> Street (Bronx)***

Stage IIIB reconstruction began on October 2, 2007.

### ***Grand Concourse Bridge over East 161<sup>st</sup> Street (Bronx)***

Stage IIIC reconstruction began on October 19, 2007.

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

At approximately 5:00 AM on October 29, 2007, the Communications Center reported that a garbage truck traveling eastbound crashed, dislodging the Jersey barriers and destroying the impact attenuator. An emergency inspection resulted in the issuance of a safety flag. Division personnel responded and reset the barriers. The contractor also responded and repaired the attenuator by placing sand barrels. Three eastbound lanes at the Manhattan approach from 1<sup>st</sup> Avenue towards the bridge were closed from 6:00 AM until 11:00 AM.



Damaged Truck, Jersey Barriers, And Impact Attenuator.

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

The reconstruction of these bridges was substantially completed on October 31, 2007.

### ***American Cancer Society's "Making Strides Against Breast Cancer" Campaign***

During September and October 2007, Division personnel and their friends and families participated in bake and book sales and other fundraisers, and sponsored Lourdes Acevedo and the DOT Staten Island Team for the American Cancer Society's annual "Making Strides Against Breast Cancer" walk.



Division Bake Sale Display. Michele Adimu and Lourdes Acevedo Preparing for Their Hungry Customers. (Credit: Peter Basich)

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

Cleaning and painting of the bridge, which began in September 2007, was completed in October 2007.

### ***80<sup>th</sup> Street Bridge over 71<sup>st</sup> to 77<sup>th</sup> Avenues & LIRR (Queens)***

Cleaning and painting of the bridge, which began in September 2007, was completed in October 2007.



## NOVEMBER

### **New York City Marathon**

In preparation for the Marathon on November 4, 2007, Division personnel inspected and cleaned the Queensboro, Pulaski, Madison Avenue, and Willis Avenue Bridges, and repaired potholes along the route. In addition, they re-configured the Jersey barriers and placed hay bales at the Queensboro Bridge. Standard traffic configurations were restored before the next morning rush hour.



Wheelchair Racer Winner on the 59<sup>th</sup> Street Ramp of the Queensboro Bridge: Austria's Kurt Fearnley. Female Racers on the Ramp: Ethiopia's Grete Wami (Wearing Red Shorts, Finished in 2<sup>nd</sup> Place), and Great Britain's Paula Radcliffe (Wearing Blue Shorts, Winner). (Credit: Paul Schwartz)



Male Racers on the 59<sup>th</sup> Street Ramp of the Queensboro Bridge: Morocco's Abderrahim Goumri (3<sup>rd</sup> From Left, Finished in 2<sup>nd</sup> Place), Kenya's James Kwambai (Wearing Light Blue Shorts, Finished in 5<sup>th</sup> Place), Kenya's Martin Lel (Wearing Red Shorts, Winner), and South Africa's Hendrick Ramala (On Right, 3<sup>rd</sup> Place). (Credit: Paul Schwartz) Carpeted Willis Avenue Bridge. (Credit: Edgardo Montanez)



Racers on the Manhattan Side of the Willis Avenue Bridge. Wheelchair Racers on the Bridge, Applauded by Bridge Operator Robert Costanza (Wearing Green Jacket). (Credit: Edgardo Montanez)



### **Brooklyn Bridge**

The Manhattan side span traveler was removed on November 3, 2007. It was lowered onto a barge and shipped to a scrap yard in Staten Island for disposal. The Brooklyn side span traveler was removed on November 10, 2007. It was lowered onto a flatbed truck on Water Street and also transported to the Staten Island scrap yard. The Manhattan main span traveler was removed on November 16, 2007. The Brooklyn main span traveler was removed on November 17.

### **Grand Concourse Bridge over East 161<sup>st</sup> Street (Bronx)**

Stage IVA reconstruction began on November 10, 2007.

### **Forest Avenue Culvert at Crystal Avenue (Staten Island)**

The project to repair the damaged culvert, which began on November 8, 2007, was completed November 19, 2007.



Completing the Forest Avenue Culvert Repairs: Asphalt was Placed in Two Layers; Compacted With a 5-Ton Vibratory Roller; the Asphalt Joints Were Sealed; Nuclear Compaction Tests Were Performed; and All Forms Were Removed From the Underside of the Culvert. Completed Repair.

### **81<sup>st</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: Shrek, Hello Kitty, and Abby Cadabby. 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 8, 2007, Division representatives participated in the walk-through of the parade route with NYPD and other agencies. They also attended the test flights of the balloons at Flushing Meadows Park on November 11, 2007.

On November 22, 2007, wind speeds were relatively low and the balloons flew in the parade without incident. The maximum wind gust was recorded at 14 miles per hour at the 59<sup>th</sup> Street intersection. The average wind speed was below 10 miles per hour. Chief Bridge Officer Henry Perahia, Deputy Chief Engineer Kamal Kishore, Director of Engineering Review Abul Hossain, Mahabal Shah, and George Jarvis were positioned at various locations along the parade route to observe compliance with the approved procedures.



New Shrek and New Hello Kitty.



Snoopy. Mahabal Shah; Director of Engineering Review Abul Hossain; Chief Bridge Officer Henry Perahia; Deputy Chief Engineer Kamal Kishore, and George Jarvis.

### ***DOT Employee Recognition Ceremony***

Many Division personnel were among the DOT employees honored on November 28, 2007 for their years of service to the City. Commissioner Janette Sadik-Khan and Lillian Roberts, Executive Director of District Council 37, led the ceremony, which took place at DC 37's headquarters at 125 Barclay Street in Manhattan.

#### 49 Years of Service

Supervisor Highway Repairer Willie E. Tucker Sr.

#### 37 Years of Service

Civil Engineer Saul Basri.

#### 30 Years of Service

Bridge Repairer & Riveter David Collins, and Supervisor Highway Repairer Stephen Harbeck.



Bridge Repairer and Riveter David Collins Demonstrating Heat Straightening Techniques.  
(Credit: George Klein)

### 25 Years of Service

Supervisor Bridge Operator Brian Corry, Assistant City Highway Repairer Roosevelt Gee Jr., Highway Repairer John Godfrey, and Bridge Operator Babubhai Naik.

### 20 Years of Service

Highway Repairer Alfred Black, Area Supervisor Highway Maintenance James Campbell, Highway Repairer Lloyd Daley, Associate Staff Analyst Michael Depompo, Highway Repairer Kevin Donahue, Bridge Operator In Charge Arturo Fisher, Civil Engineer Lev Gold, Associate Staff Analyst Fred Herschkowitz, Computer Associate Software Laurie Jee-Oberson, Associate Staff Analyst Paul Kahn, Bridge Operator George Kutty, Highway Repairer Karim Mclean-Nur, Cement Mason Luigi Mula, Electrician Helper Richard Parisi, Administrative Engineer Jayantilal Patel, Electrician Steven Radice, Administrative Staff Analyst Dorothy Roses, Administrative Engineer Mohammed Sharif, Assistant Civil Engineer Reza Taheri, Staff Analyst Agnes Thanjan, Bridge Repairer & Riveter Ignazio Trapani, and Associate Staff Analyst Brandon Ward.



Deputy Chief Engineer of East River and Movable Bridges Jay Patel and Mohammed Sharif With Lourdes Acevedo at the Bake Sale. (Patel Credit: Michele N. Vulcan)





Director of Community Affairs Fred Herschkowitz Near the 145<sup>th</sup> Street Bridge. (Sharif and Herschkowitz Credit: Peter Basich)

### 15 Years of Service

Bridge Operator Kaniamparampil Abraham, Bridge Repairer & Riveter Shawn Ahearn, Supervisor Highway Repairer Victor Andrade, Electrician Rafael Bonnelly, Supervisor Carpenter Joseph Diblasi, Bridge Operator In Charge Michael Elliston, Bridge Operator In Charge David Emrich, Clerical Associate Tenderly Grayson, Supervisor Bridge Operator Anthony Hunter, Office Machine Aide Thomas Kurian, Supervisor Electrician Ronald Marano, Highway Repairer Downen Marshall, Supervisor Highway Repairer Michael Parise, Supervisor Bridge Repairer & Riveter Gean Pilipiak, Principal Administrative Associate Cherlyn Thorpe, and Highway Repairer Paul Voluz.

### ***Brooklyn-Queens Expressway WB over Furman Street (Brooklyn)***

Cleaning and painting of the bridge, which began in July 2007, was completed in November 2007.

### ***Bruckner Boulevard Bridge over 133<sup>d</sup> to 135<sup>th</sup> Streets (Bronx)***

Cleaning and painting of the bridge, which began in August 2007, was completed in November 2007.

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

In November 2007, Bridge Operations personnel hosted first grade children from PS #321 on class trips to the bridge. Students, teachers, and parents enjoyed their visit.



Supervisor Bridge Operator Mohamed Adel Tork With the Children on the Carroll Street Bridge. Answering Questions. Observing an Opening of the Union Street Bridge.

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

Cleaning and painting of the bridge, which began in September 2007, was completed in November 2007.

## DECEMBER

### **Anti-Icing**

Anti-icing crews were deployed on the East River Bridges for 24 hours beginning at 5:00 AM on December 2, 2007. 18 applications of anti-icing chemicals were made. Icicle patrols monitored the Brooklyn-Queens Expressway, FDR Drive, the Cross-Bronx Expressway, and various underpasses.

### **National Pearl Harbor Remembrance Day Tribute**

The Brooklyn Bridge flags flew at half-mast on December 7, 2007 to commemorate National Pearl Harbor Remembrance Day, in honor of those who died as a result of their service at Pearl Harbor and to pay special tribute to veterans of World War II.

### **Anti-Icing**

Anti-icing crews were deployed on the East River bridges on December 7, 2007, from 2:30 PM to 8:00 PM, and on December 9 from noon to 7:00 PM. No applications of anti-icing chemicals were necessary. Icicle patrols monitored the Brooklyn-Queens Expressway, FDR Drive, the Cross-Bronx Expressway, and various underpasses.

### **Anti-Icing**

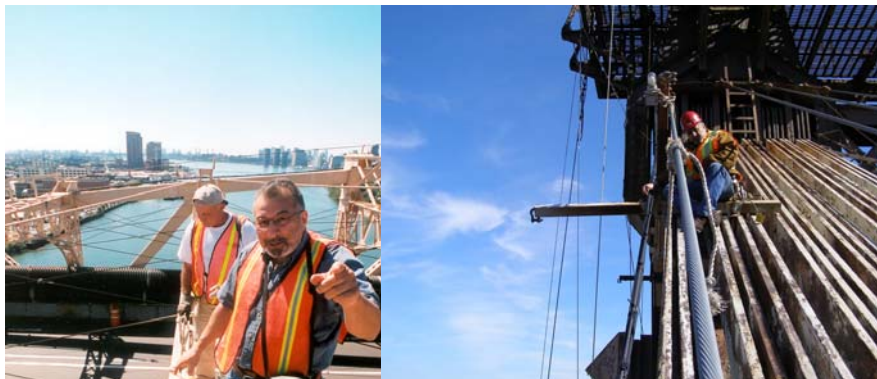
Anti-icing crews were deployed on the East River Bridges from 4:00 AM on December 13, 2007 until 1:00 AM on December 14, and again from 7:00 PM on December 15 until 6:00 PM on December 16, 2007. Twenty applications of anti-icing chemicals were made. Icicle patrols monitored the Brooklyn-Queens Expressway, FDR Drive, the Cross-Bronx Expressway, and various underpasses.

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

On the night of December 27, 2007, 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 was started in 1904 by Adolph Ochs, owner of the *New York Times*. The ball dropping tradition began three years later.

### **Ben Cipriano**

Ben Cipriano, Supervisor Electrician, leader of a crew of electricians who maintain the four East River Bridges, was the subject of a feature in the December 30, 2007 edition of the *New York Times*.



Electrician Robert Stackpole and Supervisor Electrician Ben Cipriano Atop the Queensboro Bridge. (Credit: Peter Basich) Mr. Cipriano Repairing a Damaged Electrical Cable on The Queensboro Bridge in March 2007. (Credit: Bala Nair)

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

Anti-icing crews were deployed on the East River bridges from 4:00 PM on December 30, 2007, until 5:00 AM on December 31. No application of chemicals was necessary.

### ***Manhattan Bridge***

December 31, 2007 marked the 98<sup>th</sup> anniversary of the opening of the bridge.



Manhattan Bridge.  
(Credit: Bojidar Yanev)

### ***Cropsey Avenue Bridge over Belt Parkway (Brooklyn)***

Cleaning and painting of the bridge, which began in October 2007, was completed in December 2007.

## INNOVATIONS & ACCOMPLISHMENTS

### ***East River Bridges***

A \$3.14 billion reconstruction program is underway to rehabilitate all four East River crossings. In 2006, these bridges carried some 494,576 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.



Manhattan and Brooklyn Bridges. (Credit: Thomas Whitehouse)

### **BROOKLYN BRIDGE**

Arguably the most influential bridge in American history, the Brooklyn Bridge remains one of New York City's most celebrated architectural wonders. Designed by the brilliant engineer John Augustus Roebling, and completed by his equally ingenious son Washington Roebling, this elegant structure was, at the time of its completion in 1883, the longest suspension bridge in the world. It was declared a National Historic Landmark in 1967.

The Brooklyn Bridge carried some 126,805 vehicles per day in 2006. The \$611 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, the painting of the entire suspension bridge, as well as the seismic retrofitting of the structural elements that are within the Contract #6 project limits.



Engineering Landmark Plaque. (Credit: Michele N. Vulcan) 1899 Plaque Near the Franklin Truss of the Bridge, Marking the Site of George Washington's First Presidential Mansion, Franklin House. (Credit: Hany Soliman)



## INNOVATIONS & ACCOMPLISHMENTS



Historic Landmark, 1954 Reconstruction, and Two Cities Plaques. (1954 & Cities Credit: Michele N. Vulcan)

Seismic retrofitting of the remaining bridge elements requiring strengthening will be carried out under a separate contract by the end of 2014. 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 \$20 million current construction contract will replace the four existing travelers with a new state-of-the-art technology system including motors, reducers, braking systems, electrical controls, programmable logic controller system, and trouble shooting devices. A Notice to Proceed was issued to the contractor with a start date of November 22, 2006. All four travelers were removed in November 2007. The fabrication work for the new travelers to be installed is underway. Construction is scheduled to conclude in June 2009.



Brooklyn Side Traveler. (Credit: Michele N. Vulcan)  
Working on a Traveler. (Peter Basich)



## INNOVATIONS & ACCOMPLISHMENTS



Removing the Brooklyn Bridge Main Span Travelers.

The 160 100-watt mercury vapor lamps of the necklace lights on the Brooklyn Bridge are scheduled to be replaced by new energy efficient lights in 2008.

### MANHATTAN BRIDGE

The youngest of the three NYCDOT suspension bridges that traverse the East River, the Manhattan Bridge carries some 391,121 commuters – 74,621 vehicles and 316,500 mass transit riders - between Manhattan and Brooklyn daily. It was designed by Leon Moisseiff and completed in 1909. The bridge supports seven lanes of vehicular traffic as well as a subway transit line upon which four different train lines operate.



Manhattan Bridge. (Credit: Michele N. Vulcan)  
View From the Beach. (Credit: Jonathan Smith)

The \$834 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 April 2008. This work will be followed by the upcoming Contract #14 to rewrap the cables and replace the suspenders and necklace lighting. Completion is expected in 2012. The

## INNOVATIONS & ACCOMPLISHMENTS

reconstruction will end with a seismic retrofit of the bridge, slated for completion in 2014. Work completed on the bridge to date includes reconstruction of the south and north upper roadways, reconstruction of the north and south subway lines, installation of a truss stiffening system to reduce twisting, restoration of the Manhattan Plaza, including the historic arch and colonnades, reconstruction of the south walkway, installation of a new north bikeway, and replacement of the lower roadway.



"The Spirit of Commerce" Sculpture and the Underside of the Arch. Part of the Colonnades.  
The "Native American Buffalo Hunt" Sculpture Panel. (Credit: Peter Basich)

### Contract #11

A Notice to Proceed for this project 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; upgrading of the lower roadway lane control signals, installation of a fire protection system, rehabilitation of the tower canopies and balconies, and rehabilitation of the Brooklyn Plaza. The work on the lower roadway began in October 2006. The roadway was reopened on October 1, 2007. The contractor will be paid the maximum incentive of \$3.9 million for early completion of the work related to the opening of the lower roadway. This \$148 million project is expected to be complete in April 2008.



Contract #11 in 2005: Masonry Cleaning of the Brooklyn Granite Pier and of the North Face of the Brooklyn Anchorage. Installing Conduit for the New North Upper Roadway Street Lighting.



## INNOVATIONS & ACCOMPLISHMENTS



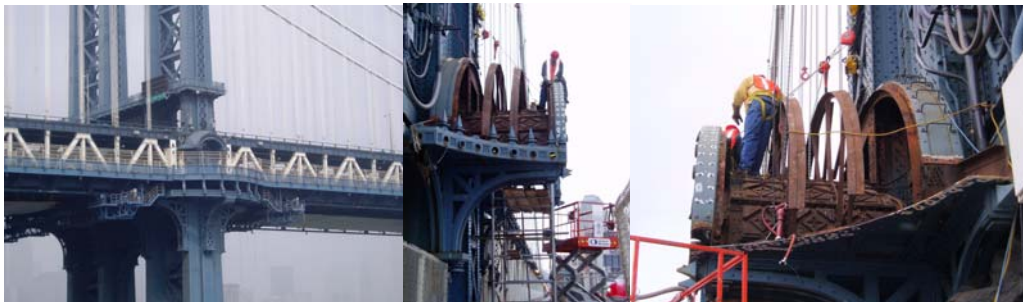
Contract #11 in 2005: Waterblasting to Remove Existing Microsurfacing From the South Upper Roadway. Manually Removing the Microsurfacing.



Contract #11 in 2005: Preparing the Deck for New Microsurfacing on the South Upper Roadway.



Contract #11 in 2005: Placing the New Microsurfacing on the South Upper Roadway. Newly Resurfaced Roadway.



Contract #11 in 2005: The Brooklyn Tower Canopy. Removing the Canopy.

In 2005 and 2006, the rehabilitation of the interior of the anchorages proceeded with the contractor repairing and replacing concrete slabs, patching spalled concrete areas, and performing vacuum-injected epoxy crack repairs to mitigate the problem of moisture seeping into the anchorage chambers. In addition, masonry cleaning work was performed on the exterior of the anchorages, piers, and abutments, as well as on the retaining walls on the approach spans. This cleaning was followed by masonry joint pointing and repairs to the damaged granite stones of these structures. Other significant tasks underway in 2006 were the installation of new street lighting on the lower and north upper roadways, and the rehabilitation of the canopy and balcony areas at both towers.

## INNOVATIONS & ACCOMPLISHMENTS



Contract #11 in 2006: Pointing Joints on East Face of Brooklyn Anchorage. Masonry Cleaning Inside Archway of Brooklyn Anchorage. Installing Conduit and Wire for New Lower Roadway Lighting.



Contract #11 in 2006: Ironworkers Removing Existing Rivets in Preparation for Replacement of Lower Roadway. Installing Steel-Faced Curb for Sands Street Realignment. Erecting Scaffold to Build Painting Containment at Base of Brooklyn Tower.



Contract #11 in 2006: Removal of Existing Suspender Rope From Cable Band on Main Span. Sawcutting Lower Roadway Deck on Manhattan Approach Span.

In preparation for the major steel removal and replacement work on the lower roadway, which began in October of 2006, the contractor fabricated steel (floorbeam, stringers, grid deck, and barrier), completed the installation of a temporary underdeck platform, and performed abrasive blasting operations to remove the paint from the existing steel connection areas. Effective October 15, 2006, the lower roadway was closed to traffic for one year. The first floorbeam was removed on October 17, 2006 at the Manhattan approach.



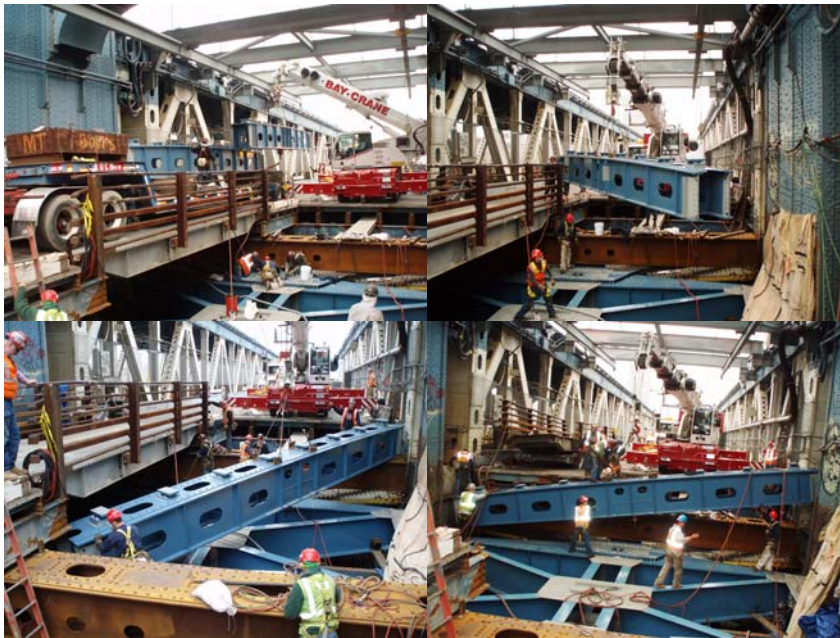
Contract #11 in 2006: Removal of First Floorbeam for Lower Roadway Reconstruction. The Fabricated Steel, Complete With Bearings, In The Contractor's Storage Yard.



## INNOVATIONS & ACCOMPLISHMENTS



Contract #11 in 2006: Sequence of Removing Existing Floorbeam at Brooklyn Tower.



Contract #11 in 2006: Sequence of Installing New Double Floorbeam at Brooklyn Tower.



Contract #11 in 2006: Installation of Full Width Grid Deck Panels.  
Lower Roadway Grid Deck Concrete Pour in December 2006.

The work plan developed by the contractor maximized access to the work zones by providing

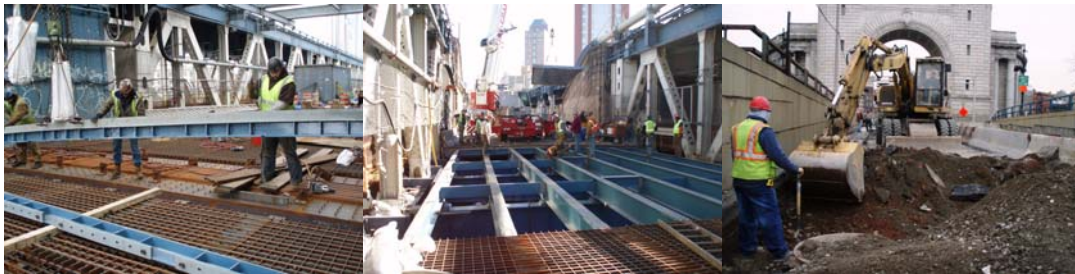


## INNOVATIONS & ACCOMPLISHMENTS

access for equipment and materials from both the Manhattan and Brooklyn approaches. The construction began with two crews at the Manhattan Anchorage, with one crew proceeding west toward the Manhattan abutment and one crew proceeding east toward the Brooklyn abutment. As a time savings measure, the existing deck and stringers were removed in panels.

The new stringers were preassembled in groups of two in the shop to speed erection. In addition, the floorbeams came to the site with the elastomeric pads pre-installed. This preassembly allowed for quick erection of the structural steel.

The complete closure of the lower roadway eliminated the need for construction joints in the grid deck and concrete placements were made from deck joint to deck joint – no cold joints were required. The grid deck panels run the complete width of the roadway with no need for splicing of the main bars.



Contract #11 in 2007: Installation of a New Modular Joint on the Lower Roadway at the Brooklyn Tower. Installation of New Lower Roadway Grid Deck Panels on the Brooklyn Side Span. Removal of the Existing Roadway at the Manhattan Transition.



Contract #11 in 2007: Bending a Reinforcing Bar for the New Lower Roadway Grid Deck. Welding of the New Lower Roadway Grid Deck. Removal of the Existing Lower Roadway Grid Deck and Stringers on the Brooklyn Approach Span.



Contract #11 in 2007: Concrete Placement in the New Lower Roadway Grid Deck on the Main Span. New Lower Roadway Floorbeams, Stringers and Grid Deck on the Brooklyn Approach Span.



Contract #11 in 2007: The New Lower Roadway Grid Deck on the Brooklyn Approach Span. The New Lower Roadway on the Brooklyn Side Span After Concrete Placement. New Lower Roadway Concrete Placement on the Brooklyn Main Span, and at the Brooklyn Anchorage.

## INNOVATIONS & ACCOMPLISHMENTS



Contract #11 in 2007: Masonry Cleaning of the Upper Section of the South Face of the Manhattan Anchorage. Milling of the Existing Lower Roadway Pavement at the Manhattan Plaza. Masonry Cleaning of the Lower Roadway Wall at the Brooklyn Transition. Concrete Placement in Manhattan Plaza at the Entrance to the Lower Roadway.



Deputy Chief Engineer Jay Patel, Engineer-in-Charge Brian Gill, Chief Bridge Officer Henry Perahia, and Deputy Chief Engineer Russell Holcomb at the Bridge Arch.

Commissioner Janette Sadik-Khan at the Manhattan Bridge With Deputy Chief Engineer Patel, Chief Bridge Officer Perahia, and Director of East River Bridges Hasan Ahmed (With Bicycle). Chief Bridge Officer Perahia and the Commissioner on the Shared Use South Walkway. Engineer-in-Charge Gill, Chief Bridge Officer Perahia and the Commissioner Reviewing the Construction.

The north bikeway, which was closed since October 9, 2006 to enable the rehabilitation of the tower canopies and balconies over the bikeway, was reopened on August 6, 2007. The south walkway then reverted to pedestrian use only.

The lower roadway, closed on October 15, 2006, reopened on Monday October 1, 2007, earlier than the scheduled completion date of October 14, 2007. The bridge is now fully opened for all modes of transportation - buses, carpoolers, motorists, bicycles, pedestrians and subway service.

The reopening of the lower roadway of the Manhattan Bridge provided the City with an opportunity to optimize the use of this important interborough connection – by opening a new HOV 2+ lane on the upper roadway. The first regular HOV access into Lower Manhattan over an East River Bridge, the lane is in effect Monday – Friday 6 AM to 10 AM. Traffic changes also



## INNOVATIONS & ACCOMPLISHMENTS

included limiting truck access on the north upper roadway and preventing north upper roadway traffic from entering Canal Street westbound when the lower roadway is Manhattan-bound. These traffic modifications resulted in a 25% or more Manhattan-bound travel time savings across the bridge when compared to preconstruction usage.



Contract #11 in 2007: Placement of New Asphalt on the Lower Roadway at the Brooklyn Approach Span. Placement of New Microsurfacing on the Lower Roadway at the Manhattan Side Span.



Division and Contractor Personnel at the Reopening of the Manhattan Bridge Lower Roadway, Including: Assistant Civil Engineer Javed Sarwar (3<sup>rd</sup> From Left), Assistant Engineer-in-Charge Syed Arfeen (6<sup>th</sup> From Left), Engineer-in-Charge Brian Gill (7<sup>th</sup> From Left), Civil Engineer Mohammad Hossain (8<sup>th</sup> From Left), Deputy Chief Engineer Jay Patel (9<sup>th</sup> From Left), and Assistant Civil Engineer Sergey Kholdarov (10<sup>th</sup> From Left).

Other significant Contract #11 work performed in 2007 included the cleaning of the masonry structures in Manhattan and Brooklyn, installation of the anchorage dehumidification exhaust system, installation of a fire protection system, replacement of the truss wind pin assemblies, replacement of the tower anchor bolts, rehabilitation of the canopies and plaques on the bikeway and walkway, and installation of the lower roadway lighting system. In December 2007, the contractor re-started the rehabilitation of the 20,000 square foot Brooklyn Plaza.



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Contract #11 in 2007: View of the Restored Canopy at the Brooklyn Tower. Manhattan Bridge North Upper Roadway With HOV Lane Delineators.



The Manhattan Bridge Brooklyn Plaza in 1916: The Statues Represent Manhattan and Brooklyn. Rendering of the New Plaza.

### 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 \$777 million reconstruction commenced in April 1981 with Contract #1, continues with Contract #6, which began on October 31, 2003, and is scheduled for completion by the end of May 2008, and will end with a seismic retrofit of the bridge, slated for completion in August 2014. Work completed on the bridge to date includes the rehabilitation of the lower inner roadways, the lower outer roadways, 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

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City with a second century of reliable, prosperous transport. The Queensboro Bridge carried some 186,110 vehicles per day in 2006.



Queensboro Bridge in 2005. (Credit: Michele N. Vulcan)  
Close-up of the 1909 Dedication Plaque. (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 was restored. This small historical structure was in an advanced state of disrepair and had been damaged by repeated vehicular impacts. This \$43 million project is expected to be complete by the end of June 2008.



Views of the Queensboro Plaza Kiosk in 2003. Proposed Rehabilitation of the Arch Infill for the Sanitation Department.



Contract #6 in 2004: Repairing the Steel of the 59<sup>th</sup> Street Arch Ceiling. Starting Curb Replacement at 60<sup>th</sup> Street. Improving the Drains at the Vehicle Storage Area.



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Contract #6 in 2004: 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.



Contract #6 in 2004: Repaired Curb at 60<sup>th</sup> Street. Anchor Pier Granite Cleaning in Progress.

In 2004, work was completed at the retaining wall at York Avenue. In 2005, work was completed on the kiosk bollards on the Manhattan plaza, the sidewalk between 61<sup>st</sup> and 62<sup>nd</sup> Streets, the rehabilitation of the Sanitation Department area arch infill, and the modifications to the maintenance facility beneath the Manhattan approach plaza.



Contract #6 in 2005: Bent Column Ready for Jacking. Decorative Fence. Repairing the Drainage Pipes.



Contract #6 in 2005: Manhattan Plaza Bollards. Full Width Deck Repair on South Inner Roadway. New Luminaire on North Upper Roadway.



Contract #6 in 2005: Rehabilitated Sanitation Department Arch Infill.

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Contract #6 in 2005: Traveler Platform. New Window.

In 2006, work was completed on the protective screening, the aviation warning lights, the drainage improvements, the repair of the south upper roadway concrete overfill and overlay, the underside of the 59<sup>th</sup> Street overpass, and the condition inspection of the eyebar heads and pins.



Contract #6 in 2006: Microsurfacing the North Upper Roadway. Repairing the 59<sup>th</sup> Street Overpass.

The kiosk in the plaza on the Manhattan side of the bridge was originally built in 1908 and is constructed primarily of terracotta panels set between ornate cast iron columns, with copper roofs and cast iron fascias. The interior walls and Guastavino timbrel arch ceiling are covered with glazed tile. The open front (now glassed in) originally served as the entrance and exit to the old subway station. There is no floor in the kiosk, as it served only to shelter the stairways leading to the station below. The restoration of the kiosk was completed in September 2006.



Contract #6 in 2006: Restored Queensboro Kiosk Ceiling and Other Elements.



Contract #6 in 2006: Restored Queensboro Bridge Kiosk.

In 2007, work was completed on the geometric improvements at Crescent Street and Queens Plaza South, the installation of concrete barriers and protective screening at the Queens



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approach on the north outer roadway, and the repair of the north and south upper roadway overlay. The upgrading of the roadway lighting was substantially completed by the end of 2007.



Contract #6 in 2007: Rendering of Bridge Flag Site. Protective Screening at the Queens Approach. Protective Screening and Roadway Lighting Upgrade on the North Outer Roadway. (Screening Credit: Adam Caplan)



Contract #6 in 2007: Rendering Geometric Improvements at Crescent Street (Credit: Adam Caplan)

### 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.



Bridge Painting in Progress: July 2007.

The work is performed within an entirely sealed Class 1A containment system (under negative pressure) which acts as an added safety measure to prevent 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

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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.



Platform Installed for Painting of the Queensboro Bridge. (Credit: Vadim Sokolovsky)  
Working Inside the Containment. Protected Roadway.



View of Roadway Platform. Painted Area.

By the end of 2005, the contractor completed cleaning and painting the Manhattan and Queens anchor piers; the Manhattan approach; ramp A; the off ramp and ramp B over the Silver Cup Studio parking lot; the off ramp over Queens Plaza South towards 13<sup>th</sup> Street; approaches B and C from 23<sup>rd</sup> Street to Thompson Avenue (except over the railroad tracks); the Queens approach underside of the lower roadways (from 21<sup>st</sup> Street to Vernon Boulevard); the main bridge underside of the lower and upper roadways from PP123 to PP68; and the main bridge above the upper roadway from PP77 to PP109.



Protective Coating in 2005: Newly Painted Section Along the Upper Roadway. Containment on the Queens Side Tower. (Credit: Peter Basich) Queensboro Bridge Work Platform. Painters Arriving at the Platform. (Credit: Michele N. Vulcan)

By the end of 2006, the contractor completed cleaning and painting the Queens approach at the inner roadways from PP0 to PP39; at the main span's inner and under upper roadways above Roosevelt Island and one half of span #2 from PP75 to PP37; the main span trusses above the upper roadway from the Manhattan anchor pier to the Roosevelt Island west tower has been completed from PP0-PP15, PP30-PP47, and PP109-PP123; and the ramps on the Queens side over the LIRR tracks. Installation of cables and platform, on the main span under the lower roadway from PP17 to PP37, was also underway.



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Protective Coating in 2006: Upper Roadway in Progress. (Credit: Peter Basich) Inside the Containment on the North Side of the Inner Roadway. Installed Platform Above South Outer Roadway.



Protective Coating in 2006: Inside the Containment Rigging at Span #1. Finish Coat on the Trusses at Span #5 on the Upper Roadway. Class 1A Containment Installed on the Trusses at Span #2, And the Working Platform Above the South Outer Roadway.

By the end of 2007, the contractor completed cleaning and painting the Queens approach at the inner roadways from PP90 to PP39; at the main span's inner and upper roadways from PP1 to PP37; and the main span trusses above the upper roadway from PP30-PP15 and PP47-PP55. The installation of containment rigging along the upper roadway on Span 3 was also underway.



Protective Coating in 2007: First Part of the Year.



Protective Coating in 2007: Spans 1 and 2 Upper Level.

## INNOVATIONS & ACCOMPLISHMENTS



Protective Coating in 2007: First and Middle Part of the Year.



Protective Coating in 2007: Middle and Last Part of the Year.

Scheduled work for spring 2008 includes the tower interiors, the upper roadway trusses on Span 3, and approach B above the Amtrak property. Remaining touch-up work areas include the Queens approach at the inner roadways from PP90 to PP39, the main span's inner and upper roadways from PP1 to PP37, and the main span trusses above the upper roadway from PP30-PP15, as well as PP47-PP55.

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. By the end of 2007, approximately 87% of the contract work was complete. 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.

### WILLIAMSBURG BRIDGE

The largest of the three suspension bridges that traverse the East River, the Williamsburg Bridge carries some 207,040 daily commuters – 107,040 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 \$1,048 million reconstruction commenced in 1983 with Contract #1, and continues with Contract #8, which began in March 2003 and is scheduled for completion by the end of 2008.



Williamsburg Bridge. Bridge Subway Structure. (Credit: Peter Basich).  
Contract #8 in 2004: Looking South at a Cable Band Retensioning Crew.



## INNOVATIONS & ACCOMPLISHMENTS

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.



View From the South Footwalk.

### Contract #8

**Contract #8** began on March 3, 2003, and is scheduled to finish by the end of 2008. This \$220 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 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 main towers began in 2003 and will continue through spring of 2006. Steel replacement on both the intermediate towers and the upper and lower chords of the stiffening trusses began in 2003 and was completed in 2005.



Contract #8 in 2003: North Stiffening Truss Containment Erection and Removal.  
South Truss Bottom Chord Rehabilitation.

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Contract #8 in 2004: Looking East at the Brooklyn Main Tower Temporary Work Platforms. Manhattan Main Tower Temporary Platform Erection. Strengthening Plate Operation on Brooklyn Main Tower.



Contract #8 in 2004: Pier Stationed & Barge Mounted Cranes at Brooklyn Main Tower Pier. Steel Arch Replacement. Looking West at the North Truss Top Chord Steel Rehabilitation.



Contract #8 in 2005: Preassembling and Erecting Brooklyn Intermediate Tower Arch Steel.



Contract #8 in 2005: Rehabilitation of the Brooklyn Main Tower Steel. Torch Cutting on the Tower.

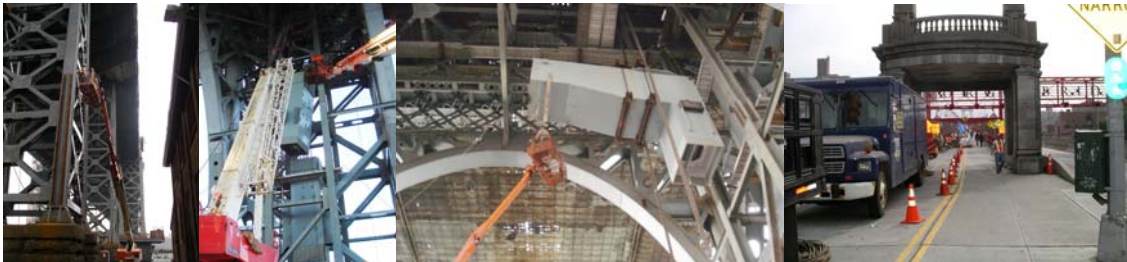


## INNOVATIONS & ACCOMPLISHMENTS



Contract #8 in 2005: Removing the Existing Steel of the Brooklyn Main Tower. Inspecting a Rebar Cage at the Manhattan Main Tower. Installing a Column at the Brooklyn Main Tower.

Installation of the strengthening plates on the four river-side column legs of each of the main towers was completed in 2004. 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 in 2005: Torque Testing Bolts at the Brooklyn Intermediate Tower. Erecting a Leg of the Brooklyn Main Tower. Erecting Brooklyn Main Tower Leg Bearing Support Steel. Replacing the Manhattan Approach Footwalk Expansion Joint Covers.

During the fall of 2005 the work of replacing the footwalk expansion joint cover plates began and the 24 joints on the Manhattan approach and south foot walk were completed. The work on the seven joints on the north foot walk was completed in early 2006.

Twenty-eight wire rope cable suspenders and 56 tension rods were replaced during 2004 on the suspended main span. All of the suspenders were systematically adjusted in 2005 to optimize the profile of the bridge. In addition, the truss bearings at the anchorages were replaced in 2005.



Contract #8 in 2004: High Strength Bolt Torque Inspection. Cable Band Bolt Retensioning. Steel Bracing Replacement Operation at the Brooklyn Intermediate Towers.



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Contract #8 in 2004: Ironworkers Bolting up New Steel on Intermediate Tower. Cleaning the Brooklyn Anchorage Exterior Granite Surface. Entrance to North Walkway.  
(Walkway Credit: Peter Basich)



Contract #8 in 2005: Cable Band Bolt Retensioning. (Credit: Bojidar Yanev) Demolition of the Brooklyn South Comfort Station Balcony. Installing Brooklyn Main Tower Aviation Lights. FHWA Engineering Intern River Hwang Inspecting the Cable Wrapping.

Rehabilitation of the north comfort stations began on February 21, 2006. The south outer roadway of the bridge was closed on June 1, 2006 for the removal and replacement of the asphalt overlay. Work was completed on the Manhattan side on June 6, 2006, and on the Brooklyn side on June 14, 2006. Installation of the balconies on both main towers began on June 22, 2006. The first traveler platform for the bridge was brought to the contractor's facility in Carteret, New Jersey on December 05, 2006.



Contract #8 in 2006: North Comfort Station. Manhattan Anchorage Joint Cleaning and Painting. Pointing of Comfort Station Roof.



Contract #8 in 2006: Truss A Removal, Manhattan and Brooklyn Towers.

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Contract #8 in 2006: Priming Application and Asphalt Paving Operation on the South Outer Roadway.



Contract #8 in 2006: Water Blasting. Curb Angle Cleanup and Tack Coat. Core Drilling The Brooklyn North Comfort Station.



Contract #8 in 2006: Touchup Painting on the North Truss. First Traveler Platform. Bearing Survey.

The seismic retrofitting of the steel portions of the intermediate towers was completed on July 20, 2007. The Brooklyn and Manhattan maintenance travelers were delivered on barges and raised into position in August and October 2007. Installation of the top chord transverse bearings at the main towers was completed in October 2007. Installation of the Brooklyn anchorage maintenance platforms, the Manhattan anchorage hoist and new stair cases for both anchorages were also completed in 2007.



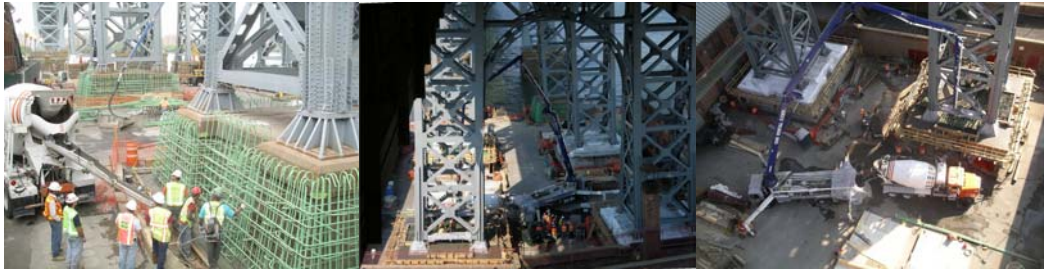
Contract #8 in 2007: Survey Work in Brooklyn. Excavation for Concrete Encasement. Brooklyn Tower.



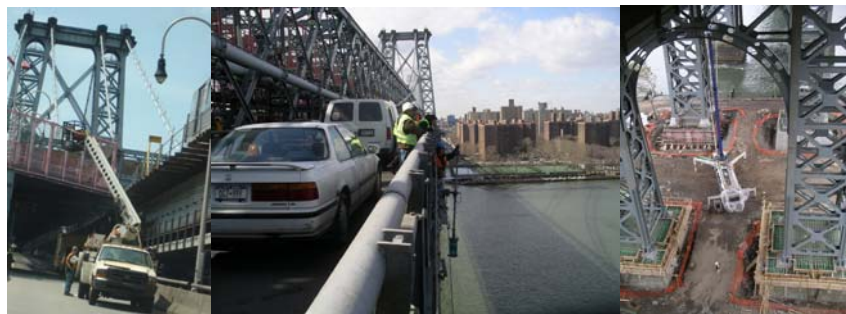
## INNOVATIONS & ACCOMPLISHMENTS



Contract #8 in 2007: Checking the Progress of the Brooklyn North Comfort Station. Seismic Retrofit Concrete Work in Brooklyn. Brooklyn Tower Balcony (South).



Contract #8 in 2007: Seismic Retrofit Concrete Work at the Intermediate Piers in the Kent Avenue Yard.



Contract #8 in 2007: Modifying the South Footwalk Drainage. Repairing the Navigation Lights. Seismic Retrofit Concrete Work in Manhattan.



Contract #8 in 2007: Brooklyn South Comfort Station Rehabilitation. Raising the Manhattan Side Traveler at the Manhattan Tower. Manhattan Tower North.

Work anticipated to be completed in 2008 includes the installation of the Brooklyn anchorage hoist and the main tower fender system, the erection of the new Manhattan entry electroliers and rehabilitated main tower electroliers, the replacement of the intermediate tower truss bearings at panel points 10 and 15, the completion of the maintenance travelers, the implementation of a south inner roadway contra-flow system, and the seismic retrofit of the intermediate tower bases.



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First Deputy Commissioner Lori Ardito, Chief Bridge Officer Henry Perahia, Commissioner Janette Sadik-Khan, and Press Secretary Seth Solomonow at the Williamsburg Bridge. Ascending the Cable.

## INNOVATIONS & ACCOMPLISHMENTS

### **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)**

Opened on June 29, 1940, the Mill Basin Bridge is adjacent to the Jamaica Bay Wildlife Refuge and the Gateway National Recreation Area. It is the only movable bridge on the Belt Parkway. The current clearance over Mean High Water is 35-feet. 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 2007, the number of openings declined further to a total of only 182 openings.

In addition, significant and costly traffic congestion results from the operation of this outmoded drawbridge. In 2006, the Mill Basin Bridge carried 143,917 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 2007, on a New York State-mandated scale from 1 to 7, this bridge had a condition rating of 2.955, or "poor." 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 existing Mill Basin Bridge is 864-feet long and 14 spans, including double movable leaf bascule spans and a steel superstructure, supported on reinforced concrete pier on timber piles, and abutments supported on pre-cast concrete piles. The existing structure and immediate approaches will be demolished and replaced.



Belt Parkway Bridge Over Mill Basin.

The replacement will be a 1,757-foot, 11 span fixed bridge, north of the existing structure. The bridge will have a 36-foot wide roadway with a 12-foot wide right shoulder and a 4-foot wide left shoulder in each direction. The eastbound side will carry a dedicated pedestrian/bike path along

## *INNOVATIONS & ACCOMPLISHMENTS*

the south fascia. The new bridge will be a fixed structure with a 60-foot clearance over Mean High Water, obviating the need for opening and closing the structure to accommodate tall vessels. The new design of the bridge will result in increased sight distances, an increase in lane width from 11-feet 4-inches to 12-feet, and the inclusion of safety shoulders in both directions. The channel will remain navigable during construction, and the clear channel width will remain the same after the new structure is in place. A new fender system will be installed to protect the bridge substructure from marine traffic. Currently in its final design phase, the reconstruction of the Mill Basin Bridge (part of the second Belt Parkway Group) is scheduled to start in 2010, and to last approximately 4 years.

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

This double leaf bascule bridge opened in 1953. In 2006, the bridge carried 61,262 vehicles per day. The 17 span structure (three waterway and fourteen concrete approach) 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 October 2009. The estimated construction duration will be a total of 36 months with approximately 18 months lead time. The project's scope of work includes replacement of the bascule, flanking, and approach superstructures, rehabilitation of the substructures, replacement of the existing mechanical and electrical systems for the bascule span, reconstruction of the bridge operator and control houses, and replacement of the existing fender system, drainage system, street lighting, traffic signal facilities, and gates. The "float out the old/float in the new" technique may be incorporated into the replacement scheme for the bascule span.

Onsite construction will be carried out in six stages. Incentives and disincentives will be used to expedite the completion of the project. Construction is expected to be completed in December 2011.



Unionport Bridge in 1953.



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Unionport Bridge in 2002. (Credit: NYSDOT)

### HAMILTON AVENUE BRIDGE OVER THE GOWANUS CANAL (BROOKLYN)

The Hamilton Avenue Bridge opened in 1942. In 2006, the bridge carried 55,526 vehicles per day. As part of the \$55 million reconstruction of this bridge, the new bascule spans with trunnion towers will be shop-assembled and tested off-site, then will be shipped to the site 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.

A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of August 4, 2005. Each of the 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.



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.

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

In Stage I, the Manhattan-bound span was closed from June 29, 2007 to August 31, 2007, and it was replaced. The Manhattan-bound bascule span was removed in halves on July 2 and July 6, 2007. Due to the contractor's chosen means and methods, the new east leaf of the Hamilton Avenue Bridge was not "floated-in" as originally proposed, but was trucked-in, and assembled at the site. The Manhattan-bound span reopened three days earlier than scheduled on the morning of August 31, 2007. The contractor will earn an incentive for early completion of this milestone.



Removing the East Span in July 2007.



2007: Hamilton Avenue Bridge Construction.

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Administrative Engineer Robert Collyer and Associate Project Manager Reza Lotfi at the Reopening of the Hamilton Avenue Manhattan-Bound Span. Open Span.

Construction work completed in 2007 included lead and asbestos abatement work in the control and gate tender houses and the replacement of the Manhattan-bound bascule span and all related tasks, including the installation of new submarine cables, the reopening of all roadways and sidewalks, the replacement of the fender system, and the installation of new dolphin clusters. Fabrication of structural steel and machinery for the Brooklyn-bound span is in progress.



Open Hamilton Avenue Bridge in August 2007.

In Stage 2, the Brooklyn-bound span will be closed from July 1, 2008 to August 31, 2008, and it will be replaced. The new west leaf is scheduled to be trucked-in for assembly and installation. The project is expected to be complete in January 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 2006, the bridge carried 39,878 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 not only strengthened the structure, it returned the bridge's appearance to its turn of the century grandeur.



## INNOVATIONS & ACCOMPLISHMENTS



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



Close-up of the 1894 Dedication Plaque. (Credit: Hani Faouri)  
View of the Swing Span Control House. (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, and a steel fence. Bollards were installed at the western end of the island to protect the fountain from vehicular traffic.



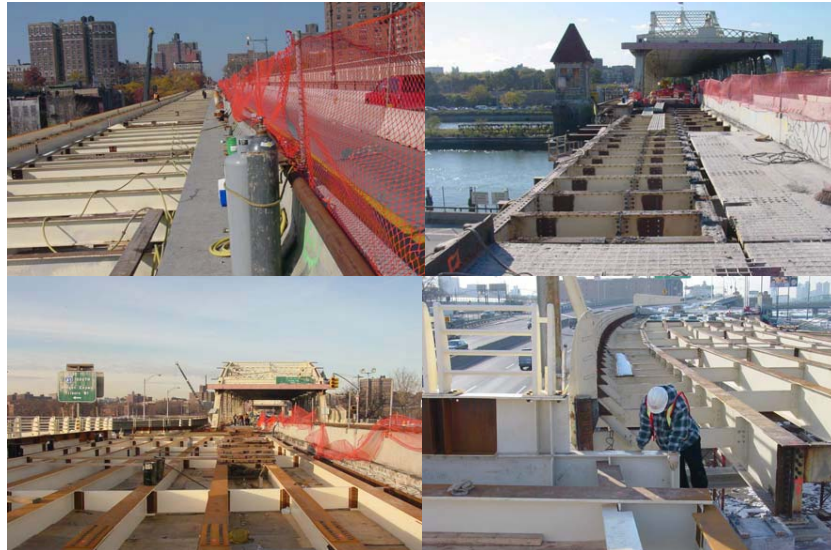
2000 – 2002: John Hooper Fountain Globe. New Trusses at the Jerome Avenue Approach to the Bridge. West 155<sup>th</sup> Street Viaduct of the Macombs Dam Bridge.

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.

## INNOVATIONS & ACCOMPLISHMENTS

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.



2003: Looking West Along the West 155<sup>th</sup> Street Viaduct of the Macombs Dam Bridge. Demolition of Truss Deck. New Floor Beams in the East Approach of the Bridge. Existing Steel Beams After Removal of Concrete on Ramp B.

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. In 2003 and 2004, electrical and mechanical components and equipment were installed, and the brakes were replaced. In 2005 and 2006, the contractor worked on window replacement, touch-up painting, restoration of park land, removal and replacement of actuators, finishing the signage, sidewalk replacement, the construction of a concrete wall at 161<sup>st</sup> Street, and extended testing. The reconstruction of this bridge was substantially completed on May 29, 2007.



View of the Roadway From Above the Control House – Yankee Stadium is on the Right. (Credit: Peter Basich)  
Bridge Protective Fencing and Staircase. (Credit: Michele N. Vulcan)



## INNOVATIONS & ACCOMPLISHMENTS



Quality Assurance Personnel Pausing During an Inspection of the Macombs Dam Bridge in May 2007: Assistant Civil Engineers Jayesh Mehta and Yuliy Zak, and Civil Engineer Ten Ming Rhee. (Credit: Masroor Mahmood) Detail of the Bridge – Yankee Stadium Banner is Visible on the Right.

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 2014 and end in January 2017.

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

A project for seismic retrofit, electrical, mechanical, masonry and miscellaneous work is scheduled to be performed between March 2013 and September 2014. 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. The final design phase of this project is expected to begin in winter 2009. In 2006, the bridge carried 43,805 vehicles per day.



Madison Avenue Bridge in 1910. Bridge in 2005. (Credit: Peter Basich)



## INNOVATIONS & ACCOMPLISHMENTS

### ROOSEVELT ISLAND BRIDGE OVER EAST RIVER/EAST CHANNEL (MANHATTAN/QUEENS)

This lift bridge opened in 1955. In 2006, the bridge carried 9,685 vehicles per day. In 2007, the lift span opened 48 times for vessels. The 8 span structure carries two lanes of traffic over the East Channel of the East River. It is the only vehicular access to Roosevelt Island from the Borough of Queens.



Roosevelt Island Bridge Under Construction in 1952.

A Notice to Proceed for the \$86.5 million reconstruction of this bridge was issued to the contractor with a start date of March 12, 2007. The estimated construction duration will be a total of 33 months with approximately 8 months' lead time. The project's scope of work includes rehabilitation of the existing bridge superstructure, substructure and approaches, replacement of some of the existing mechanical and all of the electrical systems for the lift span, rehabilitation of the bridge operator house, installation of safety fences on the sidewalk, replacement of the street lighting, resurfacing of the approach roadways, installation of pigeon proofing systems and re-painting the entire structure. The project will also include the installation of a dedicated right-hand turn lane onto the southbound Vernon Boulevard in Queens, and the construction of a new back-up generator building under the Queens approach. Fabrication of mechanical and structural components was in progress by the end of 2007.



Roosevelt Island Bridge in 2005. (Credit: Peter Basich) Bridge Tower and View From Deck in 2005. (Credit: Michele N. Vulcan)

## INNOVATIONS & ACCOMPLISHMENTS



Construction of the Below Deck Shield for the Queens Approach of the Roosevelt Island Bridge. Above Deck Containment on the Lift Span. The Lift Span Shield Looking Northeast.

The cleaning and repainting of the bridge began in January 2008. 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.

The work is performed within an entirely sealed Class 1A containment system (under negative pressure) which acts as an added safety measure to prevent 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.

Onsite construction will be carried out in three stages. The project has an incentive tied to one of the milestones. The contractor will be paid an incentive of \$18,500 per calendar day for early completion of this milestone with a maximum allowable incentive of \$277,000. Late completion will carry a disincentive of \$18,500 per calendar day with no limit on the maximum amount. Vehicular traffic will be maintained during all of the stages. Construction is expected to be completed in November 2009.

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

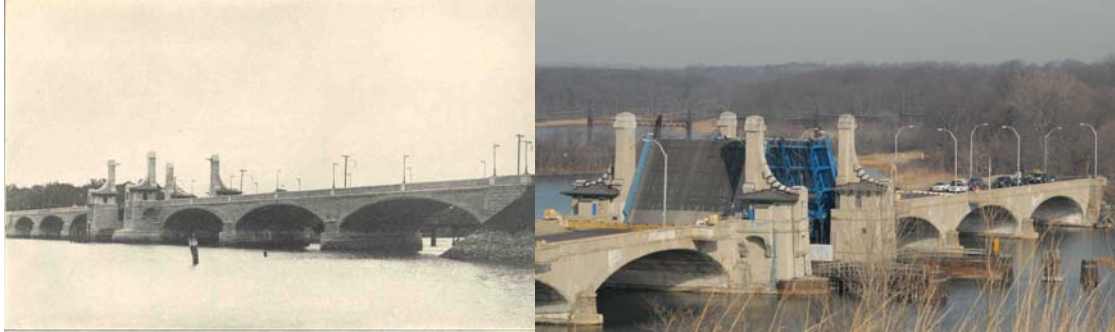
This bridge, built in 1908, was originally called the Pelham Parkway Bridge over Eastchester Bay. In 2006, the bridge carried 16,749 vehicles per day. The \$5 million interim rehabilitation of the existing bridge superstructure and substructure will enable the Department to keep it operational while 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.



Shore Bridge in 2007. (Credit: Peter Basich)

## INNOVATIONS & ACCOMPLISHMENTS

As of the end of 2007, various alternatives for the new bridge were being evaluated for further design. The preferred alternative is a mid-level, single leaf bascule movable bridge which will be constructed to the south of and parallel to the existing bridge. An environmental impact study is expected to begin in March 2008. The project to construct a new Shore Road Bridge is scheduled for construction between October 2012 and January 2017.



Shore Road Bridge in 1909. Open Bridge in 2007. (Credit: Peter Basich)

### WARDS ISLAND PEDESTRIAN BRIDGE OVER HARLEM RIVER (MANHATTAN)

The Wards Island Bridge is a pedestrian bridge connecting the East River Housing Project at East 103<sup>rd</sup> Street in Manhattan to Wards Island. Located along the East River, the bridge is located between exits 14 and 15 of the FDR Drive. This vertical-lift bridge has a total of twelve spans. Spans one through four are located on the Manhattan side of the bridge and are oriented from south to north. At span five the bridge turns from west to east. The curb-to-curb width of the lift span is 3.66 meters, the clear width of the Manhattan approach ramp is 3.66 meters and the clear width of the Wards Island approach ramp measures about 3.76 meters.

A protective coating project was completed in May 2003 at an approximate cost of \$1.2 million. Currently in its final design phase, the reconstruction of the bridge is scheduled to start in July 2012. The project's scope of work includes the replacement of the electrical and mechanical components along with a new control system, the replacement of the walkway deck, the rehabilitation of the steel superstructure members, and restoring the control and tender houses to their original condition. Construction is expected to be completed in July 2014.



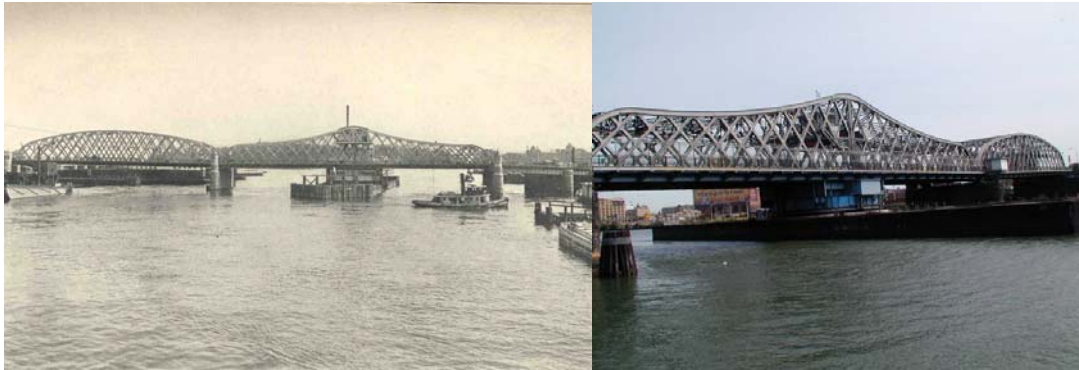
Wards Island Pedestrian Bridge After Completion of Painting in 2003.



## INNOVATIONS & ACCOMPLISHMENTS

### **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 125<sup>th</sup> 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. Current Bridge.

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 66,212 vehicles per day in 2006. Ten local and interstate bus lines use the bridge as a principal route from New York City to points throughout the northeastern United States.

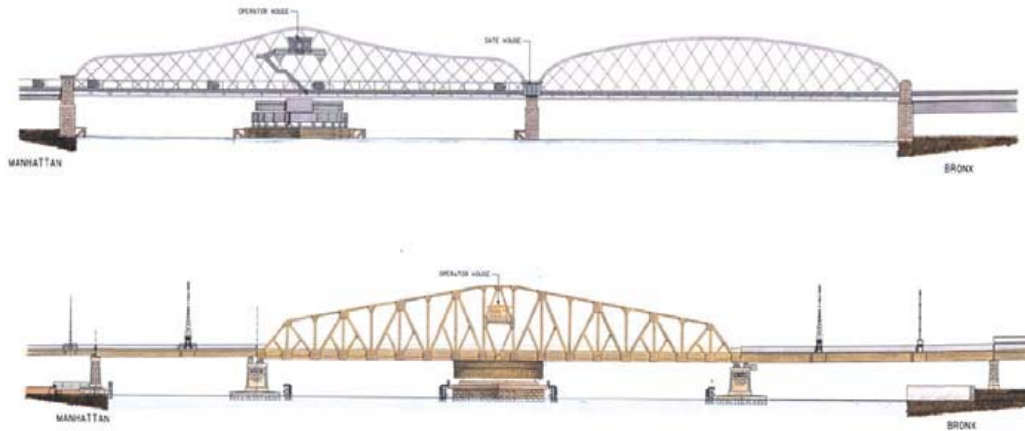


Open Willis Avenue Bridge.

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 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.

## INNOVATIONS & ACCOMPLISHMENTS



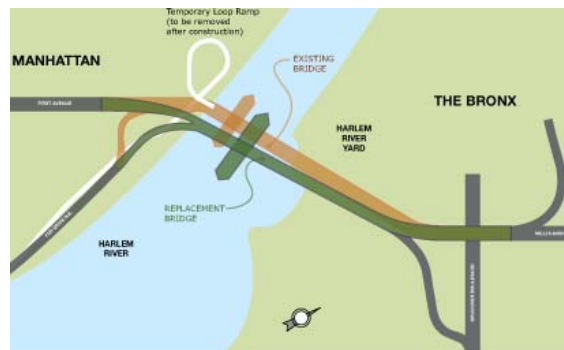
Existing Willis Avenue Bridge Swing Span. New Span.

A direct connection to the northbound Major Deegan Expressway in the Bronx will be constructed. There will be wider travel lanes with shoulders, and a broader, combined pedestrian/bicycle pathway along the north side of the bridge.

New, tested and inspected materials will be used including placement of a solid riding surface on the swing span instead of the open grating deck currently in use. In addition, modern electrical, mechanical and communications systems will be installed.

Traffic will continue to use the current bridge until the new bridge opens, resulting in limited impact to motorists and nearby communities. The NYC Marathon will not be impacted: runners will continue to use the current bridge each year until the new bridge is completed.

Throughout the project, little impact to marine traffic will be experienced. The new swing span is being fabricated and assembled off site, and will be floated into place once the foundations, center pier and rest piers are ready to receive it. A symbolic portion of the historic original Willis Avenue Bridge will be retained in place as a monument to the bridge in Harlem River Park.



Willis Avenue Bridge Project Map.

The project will also replace the FDR Drive approach ramp and the ramp onto Bruckner Boulevard. NYCDOT will also reconstruct Willis Avenue over the Major Deegan Expressway for the New York State Department of Transportation.

A Notice to Proceed for the replacement of this bridge was issued to the contractor with a start date of August 27, 2007. Foundation construction work was in progress by the end of 2007. The project is slated for completion in December 2012.

## INNOVATIONS & ACCOMPLISHMENTS



Rendering of the New Willis Avenue Bridge.

On January 3, 2008, the East 125<sup>th</sup> Street exit ramp off the northbound FDR Drive was closed. This closure was necessary so that work on the construction of a temporary ramp, as well as construction of the new north-bound FDR Drive ramp to the Willis Avenue Bridge, could begin. The East 125<sup>th</sup> Street exit ramp, which typically carries only a low volume of traffic, will not reopen until the temporary ramp is removed in June 2011.

### 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 two 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 2006, the 145<sup>th</sup> Street Bridge carried approximately 21,733 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. Aerial View of Existing 145<sup>th</sup> Street Bridge.

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 continued in Pennsylvania. Fabrication and assembly of mechanical and electrical components began in 2005. Installation of mini-piles at the rest and center piers of the bridge began in November 2004, and was completed in March 2005. In 2005, the contractor also completed the survey and the tieback borings. In 2006, the contractor replaced most of the north half of the bridge in the approaches as well as on spans 1, 2, 3, 6, 7, and 8. The new swing span was assembled in Albany, New York in late 2005, and was floated-in on February 9, 2007.



## INNOVATIONS & ACCOMPLISHMENTS



2005: Replacing Span #3 of the 145<sup>th</sup> Street Bridge. Swing Span Truss Assembly.



2005: Precast Deck Units for the 145<sup>th</sup> Street Bridge at the Fabrication Facility. Placing the Bottom Chord of the Swing Span on the Supporting Towers.



2006: Assembling the New 145<sup>th</sup> Street Bridge Swing Span in Albany.

Stage I reconstruction of the bridge began on March 16, 2006. The Manhattan-bound roadway and sidewalk were closed and one lane of traffic in each direction, as well as pedestrian access, were maintained on the south half of the bridge.



2006: Continued Assembly of the New 145<sup>th</sup> Street Bridge Swing Span. Removing Steel Girders Over the Harlem River Drive.

## INNOVATIONS & ACCOMPLISHMENTS



2006: Testing the Concrete for Pier 3 - FHWA Summer Intern Keisha Esprit on Left, and Assistant Civil Engineer Khalid Mohammed on Right. Ms. Esprit Taking Notes on the Concrete Placement.



2006: Demolition of 145<sup>th</sup> Street Bridge Manhattan Approach. Aerial View of Construction.

The transfer barge carrying the new swing span arrived at the Third Avenue Bridge site on October 31, 2006. Effective November 1, 2006, the bridge was fully closed for four months. Demolition activities began started around 2:00 a.m. on November 8. A sound barrier was erected prior to the start of the demolition.



2006: New 145<sup>th</sup> Street Bridge Swing Span Leaving Albany. Passing the Statue of Liberty.



2006: Passing Lower Manhattan. Approaching the Brooklyn Bridge.



## INNOVATIONS & ACCOMPLISHMENTS



2006: NYPD Launch Monitoring the Barge Passing Under the Manhattan Bridge. (Manhattan Credit: Bojidar Yanev) Passing Under the Williamsburg Bridge.



2006: New 145<sup>th</sup> Street Bridge Swing Span Passing Under the Queensboro Bridge. (Credit: Peter Basich) Third Avenue Bridge Site. (Site Credit: Russell Holcomb)

The contractor completed the removal of the swing span in December 2006, and it was transferred off site.



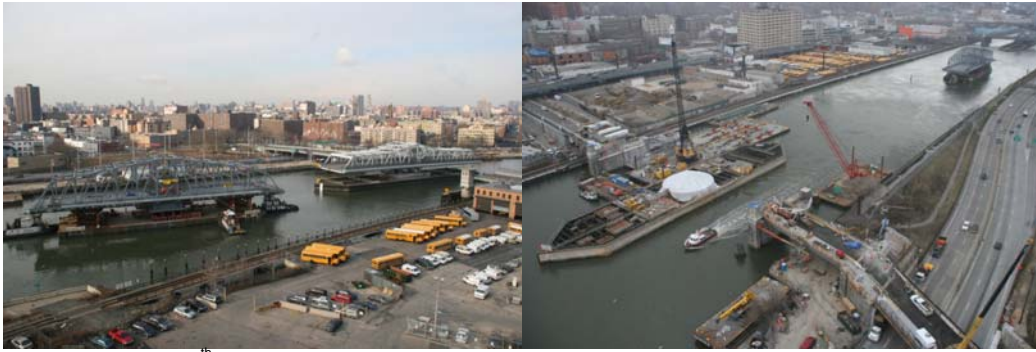
2006: Barge Carrying Crane Passing The Open Madison Avenue Bridge on the Way to Dismantle the Old 145<sup>th</sup> Street Swing Span. Dismantling the Truss.

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

Various construction activities, including the installation of the grid deck, took place while the swing span truss was moored south of the Third Avenue Bridge. The float-in of the swing span was successfully performed on February 9, 2007.



## INNOVATIONS & ACCOMPLISHMENTS



Moving the New 145<sup>th</sup> Street Swing Span From South of the Third Avenue Bridge to the Site in January 2007.



Floating In the New 145<sup>th</sup> Street Span in February 2007.

Stage II was completed when two lanes of the bridge were opened to vehicular traffic at 12:20 AM on March 22, 2007. The north sidewalk was opened to pedestrians as well, while demolition work for stage III of the South side continued. The Manhattan and Bronx approaches as well as the Bronx bound lanes of spans 1, 2, 3, 6, 7 and 8 were demolished and rebuilt.



New 145<sup>th</sup> Street Bridge Swing Span Wrapped in Plastic During the Lightweight Concrete Curing Period. Preparing for the Concrete Deck Placement. Night View of the Encapsulated Deck.

All four lanes of the bridge were opened to vehicular traffic at 7:00 AM on June 16, 2007. The south sidewalk has been kept closed to the public for some ongoing work.



New 145<sup>th</sup> Street Bridge Ready for Traffic.

## INNOVATIONS & ACCOMPLISHMENTS



Bridge Sign. New 145<sup>th</sup> Bridge at Night.

These upgrades will restore the structural integrity and extend the useful life of the 145<sup>th</sup> Street Bridge. The project is slated for completion in September 2008.

### 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, 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. The float-in of the new swing span of the 145<sup>th</sup> Street Bridge was performed in February 2007.

### 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 a consultant 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 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

## *INNOVATIONS & ACCOMPLISHMENTS*

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 were 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.

Data from geotechnical bridge studies performed within the five boroughs of NYC has been compiled, and a new edition is scheduled for publication in summer 2008 to replace the 1998 Seismic Design Criteria. A series of generalized subsurface soil and bedrock profiles were developed to be representative of the range of soil profiles, overburden thickness, and rock types found within NYC.

A fully probabilistic approach, utilizing Random Vibration Theory (RVT) in conjunction with the new hard rock ground motions, was used to develop vertical and horizontal Uniform Hazard Spectra (UHS), from which design rock and soil response spectra are being derived. The method accounted, in a rigorous probabilistic manner, for variations and uncertainties in the softness of the soil, the hardness of the rock, the stress-strain nonlinearity and material damping, and, the depth of soil to rock.

The development of these parameters for the NYCDOT Guidelines represent a significant improvement to the previous guidelines and other codes, as they will result in better representation of the ground motions at a bridge site, bringing closer the generic ground motions to those that could be obtained from site-specific studies. The new guidelines will better fit the specific characteristics of the NYC region, thus enabling the engineers to evaluate the need for retrofit of existing bridges or strengthen new ones at the right places.

### **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



## *INNOVATIONS & ACCOMPLISHMENTS*

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 \$998,030 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 the Shore Road over Hutchinson River and the Belt Parkway over Mill Basin bridges with new bridges built with higher clearances, thereby reducing the number of times the bridges must be opened. The third bridge, Hamilton Avenue, does not require a higher elevation.

# INNOVATIONS & ACCOMPLISHMENTS

## Summary of Vessel Openings 1993 - 2007

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Brdn Ave. (Q)	141	0	0	105	15	0	3	0	28	0	0	0	1	0	0
Brdwy (B/M)	10	6	7	24	7	2	0	6	27	83	49	16	2	18	42
Brcknr Expwy (Estrn Blvd) (B)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brcknr Expwy (Unnpnt Brdg) (B)	554	594	431	386	363	257	345	385	420	332	300	309	253	250	281
Carroll St. (K)	669	704	432	245	142	110	174	102	80	124	186	49	22	28	13
Grand St. (K/Q)	224	254	239	189	37	23	24	17	50	19	10	8	5	2	5
Grnpoint Ave. (K/Q)	587	549	498	557	626	669	787	688	641	659	738	1093	1045	905	641
Hmltn Ave. (K)	1300	1336	1246	1191	1157	996	982	933	832	946	824	757	677	1077	354
Hntrs Point Ave. (Q)	141	0	0	113	15	0	1	0	36	0	0	0	0	0	1
Htchsn River PkwY (B)	0	0	37	31	32	75	46	5	120	30	5	37	10	2	51
Macombs Dam (B/M)	0	6	5	13	3	0	0	0	0	0	0	0	0	0	4
Mdsn Ave. (B/M)	5	5	0	0	0	0	0	0	0	0	0	7	0	9	35
Metrpntn Ave. (K)	225	310	272	407	423	448	513	279	366	339	342	153	0	104	329
Mill Bsn (K)	1151	1250	954	903	628	591	433	336	317	142	173	164	162	174	182
Pulaski (K/Q)	224	239	206	195	291	332	383	276	208	308	599	694	734	433	489
Rsvlt Islnd (M/Q)	0	0	0	0	0	4	0	58	48	125	63	669	150	54	48
Shore Rd (Pelham Pky) (B)	2138	2222	2190	2167	2158	2274	2162	2168	2222	1897	1910	2011	1683	1704	1645
Union St. (K)	657	713	432	236	144	103	144	85	101	62	24	21	11	9	5
Ward's Islnd Pdstrn (M)	2	0	1	0	2	1	0	0	279	0	0	7	2	8	4
Willis Ave. (B/M)	8	18	24	17	9	0	4	4	40	0	7	25	2	41	67
3 <sup>rd</sup> Ave. (B/M)	7	19	20	18	9	0	2	1	1	0	0	0	0	6	60
3 <sup>rd</sup> St. (K)	663	732	432	256	149	112	157	178	117	212	152	99	43	31	39
9th St. (K)	927	836	0	0	0	0	192	513	808	733	547	457	360	480	333
145 <sup>th</sup> St. (B/M)	0	9	24	24	3	0	0	1	6	0	0	9	0	0	0
W.207 <sup>th</sup> St. (B/M)	1	6	4	12	7	2	0	6	14	4	6	10	1	12	24
<b>TOTAL</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>	<b>5163</b>	<b>5347</b>	<b>4652</b>

# INNOVATIONS & ACCOMPLISHMENTS

## Roadway Bridges

### INNOVATIONS

Innovations in the design and construction of Roadway Bridges continued in 2007. 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. In addition, the implementation of applicable Environmentally Preferable Purchasing (EPP) standards on bridge projects will ease the impact of the increased demands on resources and surrounding environment, and Best Management Practices (BMP) in all applicable projects will mitigate the impact of the project on the surrounding environment.

### ANNADALE ROAD BRIDGE OVER SIRT SOUTH SHORE (STATEN ISLAND)

This project will replace the existing two span bridge with a single span bridge, including the removal of the existing pier, the replacement of the existing north abutment and the rehabilitation of the existing south abutment. In addition, the work will include removal and replacement of the existing concrete deck, sidewalks and curbs, and the replacement of the existing bridge railing system. The bridge will be replaced in two stages. One lane in each direction will be open to traffic at all times during construction. Pedestrian traffic will be maintained by the use of three temporary pedestrian bridges. A Notice To Proceed was issued with a deferred date of May 27, 2008, the date when the portion of an ongoing DDC area-wide sewer and water main installation project within the bridge limits is scheduled to be completed.

Construction is expected to begin in May 2008 and is expected to be completed in September 2010.



Annadale Road Bridge in 2001. (Credit: NYSDOT)

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

On a New York State-mandated scale from 1 to 7, six of these seven bridges possess a condition rating of "fair" (3.001 – 4.999), and the seventh is rated "poor" (1.000 – 3.000). In 2007, the Paerdegat Basin Bridge was 3.222; the Fresh Creek Bridge was 3.333; the Rockaway Parkway Bridge was 4.000; the Gerritsen Inlet Bridge was 3.597; the Mill Basin Bridge was 2.955; the Bay Ridge Avenue Bridge was 3.313; and the Nostrand Avenue Bridge was 4.097. All are original



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structures, which were built beginning in 1939. 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.



The Seven Belt Parkway Bridges.

Reconstruction of the seven bridges and their approaches on the Belt Parkway (over three local streets and four waterways) is scheduled to start in the second half of 2008. Group 1 (Paerdegat, Fresh Creek, and Rockaway Bridges) is expected to be complete in spring 2014. Group 2 (Gerritsen Inlet and Mill Basin Bridges) is expected to start in summer 2010, and to be complete in summer 2014. Group 3 (Bay Ridge Avenue and Nostrand Avenue) is expected to start in fall 2011, and to be complete in late 2014.

During the past 60 years traffic demand along the Belt Parkway corridor has increased dramatically. The opening of New York International Airport (now JFK Airport) in 1948, the development of suburban communities on Long Island post World War II, and the opening of the Verrazano-Narrows Bridge in 1964 have dramatically increased demand on the Belt Parkway. When the parkway first opened the two-way average daily traffic was about 20,000 vehicles per day. Presently it is about 150,000 per day.

Reconstruction of these bridges and their approach roadways is necessary to alleviate substandard conditions and bring these areas into compliance with current state and federal standards. These standards require wider lanes, 12-foot safety shoulders, median barriers, super-elevation of the roadway around curves, and realignment of the approach roadways resulting in improved sight distances. The Department anticipates that these improvements will reduce the current accident rate on this section of the Belt Parkway by approximately 45%.

NYCDOT conducted research to provide recommendations and design guidelines for the treatment of the parkway corridor. The goals of the analysis were threefold: first, to propose improvements to the parkway to satisfy safety and accessibility standards; second, to preserve and re-establish the historic character of the parkway; and third, to retain and improve public access for all parkway users. The recommendations also include complementary designs of the seven bridges.

The research provided detailed recommendations on how common elements should be incorporated to achieve a consistent and historical character to the corridor. Items considered included trees and vegetation, lighting fixtures, railings and fences, design of bicycle and pedestrian paths across the bridges, as well as stonework detailing on bridge abutments with relief detailing on bridge parapets.

On July 18, 2006, the Art Commission selected the Seven Belt Parkway Bridge reconstruction project for a Design Award in its 24<sup>th</sup> annual Excellence in Design Awards.

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Belt Parkway Bridge Design Renderings.

All of the bridges except for the Bay Ridge Avenue and Nostrand Avenue Bridges are either located within, or adjacent to, the Gateway National Recreation Area, (GNRA) a division of the US Parks Service. This bridge and highway program will be in full compliance with New York City Department of Environmental Protection (NYCDEP) requirements for the initiation of a long-term plan that will increase wetlands, decrease pollution into the bay, and decrease the highway's footprint around the rim of Jamaica Bay. NYCDOT is also working closely with New York City Department of Parks and Recreation (NYCDPR), New York State Department of Environmental Conservation (NYSDEC), GNRA, the US Coast Guard (USCG), and the US Army Corps of Engineers (USACE) to ensure compliance with all environmental protocols. In addition to mitigating environmental impacts along the Belt Parkway corridor, an off-site Wetland Mitigation Plan has been approved. This plan focuses on compensating for wetland losses by increasing and improving the quality of habitats. Approximately 2.3 acres of land at Floyd Bennett Field will be cleaned of rubbish and debris and converted to wetland area.

The existing Paerdegat Basin Bridge is a 692-foot long, 13 span, multi-girder, simple supported steel superstructure, supported on reinforced concrete pier cap beams and abutments supported on reinforced concrete piles. The bridge has two 34-foot wide roadways carrying three lanes of traffic in each direction; with a 3-foot safety walk on the north side, a 4-foot wide center median/barrier, and an 8-foot wide south pedestrian/bicycle sidewalk. The existing structure and immediate approaches will be demolished and replaced by two new bridges and new approach roadways on split alignments.

The existing bridge consists of 12 cast-in-place concrete bents. Two navigation channels cross under the bridge. At one of these channels (bent number 7) a concrete pier has been damaged. Because of this damage and other structural concerns, the Paerdegat Basin Bridge has been under continuous monitoring since September of 2004.

The replacement bridges will consist of two angled trapezoidal steel box girder structures: the 825-foot, 3 span westbound bridge, north of the existing structure, and the 1,227-foot, 5 span eastbound bridge, south of the existing structure, remaining at 28 feet over the navigable channel. Both bridges will have a 36-foot wide roadway with a 12-foot wide right shoulder. The eastbound bridge will have a 4-foot wide left shoulder, while the westbound bridge will have a 10-foot wide left shoulder. The southern structure will carry eastbound traffic while the northern structure will accommodate westbound traffic. Both the horizontal and vertical alignments will change resulting in improved sight distances on the bridge and its approach roadways. The bridge carrying eastbound traffic will also have a dedicated pedestrian/ bicycle path along the south side. The pedestrian/bicycle path will be separated from traffic lanes by a concrete barrier on the bridge, and by a 15-foot wide grass mall on the approach roadways.

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Paerdegat Basin Bridge.



Proposed Paerdegat Basin Bridge.

The existing Fresh Creek Bridge is a 264.5 foot, 5 span, multi-girder, simple supported steel superstructure, supported on pre-cast concrete columns founded on four reinforced concrete piers on concrete piles with concrete gravity abutment walls on timber piles. The bridge has two 34'-2" wide roadways, a 5-foot wide center median/barrier, and a 10-foot wide south sidewalk. The parkway east and west of the bridge has a 10-foot wide bike footpath on the south side. The existing structure and immediate approaches will be demolished and replaced.

The replacement bridge will be a 309-foot, 3 span structure; the new structure will have only two support piers, resulting in a wider channel. The proposed construction will result in improved landscaping on the bridge approaches. The bridge deck and approaches will be widened to 120 feet from the existing 86 feet to accommodate three 12-foot lanes in each direction, 12-foot wide shoulders, and a 12-foot wide bike path, separated from the traffic lanes by a barrier system. The pedestrian and bicycle pathway will be maintained at all times.



Fresh Creek Bridge in 2002. (Credit: NYSDOT) Proposed Fresh Creek Bridge.

The existing Rockaway Parkway Bridge is a 150-foot, 4 span, multi-stringer, simple supported steel superstructure, supported on steel cap beams on concrete filled steel pipe columns, and reinforced concrete abutment walls supported by concrete pile foundations. The bridge has two



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34'-2" wide roadways, a 5-foot wide center median/barrier, and a 10-foot wide south sidewalk. The existing structure and immediate approaches will be demolished and replaced.

The replacement bridge will be a single span structure to improve visibility along Rockaway Parkway. The new structure will be built in the same alignment as the existing bridge. The bridge deck will be widened to 109 ½ feet from the existing 84 feet to accommodate three 12-foot lanes with a 12-foot wide right shoulder and 4-foot left shoulder in each direction, including 5 ½ feet for median and parapet width. The right shoulder lane on each approach will be 10 feet (while the width of the right shoulders on the bridge structure will be 12 feet), with the other dimensions the same width as those on the bridge. In addition to reconstruction of the bridge, four access ramps will also be reconstructed as will Rockaway Parkway in the vicinity of the Belt Parkway.



Rockaway Parkway Bridge in 2002. (Credit: NYSDOT) Proposed Rockaway Parkway Bridge.

Milestone A consists of all work required to complete the reconstruction of the Paerdegat, Fresh Creek, and Rockaway Bridges, including all roadway sections and ramps, within the limits of the construction, adjacent to and between the bridge structures. The contract provides for an incentive of \$35,000 per day for each day that milestone A is early, with a maximum incentive of \$14.98 million. There is a similar disincentive if the milestone is exceeded, with no maximum.

The existing Gerritsen Inlet Bridge is a 520-foot long, 9 span, steel girder and reinforced concrete beam superstructure, supported on reinforced concrete piers, and abutments supported on timber piles. The existing structure and immediate approaches will be demolished and replaced.

The replacement bridge will be a consist of a 496-foot, 3 span bridge, aligned 10'-6" north of the centerline of the existing structure, and remaining 35 feet over the navigable channel. The bridge will have a 36-foot wide roadway with a 12-foot wide right shoulder and a 4-foot wide left shoulder in each direction. The eastbound side will carry a dedicated pedestrian/bike path along the south fascia.



Gerritsen Inlet Bridge in 2002. (Credit: NYSDOT) Proposed Gerritsen Inlet Bridge.

Opened on June 29, 1940, the Mill Basin Bridge is adjacent to the Jamaica Bay Wildlife Refuge and the Gateway National Recreation Area. It is the only movable bridge on the Belt Parkway. The current clearance over Mean High Water is 35-feet. When the Mill Basin Bridge was

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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 2007, the number of openings declined further to a total of only 182 openings.

In addition, significant and costly traffic congestion results from the operation of this outmoded drawbridge. In 2006, the Mill Basin Bridge carried 143,917 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.

The existing Mill Basin Bridge is 864-feet long and 14 spans, including double movable leaf bascule spans and a steel superstructure, supported on reinforced concrete pier on timber piles, and abutments supported on pre-cast concrete piles. The existing structure and immediate approaches will be demolished and replaced.

The replacement will be a 1,757-foot, 11 span fixed bridge, north of the existing structure. The bridge will have a 36-foot wide roadway with a 12-foot wide right shoulder and a 4-foot wide left shoulder in each direction. The eastbound side will carry a dedicated pedestrian/bike path along the south fascia. The new bridge will be a fixed structure with a 60-foot clearance over Mean High Water, obviating the need for opening and closing the structure to accommodate tall vessels. The new design of the bridge will result in increased sight distances, an increase in lane width from 11-feet 4-inches to 12-feet, and the inclusion of safety shoulders in both directions. The channel will remain navigable during construction, and the clear channel width will remain the same after the new structure is in place. A new fender system will be installed to protect the bridge substructure from marine traffic.



Mill Basin Bridge. Proposed Mill Basin Bridge.

The existing Bay Ridge Avenue Bridge is a 58-foot long, single span, reinforced concrete deck on a multi-girder system superstructure over Bay Ridge Avenue. The superstructure is supported by concrete gravity type abutments on pile foundations. The underpass is access to the NYCDEP Owl's Head Waste Treatment Plant. The existing superstructure will be demolished and replaced.

The replacement bridge superstructure will consist of pre-stressed concrete box beams and a reinforced concrete slab. The bridge will have three 12-foot wide lanes in the eastbound direction and two 12-foot wide lanes separated by a 4-foot wide painted stripe flush median in the westbound direction. There is no pedestrian/bike path on the structure. The existing bridge will be reconstructed using pre-cast deck sections. The clearance will be increased to 14-feet 6-inches, which removes the need for clearance signs currently posted for a substandard condition and will obviate the need for underdeck wood shielding.

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Bay Ridge Avenue Bridge in 2002. (Credit: NYSDOT) Proposed Bay Ridge Avenue Bridge.

The existing Nostrand Avenue Bridge is a 140-foot long, 3 span, multi-girder superstructure, consisting of a concrete deck with an asphalt overlay over Nostrand Avenue. The superstructure is supported by concrete pier columns with a steel cap beam, and abutments on concrete filled steel pile foundations. The existing structure and immediate approaches will be demolished and replaced.

The replacement will be a single span bridge consisting of standard steel girders with a cast-in-place deck superstructure and reinforced concrete abutments on pile footings, thus eliminating the need for intermediate support piers and resulting in improved sight lines on Nostrand Avenue. The bridge will have three 12-foot wide lanes with a 12-foot wide right shoulder. The approaches will have a 10-foot wide right shoulder and a 4-foot wide left shoulder in each direction. Nostrand Avenue will be widened to 81 feet and realigned with the existing approaches. On the Belt Parkway, the bridge will be widened in order to provide new safety shoulders in both directions. New safety-shape parapets will be installed and the existing corrugated metal center guide-rails will be replaced with a reinforced concrete center median, which will result in a safer condition.



Nostrand Avenue Bridge. Proposed Nostrand Avenue Bridge.

A computerized traffic simulation model was developed to analyze traffic conditions in connection with the Division's plans to reconstruct these seven bridges on the Belt Parkway. This model was a useful tool for understanding the impact of construction on the traveling public and helped us determine appropriate construction schedules. It enabled us to rapidly evaluate the impact of a variety of combinations of construction staging.

### **BROOKLYN-QUEENS EXPRESSWAY (WB) & (EB) OVER CADMAN PLAZA AND FULTON STREET (BROOKLYN)**

The Brooklyn-Queens Expressway over Cadman Plaza and Old Fulton Street, oriented East to West, and located just west of the Brooklyn Bridge, consists of two-level two-span superstructures, one above the other, founded on concrete abutments and piers sharing a common footing on H piles. The bridge was constructed in 1948.



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The westbound side (the lower of the two-level structure) is a two-span continuous steel stringer, concrete deck superstructure supported by concrete abutments and a solid concrete center pier. The stringers are supported by fixed bearings at the center pier and with expansion bearings at the abutments. The bridge deck is a reinforced concrete slab overlaid with an asphalt wearing surface.

The eastbound side (located on the upper level) is a cantilever two span continuous steel rigid frame structure of built-up riveted girders. The girders are concrete-encased and rigidly framed into the framing at both abutments and center pier. The existing railings are substandard, and the granite veneer on the substructures has been removed from both of the abutment stems and the south side wing walls.



BQE Bridge Over Cadman Plaza in 2002 – Upper Level is Eastbound, Lower Level is Westbound.  
(Credit: NYSDOT)

Structural demolition will include removing the existing wearing surface, demolishing and removing the existing bridge railings, safety walks, concrete deck (WB), deck expansion joints, concrete approach slabs, and the top portion of existing abutment and pier stems (WB). New construction for both the westbound and eastbound structures will include new top portions for the abutment stems and pier caps, new abutment expansion bearings and pier fixed bearings, new shear stud connectors on top flanges at existing stringers, new exodermic deck on steel stringers, new approach slabs at the westbound and deck/underdeck repair at the eastbound structure, half-size permanent concrete barriers at both fascias, new deck plug joints, a new wearing surface, and a new waterproof membrane over the concrete deck surface.

The project is currently in its final design phase. Construction is expected to begin in February 2011, and is expected to be complete in March 2012.

### CITY ISLAND ROAD BRIDGE OVER EASTCHESTER BAY (BRONX)

The existing City Island Road Bridge was built in 1901 and is the only vehicular, bicycle and pedestrian access between the mainland Bronx and City Island. In 2006, the bridge carried 15,339 vehicles per day. The bridge is part of City Island Road, which is located within Pelham Bay Park and crosses over Eastchester Bay. With seven spans and six piers in the water, the bridge has outlived its useful life and requires extensive continuous maintenance.

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Original Bridge in 1873.

The existing bridge will be replaced along the same alignment with a new single span, single tower cable-stayed bridge which will be a unique structure type in the NYC area. The new bridge will be approximately 17 feet wider than the existing one to accommodate three standard 12-foot wide traffic lanes, a 6-foot wide bicycle lane and a 6-foot wide pedestrian walkway on each side. The tower and concrete counterweight for backstay anchorage of the new bridge will be located in Pelham Bay Park. The new bridge will be designed to current standards and with its wider roadway width, will allow future repair and rehabilitation to be carried out while maintaining one 12-foot lane in each direction. In order to maintain traffic during the demolition of the existing bridge and construction of the new bridge, a temporary bridge will be constructed on the south side of the existing bridge.



City Island Road Bridge. Vertical Clearance Posting. (Credit: NYSDOT)

The project is currently in its final design phase. The construction phase for this project is scheduled to begin in June 2009 with an approximate duration of 3 years.



Rendering of New City Island Road Bridge.

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### **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 March 2009, and is expected to be complete by March 2011.



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 October 2010, and is expected to be complete in April 2012.



Concourse Village Avenue Bridge. (Credit: NYSDOT)



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### **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 superstructure in the right of way only, approaches and two 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 November 2010, and is expected to be complete in May 2012.

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 girders, deck slabs, approaches, and existing steel caps on the steel pier columns. 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 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 November 2010, and is expected to be complete in April 2012.



Crooke & Newkirk Avenue Bridges. (Credit: NYSDOT)

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

This \$52 million project 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 were closed to traffic during the Yankees' off-season only. The reconstruction will be completed in 5 main stages with various sub-stages. This arrangement ensures the maintenance of a minimum of two traffic lanes in each direction along the Grand Concourse. A Notice to Proceed for the project was issued to the contractor with a start date of January 3, 2006. The reconstruction project is expected to be complete by the accelerated date of November 2008.

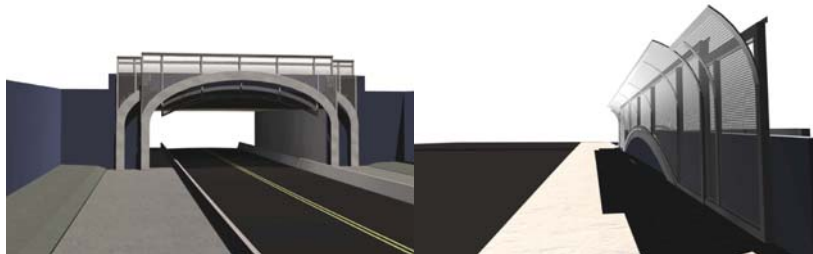
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Before Construction: The Bridge over East 161<sup>st</sup> Street. View of West Portal. Lou Gehrig Plaza.



Rendering of New Lou Gehrig Plaza. Existing Grand Concourse. Rendering of New Grand Concourse.



Rendering of the West Portal for the Percent for Art Program.

Soil boring operations began on January 3, 2006, and were completed on January 6, 2006. Stage I reconstruction of the bridge began on March 27, 2006. Stage IB reconstruction of the bridge began on June 21, 2006.



2006: Transporting Trees From East Median for Replanting. Uncovering Live ECS Cables Above Tunnel Roof Before Bridge Demolition. Excavation for Replacement of Sewer Pipes.



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2006: Grand Concourse Bridge: Demolition of Existing Con Ed Vault. Backfill and Compaction of Sewer Manhole.



2006: Removing Asphalt and Concrete Roadway. Installing Sewer Between East 165<sup>th</sup> and East 166<sup>th</sup> Streets.

Stage II reconstruction of the bridge began on October 26, 2006. The underpass was closed to traffic as part of this stage, which was completed in April 2007.



2006: Demolition of the Bridge. Removing Debris From the Bridge.



2006: Removing Concrete at the Springline of the South Abutment Stem. Formwork and Concrete Placement at South Abutment.

Installation of precast panels began in the intersection of the Grand Concourse and 161<sup>st</sup> Street on December 19, 2006. Construction of the west side of the Grand Concourse was nearly complete by the end of 2006.



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2006: Installing the Precast Panels.

The construction of the underpass and its approaches was completed in April 2007 during the Yankees' off season. The reconstruction of the north East 161<sup>st</sup> Street Service road and sidewalks was also completed in April 2007.



Construction of Underpass Abutment Wall. Reconstructed Grand Concourse Underpass, Sidewalks, and Bridge.  
Grand Concourse in November 2007.

On December 6, 2007, Commissioner Janette Sadik-Khan and Bronx Borough President Adolfo Carrión Jr. announced that the planned 45-month renovation of the key roadways will be wrapped up in November 2008—a full 316 days ahead of schedule.

As part of the original renovation contract, DOT reserved the option to accelerate the schedule if the contractor met key milestones. In response to Borough President Carrión's call for accelerating the project, and in light of the contractor's demonstrated ability to speed up the work, DOT has successfully negotiated for the faster pace.

Stage IVB reconstruction began on December 18, 2007. At present the center portion of the Grand Concourse from East 164<sup>th</sup> Street to East 166<sup>th</sup> Street is open to traffic. The East 161<sup>st</sup> Street Service in the east bound direction is closed to traffic from Gerard Ave to Sheridan Ave while the roadway, sidewalks, water main, drainage, and utility facilities are replaced.

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Demolition and Reconstruction of the Northeast Retaining Wall of 161<sup>st</sup> Street Between the Grand Concourse and Sheridan Avenue.



Pouring Concrete for Pavement. Rigs in Lou Gehrig Plaza Drilling and Installing Cantilever Soldier Piles.

By the end of 2007, the roadways, sidewalks and water main and sewer works along the Grand Concourse were complete. Current work includes the installation of granite pavers and curbs in the Lou Gehrig Plaza area.

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

The existing Gun Hill Road Bridge was constructed in 1918. An 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, and constructing new concrete parapets with pedestrian fencing. The bridge is being 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.



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Gun Hill Road Bridge in 2002. (Credit: NYSDOT) 2005: View of Bridge at the MPT Stage. Demolition of the Existing Bridge Deck. (Deck Credit: Muhammad Siddiqui)



2005: Project Engineer Muhammad Siddiqui Inspecting the Stay-in-Place Formwork for the New Gun Hill Road Bridge Deck. Installing Deck Reinforcement. Concrete Placement.

Effective March 9, 2005, the southbound off ramp of the Bronx River Parkway at Gun Hill Road was closed to traffic for a three year duration. Stage II reconstruction of the bridge began on November 3, 2005. At the end of 2006, the project was in Stage III which consisted of the reconstruction of the northern 1/3 of the bridge.



Gun Hill Road Bridge in January 2006: Stage 2 Construction Zone, South Side of Bridge. March 2006: Looking West From The East Abutment at The Utility Supports for The Gas mains. July 2006: Stage 2 Construction Zone, Prior to Girder Removal.



July 2006: Looking East - Placing Concrete for The Gun Hill Road Bridge East Abutment Backwall, and a Quality Assurance Engineer Inspecting the Work. September 2006: Stage 2 Construction Zone, Placing Concrete for the Deck. November 2006: Looking East - Removing the Existing Water Main Pipe on the Bridge.



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Gun Hill Road Bridge in December 2006: Looking East at the Stage III Traffic Shift, and Looking Northeast at Laborers Securing Plastic Covers on ECS Cables.



April 2007: Looking West – Gun Hill Road Bridge Stage III Girders and Temporary Support for Existing ECS Cables. June 2007: Using a Pump to Place Stage III Bridge Deck Concrete.



Gun Hill Road Bridge in June 2007: Looking Southwest at Laborers Demolishing the Existing Center Pier. July and August 2007: Installing a New Water Main.

On December 13, 2007, traffic was shifted to the newly constructed Stage III area of the bridge, and work for Stage IIIA began. The northbound entrance to the Bronx River Parkway was reopened on this date. Due to interference of the existing rubble walls with the alignment of the 48-inch water main on the north side in the approach area, thereby resulting in additional work (removing existing rubble walls in north east and north west corners and reconstructing new reinforced concrete retaining walls), the completion of the water main work in this area has been delayed. Construction is expected to be complete in May 2008.

### HILL DRIVE BRIDGE OVER PROSPECT PARK LAKE (BROOKLYN)

The landmark Hill Drive Bridge was built in 1890. The existing bridge is a three span simply supported steel girder/beam structure, with the center arch span crossing Prospect Park Lake, and the other two spans consisting of masonry cellular structures with multiple interior masonry-bearing walls and non-composite concrete deck and concrete sidewalk. The substructure of the bridge consists of solid gravity abutments with U-type wing walls and piers.

This project will include the replacement of the existing masonry cellular abutments with new reinforced concrete abutments clad with existing stone and new brick masonry; the removal, storage, and reinstallation of the existing stone wing walls with a new reinforced concrete core;

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the replacement of the existing stringers and floor beams with new steel stringers; the reinforcement of the existing arch girders with new cover plates; the reinstallation of the steel arch girders at their current locations to replicate original construction; and the replacement of the existing masonry arches spanning between floor beams by masonry cladding on the underside of the new arched concrete deck. The concrete deck, approaches, sidewalk, and roadway will be replaced within the project limits.

The ornamental cast iron and stones will be rehabilitated and reinstalled, replicating all the historic features and aesthetics of the original bridge. New bridge lighting and drainage systems will be installed. The park landscape will be restored, and trees identified by the Prospect Park Alliance as rare and/or historic shall remain undisturbed during construction.

The project is currently in its final design phase. Construction is expected to begin in March 2009, and is expected to be complete in May 2011.



Hill Drive Bridge in 2001. (Credit: NYSDOT)

### **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 commenced 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 included 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 included drainage, repointing the existing stone masonry, new signage and pavement markings, improving the under deck lighting systems, and private utility work.

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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)

On West 232<sup>nd</sup> Street, the work was completed in three stages, with one lane of vehicular traffic maintained in each direction during construction. On Manhattan College Parkway, the work was also completed in three stages, with one lane of vehicular traffic maintained in the westbound 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. The reconstruction of the Manhattan College Parkway and West 232<sup>nd</sup> Street Bridges was substantially completed on September 28, 2006.



Old Fence on the Manhattan College Parkway Bridge. Newly Installed Picket Fence.



Manhattan College Parkway Bridge Deck During Construction. Completed Bridge.



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Old Fence on the West 232<sup>nd</sup> Street Bridge. Deck During Construction. Completed Bridge.

On West 239<sup>th</sup> Street, the work was completed in three stages, with one lane of vehicular traffic maintained in the each direction during construction. Stage I reconstruction (northern half) of the bridge began on April 25, 2005. Stage II reconstruction began on September 22, 2005. The bridge re-opened to traffic on April 20, 2006. The reconstruction of the West 239<sup>th</sup> Street Bridge was substantially completed on December 5, 2006.



West 239<sup>th</sup> Street Bridge Before Reconstruction. During Construction. Installing the New Picket Fence.



Newly Installed Steel-Backed Timber Guide Rail at West 239<sup>th</sup> Street Bridge. Completed Bridge.

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. The work on this bridge began on January 3, 2006.



West 252<sup>nd</sup> Street Bridge Before Reconstruction.

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The removal of the existing bridge sections over the northbound Henry Hudson Parkway was performed at night on October 25 and 26, 2006. The removal of the sections over the southbound Henry Hudson Parkway was performed at night on October 31 and November 1, 2006. The demolition of the north half of the bridge was completed in November 2006.



2006: Cutting and Removing the Existing West 252<sup>nd</sup> Street Bridge Sections Over the Parkway.



2006: Wire Sawing the Deck and Removing the Existing West 252<sup>nd</sup> Street Bridge Sections Over the Parkway.



2007: West 252<sup>nd</sup> Street Bridge Formwork and Rebar Fabrication at the Pier and West Abutment. Concrete Placement in Progress.

The new superstructure for the north half of the bridge, comprised of pre-stressed concrete beams and cast-in-place reinforced concrete deck and sidewalks, was completed in May 2007. The approach pavements, steel-backed timber guide rails and ashlar veneer parapet wall on the bridge were completed in October 2007. Stage II is anticipated to start in March 2008. The four bridge project is expected to be complete in April 2009.



## INNOVATIONS & ACCOMPLISHMENTS



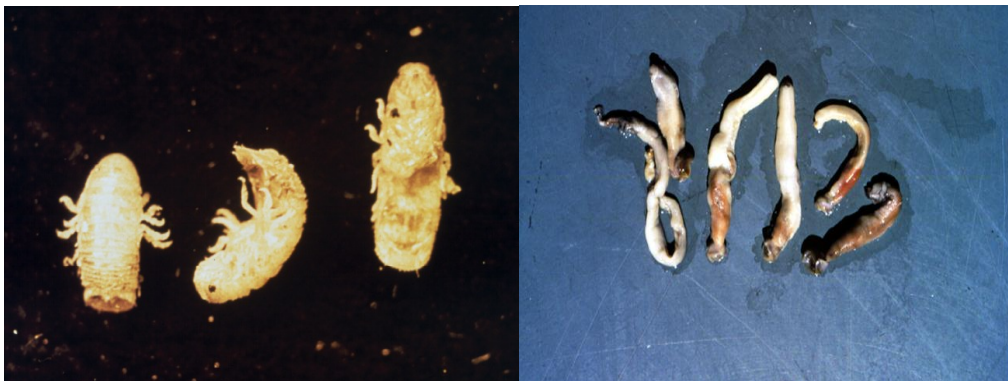
Grouting of the West 252<sup>nd</sup> Street Bridge Box Beams in February 2007.



West 252<sup>nd</sup> Street Bridge: Transverse Post-Tensioning of the Pre-Cast Concrete Beams in March 2007. Installed Asphalt on Bridge Approach in July 2007.

### 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.

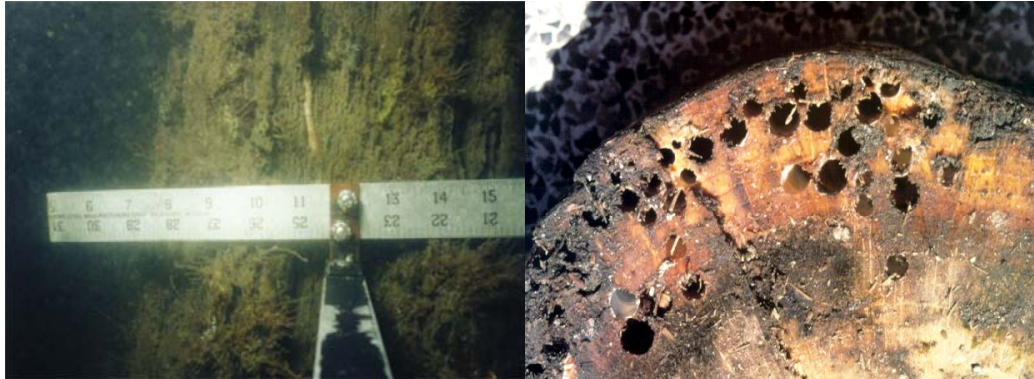


Marine Borer – Limnoria Species

Marine Borer – Teredo Species



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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. Mitigation work for the impact of the construction on the bodies of water will be done under a separate contract. The construction work is expected to commence in January 2009.

### 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 May 2008, and is expected to be complete in May 2011.



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

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

This \$16 million project replaced two bridges, originally built in 1937, that connect over 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.



Steinway Street Bridges in 2002. (Credit: NYSDOT)



Steinway Street Bridges.

The contract provided 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) were utilized to advise motorists of impending nightly lane closures on the Grand Central Parkway.

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. 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' 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.



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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 were utilized to carry two lanes of traffic along the northbound direction on Steinway Street over the Grand Central Parkway and resulted 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.



2004: Erection of the South Steinway Street Temporary Bridge.



2004: Erection of the North Steinway Street Temporary Bridge.



Steinway Street Temporary Bridges in Place in December 2004. Opening of the Temporary Bridges.



Aerial View of Steinway Street in January 2005.

The original contractor was defaulted by the City in March 2005. The surety then took over the responsibility for completing all of the remaining construction work, and, with the concurrence of



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the Agency, selected a replacement contractor. The new contractor re-started construction activities at the project site in September 2005.

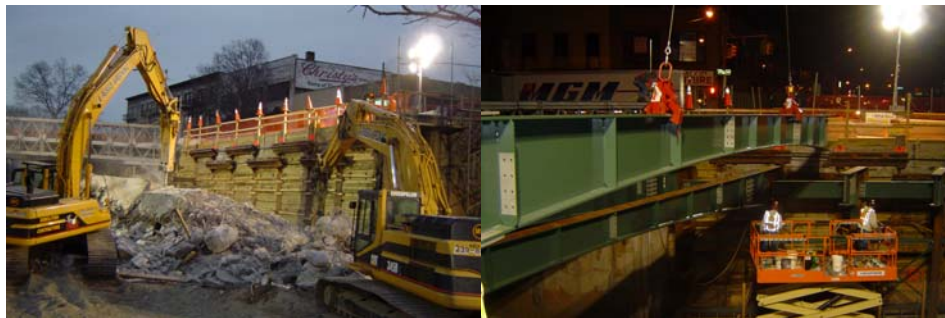


2005: Utility Workers Excavating a Trench In Order to Deactivate the Feeder Cables in the Manholes Along Steinway Street. Driving a Sleeve for the Installation of Piles at the Center Fill Area.



2005: Preparing to Install Piles at the Southern End of the South Bridge. Removing the Utility Conduit Pipes From the Western Side of the Steinway Street Bridges.

The bridge was constructed in two stages. In the first stage, the remaining two-thirds of the bridges was demolished and reconstructed.



2006: Demolition of the Existing Structure. Steel Erection Over the Grand Central Parkway.



2006: Steel Erection Over the Grand Central Parkway.

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2006: Concrete Placement of Abutment Wall. Inspecting the South Bridge Deck Placement.

This bridge structure was opened to pedestrian and vehicular traffic on October 26, 2006, five days ahead of schedule, earning the contractor the full acceleration payment of \$132,000. All traffic was then shifted to the newly reconstructed portion, which carried two lanes of vehicular traffic in each direction, as well as a pedestrian walkway. The traffic routes along north and south Astoria Boulevard were restored to their regular pattern on October 30, 2006.



Two-Thirds Bridge Structure Open to Traffic in October 2006. Restored Traffic Route Along Astoria Boulevard.

The temporary bridges and the existing abutments were removed during the last weekend of January and the first weekend of February 2007. The contractor completed removal of the temporary pedestrian bridge in September 2007.



Installation of South Steinway Street Bridge Steel Frame Posts and Steel Erection in March 2007.



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Installed Steinway Street Bridge Diaphragms in March 2007. Concrete Placement at the North Abutment of the South Bridge.



Deck Placement on the Steinway Street One-Third structure in June 2007. Shifting Traffic to the Eastern Side of the Bridges. Concrete Placement for the West Sidewalk in October 2007.

The rebuilding of the remaining one-third of the bridge structure was completed on October 31, 2007. On that date, the entire bridge roadway was opened to vehicular traffic and the east sidewalk was opened to pedestrians. The reconstruction of the bridges was substantially completed on October 31, 2007.

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

This two span bridge supports a transit structure overhead and has substandard clearance over the highway below. A project to install an ITS solution, which includes an overheight vehicle detection system that flashes 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 are activated by acoustics and that will document future damage to the bridge as well as the offending vehicles' descriptions and plate numbers for recoupment of costs by the City. The contractor completed extra work associated with landscaping in the spring of 2006. A separate project is underway to reconstruct the bridge and lower the Parkway.



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



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New Vehicle Detection System



Video Stills From the Westchester Avenue Bridge BDSS.

The Westchester Avenue Bridge's vertical clearance over the Hutchinson River Parkway is sub-standard. Due to the number of truck and bus vehicles that mistakenly enter the Hutchinson River Parkway, where commercial vehicles are not allowed, the fascia steel girders of the bridge have been severely impacted and damaged numerous times. The planned lowering of the parkway will make it possible to eliminate the existing sub-standard vertical clearance of the bridge over the parkway without adversely impacting the NYCT elevated structure and its transit train operations. The total length for the lowering of the parkway will be 1000 feet (north and south), with a maximum lowering of the parkway of 2.5 feet under the Westchester Avenue Bridge.

The rehabilitation of the bridge will include the replacement of the existing reinforced concrete deck slab with a new reinforced concrete deck, steel faced curbs, a new parapet wall and protective screenings, concrete sidewalks, rehabilitation of the damaged steel fascia girders, and replacement of the diaphragms and other bridge elements, including a new steel water main.

This rehabilitation project is currently in final design. Computer traffic simulation models for the proposed maintenance and protection of traffic schemes for both the Westchester Avenue Bridge and the Hutchinson River Parkway are underway. The purpose of the models is to perform traffic capacity/queuing analyses, traffic signal timing optimization and traffic network simulation for the highway and streets. Construction is expected to begin in March 2009, and is expected to be complete in November 2011.

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### **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 August 2011, and is expected to be complete by August 2013.



Woodside Avenue Bridge. (Credit: NYSDOT)

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

The East 8<sup>th</sup> Street access ramp (Guider Avenue 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 new 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 pile foundation, 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 October 2008, and is expected to be complete in July 2010.

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

### **11<sup>TH</sup> AVENUE VIADUCT (WEST 30<sup>TH</sup> STREET TO WEST 33<sup>RD</sup> STREET) OVER LIRR WEST SIDE YARD (MANHATTAN)**

This project will consist of the re-decking of the viaduct, the replacement of the sidewalks, the upgrading of the existing bearings to seismic isolation bearings, and the replacement of the street lighting. The work will also include performing repairs of the existing pier and abutment walls. The viaduct will be constructed in two stages, one half of the viaduct at a time. Three south bound travel lanes will be maintained at all times. Construction is expected to begin in October 2008, and is expected to be completed in July 2010.



11<sup>th</sup> Avenue Viaduct (West 30<sup>th</sup> Street to West 33<sup>rd</sup> Street) in 2006. (Credit: NYSDOT)

### **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)**

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 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 on February 8, 2005.



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15<sup>th</sup> Avenue Bridge in 2002. (Credit: NYSDOT). Final Touches on Completed Bridge.

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 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 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 were installed. The water main, gas main, and sewer were removed and relocated. A new concrete deck, approach slabs, and sidewalks were also part of this reconstruction project. The bridge was constructed in four stages, with one lane open in each direction at all times, as well as pedestrian access to local businesses. The 18<sup>th</sup> Avenue Bridge was substantially completed on May 16, 2005.



18<sup>th</sup> Avenue Bridge in 2003. (Credit: NYSDOT) Bridge Nearing Completion.



Finishing the Road. Completed 18<sup>th</sup> Avenue Bridge.

Similar construction at the 17<sup>th</sup> Avenue and 20<sup>th</sup> Avenue Bridges began after the completion of the 15<sup>th</sup> and 18<sup>th</sup> Avenue Bridges. The reconstruction of the 17<sup>th</sup> Avenue Bridge began on May 17, 2005. Effective July 13, 2005, the bridge was closed to vehicular traffic. The work included the demolition of the existing concrete arch superstructure and the existing concrete piers to top of footings. The superstructure was replaced with a new four span reinforced pre-cast pre-stressed rigid frame with new reinforced pre-cast pre-stressed concrete piers and slabs. Utilities were upgraded by installing additional 300 mm water main, gas main and electrical ducts. The bridge was re-opened to vehicular and pedestrian traffic on December 13, 2005, 29 days ahead of schedule. The 17<sup>th</sup> Avenue Bridge was substantially completed on February 24, 2006. The sidewalks were reopened to pedestrian use 16 days ahead of schedule earning the contractor the maximum incentive payment of \$150,000. The total 17<sup>th</sup> Avenue Bridge project was completed

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45 days ahead of schedule.



17<sup>th</sup> Avenue Bridge in 2002. (Credit: NYSDOT) Prior to Reconstruction in 2005.  
Inspecting the Bridge Before Construction.



Demolition of the 17<sup>th</sup> Avenue Bridge Deck. Casting the New East Abutment Wall.  
Installing Precast Concrete Footings.



Installing Pier Walls for the 17<sup>th</sup> Avenue Bridge. Installing Precast Deck Panels.  
Placing the Reinforced Concrete Bridge Deck.



Completed 17<sup>th</sup> Avenue Bridge and Fence.

Work on the 20<sup>th</sup> Avenue Bridge began on May 15, 2006 after the utility company performed extensive work on the gas main. The bridge is expected to be complete in fall 2008. The scope of this project includes the demolition of the existing six span reinforced concrete rigid frame and replacing it with a single span integral abutment reinforced-concrete composite superstructure. New combined sewer pipes, manholes, and water main will also be installed.



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20<sup>th</sup> Avenue Bridge in 2002. (Credit: NYSDOT) Stage I Sewer Work in 2006.



Removing the 20<sup>th</sup> Avenue Bridge Arch Overburden in January 2007. Bridge demolition in February 2007.



20<sup>th</sup> Avenue Bridge Structural Steel Erection in August 2007.

At the end of 2007, the contractor had completed sewer work, pile driving for the new abutments, soldier piles and lagging. The installation of steel girders and new abutments for the north side of the bridge was also complete. Installation of stay-in-place deck forms and gas main work is currently in progress.



Installing the Gas Main Under the 20<sup>th</sup> Avenue Bridge North Sidewalk in September 2007. Installing Metal Forms for the Bridge Deck in November 2007. Gas Mains Prior to Modification in December 2007.

The four bridge project is scheduled for completion in fall 2008.

### **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. There is a ferry house on the East River Esplanade which was used for storage for the old ferry when the



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bridge was built in 1940. The bridge is supported on the ferry house structure on the Esplanade side. 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 fourteen span bridge will include steel piers with caisson foundations, a ramp retaining wall, and new superstructure using welded structural tubing, vertical steel railing, and horizontal hand rails, as well as protective fencing. A new cast-in-place reinforced concrete deck will be installed. The proposed west ramp will be enclosed with a stone masonry wall to match the existing park wall. The new bridge will comply with ADA regulations.

During construction, pedestrian traffic will be detoured to the 71st and 81st Street pedestrian bridges. Construction is expected to begin in December 2008, and is expected to be complete in February 2010.

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

This project, currently in the final design stage, will construct 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 by the end of 2008 and be completed by the end of 2011.



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.

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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 December 2008 and is expected to be completed in February 2010.



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

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

In 2007 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.

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

Cores taken from the bridge deck in 2003 revealed that the estimated useful life of the deck would soon expire, thus making bridge rehabilitation necessary. In 2006, the bridge carried approximately 13,146 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 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, the replacement of the bridge will require coordination with the Department of Corrections. Construction is expected to begin in 2017, and is expected to be complete in 2019.

As an interim measure, a project was planned to rehabilitate the bridge deck. The Notice to Proceed was issued to the contractor with a start date of August 24, 2005.



2006: Looking North at a New Bridge Slab And The Roadway Repairs. Painting Under the Bridge.



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2006: Performing Underdeck Repairs. Working Inside the West Rebar Box Frame. Beam Repair. Concrete Placement.

The project work expanded to include superstructure painting, various superstructure repairs, and repairs of the pier caps. The rehabilitation of the bridge deck was substantially completed on December 22, 2006. The painting was completed in 2006, and all of the other repairs were completed in summer 2007. This rehabilitation will allow the extension of the bridge's useful life to at least 2017, when the existing bridge will be replaced.

### **BRUCKNER EXPRESSWAY BRIDGES (NB AND SB) OVER AMTRAK & CSX (BRONX)**

A tanker truck carrying home heating fuel overturned and caught fire on the northbound bridge on the evening of October 4, 2005. The traffic on the bridge, and on the Amtrak and CSX railroad lines below, was adversely affected. The bridge was inspected and core samples of the concrete from the fire-affected deck were tested. Division crews assisted in emergency repairs and clean-up, re-setting all expansion plates on the abutment, and performing deck repair. The crews worked continuously, and the roadway was re-opened in time for the morning rush hour on October 6, 2005.



Bruckner Expressway Bridge in 2002. (Credit: NYSDOT)

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The Tanker Truck. Repairs and Cleanup. (Credit: Bojidar Yanev)

To protect the trains and railroad facilities below the bridge after the October 4, 2005 tanker truck fire, contractor crews began the nighttime installation of protective timber shielding under the bridge on October 5, 2005. The project was completed on November 8, 2005. The Division's Surveying Unit assisted the Inspections Unit in monitoring the deflection of the bridge.

The fire on the bridge weakened its members. While the immediate results of the fire were addressed by in-house forces, the aftereffects remain unresolved. The most recent inspection conducted on September 14, 2006 revealed that at least four girders have sagged and they are hit by CSX railroad cars below. The concrete deck has separated from the steel girder and there is a one to two inch gap between the top of the flange and the bottom of the haunches. In addition, the diaphragms between the girders have been burned and their capacity has been weakened. Urgently required repairs were handled by the When and Where contractor. The contractor installed additional timber bracing of the bridge's timber shielding in January and February 2007, performed emergency removal of loose underdeck concrete in July and August 2007, and repaired a red flag condition at the bridge stringers in September 2007. This will be followed up by the replacement of the northbound bridge's superstructure and the southbound bridge's deck, which will be done under a Design-Build contract. Construction is expected to begin in spring 2009, and is expected to be complete in fall 2010.

### CROSS ISLAND PARKWAY BRIDGE OVER FORT TOTTEN ENTRANCE (QUEENS)

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 a new superstructure; pushing back the abutments to establish a longer bridge; adding one lane in each direction on 212<sup>th</sup> Street; geometric alignment improvements; and signal and lighting modifications. This project is currently in the preliminary engineering stage. Construction is expected to begin in summer 2010, and is expected to be complete in 2012.



Cross Island Parkway Bridge in 2002. (Credit: NYSDOT) Aerial View. Andre Celestin About to Inspect the Abutment.

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Cross Island Bridge Exit Ramp on the Northeast Side. Bridge Underdeck. South View of the Bridge.  
(Credit: Tamara Berlyavsky)

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

This project involves the replacement of the existing 11 span bridge and the reconstruction of the Harlem River Drive between the Willis Avenue and Third Avenue Bridges, 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, and 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. The viaduct currently carries two northbound and three southbound traffic lanes and serves approximately 79,000 vehicles per day. This area currently has 40 times the State average number of accidents. Construction is expected to begin in spring 2014, and is expected to be complete in spring 2016.



Harlem River Drive at East 127<sup>th</sup> Street. Deputy Director of Design-Build Beatriz Duran and Director of Design-Build/Emergency Contracts Chris Sklavounakis at the Bridge.

### EIGHT RAMPS AND ONE PEDESTRIAN BRIDGE AT THE ST. GEORGE STATEN ISLAND FERRY TERMINAL (STATEN ISLAND)

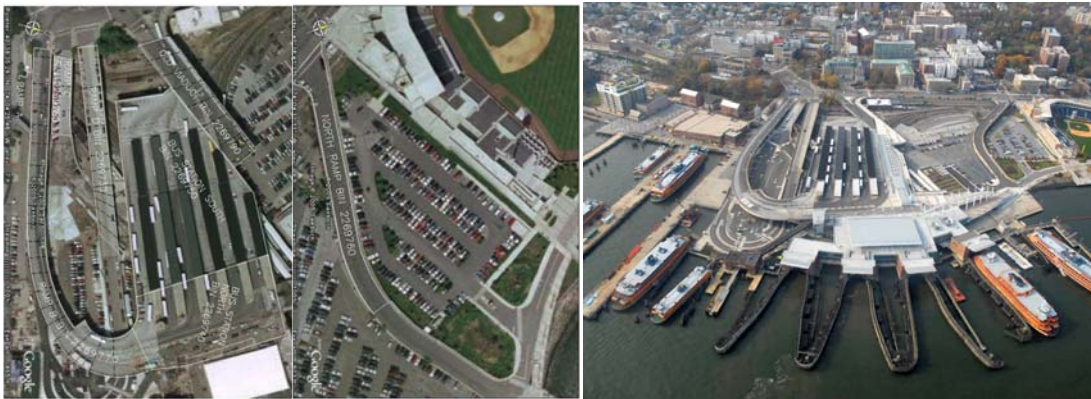
Ferry service between Staten Island and Manhattan began in 1898, and its operations were taken over by the City's Department of Docks and Ferries in 1905. Today it is run by NYCDOT's Passenger Transport Division and services more than 19 million passengers each year, according to Captain James C. DeSimone, the ferry's Chief Operations Officer. The St. George Ferry Terminal itself recently underwent a major reconstruction project. The old drab, dingy building was converted into a well-lit, modern multi-modal facility. In addition to ferry service, the terminal also includes a very active MTA bus station and a Staten Island Railway Station. To complete the make-over of the St. George Terminal, the Division's



## INNOVATIONS & ACCOMPLISHMENTS

Design Build Unit is undertaking a major rehabilitation project to upgrade vehicular access to the site.

Currently a series of eight ramps carry bus and passenger car traffic in and out of the facility. Seven of the eight ramps were constructed in 1948, with the eighth dating back to the early part of the 20<sup>th</sup> century. The last major structural work on these bridges was a deck replacement project in 1985 that only addressed three of the eight bridge structures. The planned design-build project will upgrade these eight vehicular structures (and one pedestrian bridge), and provide a design life of 75 years. For seven of the ramps, the project will provide new decks and eliminate joints where feasible, retrofit poorly detailed steel connections, and rehabilitate/replace deteriorated steel super- and sub-structure members, as well as install new paint systems. Lead paint removal and the installation of a new drainage system as well as a pigeon deterrent system will also be included. The eighth ramp is the existing load-restricted north ramp adjacent to the Richmond County Bank Stadium. It will be demolished and reconstructed on a more efficient alignment in order to alleviate traffic congestion at the intersection of Richmond Terrace and Wall Street. In addition, this project will replace the superstructure of a pedestrian bridge connecting the terminal to an office facility, and will address traffic improvements for the entire stretch of Richmond Terrace outside the terminal. Construction is expected to begin in fall 2009, and is expected to be complete by fall 2012.



Aerial Views of the Staten Island Ferry Terminal Ramps.



The Ferry Terminal Pedestrian Bridge.

### ***When and Where Unit***

In 2007, the following structures were worked on under the Division's When and Where contracts: Mosholu Parkway Bridge over Bronx River, Bridge South of Allerton Avenue over Bronx River, Footbridge North of Route 1 over Bronx River, Southern Boulevard over Bronx River, Belt Parkway Bridge over Fresh Creek, Belt Parkway Bridge over Paerdegat Basin,

## *INNOVATIONS & ACCOMPLISHMENTS*

Belt Parkway Bridge over Spring Creek, Brooklyn Bridge Promenade, Bruckner Expressway Bridges over Amtrak & CSX, Bus Station Exit Ramp over SIRT, Columbia Heights Bridge over Brooklyn-Queens Expressway, Depot Place Bridge over Conrail Hudson Division, Douglaston Parkway Bridge over Cross Island Parkway, Eastchester Road Bridge over NYCTA, FDR Drive at East 15<sup>th</sup> Street, Promenade over FDR Drive from East 79<sup>th</sup> to East 91<sup>st</sup> Streets, Fort Tryon Park Bridge South of Cloisters, Harlem River Drive Northbound Ramp over Harlem River (ramp to Trans Manhattan Expressway), Hempstead Avenue Bridge over Cross Island Parkway, Henry Hudson Parkway Viaduct over West 72<sup>nd</sup> to West 79<sup>th</sup> Street, Jackie Robinson Parkway Bridge over Metropolitan Avenue, Knapp Street Bridge over Belt Parkway, Matthewson Road over MacCracken Avenue, Mosholu Parkway (southbound) at Major Deegan Expressway, Riverside Drive Viaduct at West 158<sup>th</sup> Street, Roosevelt Island Bridge over East River/East Channel, St. George Ferry Terminal Ramp D, Superior Road Bridge over Cross Island Parkway, Union Turnpike Bridge over Cross Island Parkway, Willis Avenue Bridge over Harlem River, 14<sup>th</sup> Avenue Bridge over Cross Island Parkway, West 35<sup>th</sup> Street Bridge over Amtrak 30<sup>th</sup> Street Branch, East 51<sup>st</sup> Street Pedestrian Bridge over FDR Drive, Pedestrian Bridge at 73<sup>rd</sup> Street over HHP and Amtrak, East 78<sup>th</sup> Street Pedestrian Bridge over FDR Drive, 79<sup>th</sup> Street Ramp to the Garage over the 79<sup>th</sup> Street Boat Basin Garage, 163<sup>rd</sup> Street Pedestrian Bridge over Hawtree Basin, Woodhaven Boulevard Bridge over Atlantic Avenue, and the 191<sup>st</sup> Street Tunnel between St. Nicholas Avenue and the Broadway IRT.



Existing Eastchester Road Bridge Joint Condition Covered With Roadway Plates. Removal of Existing Concrete Header. Newly Installed Concrete Header Reinforcement.



Newly Poured Eastchester Bridge Concrete Header Joint. Preparing the Steel. Installing New Steel Joint Angles. New Reinforcement.



Eastchester Bridge Concrete Header and Steel Joint Angle Prior to Rubber Seal. Pouring Concrete for the New Joint Headers. Installing the Seal. Completed Project.



## INNOVATIONS & ACCOMPLISHMENTS



Hempstead Avenue Bridge Repairing the Column. Existing Steel Column Deterioration. Newly Reinforced Column. General View of the Repaired Area.



Missing Grout on the Woodhaven Boulevard Bridge Parapet Wall. Repairing the Grout.



Removing Loose Overhead Concrete at the Staten Island Ferry Terminal Bus Ramps.



Repairing the Center Roadway Asphalt Overlay of the 14<sup>th</sup> Avenue Bridge.



## INNOVATIONS & ACCOMPLISHMENTS



Removing Loose Concrete From the Underdeck of the Superior Road Bridge, And Installing Expanded Wire Mesh.

Currently scheduled projects include the Bus Station North Ramp over SIRT, and the Riverside Drive Bridge over West 155<sup>th</sup> Street.

### 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 April 18, 2005.

Marine bridge repairs already completed include 145<sup>th</sup> Street Bridge over Harlem River, Hutchinson River Parkway Bridge over Hutchinson River, Shore Road Bridge over Hutchinson River, Boston Post Road over Hutchinson River, Depot Place Bridge over Conrail Hudson Division, Belt Parkway Bridge over Mill Basin, Roosevelt Island Bridge over East River/East Channel, Hamilton Avenue Bridge over Gowanus Canal, 163<sup>rd</sup> Street Pedestrian Bridge over Hawtree Basin, and Belt Parkway Bridge over Fresh Creek.



Starting the New Timber Fender Protection for Pier 6 of the 163<sup>rd</sup> Street Bridge.

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

## INNOVATIONS & ACCOMPLISHMENTS

activity has vastly increased as the water quality in the New York City area has improved.

A consultant issued an urgent flag to repair the pier cap beams of the Belt Parkway Bridge over Fresh Creek, since all of the concrete pier caps were found to be excessively damaged with huge section loss in both the concrete and the accompanying rebars. It was concluded by the consultant that the load-carrying capacity of the bridge was also significantly reduced. Therefore an urgent flag was routed to the Marine When And Where contract to make a special type (on an interim basis) repair to these cap beams under this flag. All of the rebars were properly cleaned and coated with protective coating, and the required concrete patch work was done. After completion of all of the concrete repairs, a carbon fiber wrapping was placed to prevent further deterioration to these cap beams. The rehabilitation of this bridge was completed on August 14, 2007. This 16-month project required a lot of staff-hours and specialized equipment and succeeded in restoring the structural integrity of this four pier concrete bridge for a few years until the Belt Parkway seven bridge project begins. This project required special construction management and engineering skills, and close communications among the designer, contractor, and engineering support services to make this rehabilitation a success.



General View of the Fresh Creek Bridge Before Work Began on the Piers. Contractor's Barge Under the Bridge.



Working Under the Bridge at Low Tide. Scaffolding System Utilized to Work on the Concrete Pier Structures.



Reinforcing the Newly Restored Fresh Creek Bridge Concrete Pier Structure With Fiber Wrapping. Positioning the Barge Between the Piers. Removing and Repairing the Concrete for Each Pier.



Finishing the Fiber Wrapping of the Four Piers. Removing the Scaffolding and Other Materials from the Bridge Site. View of Rehabilitated Cap Beams.

## INNOVATIONS & ACCOMPLISHMENTS

Currently scheduled projects include additional repairs to the Shore Road Bridge over Hutchinson River, the Third Street Bridge over the Gowanus Canal, and a newly flagged condition at the Brooklyn Bridge Brooklyn Fountain/Esplanade requiring sealing of the existing cofferdam steel sheeting and soil stabilization.



Holes in the Steel Sheet Cofferdam of the Brooklyn Bridge Esplanade. View of the Work Area.  
View of the Pavers Before Work Began to Stabilize the Area.

### ***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 2007 included the Belt Parkway Bridge over Paerdegat Basin in Brooklyn. The existing bridge with its nest of thirteen piers will be replaced by two split bridges, one each for eastbound and westbound traffic. The bridge for eastbound traffic will have four piers whereas the bridge for westbound traffic will have two piers. This is the first bridge to be designed by NYCDOT with trapezoidal steel box girders utilizing high performance steel and seismic isolation sliding bearings. In addition, the aesthetics of the bridge will be enhanced by its nightly illumination utilizing light emitting diodes on both fascias and piers. This project will also include wetland mitigation and landscaping in the immediate vicinity of the proposed bridges. The project is now in the final design stage, and it will be constructed together with other two adjacent bridges in the Belt Parkway Corridor as a combined contract.



## INNOVATIONS & ACCOMPLISHMENTS



Rendering of New Belt Parkway Bridge Over Paerdegat Basin, In Daylight, and Under Nightly Illumination. (Credit: Alexander Berens)



Rendering of Existing and Proposed Belt Parkway Bridges Over Paerdegat Basin. (Credit: Alexander Berens)

Other projects underway include the Union Turnpike Bridge over Cross Island Parkway (and Creedmoor Center Road), and Hillside Avenue Bridge over Cross Island Parkway in Queens. Both bridges are two span concrete structures. The In-House Design staff prepared the scope of work and a sub-consultant performed surveys, borings, corings, and traffic studies. The project is in the preliminary design stage.

## INNOVATIONS & ACCOMPLISHMENTS

This unit, along with the Department of Design and Construction, is also involved in the design of a proposed pedestrian bridge that will connect Park Row to an existing Park Row overpass adjacent to Police Plaza. The bridge will enhance the area while providing a safe pedestrian connection from Police Plaza to Pearl Street. The new bridge will be part of a Park Row/Chatham Square project, which is being handled by DDC.

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 2007 included the Willis Avenue, Broadway, 145<sup>th</sup> Street, and Wards Island Pedestrian Bridges over the Harlem River; Third Street and Hamilton Avenue Bridges 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; Park Avenue Tunnel; Manhattan Bridge; Brooklyn Bridge; and the Staten Island Advanced Management Traffic System.

### HAMILTON AVENUE ASPHALT PLANT EMERGENCY REPAIRS

In late 2007, the existing support system for the conveyor platform of the Roadway Repair and Maintenance Division's Hamilton Avenue Asphalt Plant exhibited some settlement. This rendered the plant inoperable. Our staff was requested to perform the urgent total design of a new support system. The Surveying Unit conducted field measurements of the damaged structure on December 7, 11, 20, and 21, 2007. Within two weeks, the In-House Design staff designed the system and prepared fabrication drawings for the Bridge Maintenance, Inspections and Operations Bureau. The Division's In-House Repair personnel then fabricated and installed the side frames, bracings, and I-beams necessary to restore operations at the facility. Additional emergency repairs were also made to the drum, conveyor belt, and hopper. Upon completion, Division bridge painters painted the new steel. The plant is now operational and 400 tons of asphalt were processed on January 21, 2008.



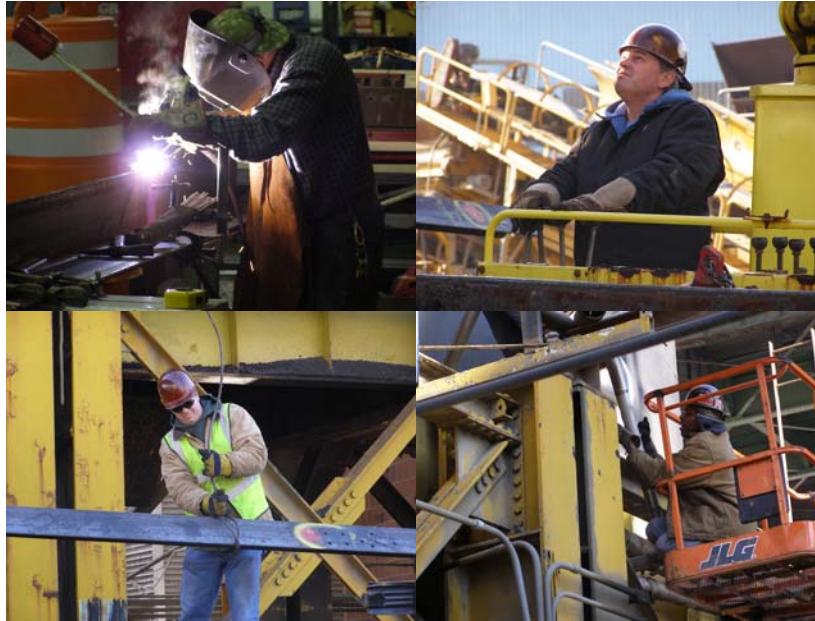
NYCDOT Hamilton Avenue Asphalt Plant. Erecting the New Support System.  
(Support System Credit: Hany Soliman)



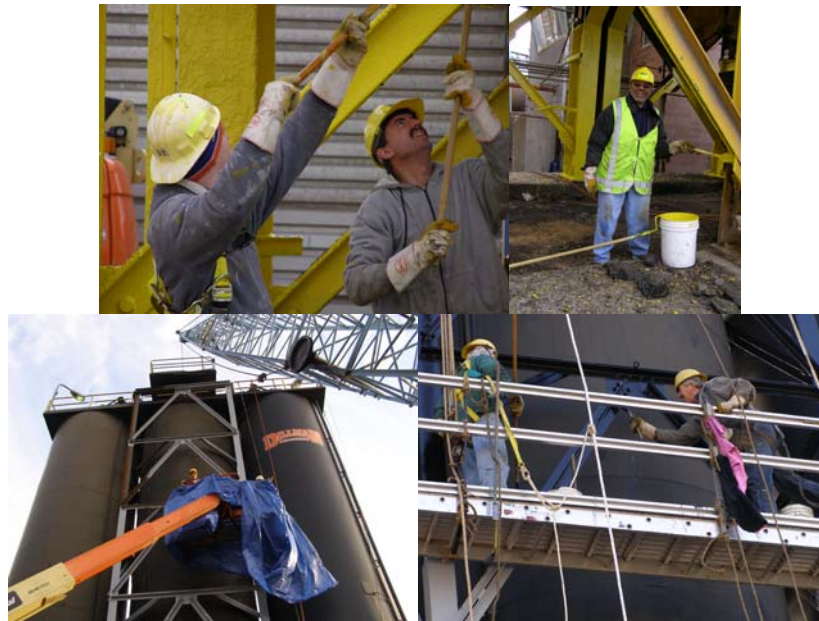
Measuring the Steel: Bridge Repairer & Riveters David Collins and Yiu Liu, and Assistant Civil Engineers Clara Medina (Obscured) and Hany Soliman. Bridge Repairer & Riveters Brook Budd and James Wright III. (Credit: George Klein)



## INNOVATIONS & ACCOMPLISHMENTS



Bridge Repairer & Riveters David Collins, Kenneth Cromer, Dominick Santo, James Wright III Working on the Asphalt Plant Support Frame. (Credit: George Klein)



Painting the Frame: Bridge Painters Frank Duic, Vlado Zic, Frank Pinheiro, Albert Pappas, Branko Grzancic, and Milan Radovic. (Credit: Earlene Powell)



## INNOVATIONS & ACCOMPLISHMENTS



Bridge Painters Frank Duic, Vlatko Zic, Branko Grzancic, Frank Piniero, Michael Scotti, Supervisor Bridge Painter Georgeios Ploumis, Bridge Painters Reynaldo Grant, Milan Radovic, and Albert Pappas. The Completed Project.  
(Credit: Earlene Powell)

### FABRICATION MANAGEMENT SERVICES

In 2007, a critical floor beam of the fast-paced Hamilton Avenue Bridge Project rolled over in a highway accident while being transported to the bridge site. The fabrication of a new floor beam would not only cause delay to the project schedule, but would also result in assembly difficulties at the site because all of the other structural components of the bridge leaf were transported and partially installed in the field, and as such, were not available for a shop assembly verification. It was therefore essential to evaluate the extent of the damage suffered by the beam before deciding if it could be satisfactorily utilized in the bridge structure, or if fabrication of a new floor beam was absolutely needed.

The Fabrication Management Services staff of the Quality Assurance Section developed an extensive non-destructive testing program involving radiographic, ultrasonic, and magnetic particle testing techniques that the contractor was asked to execute under close supervision of the unit's engineers to assure the Division that the beam did not suffer damage and was still usable for the project. Upon obtaining satisfactory results from this testing program, which confirmed that there was no latent damage, the beam was allowed to be utilized in the project after the repair of minor skid marks and damage to the paint. This extraordinary effort from the Quality Assurance engineers not only resulted in completing the east leaf of the Hamilton Avenue Bridge in time but also avoided the potential field misfits and adjustments that a newly fabricated beam would have required.



Thomas Deluca, Commissioner Janette Sadik-Khan, Chief Bridge Officer Henry Perahia, and Mohammed Afzal Looking at Specimens and Radiographs From Welding Qualification Procedure Test Plates. The Quality Assurance Section Examines These Plates to Ensure That Fabricator Welding Processes Conform to the Division's Specifications. (Credit: Yuliy Zak)

## *INNOVATIONS & ACCOMPLISHMENTS*

### **ENVIRONMENTAL ENGINEERING**

The Environmental Engineering staff of the Quality Assurance Section provides environmental oversight and compliance on all capital projects in the Division. Lead paint abrasive cleaning projects underway or completed in 2007 included the Queensboro Bridge, Manhattan Bridge, Rikers Island Bridge, Roosevelt Island Bridge, Brooklyn Bridge, Willis Avenue Bridge, and the Williamsburg Bridge. In addition, the unit continued to provide emergency response related to environmental issues.

As part of the Environmental Committee for the Office of Environmental Assessment and Compliance (OEAC), the unit assisted in developing environmental procedures such as spill prevention, control and countermeasures protocols, roadway spill clean-up protocols, RCRA contingency plans and the disposal of universal waste. The unit also worked with OEAC to develop and implement training for working over water as well as the Clean Water Act.

The unit performs quarterly water discharge monitoring in compliance with the NYSDEC SPDES system for bridges that cross waterways such as the Gowanus Canal, English Kills Creek and the Newtown Creek. Environmental oversight was provided to emergency work-over-water projects on the Brooklyn Bridge, Mill Basin Bridge, Roosevelt Island Bridge, Willis Avenue Bridge, Hamilton Avenue Bridge, Gerritsen Inlet Bridge, Paerdegat Basin Bridge, Third 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.

The unit also manages hazardous waste generated by both the in-house work of the Division and the capital projects. Through the use of environmental testing laboratories, the unit has continued to identify and dispose of out-of-date and expired chemical products stored in bridge facilities. Hazardous waste such as spent paints, solvents, oils and lead-paint debris is generated during maintenance and construction projects. This waste is managed in accordance with all applicable regulations for treatment and disposal. The unit is responsible for providing reports to the NYSDEC regarding the management and disposal of this waste.

The unit ensures compliance with storm water regulations, hazardous waste management, Clean Air Act requirements, Clean Water Act requirements, asbestos regulations, lead paint removal protocols, and health and safety on NYCDOT bridge projects. This includes projects such as the Hamilton Avenue Bridge, Willis Avenue Bridge, and Roosevelt Island Bridge, where compliance with environmental concerns such as dredging and dewatering is required in conjunction with submarine cable installation, pier demolition, pier construction, and channel widening.

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 Rikers Island Bridge, Roosevelt Island Bridge, Manhattan Bridge, Williamsburg Bridge, Metropolitan Avenue Bridge, and the Queensboro Bridge Painting Project.

### **BRIDGE PROJECT SPECIFICATIONS**

In 2007, the Specifications staff of the Engineering Support Section prepared and/or reviewed contract proposal books and/or specifications for 25 bridge rehabilitation and reconstruction contracts which included several combined or multiple-bridge contracts and four private developer contracts. Six of these contracts totaling approximately \$660 million in construction costs were either bid or advertised for bid. The five bid contracts are currently in different stages of award and registration. Out of ten contracts with an estimated construction cost of \$552 million that were submitted to the Law Department for approval, six

## *INNOVATIONS & ACCOMPLISHMENTS*

were approved, another three are still in the approval process, and one contract was put on hold. The specifications for the remaining eleven contracts are in various stages of preparation.

Notable among the bridge contracts prepared and/or reviewed are: replacement of Willis Avenue Bridge over Harlem River; maintenance of various movable bridges; reconstruction of Shore Road Circle Bridge over Amtrak; reconstruction of Annadale Road Bridge over SIRT; construction of East 153<sup>rd</sup> Street Bridge over Metro North, and Component Rehabilitation of Ten Bridges Citywide.

### **CONVERSION OF DIVISION ENGINEERING ARCHIVES**

Since the first digitizing contract of engineering records began nine 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 (over 100,000 frames of film). 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.

The purpose of the new contract is not only to transfer microfilms and photographs to a digital CD-WORM media, but more importantly, to consolidate them according to their BIN (Bridge Identification Number) for future use. The scope of work include records for an estimated 467 bridge contracts on 35mm microfilm (approx. 107,000 frames) and about 2,500 historic bridge construction photographs to be burn to CD and shown in index file.

While awaiting the award of this contract, the key contract pages of all digitized projects were scanned and placed on the Agency server. By linking drawing images (Title Sheet, List of Drawings, General Notes, etc.) from the digital archives to a contract number in the database file the essential information about every job is supplied.

Server-based records support quality communications and enhance our public image. They ensure faster, flexible and effective delivery, improve document security, and organize, retrieve, distribute and print all documents more efficiently.

We also updated the specifications for the preparation of record drawings and electronic media. This first major revision of the specifications in six years concentrated on the elimination of the microfilming requirement for all record drawings. The new specifications are concise, well-illustrated, and simple to follow. A copy of the specifications in PDF format is easy to transmit electronically and we do not need to print large quantities of books.

The switch to electronic media archiving and a server-based database will save money on drawing submissions as well, and will lead to the establishment of a unified electronic database for bridge archives. Digitizing documents and storing them online, where they are easy to access and print, will simplify contract submission process and cut costs in a long run.

The Specifications unit is also scanning the Number One Books of previously bid bridge contracts so that they may be searched, retrieved and sent electronically. Out of 531 books total (407 contracts), 489 contract books were scanned and transmitted to 56 CD's as a backup and for storage purposes.



## INNOVATIONS & ACCOMPLISHMENTS

### GRACE ASPHALT PLANT

The Department intends to acquire the Grace Asphalt Plant in Corona, Queens (both the real estate and the plant equipment) for its Roadway Repair and Maintenance Division. The acquisition of this private plant will help the City streamline its asphalt procurement and save costs. The Department will also be able to recycle some milled asphalt materials. The Land Use Unit is coordinating the ULURP application process for this project. The site and field investigations were complete by the end of 2007.

### CRP/EXTELL PARCEL H PROJECT

The CRP/Extell Parcel H, LP 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. The project will also include a half tunnel section in what was formerly known as the Miller Highway Tunnel. 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. Construction is complete for three of the bridges (which are open for traffic), and design is complete and approved for the other four bridges. The first phase of construction for the half tunnel section is complete and phase two is in progress. The project is now in its second stage, and is 80 percent complete overall.



Quality Assurance Engineers Yuliy Zak and Javed Sarwar Inspecting the Asphalt and Concrete on the Manhattan Approach of the Manhattan Bridge. (Credit: Masroor Mahmood) Quality Assurance Engineer Masroor Mahmood Inspecting the Concrete for the West Abutment Wall of the New 63<sup>rd</sup> Street Bridge. (Credit: Yuliy Zak)

### *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

## INNOVATIONS & ACCOMPLISHMENTS

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 twenty-two spray trucks, six plow trucks and several smaller plows. Ten of the spray trucks are combination spray/plow trucks with a 1,000 gallon tank capacity, and five are spray-spreader/plow trucks with a 360 gallon spray capacity, and a nine cubic yard spreader capacity. There are twenty chemical storage tanks, with a total storage capacity of 114,250 gallons.

New anti-icing yards storing both chemicals have been established under all four East River bridges. Supervisors monitor the bridge decks during storm events by traversing them and using thermal instrumentation installed in their vehicles to make informed decisions as to when to apply chemicals. GPS capabilities have been installed in key vehicles to assist supervisors with the decision making process.

In the winter of 2006-2007, a total of 51,300 gallons of potassium acetate and 62 tons of sodium acetate were applied on the roadways of all four East River Bridges.



Anti-Icing Trucks. (Credit: Chris Gilbride)

## INSPECTIONS

In 2007, Inspections covered 114 bridges and 635 spans. Emphasis was placed on ensuring public safety through the monitoring of potentially hazardous conditions and temporary repairs. The unit performed 322 monitoring inspections, and 166 special winter monitoring inspections of cellular structures, shorings, and potential fire hazards. In addition, 255 emergency inspections were conducted in response to hot line calls, in-house requests, or citizen complaints.

The new Bridge Data System (BDS) allows inspection reports to be generated and transmitted electronically. It provides access to data from the latest inspection reports on all bridges to all Division units. In addition, when an emergency arises, our inspectors are able to send photographs and other information to the main office via a wireless connection to the internet. This feature enables bridge repair engineers to assess the condition and dispatch repair crews with the appropriate equipment in a timely manner. The test version of the system was field verified in 2006, along with the selected portable computers. The production version of the system was implemented in 2007.

Work is underway under a new contract to expand the BDS capabilities by incorporating data from capital reconstruction projects. Additional features will include in-depth inspection reports by consultants as well as GPS data.

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.

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Assistant Civil Engineer Andrew Hoang Inspecting the Brooklyn Bridge. (Credit: Clara Medina) Snooper Truck Utilized in March 2007 During an Emergency Inspection of the Northbound Henry Hudson Parkway.



The Consultants Used the Division's Borescope on the Williamsburg Bridge to Inspect Fracture-Critical Details That They Were Unable to Access by Their Own Devices. They Were Assisted by Mechanical Engineering Intern Anton Depasquale. (Credit: Kevin McNulty)

Following the collapse of the bridge carrying I-35W in Minnesota on August 1, 2007, inspection practices nationwide were intensely scrutinized. On instruction of Commissioner Janette Sadik-Khan, Dr. Yanev assembled a panel of experts including representatives of the consultant community, academia and members of the Bridge Management and Maintenance Committees of the Transportation Research Board, of which he is a member. A questionnaire was circulated among the panelists in order to facilitate their responses. These responses and the opinion of in-house experts were taken into account in considering the potential benefits of using non-destructive techniques for the health monitoring of structures in the future. It was concluded that the current inspection methods and frequency are safe. As a result of the rehabilitations of the past decade, bridge conditions have improved significantly. The Bridge Inspection and Research and Development Units have pioneered the use of various nondestructive tests on City bridges, including X-ray diffraction, fiber optics, strain-gauging, ground penetrating radar, and ultrasonic testing. Future applications of such technologies are under consideration.

On September 17, 2007, Division representatives, along with engineers from NYS DOT, the Port Authority of New York and New Jersey, and the Metropolitan Transit Authority reported to the New York City Council on the safety of the bridges and the methods of inspection and hazard mitigation.

### STRAIN GAUGE AND TELLTALE TESTING

In July 2007, a team headed by Vera Ovetskaya of Bridge Preventive Maintenance tested several structural members on the Brooklyn Bridge after a fractured secondary steel member was discovered by Bridge Maintenance. The project involved attaching strain-gauges to the structure at selected locations and monitoring the response to live loads. It was concluded that the fractured member was not critical and it could be repaired without consequences to the structure.



## INNOVATIONS & ACCOMPLISHMENTS



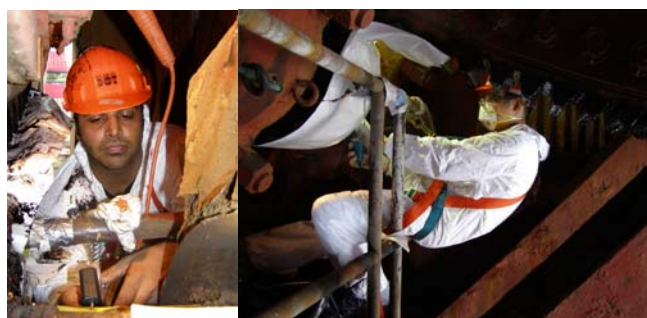
Assistant Mechanical Engineer Vera Ovetskaya (White Hat), Mechanical Engineer Ibrahim Ibrahim (Yellow Hat) and Mechanical Engineering Intern Shafqat Wasi (Red Hat) Conducting the Strain Gauge Monitoring on the Brooklyn Bridge. (Credit: Bojidar Yanev) Summer College Intern Stephanie Dini. (Credit: Michail Zamostin)



Mechanical Engineer Ibrahim Ibrahim, Assistant Mechanical Engineer Vera Ovetskaya, College Aide Michail Zamostin, and Summer College Intern Edward Yee on the Brooklyn Bridge. (Credit: Shafqat Wasi) View Under the Roadway Looking Towards Brooklyn Along the Length of the Structure's Top and Bottom Chord Diagonal Connections. (Credit: Michail Zamostin) Bridge Repairer and Riveter Ignazio Trapani. (Credit: Vera Ovetskaya)



Assistant Mechanical Engineer Vera Ovetskaya Checking the Equipment on the Brooklyn Bridge. (Credit: Shafqat Wasi and Ibrahim Ibrahim) Mechanical Engineer Ibrahim Ibrahim Explaining the Procedures to Mechanical Engineering Intern Shafqat Wasi. (Credit: Vera Ovetskaya)



Mechanical Engineering Intern Shafqat Wasi and Summer College Intern Edward Yee Installing a Strain Gauge on the Pulaski Bridge. (Credit: Edward Yee and Vera Ovetskaya)

Telltales for crack monitoring have been installed at several locations, including three pre-stressed bridges in Staten Island and the FDR Drive at 92<sup>nd</sup> Street. These devices are attached to both sides of the crack and allow us to measure the changes from one inspection to the next. There is a grid on the face of the telltale that allows for precise measurements.

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### CLEANING

In 2007, 9,363 cubic yards of debris were removed from bridges and their surrounding areas, and 1,316 drains were cleaned.



Seasonal Assistant City Highway Repairers Jonathan Adorno and Benjamin Castro Jr. Installing a Recycling Bin on the Brooklyn Bridge Walkway as Part of the Recycling Pilot Program. (Credit: Paul Schwartz)

### PIGEON DETERRENCE

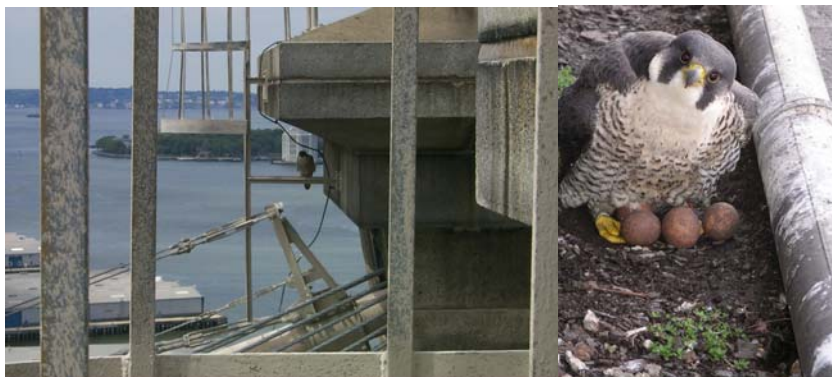
Excessive numbers of pigeons cause property deterioration, unsafe working conditions and health hazards. Besides being unsightly, accumulation of pigeon droppings and feathers is corrosive to steel structures and raises concerns about health hazards. Many disease organisms have been associated with pigeons. 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. In 2006, the type of barrier used to cage out pigeons was changed from the drop ceiling method to netting. The netting is supported by steel cables that are clipped to the beams. This method is currently in use under the Brooklyn Queens Expressway (over Prospect Street), at the Pulaski Bridge, under the Brooklyn Bridge at "Ash Alley," and at the anti-icing tank storage area under the Brooklyn Bridge at Dover Street. In addition, a pigeon deterrent system involving low voltage wires is in place at the Belt Parkway Bridge over Ocean Parkway. The wires are installed along the web of the girders and are hardly visible, yet highly effective. The system has been in operation for over two years now and no pigeons have been observed under or by the bridge ever since. The community is pleased that we addressed one of their most serious and longstanding complaints. The system requires minimum maintenance and is extremely easy to operate.

In 2007, pigeon dropping removal and/or pigeon proofing were performed at the 207<sup>th</sup> Street (University Heights) Bridge over the Harlem River; the Brooklyn Bridge; the Brooklyn Bridge ramp to Pearl Street; the Highland Boulevard NB Bridge over Vermont Avenue; the Pennsylvania Avenue Bridge over Belt Parkway; the Belt Parkway Bridge over Rockaway Parkway; 84<sup>th</sup> Street; Bay Parkway Bridge over Sheepshead Bay Road; West 31<sup>st</sup> Street Bridge over Amtrak Layup Tracks; the LiRR bridges at Austin Street, 104<sup>th</sup> Street, and Junction Boulevard; the Brooklyn-Queens Expressway at Atlantic Avenue and Congress Street; the FDR Drive at 37<sup>th</sup> Street; the Henry Hudson Parkway at 96<sup>th</sup> Street; the Livonia Avenue Pedestrian Bridge over LIRR; the Greenpoint Avenue Bridge over Newtown Creek, the Tompkins Avenue Bridge over Greenfield Avenue, the Jackie Robinson Parkway Bridge over Austin Street; the Hutchinson River Parkway Bridge over Hutchinson River, the Belt

## INNOVATIONS & ACCOMPLISHMENTS

Parkway Bridge over Bay Ridge Avenue; Brooklyn Bridge at Prospect Street, and the Brooklyn Bridge at Dover Street.



Nature's Pigeon Deterrent—A Falcon on the Brooklyn Bridge South Side Tower.  
Falcon Family on the Williamsburg Bridge. (Family Credit: Russell Holcomb).

### PAINTING

In 2007, the following bridges were painted: Astoria Boulevard Bridge (EB) over BQE West Leg, Belt Parkway Bridge over Ocean Avenue, Brooklyn-Queens Expressway (WB) over Furman Street, Bruckner Boulevard Overpass from 133<sup>rd</sup> to 135<sup>th</sup> Streets, Chambers Street Pedestrian Bridge over West Side Highway, Coney Island Avenue Bridge over Belt Parkway, Cropsey Avenue Bridge over Belt Parkway, Flatbush Avenue Bridge over Belt Parkway, Grand Concourse Bridge over East 170<sup>th</sup> Street, Guy R. Brewer Boulevard Bridge over Belt Parkway, Harlem River Drive Ramp to the northbound Harlem River Drive, Henry Hudson Parkway Viaduct over West 79<sup>th</sup> Street, Henry Hudson Parkway Bridges (NB & SB) over the Ramp to 96<sup>th</sup> Street, Henry Hudson Parkway Bridge over West 158<sup>th</sup> Street, Knapp Street Bridge over Belt Parkway, Linden Boulevard Bridge over Conduit Avenue, Northern Boulevard Bridge over Cross Island Parkway, Park Avenue Viaduct over East 42<sup>nd</sup> Street, PS-5 Pedestrian Bridge over 10<sup>th</sup> Avenue, Sunrise Highway WB Bridge over Laurelton Parkway EB, Sunrise Highway WB Bridge over Laurelton Parkway WB, Union Turnpike Bridge over Jackie Robinson Parkway, Whitelaw Pedestrian Bridge over Conduit Avenue, Woodhaven Boulevard Bridge over Atlantic Avenue, 17<sup>th</sup> Avenue Pedestrian Bridge over Belt Parkway, 27<sup>th</sup> Avenue Pedestrian Bridge over Belt Parkway, 80<sup>th</sup> Street Bridge over 71<sup>st</sup> to 77<sup>th</sup> Avenues, 130<sup>th</sup> Avenue Bridges over Laurelton Parkway (NB & SB), East 174<sup>th</sup> Street Bridge over Sheridan Expressway & Amtrak, and the 174<sup>th</sup> Street Pedestrian Bridges (North and South) over Sheridan Expressway.



Bridge Painter Francisco Pinheiro Coordinates Equipment, Supplies, and Paint. Bridge Painter Albert Pappas at the Woodhaven Boulevard Bridge. Painting the Bridge. (Credit: Earlene Powell)



## INNOVATIONS & ACCOMPLISHMENTS



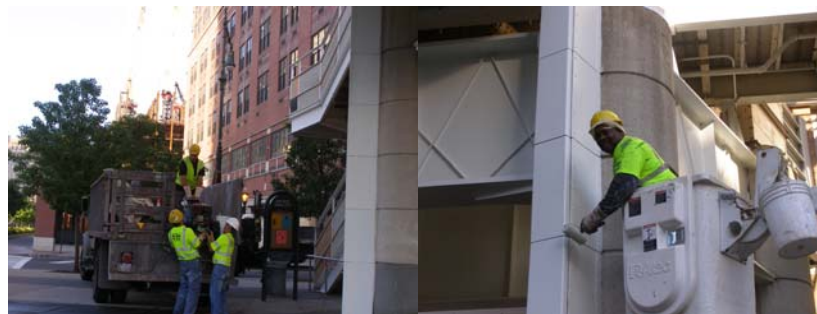
Bridge Painters Joao Silva and Reynaldo Grant at the Whitelaw Pedestrian Bridge. (Credit: Earlene Powell) Deputy Director of In-House Painting Earlene Powell.



Painting the Belt Parkway Over Ocean Avenue Bridge. Bridge Painters Samuel Martinez, Anthony Attore, and Brian Casey, And Supervisor David Yanolatus at the Belt Parkway Over Ocean Avenue Bridge. (Credit: Earlene Powell)



Supervisor Bridge Painter Hughie Flood Painting the Chambers Street Pedestrian Bridge. (Credit: Earlene Powell)



Loading Equipment. Bridge Painter Willie Tyler Painting the Chambers Street Pedestrian Bridge. (Credit: Earlene Powell)

During 2007, the following structures were also painted: DEP Plant at Tallman Island, (Queens), DOT Electric Shop at 125 Cadman Plaza, Railings of Francis Lewis Boulevard Bridge over Laurelton Parkway (EB), Harper Street Maintenance and Repair Shop, 352 Kent Avenue Bridge Maintenance Shops, 59<sup>th</sup> Street Bridge Operations Facility, and the 59<sup>th</sup> Street DOT Sign Shop.

## INNOVATIONS & ACCOMPLISHMENTS



Bridge Painter Vlatko Zic, Supervisor Bridge Painter Cesar Pazmino, and Bridge Painters Jamie Andrade, Michael Scotti, and William Budge Repainting the Markings on the Brooklyn Bridge Walkway and Bikeway. Fresh Markings.  
(Credit: Earlene Powell)

### GRAFFITI REMOVAL

In 2007, 6,611,453 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.



Pressure Washing Machine Used for Graffiti Removal. It is Set to 2500 psi and 212° F. Bridge Painters Frank Duic and Russell Newme Feeding the Spray Pump and Preparing the Paint.

During 2007, graffiti was also removed from the following structures: 59 Adams Street Ironworker Shop, Arthur Kill Road at Ellis Street, Bartow Avenue over the Hutchinson River Parkway, Battery Park Underpass of the FDR Drive, Broadway Bridge Operator House, Brooklyn-Queens Expressway at Northern Boulevard, Brookville Boulevard at Sunrise Highway, Chatterton Avenue near the Bruckner Expressway, Cohancy Street, Congress

## INNOVATIONS & ACCOMPLISHMENTS

Street Bridge over Brooklyn-Queens Expressway, Cropsey Avenue Bridge over Belt Parkway, Cross Island Parkway, Delancey Street Yard under the Williamsburg Bridge, FDR Drive, Grand Central Parkway at 27<sup>th</sup> Avenue, Grand Concourse over Burnside Avenue, Grand Concourse over East 204<sup>th</sup> Street, Grand Street Bridge Operator House, Greaves Avenue Bridge over SIRT South Shore, Henry Hudson Parkway over Kappock Street, Henry Hudson Parkway over West 158<sup>th</sup> Street, Hylan Boulevard near the Staten Island Expressway, Madison Avenue Bridge over Harlem River, Marathon Route, Metropolitan Avenue Bridge over English Kills, Mosel Avenue near the Staten Island Expressway, North and South Conduit Avenue, Orchard Beach Road west of Bartow Circle, Pugsley Avenue near the Bruckner Expressway, Pulaski Bridge over Newtown Creek, Pulaski Street Yard, Rodney Street at Keap Street, Rust Street Bridge over Flushing Avenue, Superior Road Bridge over Cross Island Parkway, Third Avenue Bridge over Harlem River, Tompkins Avenue Bridge over Greenfield Avenue, Utopia Parkway Bridge over Cross Island Parkway, Van Pelt Avenue near Linden Avenue, Williamsbridge Road Bridge over Amtrak, Williamsburg Street between Ross Street and Bedford Avenue, Woodhaven Boulevard Bridge over Atlantic Avenue, 9<sup>th</sup> Street Bridge Operator House, 24<sup>th</sup> Avenue at 32<sup>nd</sup> Street, 27<sup>th</sup> Avenue Pedestrian Bridge over Belt Parkway, 41<sup>st</sup> Avenue at Bowne Street, 43<sup>rd</sup>, 47<sup>th</sup>, and 50<sup>th</sup> Avenues, West 43<sup>rd</sup> Street between 10<sup>th</sup> and 11<sup>th</sup> Avenues, 71<sup>st</sup> Avenue Bridge over Cooper Avenue, 150<sup>th</sup> Street Bridge over Cross Island Parkway, 163<sup>rd</sup> Street Pedestrian Bridge over Hawtree Basin, East 174<sup>th</sup> Street and Selwyn Avenue, 191<sup>st</sup> Underground Street to Broadway, West 207<sup>th</sup> Street/West Fordham Road Bridge over Harlem River, West 207<sup>th</sup> Street Bridge Operator House, 131<sup>st</sup> Street at Riverside Drive, and the 236<sup>th</sup> Street Pedestrian Bridge over Henry Hudson Parkway.

## RESEARCH AND PRESENTATIONS

In 2007, research work and/or case histories of the Division were presented in the following proceedings:

ASHE Region 6, New York Metro Section, New York City, 18 January 2007. Sklavounakis, C., and Duran, B. *Replacement of the Bascule Span Deck of the Mill Basin Bridge on the Belt Parkway.*

The Municipal Engineers of the City of New York, 28 February 2007. Sklavounakis, C. *Replacement of the Bascule Span Deck of the Mill Basin Bridge on the Belt Parkway.*

ASCE Metropolitan Section infrastructure Group, New Trends in Seismic Evaluation and Retrofit of Infrastructures, Brooklyn, New York, 26 – 27 March 2007. Gajer, R., Thomann, T, Dobry, R., and Silva, W. *2007 NYCDOT Seismic Design Guidelines.*

ASCE Metropolitan Section Construction Group, Construction in Urban Settings 2007, New York City, 16 – 17 April 2007. Parroco, R., and Baycora, A. *East 153 Street Bridge.*

24<sup>th</sup> Annual International Bridge Conference, Pittsburgh, 4 – 6 June 2007. Rauch, R. *Bridge Painting Challenges in New York City.*

Ralls, M. J. *Prefabrication Saves Time and Money on Bridge Projects.* Innovator, June 2007, Volume 1, Number 1.

2007 Annual Meeting of the AASHTO Subcommittee on Bridges and Structures (Technical Committee for Movable Bridges T-8), Wilmington, Delaware, 8 – 13 July. Collyer, R. O. *Reconstruction of the 145<sup>th</sup> Street Bridge.*

Capka, J. Richard. *Big Part of LIFE: Several New Projects Highlight FHWA Program Under SAFETEA-LU.* Roads & Bridges, July 2007, Volume 45, Number 7.



## INNOVATIONS & ACCOMPLISHMENTS

4th New York City Bridge Conference, New York City, 27 – 28 August 2007. Biegel, D. *Borden Avenue Bridge Slides into the Twenty-First Century.*

4th New York City Bridge Conference, New York City, 27 – 28 August 2007. Rosales, M. *Conceptual Design of Four Pedestrian Bridges Over the Belt Shore Parkway, Brooklyn, NY.*

4th New York City Bridge Conference, New York City, 27 – 28 August 2007. Schmidt, J. C. *The 2006 Rope Access Inspection of the Brooklyn Bridge Towers: A New View of an Old Bridge.*

4th New York City Bridge Conference, New York City, 27 – 28 August 2007. Stieb, J., Kroely, B., and McNulty, K. *A Bridge Inspection Management and Data System for the New York City Department of Transportation.*

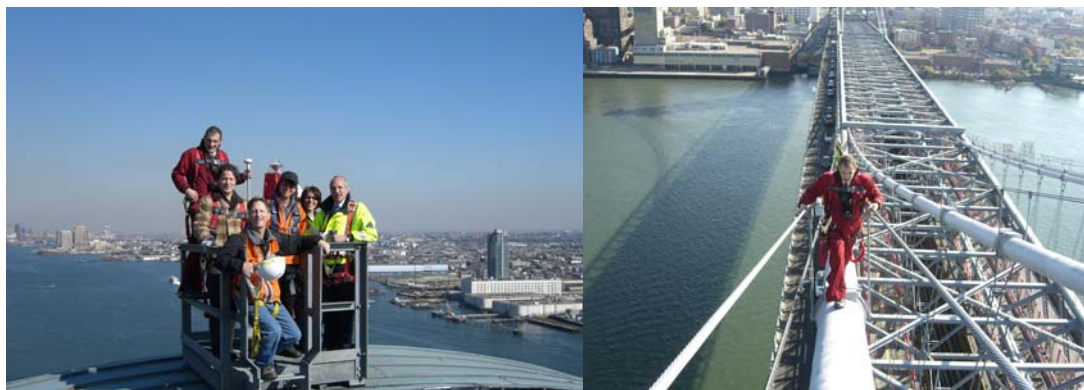
Bruce Podwal Seminar Series in Structural, Environmental, and Transportation Engineering, New York City, 11 December 2007. Perahia, H. D., and King, L.S. *Construction of East 153<sup>rd</sup> Street Bridge over Metro North Rail Road.*

In addition, Dr. Bojidar Yanev, the Division's Executive Director of Inspections and Bridge Management continued his participation on the technical advisory panel of the National Council for Highway Research (NCHR) for the following project: D1057 Structural Safety Appraisal Guidelines for Suspension Bridge Cables

Dr. Yanev is on the review panel for NCHRP Project 20-07/Task 244 *Modifications for AASHTO LRFD Bridge Design Specifications to Incorporate or Update the Guide Specifications for Design of Pedestrian Bridges.*

Dr. Yanev served on the Structural/Foundation Technical Committee working on revising the NYC Building Code, which is part of the *New NYC Construction Codes - LL 33/2007*. He continues to serve on the advisory panel of the NYC Department of Buildings for emergency response after citywide disasters.

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 2007 included: early detection of metal corrosion under paint, bridge scour, bridge monitoring, plastic design systems, and new developments in water repellents.



Executive Director of Inspections and Bridge Management Dr. Bojidar Yanev, Press Secretary Seth Solomonow, Doug Reese, Commissioner Janette Sadik-Khan, First Deputy Commissioner Lori Ardito, and Chief Bridge Officer Henry Perahia on the Williamsburg Bridge. Dr. Yanev Leading the Cable Walk.

## INNOVATIONS & ACCOMPLISHMENTS



On June 10, 2007, a Team of Researchers From Rutgers University Presented a Ground Penetrating Radar (GPR) System. The Demonstration was Held at the FDR Northbound Between East 92<sup>nd</sup> and East 95<sup>th</sup> Streets. The Result is an Assessment of the Road Bed Density. The Technology May be Considered For Use at Other Locations Where Undermining is Suspected. A Thermographic Method to Detect Moisture Under Paint was Developed by Brooklyn Polytechnic and Tested on Various Bridges in Brooklyn. Thermal Imaging of Delaminated Paint on a Steel Bridge Column on July 17, 2007.



Dr. Bojidar Yanev on the Williamsburg Bridge. Chief Bridge Officer Henry Perahia Atop the Brooklyn Tower of the Manhattan Bridge. Chief Bridge Officer Henry Perahia and Executive Director of Bridge Preventive Maintenance and Repair Thomas Whitehouse (in Yellow Jackets) Hosting a Visit by NYSDOT Engineers to the Brooklyn Bridge: the Visitors Observed Oiling, Flag Repairs, and Work at the Iron Shop.  
(Brooklyn Credit: Bojidar Yanev)

## Appendix A

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### BRIDGE CAPITAL PROGRAM

**East River Bridge Rehabilitation Plans** **A-1**

**Bridges Under Construction** **A-2**

**Component Rehabilitation** **A-3**

**Bridges Under Design** **A-4**



<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*
• Eyebars 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)	75.00 to 125.00***
• 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*

**MANHATTAN BRIDGE**  
**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. (In Progress)</li> </ul>	185.00*
<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 (2013)</li> </ul>	25.00
	to
	50.00***
	<b>TOTAL: \$ 796.21</b>
	<b>to</b>
	<b>\$ 871.21</b>

- \* Construction Complete  
 \*\* In Construction  
 \*\*\* In Design  
 \*\*\*\* Research and Development (completed)

Revised 11/27/07

## APPENDIX A-1

### 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)	221.55*
• Cleaning and painting main bridge upper trusses. (In Progress)	167.75**
• Miscellaneous Items (In Progress)	43.88**
• Seismic Retrofit (2013)	25.00
	to
	50.00***
<b>TOTAL:</b>	<b>\$ 764.68</b>
	<b>to</b>
	<b>\$ 789.68</b>

\* Construction Complete

\*\* In Construction

\*\*\* In Design

Revised 11/27/07



<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*

## APPENDIX A-1

<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. (In Progress)	211.00**
• Replace north approach structures (Manhattan / Brooklyn), and rehabilitate north half of bridge. (2002)	233.00*
• Seismic Retrofit – reinforce concrete with granite cladding (In Progress)	11.90***
• Bearing replacement at PP 10 and 15 (In Progress)	18.50***
<b>TOTAL: \$1,048.06</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.

Revised 11/27/07

**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), Rehabilitate Manhattan approaches and remaining ramps (A,B,C,F,G,I,J), and Paint entire bridge. (2009)	250.00
	to
	350.00**
• Seismic Retrofit (2013)	30.00
	to
	60.00**
• • Replacement of Travelers	20.50***
<b>TOTAL:</b>	<b>\$ 545.77</b>
	<b>to</b>
	<b>\$ 675.77</b>

\* Construction Complete

\*\* In Design

\*\*\* In Construction

Revised 11/27/07

**BRIDGES UNDER CONSTRUCTION***CALENDAR YEAR 2007***CONTRACT # BRIDGE**


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HBX1029	145 <sup>th</sup> Street over Harlem River
HBX1104	Grand Concourse over East 161 <sup>st</sup> Street
HBX1157	West 252 <sup>nd</sup> Street Bridge over Henry Hudson Parkway
HBM1117	Roosevelt Island Bridge over East River/East Channel
HBM1124	Willis Avenue Bridge over Harlem River
HBK1140	Hamilton Avenue Bridge over Gowanus Canal
HBX1163	Gun Hill Road Bridge over Metro North RR
HBQ1181/1182	Steinway Street Bridges over Grand Central Parkway WB & EB (Brooklyn-Queens Expressway)
BRC156A	Manhattan Bridge (Contract #11)
BRC231C	Queensboro Bridge – Contract #6
BRC253CC	Williamsburg Bridge – Contract #8
BRC270T	Brooklyn Bridge – Traveler Replacement
BRX287R	Macombs Dam Bridge over Harlem River

**BRIDGE CONSTRUCTION***Projects Completed in Calendar Year 2007***CONTRACT #    BRIDGE**

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BRX287R        Macombs Dam Bridge over Harlem River

HBQ1181/1182 Steinway Street Bridges over Grand Central Parkway WB & EB (Brooklyn-  
Queens Expressway)



### Component Rehabilitation

The following table illustrates the program's performance over the last eight years:

	FY 00	FY 01	*FY 02	**FY 03	<sup>#</sup> FY 04	FY 05	*FY 06	<sup>##</sup> FY 07
Number of Bridges	24	16	0	0	12	9	0	0
Construction Cost	\$5.26 M	\$13.2 M	\$0	\$0	\$8.25	\$5.63	\$0	\$0

\*No contracts were bid during the 2002 and 2006 calendar years.

\*\*One contract was bid during the 2003 calendar year, but was not registered until February 2005.

<sup>#</sup> One contract was bid during the 2004 calendar year, but was not registered until February 2005.

<sup>##</sup> One contract was bid during the 2007 calendar year, but was not registered early 2008.

In 2007, work was not completed at any bridge.

During calendar year 2007, work re-commenced at the following bridge:

3<sup>rd</sup> Avenue over Gowanus Canal (K)

### Component Rehabilitation

There are 4 projects “still under construction” since the 2006 *Annual Report* was issued.

East 149<sup>th</sup> Street Bridge over Metro North (BX)  
 Metropolitan Avenue Bridge over Conrail (Q)  
 3<sup>rd</sup> Avenue over Gowanus Canal (K)  
 East 238<sup>th</sup> Street (Nereid Avenue)/Bronx River Parkway & Metro North (BX)

18 component rehabilitation projects are slated to continue, commence or be completed in the 2008 calendar year. They are:

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 238<sup>th</sup> Street (Nereid Avenue)/Bronx River Parkway & Metro North (BX)  
 West 246<sup>th</sup> Street/HHP (BX)

3<sup>rd</sup> Avenue over Gowanus Canal (K)  
 Metropolitan Avenue Bridge over Conrail (Q)

Merrick Boulevard over Laurelton Parkway E.B. (Q)  
 Merrick Boulevard over Laurelton Parkway W.B. (Q)  
 149<sup>th</sup> Street over LIRR (Q)  
 130<sup>th</sup> Avenue over Laurelton Parkway E.B. (Q)  
 130<sup>th</sup> Avenue over Laurelton Parkway W.B. (Q)  
 Queensboro Bridge Ramp over 21<sup>st</sup> (& 22<sup>nd</sup> Streets) (Q)  
 Queensboro Bridge Ramp over 11<sup>th</sup> Street & Terrain (Q)  
 United Nations Plaza over 1<sup>st</sup> Avenue Tunnel (M)  
 Belt Parkway over Ocean Avenue (K)  
 Ocean Avenue over LIRR Bay Ridge (K)

## BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
206672A	HBCR00	E 174 <sup>TH</sup> ST (NORTH) PED BRIDGE	SHERIDAN EXPRESSWAY	2009	FD	B
206672B	HBCR00	E 174 <sup>TH</sup> ST (SOUTH) PED BRIDGE	SHERIDAN EXPRESSWAY	2009	FD	B
2230300	HBCR01B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	2010	PD	B
2241139	HBCR01B	LEGGETT AVENUE	AMTRAK - CSX	2010	PD	B
2241620	HBCR01B	EAST 162 <sup>ND</sup> ST	METRO NORTH RR HAR	2010	PD	B
2241630	HBCR01B	EAST 165 <sup>TH</sup> ST	METRO NORTH RR HAR	2010	PD	B
2241820	HBCR01B	EAST 187 <sup>TH</sup> ST	METRO NORTH RR HAR	2010	PD	B
2242029	HBCR01B	SOUTHERN BOULEVARD	BRONX PELHAM PARKWAY	2010	PD	B
2242280	HBCR01B	GRAND CONCOURSE	EAST 167 <sup>TH</sup> ST	2010	PD	B
2242400	HBCR01B	EAST 180 <sup>TH</sup> ST	BRONX RIVER	2010	PD	B
2241570	HBX199	E 153RD ST.	METRO NORTH RR	2008	FD	B
2075837	HBX1086	WESTCHESTER AVENUE	HRP	2009	FD	B
2241590	HBX1103	CONCOURSE VILL AVE	METRO NORTH RR HAR	2011	FD	B
1066510	HBX1131	BRUCKNER EXP.	WESTCHESTER CREEK	2009	FD	B
2241800	HBX1139	E 183RD ST	METRO NORTH RR HAR	2009	FD	B
NEW 2240200	HBX1148B	SHORE ROAD (NEW)	HUTCHINSON RIVER	2013	PD	B
2241210	HBX1152	BRYANT AVE	AMTRAK	2010	PD	B
2241710	HBX1160	CLAREMONT PKWY	METRO NORTH RR HAR	2008	FD	B
2240210	HBX1164	CITY ISLAND ROAD	EASTCHESTER BAY	2009	FD	B
2241810	HBX1172	E 188TH ST	METRO NORTH RR HAR	2013	FD	B
2241409	HBX1190	GRAND CONCOURSE	METRO NORTH RR HUD	2010	PD	B
2242319	HBX1191	GRAND CONCOURSE	E 174 <sup>TH</sup> ST	2012	PD	B
2240137	HBM1147	BROADWAY	HARLEM RIVER	2012	PD	BM
2240079	HBX644S	MADISON AVE	HARLEM RIVER	2013	PD	BM
1240090	BRX287S	MACOMBS DAM BRIDGE	HARLEM RIVER	2015	PD	BM
2240027	BRC156R	MANHATTAN BRIDGE (LL)	EAST RIVER	2009	FD	KM
2240028	BRC156R	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	2009	FD	KM
2240028	BRC156S2	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	2013	PD	KM
2240019	BRC270C	BROOKLYN BRIDGE	2781 (B.Q.E.)	2009	FD	KM
2240019	BRC270S	BROOKLYN BRIDGE	2781 (B.Q.E.)	2013	PD	KM
VARIOUS	HBCBORERS- R	VARIOUS	VARIOUS	2008	FD	KM
2243340	HBCR00	15 <sup>TH</sup> AVE	LIRR BAY RIDGE	2009	FD	K
2243640	HBCR00	13 <sup>TH</sup> AVE	LIRR & SEA BEACH	2009	FD	K
2244040	HBCR00	EAST DRIVE	EAST WOOD ARCH	2009	FD	K
2230360	HBCR01A	UNION ST	2781 (B.Q.E.)	2010	PD	K
2230440	HBCR01A	2781 (B.Q.E.)	ADAMS ST N.B.	2010	PD	K
2230450	HBCR01A	2781 (B.Q.E.)	ADAMS ST S.B.	2010	PD	K
2231270	HBCR01A	4 <sup>TH</sup> AVE	BSHP	2010	PD	K
2231429	HBCR01A	BSHP	BEDFORD AVE	2010	PD	K
2240260	HBCR01A	CARROLL ST	GOWANUS CANAL	2010	PD	K
2243230	HBCR01A	CROWN ST	FRANKLIN SHUTTLE	2010	PD	K
2243490	HBCR01A	BEDFORD AVE	LIRR BAY RIDGE	2010	PD	K
2244060	HBCR01A	CLEFT RIDGE SPAN	PROSPECT PARK	2010	PD	K
2244480	HBCR01A	5 <sup>TH</sup> AVE	GREENWOOD CEMETERY	2010	PD	K
2243710	HBKC062	19TH AVE	BMT SEA BEACH	2016	FD	K

PD=Preliminary Design; FD=Final Design; DB=Design Build



## BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2243100	HBKC064	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	2011	FD	K
2243020	HBK530	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	2014	FD	K
2243050	HBK531	CATON AVE	BMT SUBWAY, BRIGHTON	2013	FD	K
2243820	HBK548	21ST AVE	BMT SEA BEACH	2016	FD	K
2231450	HBK643	BSHP	GERRITSEN INLET	2010	FD	K
2231370	HBK668	E 8 <sup>TH</sup> ST ACCESS RMP	BSHP	2008	FD	K
2231479	HBK1023	BSHP	MILL BASIN	2010	FD	K
2231489	HBK1024	BSHP	PAERDEGAT BASIN	2009	FD	K
2243080	HBK1032	CHURCH AVE	BMT SUBWAY, BRIGHTON	2013	FD	K
2243510	HBK1046	FLATBUSH AVE	LIRR BAY RIDGE	2011	FD	K
2231509	HBK1072	BSHP	FRESH CREEK	2009	FD	K
2231249	HBK1089	BSHP	BAY RIDGE AVE	2011	FD	K
2231439	HBK1090	BSHP	NOSTRAND AVE	2011	FD	K
2231499	HBK1091	BSHP	ROCKAWAY PKWY	2009	FD	K
2230887	HBK1151	278I W.B. (B.Q.E.)	CADMAN PLAZA	2011	FD	K
2230888	HBK1151	278I E.B. (B.Q.E.)	CADMAN PLAZA	2011	FD	K
2243140	HBK1153	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	2011	FD	K
2243040	HBK1154	CROOKE AVE	BMT SUBWAY, BRIGHTON	2011	FD	K
2243569	HBK1201	ATLANTIC AVE	LIRR ATLANTIC AVE	2015	FD	K
2240270	HBK1213	UNION STREET BRIDGE	GOWANUS CANAL	2016	PD	K
2240390	HBK1161	GRAND ST BRIDGE	NEWTON CREEK	2016	PD	KQ
2231319	HBK1202	BELT PARKWAY	BAY PARKWAY	2011	PD	K
2243400	HBK1204	50 <sup>TH</sup> STREET	LIRR BAY RIDGE	2013	FD	K
2243580	HBK1205	5 <sup>TH</sup> AVENUE	LIRR & SEA BEACH	2011	PD	K
2244120	HBK1206	HILL DRIVE	PROSPECT PARK LAKE	2009	FD	K
2243150	HBK1208	FOSTER AVENUE	BMT SUBWAY BRIGHTON	2013	FD	K
2240047	BRC231S	QUEENSBORO BRIDGE (LL)	EAST RIVER	2013	PD	MQ
2240048	BRC231S	QUEENSBORO BRIDGE (UL)	EAST RIVER	2013	PD	MQ
2246489	HBCR00	W 181 <sup>ST</sup> ST	RAMP TO WASHINGTON BRIDGE	2009	FD	M
2245230	HBCR00	W 148 <sup>TH</sup> ST PED BRIDGE	AMTRAK 30 <sup>TH</sup> ST BRANCH	2009	FD	M
2245300	HBCR00	INWOOD HILL PARK FOOTBRIDGE	AMTRAK 30 <sup>TH</sup> ST BRANCH	2009	FD	M
2246980	HBCR01B	RIVERSIDE DRIVE	WEST 138 <sup>TH</sup> ST	2010	PD	M
2267130	HBCR01B	RIVERSIDE DRIVE	WEST 145 <sup>TH</sup> ST	2010	PD	M
2245090	HBMC032	W 43 <sup>RD</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2017	PD	M
2245130	HBMC033	W 47 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2013	PD	M
2245150	HBMC034	W 49 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2015	PD	M
2245340	HBMC035	W 50 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2015	PD	M
2245180	HBMC036	W 53 <sup>RD</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2017	PD	M
224501C	HBMC037	W 33 <sup>RD</sup> ST	LAND ADJ TO AMTRAK	2012	FD	M
2246540	HBM551	E 34TH ST	PARK AVE TUNNEL	2011	FD	M
2233059	HBM1027	HARLEM RIVER DRIVE	RAMP TO HRD N.B.	2013	DB	M
2245010	HBM1120	11 <sup>th</sup> AVE VIADUCT	LIRR WEST SIDE YARD	2008	FD	M
2246490	HBM1145	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD	2011	FD	M
2246710	HBM1145B	W 153 ST	A.C. POWELL BLVD	2011	FD	M
2240620	HBM1159	WARDS ISLAND PED BRDG	HARLEM RIVER	2012	FD	M
2246720	HBM1165	RIVERSIDE DRIVE	W 158TH ST	2015	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	2012	FD	M
2245070	HBM1174	W 38 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2013	PD	M
2245080	HBM1175	W 39 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2013	PD	M
2245100	HBM1176	W 44 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2017	PD	M
2245120	HBM1177	W 46 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2015	PD	M
2245140	HBM1178	W 48 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2013	PD	M
2245210	HBM1179	W 42 <sup>ND</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2013	PD	M
2245440	HBM1180	W 40 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2015	PD	M
2245330	HBM1183	W 41 <sup>ST</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2015	PD	M
224501B	HBM1184	W 33 <sup>RD</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	FD	M
224501D	HBM1185	W 34 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	FD	M
224501E	HBM1186	W 35 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	FD	M
224501F	HBM1187	W 36 <sup>TH</sup> ST	AMTRAK 30 <sup>TH</sup> ST BRANCH	2012	FD	M
2245209	HBM1188	11 <sup>TH</sup> AVE	AMTRAK 30 <sup>TH</sup> ST BRANCH	2017	PD	M
2229290	HBM1189	W 79 <sup>TH</sup> ST	AMTRAK	2013	PD	M
2267717	HBM1189	79 <sup>TH</sup> ST PED PLAZA	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2013	PD	M
2267718	HBM1189	79 <sup>TH</sup> ST TRAFFIC CIRCLE	79 <sup>TH</sup> ST PED PLAZA	2013	PD	M
226771A	HBM1189	79 <sup>TH</sup> ST RAMP TO HHP	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2013	PD	M
226771B	HBM1189	79 <sup>TH</sup> ST RAMP TO GARAGE	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2013	PD	M
226771C	HBM1189	GARAGE RAMP TO 79 <sup>TH</sup> ST	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2013	PD	M
226771D	HBM1189	SB HHP RAMP TO 79 <sup>TH</sup> ST	79 <sup>TH</sup> ST BOAT BASIN GARAGE	2013	PD	M
2248299	HBCR00	JACKIE ROBINSON PKWY & UNION TURNPIKE	AUSTIN STREET	2009	FD	Q
2231800	HBCR00	SUPERIOR ROAD	CROSS ISLAND PKWY	2009	FD	Q
2230620	HBCR00	37 <sup>TH</sup> STREET	BQE	2009	FD	Q
2240660	BRC289A	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL	2017	DB	Q
1247560	HBQ1112	METRO AVE (FRESH POND)	LIRR MONTAUK DIV	2010	FD	Q
2231780	HBQ1114	HEMPSTEAD AVE	BCIP	2016	PD	Q
2266149	HBQ1114	HEMPSTEAD AVE	RAMP TO BCIP NB	2016	PD	Q
2231850	HBQ1115	UNION TPKE	BCIP	2014	PD	Q
2247120	HBQ1130	WOODSIDE AVE	LIRR MAIN LINE	2012	FD	Q
2248159	HBQ1134	WOODHAVEN BLVD	QUEENS BLVD	2011	FD	Q
2248160	HBQ1137	ELLIOT AVE	QUEENS BLVD	2013	PD	Q
2240410	HBQ1162	BORDEN AVE	DUTCH KILLS	2014	PD	Q
2231760	HBQ1173	BCIP	DUTCH BRDWAY-115 AVE	2017	PD	Q
2240507	HBQ1203	ROOSEVELT AVE	VAN WYCK EXPRY	2010	PD	Q
2248080	HBQ1204	MOTOR PKWY PED BRDG	HOLLIS COURT BLVD	2011	PD	Q
2248280	HBQ1206	HIGHLAND PK PED BRDG	PEDESTRIAN PATH	2011	PD	Q
2231840	HBQ1207	HILLISIDE AVE	BCIP	2014	PD	Q
2266160	HBQC064	WHITESTONE EXPRY/VAN WYCK EXPRY SB TO BCIP EB	ACCESS ROAD FROM WHITESTONE EXPRY/VAN WYCK EXPRY	2013	PD	Q
2249320	HBCR00	ALBEE AVENUE	SIRT SOUTH SHORE	2009	FD	R
R00010	HBRC036	GALLOWAY AVE	MARIANNE ST	2013	PD	R

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## BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
R00011	HBRC037	FOREST AVE	CRYSTAL AVE	2013	PD	R
R00013	HBRC038	NAUGHTON AVE	PATTERSON AVE	2013	PD	R
R00023	HBRC039	MIDLAND AVE	HYLAN BLVD	2013	PD	R
R00034	HBRC040	ROCKLAND AVE	BRIELLE AVE	2013	PD	R
R00068	HBRC041	FOREST AVE	RANDALL AVE	2013	PD	R
R00069	HBRC042	GREGG PLACE	RANDALL AVE	2013	PD	R
R00084	HBRC043	ARTHUR KILL RD	MULDOON AVE	2013	PD	R
R00097	HBRC044	RICHMOND HILL RD	RICHMOND RD	2013	PD	R
R00122	HBRC045	ARTHUR KILL RD	RIDGEWOOD AVE	2013	PD	R
2249820	HBRC1149	ARTHUR KILL ROAD	ARTHUR KILL STREAM	2015	FD	R

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## Appendix B

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### FLAG CONDITIONS

**Definitions and Procedures**

**B-1**

**2003-2007 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) Red Flag Repairs at the Houston Street Bridge over the FDR Drive. (Credit: Hany Soliman)



Assistant Civil Engineer Andrew Hoang and Civil Engineer Rajendra Pandya Measuring the Section Loss of the Bottom Flange of A Floor Beam, Utilizing a Digital Caliper. Executive Director of Bridge Preventive Maintenance and Repair Thomas Whitehouse Inspecting a Red Flag on a Girder Floor Beam at the Belt Parkway Bridge over Gerritsen Inlet. Mr. Whitehouse Operating a Zoomboom. (Gerritsen Credit: Steve Havemann)

**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*)



Supervisor Bridge Repairer and Riveter Gean Pilipiak Monitoring Red Flag Repairs at the Grand Concourse Bridge over Metro North. (Credit: Peter Basich) Assistant Mechanical Engineer Vera Ovetskaya and Mechanical Engineer Ibrahim Ibrahim Monitoring Yellow Flag Repairs at the Brooklyn Bridge.

**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.



Executive Director of Bridge Preventive Maintenance and Repair Tom Whitehouse (White Hardhat) Ensuring the Proper Setup of Containment Procedures at the St. George Ferry Terminal Landing Slips Before the Masons Address A PIA Flag (Falling Concrete). Inspecting the Flagged Condition. PIA Flag (Truck Wedged Under the FDR Drive at Span 41): Removing the Debris. (Credit: Victor Sandoval) PIA Flag Repair (Through Hole) on Harlem River Drive Ramp. (Credit: Bojidar Yanev)



FLAG CONDITIONS BY CALENDAR YEAR						
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**Citywide**

	2003*	2004*	2005*	2006*	2007*	% increase (2003-2007)
FLAGS ROUTED	1,117	1,198	1,138	1,253	1,261	13%
RED	20	20	21	24	41	105%
YELLOW	215	157	121	127	206	-4%
SAFETY	882	1,021	996	1,102	1,014	15%
TTL FLGS ELIMINATED	940	1,042	1,072	987	1,083	15%
RED	21	33	22	19	36	71%
YELLOW	192	233	151	99	214	11%
SAFETY	727	776	899	869	833	15%
TTL FLGS OUTSTANDING	1,690	1,846	1,912	2,178	2,356	39%
RED	19	6	5	10	15	-21%
YELLOW	654	578	548	576	568	-13%
SAFETY	1,017	1,262	1,359	1,592	1,773	74%

**Division of Bridges Workload**

FLAGS ROUTED	935	976	953	1,002	931	0%
RED	13	19	21	19	38	192%
YELLOW	211	154	121	119	203	-4%
SAFETY	711	803	811	864	690	-3%
FLAGS ELIMINATED	764	918	923	796	916	20%
RED	14	32	21	14	34	143%
YELLOW	183	233	150	99	193	5%
SAFETY	567	653	752	683	689	22%
FLAGS OUTSTANDING	1,389	1,435	1,457	1,638	1,650	19%
RED	19	6	5	10	14	-26%
YELLOW	625	540	509	527	537	-14%
SAFETY	745	889	943	1,101	1,099	48%

\*The number of flags routed, eliminated, and outstanding has been revised since the 2006 Annual Condition Report.

Revised 1/7/08

## 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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### 2007 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 2007, the total number of bridge and tunnel structures under the jurisdiction of the New York City Department of Transportation (NYCDOT) increased to 789. NYCDOT owns, operates, and/or maintains 758 non-movable bridges, 25 movable bridges, and six tunnels. In 1999, a Memorandum of Understanding between NYCDOT and the New York City Department of Environmental Protection (NYCDEP) added 67 culverts (since reduced to 61) 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 789 elevated bridge structures (including six tunnels), as measured by the City's general condition rating, are as follows: 3 structures were rated *Poor*, 459 structures were rated *Fair*, 215 structures were rated *Good*, 111 structures were classified *Very Good*, and one structure is not rated (closed).

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 eighteen (40%) of the Division's structures consist of one span (the portion of a bridge between two supports). One hundred six (13%) bridges carry pedestrian traffic. Of the 789 structures in the City's inventory, 101 (13%) cross waterways; of these, 20 connect the boroughs of the Bronx, Brooklyn, Manhattan and Queens. Three hundred twenty-five (41%) structures cross the City's labyrinthine system of railroad and subway tracks. Two hundred fifty (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 115 (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 2007 Structure Conditions

Rating	Number of Structures	Percent	Number of Spans	Percent	Deck Area Sq Ft	Percent
Poor	3	0.38%	98	2.18%	578,988	3.67%
Fair	459	58.17%	3,434	76.50%	12,130,709	76.82%
Good	215	27.25%	659	14.68%	1,846,457	11.69%
Very Good	111	14.07%	298	6.64%	1,235,385	7.82%
Not Rated	1	—	—	—	—	—
Total	789	100%	4,489	100%	15,791,539	100.00%

As of December 31, 2007, the condition of the City's bridges and tunnels indicated that 0.38% were rated as *Poor*, 58.25% were classified as *Fair*, 27.28% were awarded ratings of *Good*, and 14.09% as *Very Good*. Those structures given ratings of *Poor* and *Fair* encompassed 78.68% of bridge spans.

Rating	2004		2005		2006		2007	
Poor	6	0.76%	4	0.51%	3	0.38%	3	0.38%
Fair	456	57.72%	458	57.97%	456	57.94%	459	58.25%
Good	212	26.84%	210	26.58%	210	26.68%	215	27.28%
Very Good	116	14.68%	118	14.94%	118	14.99%	111	14.09%
Not Rated							1	
Total	790	100%	790	100%	787	100%	789	100%

During 2007, Manhattan had the highest percentage of bridge structures rated *fair* – 75.86% - as well as the lowest percentage of bridge structures rated *good* – 20.11%. Staten Island had the highest percentage of bridge structures classified as *good* – 37.31%, and the second highest percentage of bridge structures rated *very good* – 19.40%, for a total of 56.71%. In 2007, Brooklyn had the highest percentage of bridge structures rated as *very good* – 24.57%. The Bronx had no bridges rated as *poor*, and the second highest percentage of bridge structures classified as *fair* – 63.40%. Queens had no bridges rated as *poor*, the third highest percentage of bridge structures classified as *very good* – 18.59%, and the second highest percentage of bridge structures rated as *good* – 30.65%.

Borough*	Poor	% of Boro	Fair	% of Boro	Good	% of Boro	Very Good	% of Boro	Total
Bronx	0	0.00%	97	63.40%	45	29.41%	11	7.19%	153
Brooklyn	1	0.57%	84	48.00%	47	26.86%	43	24.57%	175
Manhattan	1	0.57%	132	75.86%	35	20.11%	6	3.45%	174
Queens	0	0.00%	101	50.75%	61	30.65%	37	18.59%	199
Staten Island	0	0.00%	29	43.28%	25	37.31%	13	19.40%	67
Total	2	0.26%	443	57.68%	213	27.73%	110	14.32%	768

\* Does not include borough-crossing bridges (see next table).

### Summary of 2007 Structure Conditions

Eighty-five percent of the 20 bridge structures that service the five boroughs were rated in either *poor* or *fair* condition in 2007, and 15% 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%	8	80.00%	1	10.00%	1	10.00%	10
Brooklyn-Manhattan	1	25.00%	3	75.00%	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	1	5.00%	16	80.00%	2	10.00%	1	5.00%	20

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 2007, the total number of closed or partially closed bridge structures was three, with one 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		2009	5	CONDITION OF PAERDEGAT BASIN BRIDGE
2-23147-9	BROOKLYN	BELT SHORE PKWY.	MILL BASIN CREEK		2009	5	CONDITION OF PAERDEGAT BASIN BRIDGE
2-23148-9	BROOKLYN	BELT SHORE PKWY	PAERDEGAT BASIN		2009	5	
2-23149-9	BROOKLYN	BELT SHORE PKWY.	ROCKAWAY PKWY.		2009	5	PASSENGER CARS ONLY
2231509	BROOKLYN	BELT SHORE PKWY.	FRESH CREEK		2009	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 BUSSES; 11'0" CLEARANCE
2240027	MANHATTAN & BROOKLYN	MANHATTAN BRIDGE	EAST RIVER				DESIGN LOAD FOR HS 20 TRUCK LOAD; PEDESTRIANS ONLY ON SOUTH OUTER ROADWAY; BICYCLES ONLY ON NORTH OUTER ROADWAY
2-24003-9	BROOKLYN & MANHATTAN	WILLIAMSBURG BRIDGE	EAST RIVER				INNER ROADWAYS, <u>NO TRUCKS</u> ; OUTER ROADWAYS DESIGN FOR HS20 AND TRUCKS ARE PERMITTED ON OUTER ROADWAY
2-24004-7	MANHATTAN & QUEENS	QUEENSBORO BRIDGE	EAST RIVER			7.5	LOWER OUTER ROADWAYS POSTED AS H-7.5 (PASSENGER CARS ONLY FOR SOUTHBOUND; PEDESTRIANS AND BICYCLES ONLY FOR NORTHBOUND); LOWER INNER ROADWAYS ARE DESIGNED FOR HS20 TRUCK LOAD; UPPER ROADWAYS DESIGNED FOR H- 15, <u>NO TRUCKS</u> , <u>ONLY BUSES</u>
2-24026-0	BROOKLYN	CARROLL STREET BRIDGE	GOWANUS CANAL	CARROLL STREET	2010	10	
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	
2-24310-0	BROOKLYN	BEVERLY ROAD	BMT SUBWAY		2011	7	FROM 12/2005 UNTIL 2011

15 COUNT

\* - CONSTRUCTION CONTRACT LETTING

Revised 12/3/07

**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

Revised 12/3/07



Paerdegat Basin and Carroll Street Bridge Posted Weight  
Restriction Signs. (Credit: NYSDOT)

**Closed Bridges****NEW YORK CITY DEPARTMENT OF TRANSPORTATION**

There is one closed bridge.

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	REMARKS
2248130	QUEENS	FLUSHING MEADOW PARK PEDESTRIAN	WILLOW LAKE	76 <sup>th</sup> ROAD	BRIDGE IS IN FLUSHING CORONA PARK, WHICH IS IN A REMOTE LOCATION AND WAS DAMAGED BY FIRE.

Revised 2/8/08



### 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 Identification 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 - CSX	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

<b>2007 Bridge Inventory Adjustments</b>
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B.I.N.	BORO	FEATURE CARRIED	FEATURE CROSSED	EXPLANATION
<b>- Bridges added to the City's Inventory:</b>				
2270250	B	BROOKE AVENUE	CSX TRANS – PT MORRIS	NEWLY INVENTORIED
2270170	R	STATEN ISLAND FERRY	PARKING LOT EXIT	NEWLY INVENTORIED
2270180	R	PEDESTRIAN BRIDGE BOROUGH PLACE – RAMP A	STATEN ISLAND ROADWAY	NEWLY INVENTORIED
<b>- Bridge removed from the City's Inventory:</b>				
2246320	M	FOOTBRIDGE OPPOSITE 77 <sup>TH</sup> STREET	THE LAKE	DEMOLISHED BY PARKS DEPARTMENT
<b>- Culverts removed from the City's Inventory:</b>				
R00044	R	REID AVENUE	HURBERT STREET	REPLACED WITH SEWER
R00047	R	SIMONSON AVENUE	WALKER STREET	STREAM FILLED IN
R00056	R	RICHMOND TERRACE	WESTERN AVENUE	REPLACED BY PORT AUTHORITY WITH BRIDGE
R00104	R	ST. GEORGE ROAD	ASCOTT AVENUE	REMOVED
R00129	R	LAMOKA AVENUE	DEMOPOLIS AVENUE	REPLACED WITH SEWER
R00130	R	DEMOPOLIS AVENUE	LAMOKA AVENUE	REPLACED WITH SEWER

REV. DATE 2/15/08

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)			A	1	S	8/17/2006	4.683	F	2500	\$5,500,000	407		
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK			WMA	17	S	10/25/2007	3.597	F	39400	\$86,680,000	209		
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M		O	10	S	11/30/2007	4.632	F	57750	\$127,050,000	212		
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER			WMO	52	S	6/13/2005	4.169	F	211788	\$465,933,600	110	204	
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L		O	1	S	11/29/2007	6.833	V	2760	\$6,072,000	404		
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L		O-PED	3	C	12/7/2006	4.000	F	1300	\$2,860,000	406		
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L		O-PED	5	C	12/1/2006	3.164	F	700	\$1,540,000	402		
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L		O	2	S	9/25/2007	3.762	F	20900	\$45,980,000	405		
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER			WO	40	S	9/20/2006	4.817	F	71900	\$158,180,000	407		
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER			WO	40	S	9/20/2006	4.366	F	78894	\$173,566,800	407		
205580A	Q	N.BLVD WB TO 67th SB	VACANT LAND			AR	16	S	9/1/2006	5.571	G	8600	\$18,920,000	407		
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO			A	1	S	7/3/2007	5.000	G	6300	\$13,860,000	227		
2065930	Q	HAMILTON PLACE	49SI (L.I.E.)			A	2	S	4/1/2006	6.069	V	11111	\$24,444,200	405		
2065940	Q	GRAND AVE	49SI (L.I.E.)			A	2	S	10/23/2006	5.264	G	12850	\$28,270,000	405		
2065950	Q	69TH STREET	49SI (L.I.E.)			A	2	S	5/23/2007	5.361	G	10336	\$22,739,200	405		
2066002	Q	49SI (2066000)	WOODHAVEN BLVD			A	2	S	6/29/2007	5.592	G	25200	\$55,440,000	406	404	
2066100	K	5TH AVE	27 X PROSPECT EXPWY			A	1	S	3/14/2006	5.208	G	8800	\$19,360,000	307		
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER			WMA	3	S	7/24/2007	5.222	G	12400	\$27,280,000	202	209	
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER			WMA	8	S	7/19/2007	4.567	F	22300	\$49,060,000	202	209	
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A		A	13	S	10/17/2006	4.250	F	47430	\$104,346,000	209	203	
206672A	B	174TH ST-NTH PED BRDG	89SI - SHERIDAN EXPWY			A-PED	4	C	3/14/2007	5.153	G	1800	\$3,960,000	209		
206672B	B	174TH ST-STH PED BRDG	89SI - SHERIDAN EXPWY			A-PED	4	C	3/14/2007	5.361	G	1900	\$4,180,000	209		
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER			WO	9	S	11/18/2006	4.821	F	128339	\$282,345,800	112	205	204
2075351	B	BRUCKNER EXPWY SB	AMTRAK - CSX	AC		A	1	S	8/8/2006	3.625	F	11600	\$25,520,000	202		
2075352	B	BRUCKNER EXPWY NB	AMTRAK - CSX	AC		A	1	S	9/21/2007	3.188	F	10900	\$23,980,000	202		
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY			A	2	S	12/18/2007	4.472	F	10200	\$22,440,000	210		
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY			A	2	S	3/28/2006	4.389	F	15858	\$34,887,600	210	211	
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY			A	2	S	7/21/2006	3.974	F	17600	\$38,720,000	210	211	
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER			WMA	7	S	11/16/2007	4.859	F	60500	\$133,100,000	210	228	
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	10/5/2007	4.632	F	7800	\$17,160,000	210		
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	2/21/2006	5.105	G	7100	\$15,620,000	210		
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C		O	11	S	11/10/2007	4.972	F	26566	\$58,445,200	204		
2076929	B	BRUCKNER EXPWY	CSX - HUNTS POINT	C		A	1	S	9/20/2007	4.700	F	3800	\$8,360,000	202		
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A		A	145	S	12/22/2006	3.448	F	236100	\$519,420,000	107		
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK	A	P	A-PED	5	C	5/10/2004	4.618	F	3480	\$7,656,000	107		
2229290	M	W 79 ST	AMTRAK	A		A	1	S	9/7/2006	4.288	F	4500	\$9,900,000	107		
2229309	M	HHP	RIVERSIDE PARK			A	1	S	3/20/2006	5.267	G	2400	\$5,280,000	107		
2229311	M	HHP SB	RAMP TO 96 ST			A	1	S	3/27/2006	4.273	F	2000	\$4,400,000	107		
2229312	M	HHP NB	RAMP TO 96 ST			A	1	S	3/27/2006	4.364	F	2000	\$4,400,000	107		
2229321	M	HHP SB	RAMP TO 96 ST			A	1	S	5/9/2006	5.200	G	2000	\$4,400,000	107		
2229322	M	HHP NB	RAMP TO 96 ST			A	1	S	5/9/2006	5.300	G	2000	\$4,400,000	107		
2229349	M	HHP	W 158 ST	A		A	44	S	10/18/2006	4.268	F	140000	\$308,000,000	112		
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE			AR	26	S	8/2/2006	3.875	F	10800	\$23,760,000	112		
2229400	M	W 181ST ST PED BRDG	HHP N.B.		P	A-PED	7	C	2/8/2007	4.739	F	1500	\$3,300,000	112		
2229440	B	HHP	KAPOCK ST			A	1	S	10/3/2007	4.931	F	3900	\$8,580,000	208		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2229450	B	232ND ST	HHP			A	2	S	10/1/2007	5.026	G	4900	\$10,780,000	208		
2229460	B	236TH ST PED BRDG	HHP			A-PED	3	C	7/16/2007	4.894	F	2500	\$5,500,000	208		
2229470	B	239TH ST	HHP			A	2	S	5/31/2007	5.368	G	6100	\$13,420,000	208		
2229480	B	MANHATTAN COLL PKWY	HHP			A	3	S	5/22/2007	5.368	G	6200	\$13,640,000	208		
2229490	B	246TH ST	HHP			A	2	S	5/8/2007	4.632	F	5600	\$12,320,000	208		
2229500	B	252ND ST	HHP			A	2	S	2/23/2006	3.947	F	4500	\$9,900,000	208		
2229510	B	RIVERDALE AVE	HHP			A	2	S	9/7/2007	4.053	F	5200	\$11,440,000	208		
2229520	B	FIELDSTON ROAD	HHP			A	1	S	9/19/2007	5.500	G	6600	\$14,520,000	208		
2229530	B	HHP	BROADWAY			A	1	S	9/26/2007	4.574	F	7500	\$16,500,000	208		
2229540	B	VAN CRTLDT PARK	HHP		P	A-PED	2	C	9/20/2007	4.879	F	3900	\$8,580,000	226		
2229550	B	VAN CRTLDT EQUES	HHP		P	A-PED	2	C	9/20/2007	4.643	F	2100	\$4,620,000	226		
2229560	B	BRONX PELHAM PKWY	AMTRAK - CSX	AC		A	3	S	8/15/2006	4.972	F	24591	\$54,100,200	211		
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER			WO	14	S	6/22/2007	4.444	F	95700	\$210,540,000	212		
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY			A	1	S	4/4/2006	4.600	F	4900	\$10,780,000	305		
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	1	S	4/4/2006	4.933	F	3500	\$7,700,000	305		
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	2	S	4/6/2006	4.842	F	4700	\$10,340,000	305		
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY			A	1	S	5/8/2006	5.278	G	5000	\$11,000,000	405		
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY			A	1	S	1/31/2006	5.444	G	4200	\$9,240,000	405		
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY			A	1	S	2/16/2006	5.563	G	6400	\$14,080,000	405	482	
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE			A	2	S	4/19/2006	5.321	G	8673	\$19,080,600	482		
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY			A	1	S	2/7/2006	5.984	G	5359	\$11,789,800	482		
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY			A	1	S	4/13/2006	5.389	G	4400	\$9,680,000	482	406	
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T		A	5	S	7/18/2006	4.778	F	37700	\$82,940,000	409		
2230220	K	HIGHLAND BLVD NB	VERMONT AVE			A	1	S	7/13/2007	5.857	G	3995	\$8,789,000	305		
2230250	B	MOSHOLU PARKWAY	BRONX RIVER			WA	5	S	3/20/2006	4.263	F	16300	\$35,860,000	227		
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M		A	1	S	3/30/2006	5.516	G	8880	\$19,536,000	227	207	
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE			A	1	S	5/14/2007	5.609	G	8480	\$18,656,000	207		
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T		A	3	S	5/17/2007	4.711	F	11800	\$25,960,000	207		
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH			A	1	S	2/3/2006	4.448	F	4300	\$9,460,000	226		
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C		A	1	S	10/30/2006	4.229	F	5200	\$11,440,000	226		
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP			A	2	S	11/26/2007	5.135	G	7400	\$16,280,000	226		
2230350	K	SUMMIT ST PED BRDG	278I (B.Q.E.)			A-PED	2	S	2/28/2006	4.671	F	1400	\$3,080,000	306		
2230360	K	UNION ST	278I (B.Q.E.)			A	2	S	2/28/2006	4.375	F	5000	\$11,000,000	306		
2230370	K	SACKETT ST	278I (B.Q.E.)			A	2	S	2/28/2006	4.694	F	5000	\$11,000,000	306		
2230380	K	KANE ST	278I (B.Q.E.)			A	2	S	4/2/2006	4.153	F	5000	\$11,000,000	306		
2230390	K	CONGRESS ST	278I (B.Q.E.)			A	2	S	4/2/2006	6.382	V	5000	\$11,000,000	306		
2230410	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/11/2006	4.563	F	2500	\$5,500,000	302		
2230420	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/11/2006	4.750	F	2500	\$5,500,000	302		
2230430	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	1/31/2006	5.533	G	1100	\$2,420,000	302		
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.			A	1	S	1/18/2006	5.200	G	2700	\$5,940,000	302		
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.			A	1	S	2/3/2006	4.933	F	2500	\$5,500,000	302		
2230460	K	278I (B.Q.E.)	PEARL ST			A	1	S	2/10/2006	5.333	G	4500	\$9,900,000	302		
2230470	K	278I (B.Q.E.)	JAY ST			A	1	S	4/11/2006	4.900	F	5100	\$11,220,000	302		
2230480	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	3/10/2006	5.093	G	8400	\$18,480,000	302		
2230490	K	278I (B.Q.E.)	SANDS ST			A	1	S	3/13/2006	5.074	G	12600	\$27,720,000	302		



# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB			A	1	S	3/1/2006	5.100	G	1300	\$2,860,000	302		
2230510	K	278I (B.Q.E.)	NASSAU ST			A	6	S	3/26/2006	4.236	F	51200	\$112,640,000	302		
2230520	Q	65TH PLACE	278I (B.Q.E.)			A	2	S	1/20/2006	4.191	F	11600	\$25,520,000	402		
2230530	Q	QUEENS BLVD	278I (B.Q.E.)			A	2	S	10/9/2006	6.083	V	25543	\$56,194,600	402		
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)			A	1	S	1/18/2006	5.063	G	7500	\$16,500,000	402		
2230550	Q	69TH ST	278I (B.Q.E.)			A	2	S	1/26/2006	4.842	F	12600	\$27,720,000	402		
2230560	Q	70TH ST	278I (B.Q.E.)			A	2	S	4/16/2007	5.125	G	8500	\$18,700,000	402		
2230570	Q	41ST AVE	278I (B.Q.E.)			A	3	S	4/16/2007	4.931	F	8800	\$19,360,000	402		
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)			A	2	S	12/12/2007	5.833	G	6600	\$14,520,000	402		
2230590	Q	BROADWAY	278I (B.Q.E.)			O	2	S	11/21/2006	4.053	F	16000	\$35,200,000	402		
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)			A	1	S	11/9/2006	6.667	V	4200	\$9,240,000	401		
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)			A	1	S	11/8/2006	6.667	V	4200	\$9,240,000	401		
2230620	Q	37TH ST	278I (B.Q.E.)			A	2	S	4/18/2006	4.583	F	5300	\$11,660,000	401		
2230630	Q	35TH ST	278I (B.Q.E.)			A	4	S	6/5/2006	4.819	F	9000	\$19,800,000	401		
2230640	Q	32ND ST	278I (B.Q.E.)			A	2	S	6/11/2007	4.903	F	8100	\$17,820,000	401		
2230657	Q	31ST ST	278I (B.Q.E.)			A	2	S	9/29/2006	4.847	F	9500	\$20,900,000	401		
2230669	Q	278I (B.Q.E.)	35TH AVE			A	1	S	8/28/2007	6.729	V	13135	\$28,897,000	402		
2230679	Q	278I (B.Q.E.)	34TH AVE			A	1	S	6/13/2007	6.305	V	7793	\$17,144,600	402		
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD			A	1	S	12/4/2006	6.492	V	27011	\$59,424,200	402	401	
2230690	Q	BQE EAST LEG NB	32ND AVE			A	1	S	8/2/2006	6.627	V	4080	\$8,976,000	401		
2230700	Q	BQE EAST LEG	TO BQE WEST LEG			A	8	S	12/1/2006	7.000	V	31600	\$69,520,000	401	403	
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE			A	1	S	8/31/2007	6.695	V	5240	\$11,528,000	401		
2230720	Q	BQE EAST LEG	BQE NB WEST LEG			A	3	S	5/17/2007	6.273	V	20896	\$45,971,200	401		
2230730	Q	31ST AVE	278I (B.Q.E.)			A	1	S	7/31/2007	6.517	V	5875	\$12,925,000	401		
2230740	Q	BQE WEST LEG SB	31ST AVE			A	1	S	8/31/2007	6.391	V	5246	\$11,541,200	401		
2230750	Q	BQE EAST LEG SB	31ST AVE			A	1	S	9/17/2007	6.407	V	4221	\$9,286,200	401	403	
2230760	Q	BQE WEST LEG NB	31ST AVE			A	1	S	10/23/2006	6.610	V	4161	\$9,154,200	401		
2230770	Q	BQE WEST LEG	30TH AVE			A	1	S	6/26/2007	6.695	V	6199	\$13,637,800	401		
2230780	Q	BQE EAST LEG	30TH AVE			A	1	S	6/26/2007	6.524	V	7071	\$15,556,200	403	401	
2230790	Q	BULOVA AVE	BQE WEST LEG			A	2	S	3/20/2006	5.667	G	3300	\$7,260,000	401		
2230800	Q	49TH ST	BQE WEST LEG			A	2	S	3/14/2006	5.333	G	4900	\$10,780,000	401		
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG			A	4	S	1/16/2006	4.221	F	8200	\$18,040,000	401		
2230820	Q	47TH ST	GCP			A	2	S	4/7/2006	4.944	F	5700	\$12,540,000	401		
2230830	Q	BQE WEST LEG	GCP			A	2	S	8/16/2006	4.639	F	7600	\$16,720,000	401		
2230840	Q	44TH ST	GCP			A	2	S	3/24/2006	4.847	F	5000	\$11,000,000	401		
2230857	K	278I (B.Q.E.)	JORALEMON ST			A	1	S	4/26/2006	5.000	G	2100	\$4,620,000	302		
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB			A	2	S	4/28/2006	4.177	F	5900	\$12,980,000	302		
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.			A	1	S	11/26/2006	4.205	F	7900	\$17,380,000	402		
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)			A	1	S	4/28/2006	4.500	F	16500	\$36,300,000	302		
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA			A	2	S	5/1/2006	4.426	F	4500	\$9,900,000	302		
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB			A	2	S	5/1/2006	5.053	G	4500	\$9,900,000	302		
2230890	Q	49TH ST	GCP			A	2	S	6/14/2006	4.778	F	6350	\$13,970,000	401		
2231249	K	BSHP	BAY RIDGE AVE			A	1	S	5/21/2007	3.313	F	4900	\$10,780,000	310		
2231250	K	81ST ST PED BR	BSHP		P	A-PED	5	C	11/27/2007	5.056	G	3100	\$6,820,000	310		
2231260	K	92ND ST PED BR	BSHP		P	A-PED	6	C	8/30/2007	3.768	F	3000	\$6,600,000	310		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231270	K	4TH AVE	BSHP			A	2	S	3/7/2006	4.842	F	6100	\$13,420,000	310		
2231290	K	BAY 8TH ST	BSHP			A	1	S	5/11/2007	5.921	G	4950	\$10,890,000	311		
2231300	K	17TH AVE PED BRDG	BSHP		P	A-PED	1	C	12/5/2007	3.397	F	2100	\$4,620,000	311		
2231319	K	BSHP	BAY PKWY			A	1	S	4/7/2006	4.395	F	7200	\$15,840,000	311		
2231329	K	BSHP	26TH AVE			A	1	S	3/17/2006	4.800	F	6700	\$14,740,000	313		
2231330	K	27TH AVE PED BRDG	BSHP		P	A-PED	1	C	1/15/2008	4.415	F	2100	\$4,620,000	313		
2231340	K	CROSEY AVE	BSHP			A	2	S	3/30/2006	5.000	G	13100	\$28,820,000	313		
2231360	K	BSHP	OCEAN PKWY			A	3	S	11/3/2006	7.000	V	29637	\$65,201,400	313		
2231370	K	GUIDER AV RAMP TO BSHP	BSHP			A	4	S	5/10/2006	3.653	F	12800	\$28,160,000	313		
2231380	K	CONEY ISLAND AVE	BSHP			A	4	S	10/5/2007	6.292	V	19866	\$43,705,200	313		
2231390	K	E 12TH ST	BSHP			A	4	S	3/30/2006	4.764	F	17200	\$37,840,000	315		
2231409	K	BSHP	SHEEPSHEAD BAY ROAD			A	1	S	3/21/2006	4.967	F	6500	\$14,300,000	315		
2231419	K	BSHP	OCEAN AVE			A	3	S	3/15/2006	4.292	F	14000	\$30,800,000	315		
2231429	K	BSHP	BEDFORD AVE			A	3	S	3/10/2006	4.278	F	12000	\$26,400,000	315		
2231439	K	BSHP	NOSTRAND AVE			A	3	S	4/14/2006	4.097	F	13000	\$28,600,000	315		
2231449	K	KNAPP ST	BSHP			A	1	S	3/31/2006	4.469	F	9500	\$20,900,000	315		
2231450	K	BSHP	GERRITSEN INLET			WA	11	S	6/26/2007	3.597	F	52000	\$114,400,000	356		
2231460	K	FLATBUSH AVE	BSHP			A	2	S	10/3/2007	6.306	V	14058	\$30,927,600	356		
2231479	K	BSHP	MILL BASIN			WMA	14	S	12/18/2007	2.955	P	73500	\$161,700,000	318		
2231489	K	BSHP	PAERDEGAT BASIN			WA	15	S	8/11/2007	3.222	F	58300	\$128,260,000	318		
2231499	K	BSHP	ROCKAWAY PKWY			A	4	S	10/3/2007	4.000	F	11500	\$25,300,000	356		
2231509	K	BSHP	FRESH CREEK			WA	5	S	8/9/2007	3.333	F	23000	\$50,600,000	356		
2231519	K	PENNSYLVANIA AVE	BSHP			A	2	S	4/24/2007	6.181	V	6640	\$14,608,000	356		
2231559	Q	CROSS BAY BLVD	BSHP			A	4	S	5/19/2006	5.194	G	23205	\$51,051,000	410		
2231560	Q	S CONDUIT BLVD	BSOP			A	2	S	7/20/2006	5.465	G	15776	\$34,707,200	410		
2231570	Q	COHANCY ST	BSOP			A	2	S	4/19/2006	4.632	F	6400	\$14,080,000	410		
2231580	Q	AQUEDUCT RCTK RAMP	BSOP			A	4	S	6/23/2006	4.125	F	14000	\$30,800,000	410		
2231590	Q	130TH ST	BSOP			A	2	S	2/2/2006	4.750	F	6800	\$14,960,000	410		
2231610	Q	GUY R. BREWER BLVD	BSOP			A	4	S	5/21/2007	6.569	V	12342	\$27,152,400	413		
2231620	Q	FARMERS BLVD	BSOP			A	2	S	6/15/2006	4.568	F	6400	\$14,080,000	413		
2231630	Q	SPRINGFIELD BLVD	BSOP			A	2	S	4/27/2006	4.568	F	8500	\$18,700,000	413		
2231640	Q	225TH ST	BSOP			A	2	S	6/16/2006	4.727	F	7000	\$15,400,000	413		
2231650	Q	SUNRISE HWY W.B.	BLP E.B.			A	1	S	3/27/2006	4.623	F	4100	\$9,020,000	413		
2231660	Q	SUNRISE HWY W.B.	BLP W.B.			A	2	S	4/6/2006	4.565	F	5350	\$11,770,000	413		
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.			A	1	S	1/16/2006	4.917	F	4000	\$8,800,000	413		
2231680	Q	N CONDUIT AVE WB	BLP W.B.			A	2	S	1/16/2006	4.932	F	6500	\$14,300,000	413		
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.			A	1	S	3/14/2006	5.167	G	6000	\$13,200,000	413		
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.			A	1	S	3/14/2006	4.833	F	6000	\$13,200,000	413		
2231710	Q	MERRICK BLVD	BLP N.B.			A	1	S	3/23/2006	4.467	F	6000	\$13,200,000	413		
2231720	Q	MERRICK BLVD	BLP S.B.			A	1	S	3/23/2006	4.200	F	6000	\$13,200,000	413		
2231730	Q	130TH AVE	BLP N.B.			A	1	S	1/16/2006	5.267	G	4400	\$9,680,000	413		
2231740	Q	130TH AVE	BLP S.B.			A	1	S	1/11/2006	4.767	F	4400	\$9,680,000	413		
2231750	Q	LINDEN BLVD	BCIP			A	2	S	2/16/2006	4.341	F	6700	\$14,740,000	413		
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE			A	1	S	2/24/2006	4.442	F	7300	\$16,060,000	413		
2231770	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	2/7/2006	4.688	F	3200	\$7,040,000	413		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231780	Q	HEMPSTEAD AVE	BCIP			A	2	S	3/16/2006	4.161	F	14200	\$31,240,000	413		
2231790	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	1/16/2006	4.656	F	3400	\$7,480,000	413		
2231800	Q	SUPERIOR ROAD	BCIP			A	2	S	3/13/2006	4.318	F	7000	\$15,400,000	413		
2231819	Q	JAMAICA AVE	BCIP			A	2	S	3/3/2006	4.773	F	11500	\$25,300,000	413		
2231829	Q	BRADDOCK AVE	BCIP			A	2	S	3/3/2006	4.591	F	10600	\$23,320,000	413		
2231840	Q	HILLSIDE AVE	BCIP			A	2	S	4/4/2006	4.079	F	9672	\$21,278,400	413		
2231850	Q	UNION TPKE	BCIP			A	2	S	5/23/2006	4.364	F	13600	\$29,920,000	413		
2231860	Q	W ALLEY ROAD	BCIP			A	2	S	8/3/2007	5.474	G	7200	\$15,840,000	411		
2231870	Q	NORTHERN BLVD	BCIP			A	2	S	10/9/2006	6.458	V	9400	\$20,680,000	411		
2231880	Q	CROCHERON PK PED	BCIP		P	A-PED	11	C	5/22/2007	4.826	F	2300	\$5,060,000	411		
2231890	Q	28TH AVE PED BRDG	BCIP		P	A-PED	24	C	7/20/2007	4.600	F	7600	\$16,720,000	411		
2231900	Q	BCIP	FORT TOTTEN ENTRANCE			A	1	S	6/29/2006	4.797	F	4900	\$10,780,000	407		
2231910	Q	UTOPIA PKWY	BCIP			A	2	S	2/10/2006	5.136	G	7200	\$15,840,000	407		
2231920	Q	160TH ST	BCIP			A	2	S	5/2/2007	5.750	G	5550	\$12,210,000	407		
2231930	Q	FRANCIS LEWIS BLVD	BCIP			A	3	S	2/6/2006	4.773	F	9100	\$20,020,000	407		
2231940	Q	CLINTONVILLE ST	BCIP			A	2	S	2/6/2006	4.705	F	7400	\$16,280,000	407		
2231950	Q	150TH ST	BCIP			A	2	S	2/6/2006	4.977	F	5900	\$12,980,000	407		
2231960	Q	149TH ST	BCIP			A	2	S	2/9/2006	4.841	F	6210	\$13,662,000	407		
2231970	Q	14TH AVE	BCIP			A	2	S	2/9/2006	4.705	F	8100	\$17,820,000	407		
2231980	Q	147TH ST	BCIP			A	2	S	2/9/2006	4.523	F	6300	\$13,860,000	407		
2232000	M	BATTERY PLACE	FDR DRIVE			AT	2	S	10/20/2005	4.727	F	142000	\$312,400,000	101		
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST			AR	17	S	3/30/2006	3.776	F	102225	\$224,895,000	101		
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST			AR	10	S	4/6/2006	3.821	F	44625	\$96,175,000	101		
223201C	M	STH ST RMP TO FDR	SOUTH ST			AR	8	S	3/27/2006	4.134	F	39150	\$86,130,000	101		
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.			AR	22	S	4/4/2006	5.180	G	15825	\$34,815,000	101		
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		P	A	4	S	3/16/2006	4.063	F	4100	\$9,020,000	103		
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		P	A-PED	12	C	9/23/2007	4.676	F	2900	\$6,380,000	103		
2232040	M	HOUSTON ST	FDR DRIVE			A	2	S	5/25/2007	3.318	F	11010	\$24,222,000	103		
223204A	M	FDR NB TO HOUSTON ST	RELIEF			AR	4	S	2/28/2006	4.700	F	6150	\$13,530,000	103		
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF			AR	4	S	3/8/2006	4.625	F	7642	\$16,812,400	103		
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	2/18/2007	4.353	F	2200	\$4,840,000	103		
2232070	M	25TH ST PED BRDG	FDR DRIVE			A-PED	4	C	2/18/2007	4.288	F	1700	\$3,740,000	106		
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		P	A-PED	10	C	2/26/2007	4.119	F	2800	\$6,160,000	106		
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		P	A-PED	24	C	10/21/2007	4.844	F	2100	\$4,620,000	108		
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		P	A-PED	19	C	8/28/2007	5.818	G	1800	\$3,960,000	108		
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		P	A-PED	9	C	6/6/2007	2.889	P	1700	\$3,740,000	108		
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.			AT	32	S	6/22/2007	4.591	F	54302	\$119,464,400	108		
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		P	A-PED	53	S	10/31/2007	3.857	F	93000	\$204,600,000	108		
2232180	M	E 103RD ST PED BRDG	FDR DRIVE			A-PED	20	C	7/15/2007	4.913	F	6000	\$13,200,000	111		
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		P	A-PED	14	C	10/21/2007	4.420	F	2600	\$5,720,000	111		
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		P	A-PED	21	C	7/27/2007	4.565	F	2500	\$5,500,000	111		
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		P	A-PED	25	C	9/26/2007	5.286	G	1632	\$3,590,400	103		
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST			AT	34	S	10/23/2006	6.887	V	58700	\$129,140,000	108		
2233040	M	E 60TH ST	FDR DRIVE			A	17	S	7/9/2007	4.746	F	24480	\$53,856,000	106		
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.			A	11	S	6/12/2007	3.194	F	51000	\$112,200,000	111		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2233080	K	E 14 ST PED BR	BSHP			A-PED	14	C	7/27/2007	4.500	F	4700	\$10,340,000	315		
2240019	KM	BROOKLYN BRIDGE	278I (B.Q.E.)			WEO	75	S	11/17/2006	2.917	P	503788	\$1,108,333,600	103	302	101
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.			OE	4	S	5/2/2007	4.167	F	10167	\$22,367,400	101		
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY			OE	31	S	6/6/2006	4.148	F	51400	\$113,080,000	101		
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG			OE	9	S	5/1/2007	3.814	F	6489	\$14,275,800	103		
224001D	M	TO FDR DR N.B.	PEARL STREET			OE	30	S	5/17/2007	4.906	F	49600	\$109,120,000	101		
224001E	M	TO PEARL ST	LAND ADJ TO BRDG			OE	3	S	5/4/2007	5.141	G	5300	\$11,660,000	106		
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG			OE	3	S	4/28/2007	5.338	G	5200	\$11,440,000	101		
224001G	M	TO PARK ROW	ROSE ST			OE	11	S	5/18/2007	4.549	F	16551	\$36,412,200	101		
2240027	KM	MANHATTAN BRIDGE(LL)	EAST RIVER	T		WEO	23	S	11/30/2006	4.407	F	616390	\$1,356,058,000	103	302	
2240028	KM	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T		WEO	43	S	11/30/2006	4.357	F	587424	\$1,292,332,800	103	302	
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T		WEO	53	S	11/3/2006	4.736	F	824000	\$1,812,800,000	103	301	
2240047	MQ	QUEENSBORO BRIDGE(LL)	EAST RIVER	AL		WEO	53	S	11/15/2006	4.472	F	626900	\$1,379,180,000	108	402	401
2240048	MQ	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL			WEO	37	S	11/15/2006	4.434	F	322300	\$709,060,000	108	402	401
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE			OE	13	S	6/26/2006	5.507	G	14800	\$32,560,000	106		
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE			OE	13	S	6/17/2006	5.764	G	14800	\$32,560,000	106		
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST			OE	10	S	7/26/2006	4.985	F	16720	\$36,784,000	106		
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST			OE	12	S	8/24/2006	4.547	F	11781	\$25,918,200	106		
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE			OE	94	S	12/7/2006	4.792	F	104600	\$230,120,000	402		
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)			OE	63	S	12/12/2006	4.833	F	63310	\$139,282,000	402	401	
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)			OE	36	S	11/10/2006	4.634	F	8360	\$18,392,000	401	402	
224004H	Q	TO 21ST ST FROM NY	22ND ST			OE	43	S	12/14/2006	4.366	F	48100	\$105,820,000	402		
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE			OE	39	S	10/18/2006	5.082	G	59100	\$130,020,000	402		
224004J	M	25X	NYC GARAGE			OE	14	S	7/24/2006	4.537	F	22058	\$48,527,600	106		
2240059	BM	WILLIS AVENUE	HARLEM RIVER			WMO	26	S	10/16/2006	3.292	F	94700	\$208,340,000	111	201	
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR			OR	19	S	6/8/2006	4.269	F	29900	\$65,780,000	111		
224005B	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	7/26/2007	3.861	F	12100	\$26,620,000	201		
2240069	BM	THIRD AVE BRIDGE	HARLEM RIVER			WMO	14	S	11/2/2006	6.859	V	100232	\$220,510,400	111	201	
224006A	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	12/19/2007	6.817	V	14037	\$30,881,400	201		
2240079	BM	MADISON AVE BRIDGE	HARLEM RIVER			WMO	21	S	11/6/2006	4.889	F	80000	\$176,000,000	111	201	
224007A	M	TO MADISON AVENUE	RELIEF			OR	7	S	5/15/2006	5.225	G	19880	\$43,736,000	111		
2240089	BM	145TH ST BRIDGE	HARLEM RIVER			WMO	8	S	6/24/2006	3.083	F	56700	\$124,740,000	110	204	201
2240120	BM	W 207THW FORDHAM RD	HARLEM RIVER			WMO	5	S	6/8/2006	5.528	G	31784	\$69,924,800	112	207	
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	T		WMO	3	S	10/3/2005	3.986	F	46848	\$103,065,600	112	207	208
2240138	BM	NYCTA IRT	HARLEM RVR/BROADWAY	T		WMO	3	S	10/27/2005	4.882	F	19520	\$42,944,000	112	207	208
2240180	B	WESTCHESTER AVE	BRONX RIVER			WO	1	S	7/17/2007	4.932	F	5476	\$12,047,200	202	209	
2240200	B	SHORE ROAD	HUTCHINSON RIVER			WMO	7	S	7/20/2006	4.478	F	4800	\$10,560,000	228		
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY			WO	7	S	10/9/2007	3.389	F	28900	\$63,580,000	228		
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	10/8/2007	4.056	F	7300	\$16,060,000	307	306	
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	10/8/2007	5.444	G	7300	\$16,060,000	306		
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL			WMO	3	S	6/4/2007	6.581	V	5772	\$12,698,400	306		
2240250	K	THIRD ST	GOWANUS CANAL			WMO	5	S	6/5/2007	4.931	F	4900	\$10,780,000	306		
2240260	K	CARROLL ST	GOWANUS CANAL			WMO	2	S	7/18/2007	4.803	F	3000	\$6,600,000	306		
2240270	K	UNION ST	GOWANUS CANAL			WMO	5	S	8/21/2006	4.014	F	4900	\$10,780,000	306		
2240290	K	METROPOLITAN AVE	ENGLISH KILLS			WMO	5	S	7/26/2007	6.319	V	10550	\$23,210,000	301		



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BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	9/6/2007	5.113	G	9400	\$20,680,000	313		
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	10/5/2007	5.028	G	9400	\$20,680,000	313		
2240310	K	THIRD AVE	GOWANUS CANAL			WO	1	S	9/4/2007	5.000	G	3200	\$7,040,000	306		
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY			WO-PED	30	C	4/16/2007	3.912	F	4000	\$8,800,000	315		
2240350	R	RICHMOND AVE	RICHMOND CREEK			WO	3	S	8/10/2007	5.653	G	32589	\$71,695,800	502		
2240370	KQ	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L		WMO	12	S	7/27/2007	5.111	G	76106	\$167,433,200	301	402	
2240390	KQ	GRAND ST BRIDGE	NEWTOWN CREEK			WMO	2	S	9/5/2006	4.292	F	5100	\$11,220,000	301	405	
2240410	Q	BORDEN AVE	DUTCH KILLS			WMO	2	S	6/26/2007	3.500	F	8400	\$18,480,000	402		
2240440	Q	NORTHERN BLVD	ALLEY CREEK			WO	2	S	5/30/2006	4.750	F	8300	\$18,260,000	411		
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS			WMO	4	S	7/13/2006	5.083	G	12168	\$26,769,600	402		
2240507	Q	ROOSEVELT AVE	67BI - VAN WYCK EXPWY			WA	27	S	12/13/2006	3.535	F	84424	\$185,732,800	407	481	
2240540	K	STILLWELL AVE	CONEY ISLAND CRK			WO	2	S	6/5/2007	6.292	V	17000	\$37,400,000	313		
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER			WMO-PED	10	C	7/26/2007	4.250	F	12600	\$27,720,000	111		
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK			WMO	44	S	6/12/2006	4.817	F	205770	\$452,694,000	301	402	
2240640	MQ	ROOSEVELT ISLAND	E. RIVER E. CHANNEL			WMO	8	S	12/6/2006	4.208	F	36500	\$80,300,000	108	401	
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN			WO-PED	13	C	4/6/2006	4.357	F	5000	\$11,000,000	410		
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL			WO	56	S	12/21/2007	4.521	F	183100	\$402,820,000	401	480	
2241000	B	WESTCHESTER AVE	CSX TRANS - PT MORRIS	C		O	1	S	7/17/2006	5.128	G	1740	\$3,828,000	201		
2241010	B	E 156TH STREET	CSX TRANS - PT MORRIS	C		O	1	S	7/18/2006	4.556	F	2400	\$5,280,000	201		
2241020	B	E 161ST STREET	CSX TRANS - PT MORRIS	C		O	1	S	6/28/2006	6.717	V	12800	\$28,160,000	203		
2241030	B	E 163RD STREET	CSX TRANS - PT MORRIS	C		O	1	S	5/19/2006	4.778	F	3200	\$7,040,000	203		
2241040	B	THIRD AVE	CSX TRANS - PT MORRIS	C		O	1	S	10/18/2006	4.563	F	2700	\$5,940,000	201	203	
2241050	B	E 149TH ST/JACKSON AVE	CSX TRANS - PT MORRIS	C		O	1	S	7/19/2006	4.850	F	65000	\$143,000,000	201		
2241060	B	ST. MARYS & CONCORD	CSX TRANS - PT MORRIS	C		O	1	S	8/18/2006	5.333	G	4500	\$9,900,000	201		
2241070	B	WALES AVE	CSX TRANS - PT MORRIS	C		O	1	S	10/20/2006	6.567	V	2535	\$5,577,000	201		
2241080	B	SOUTHERN BLVD	CSX TRANS - PT MORRIS	C		O	1	S	10/20/2006	4.111	F	3900	\$8,580,000	201		
2241099	B	BRUCKNER BLVD	CSX TRANS - PT MORRIS	C		O	1	S	10/19/2006	6.383	V	6700	\$14,740,000	201		
2241110	B	MELROSE AVE	CSX TRANS - PT MORRIS	C		O	8	S	10/16/2007	5.667	G	37854	\$83,278,800	203		
2241129	B	E 149TH ST	AMTRAK - CSX	AC		O	2	S	8/7/2006	4.620	F	12575	\$27,665,000	201	202	
2241139	B	LEGGETT AVE	AMTRAK - CSX	AC		O	3	S	8/7/2006	4.690	F	28300	\$62,260,000	202		
2241159	B	LONGWOOD AVE	AMTRAK - CSX	AC		O	2	S	7/25/2006	5.306	G	10625	\$23,375,000	202		
2241169	B	LAFAYETTE AVE	AMTRAK - CSX	AC		O	1	S	8/8/2006	5.794	G	12000	\$26,400,000	202		
2241170	B	TIFFANY ST	AMTRAK - CSX	AC		O	1	S	9/21/2007	5.627	G	7267	\$15,987,400	202		
2241180	B	BARRETTO ST	AMTRAK - CSX	AC		O	1	S	7/10/2006	6.031	V	5313	\$11,688,600	202		
2241190	B	HUNTS POINT AVE	AMTRAK - CSX	AC		O	1	S	7/24/2006	4.984	F	13700	\$30,140,000	202		
2241200	B	FAILE ST	AMTRAK - CSX	AC		O	1	S	7/28/2006	5.703	G	6208	\$13,657,600	202		
2241210	B	BRYANT AVE	AMTRAK - CSX	AC		O	1	S	9/10/2007	3.136	F	5300	\$11,660,000	202		
2241230	B	WESTCHESTER AVE	AMTRAK - CSX	AC		O	3	S	8/10/2006	6.125	V	15600	\$34,320,000	202	209	
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	P	O-PED	1	C	7/26/2004	4.121	F	4700	\$10,340,000	227	207	
2241269	B	E 177TH ST	AMTRAK - CSX	AC		O	3	S	8/11/2006	5.458	G	16606	\$36,533,200	209		
2241270	B	E TREMONT AVE	AMTRAK - CSX	AC		O	2	S	7/26/2006	5.153	G	22300	\$49,060,000	209	211	
2241329	B	WHITE PLAINS ROAD	AMTRAK - CSX	AC		O	1	S	8/17/2006	4.859	F	6900	\$15,180,000	211		
2241330	B	UNIONPORT ROAD	AMTRAK - CSX	AC		O	1	S	8/17/2006	4.875	F	4400	\$9,680,000	211		
2241369	B	WILLIAMSBRIDGE RD	AMTRAK - CSX	AC		O	2	S	7/27/2006	4.836	F	10400	\$22,880,000	211		
2241380	B	PELHAM BAY PK EQUES	AMTRAK - CSX	AC	P	O-PED	1	C	11/13/1978	5.109	G	4223	\$9,290,600	228		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241390	B	SHORE RD CIRCLE	AMTRAK - CSX	AC		O	2	S	9/10/2007	3.254	F	4800	\$10,560,000	228		
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	MT		O	1	S	4/14/2006	3.828	F	16100	\$35,420,000	204		
2241410	B	WALTON AVE	METRO NORTH RR HUD	M		O	1	S	4/17/2006	5.328	G	3600	\$7,920,000	204		
2241420	B	GERARD AVE	METRO NORTH RR HUD	M		O	1	S	4/28/2006	5.922	G	5063	\$11,138,600	204		
2241430	B	RIVER AVE	METRO NORTH RR HUD	M		O	1	S	11/9/2007	6.281	V	5040	\$11,088,000	204		
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M		O	8	S	5/11/2006	4.254	F	12900	\$28,380,000	205		
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M		O	4	S	11/26/2007	5.694	G	16052	\$35,314,400	207		
2241489	B	W 225TH ST	CSX TRASP - PUTNAM	C		O	2	S	5/26/2006	5.299	G	10900	\$23,980,000	207	208	
2241490	B	W 230TH ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	5/9/2007	5.625	G	5600	\$12,320,000	208		
2241509	B	W 231ST ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	10/30/2006	5.059	G	4723	\$10,390,600	208		
2241510	B	W 233RD ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	4/13/2007	5.275	G	3760	\$8,272,000	208		
2241520	B	W 234TH ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	4/18/2007	5.176	G	3770	\$8,294,000	208		
2241550	B	E 144TH ST	METRO NORTH RR HAR	M		O	2	S	11/14/2007	6.444	V	8290	\$18,238,000	201		
2241560	B	E 149TH ST	METRO NORTH RR HAR	M		O	8	S	4/10/2006	4.875	F	27900	\$61,380,000	201	204	
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M		O	1	S	4/11/2006	4.125	F	17800	\$39,160,000	204		
2241600	B	E 158TH ST	METRO NORTH RR HAR	M		O	1	S	10/31/2007	5.200	G	3400	\$7,480,000	204		
2241610	B	E 161ST ST	METRO NORTH RR HAR	M		O	1	S	10/30/2007	5.050	G	6600	\$14,520,000	204	203	
2241620	B	E 162ND ST	METRO NORTH RR HAR	M		O	1	S	4/5/2006	4.984	F	4700	\$10,340,000	203		
2241630	B	E 165TH ST	METRO NORTH RR HAR	M		O	1	S	4/3/2006	4.333	F	16400	\$36,080,000	203		
2241650	B	E 167TH ST	METRO NORTH RR HAR	M		O	1	S	3/13/2006	5.627	G	3363	\$7,398,600	203		
2241660	B	E 168TH ST	METRO NORTH RR HAR	M		O	1	S	3/14/2006	4.922	F	7700	\$16,940,000	203		
2241670	B	E 169TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2006	4.438	F	3300	\$7,260,000	203		
2241680	B	E 170TH ST	METRO NORTH RR HAR	M		O	1	S	3/16/2006	6.333	V	3150	\$6,930,000	203		
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M		O-PED	2	C	11/2/2005	5.000	G	600	\$1,320,000	203		
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M		O	1	S	3/17/2006	4.422	F	6300	\$13,860,000	203		
2241720	B	E 173RD ST	METRO NORTH RR HAR	M		O	1	S	3/20/2006	4.938	F	3000	\$6,600,000	203		
2241740	B	E 175TH ST	METRO NORTH RR HAR	M		O	1	S	3/21/2006	4.031	F	3600	\$7,920,000	206		
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M		O	1	S	11/3/2007	6.517	V	7300	\$16,060,000	206		
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	1	C	10/31/2005	4.918	F	700	\$1,540,000	206		
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	6	C	11/1/2005	5.695	G	700	\$1,540,000	206		
2241790	B	E 180TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2006	4.000	F	5000	\$11,000,000	206		
2241800	B	E 183TH ST	METRO NORTH RR HAR	M		O	1	S	3/23/2006	4.109	F	3600	\$7,920,000	206		
2241810	B	E 188TH ST	METRO NORTH RR HAR	M		O	1	S	3/28/2006	4.188	F	5300	\$11,660,000	206		
2241820	B	E 187TH ST	METRO NORTH RR HAR	M		O	1	S	3/24/2006	4.656	F	3800	\$8,360,000	206		
2241839	B	E 189TH ST	METRO NORTH RR HAR	M		O	1	S	11/1/2007	6.533	V	43157	\$94,945,400	206	207	
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M		O	1	S	4/6/2006	4.594	F	6400	\$14,080,000	227	207	
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M		O	2	S	3/29/2006	4.127	F	9000	\$19,800,000	212		
2241870	B	E 233RD ST	METRO NORTH RR HAR	M		O	1	S	4/13/2006	4.941	F	7664	\$16,860,800	212	207	
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M		WO	28	S	11/2/2006	4.444	F	49500	\$108,900,000	212		
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T		O	3	S	9/7/2006	4.417	F	13500	\$29,700,000	212		
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T		O	1	S	9/8/2006	6.000	G	75000	\$165,000,000	211	212	
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T		O	4	S	9/5/2006	5.708	G	46300	\$101,860,000	207		
2241940	B	W 205TH ST	NYCTA IND YARDS	T		O	4	S	9/6/2006	5.625	G	32508	\$71,517,600	207		
2241959	B	HUTCHINSON RVR PKWY	AMTRAK - CSX	AC		O	1	S	8/3/2006	5.915	G	15444	\$33,976,800	210	211	
2242010	B	BRONX PELHAM PKWY	BRONX RIVER			WA	1	S	5/23/2006	4.931	F	9200	\$20,240,000	227		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2242029	B	SOUTHERN BLVD	EAST FORDHAM ROAD			O	2	S	4/5/2006	4.684	F	12900	\$28,380,000	227		
2242030	B	CROTONA AVE	BRONX PELHAM PKWY			O	2	S	4/5/2006	5.447	G	7600	\$16,720,000	206		
2242071	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/15/2006	4.700	F	1800	\$3,960,000	212		
2242072	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/16/2006	4.833	F	1800	\$3,960,000	212		
2242081	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/17/2006	4.467	F	2800	\$6,160,000	212		
2242082	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/19/2006	4.467	F	2800	\$6,160,000	212		
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER			WO	1	S	7/12/2006	4.793	F	4700	\$10,340,000	212		
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		P	WO	1	S	5/22/2006	4.900	F	2200	\$4,840,000	227		
2242110	B	BOSTON ROAD	BRONX RIVER			WO	1	S	5/11/2006	4.273	F	6200	\$13,640,000	227		
2242120	B	FTBG N OF RTE 1	BRONX RIVER		P	WO-PED	1	C	5/17/2007	3.667	F	1904	\$4,188,800	209		
2242149	B	E TREMONT AVE	BRONX RIVER			WO	2	S	5/24/2006	4.722	F	12900	\$28,380,000	206		
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	P	O-PED	5	C	11/7/2005	4.290	F	4200	\$9,240,000	204		
2242210	B	S OF ALLERTON AVE	BRONX RIVER			WO	3	S	6/7/2006	4.763	F	6200	\$13,640,000	227		
2242220	B	SOUTHERN BLVD	BRONX RIVER			WO	2	S	3/13/2006	4.395	F	4800	\$10,560,000	227		
2242259	B	GRAND CONCOURSE	E 161ST ST			O	1	S	9/25/2006	3.667	F	24100	\$53,020,000	204		
2242260	B	EAGLE AVE	E 161ST ST			O	1	S	3/29/2006	5.150	G	2800	\$6,160,000	201	203	
2242280	B	GRAND CONCOURSE	E 167TH ST			O	2	S	7/21/2006	4.789	F	42900	\$94,380,000	204		
2242299	B	GRAND CONCOURSE	E 138TH ST			O	1	S	6/1/2007	4.933	F	9500	\$20,900,000	201		
2242300	B	GRAND CONCOURSE	E 170TH ST			O	2	S	5/26/2006	4.789	F	39300	\$86,460,000	204		
2242319	B	GRAND CONCOURSE	E 174TH ST	T		O	1	S	4/4/2006	4.067	F	14900	\$32,780,000	204		
2242329	B	GRAND CONCOURSE	E 175TH ST	T		O	1	S	8/16/2006	5.067	G	11900	\$26,180,000	205		
2242330	B	GRAND CONCOURSE	E TREMONT AVE			O	1	S	10/9/2007	5.983	G	11700	\$25,740,000	205		
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE			O	2	S	10/3/2006	4.714	F	16500	\$36,300,000	207		
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE			O	1	S	4/21/2006	4.567	F	10300	\$22,660,000	205	207	
2242360	B	GRAND CONCOURSE	BURNSIDE AVE			O	2	S	9/27/2006	4.441	F	8400	\$18,480,000	205		
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD			O	1	S	4/24/2006	4.765	F	8418	\$18,519,600	207		
2242380	B	GRAND CONCOURSE	E 204TH ST			O	1	S	8/6/2007	5.391	G	9272	\$20,398,400	207		
2242400	B	E 180TH ST	BRONX RIVER			WO	1	S	10/18/2006	4.810	F	4500	\$9,900,000	206	227	
2242430	B	GUN HILL ROAD	BRONX BLVD			O	4	S	5/31/2006	4.912	F	9400	\$20,680,000	212		
2242440	B	GUN HILL ROAD	BRONX RIVER			WO	1	S	3/22/2006	4.900	F	8700	\$19,140,000	212		
2242459	B	E 233RD ST	BRONX RIVER			WO	1	S	5/25/2006	4.367	F	7000	\$15,400,000	212		
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY			O	1	S	2/10/2006	5.033	G	5300	\$11,660,000	212		
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	7/7/2006	6.815	V	6016	\$13,235,200	355		
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T		O	6	S	9/1/2006	4.000	F	48700	\$107,140,000	314		
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/16/2007	4.158	F	6000	\$13,200,000	314		
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/17/2007	4.500	F	20800	\$45,760,000	314		
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/29/2007	4.545	F	18200	\$40,040,000	314		
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	8/24/2007	3.877	F	4200	\$9,240,000	314		
2243110	K	CORTEYOU ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	9/11/2007	6.167	V	4810	\$10,582,000	314		
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	9/11/2006	5.882	G	4825	\$10,615,000	314		
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	9/6/2007	5.723	G	5150	\$11,330,000	314		
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T		O	3	S	9/6/2007	4.250	F	4100	\$9,020,000	314		
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	9/6/2007	4.550	F	3000	\$6,600,000	314		
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/28/2007	6.500	V	2300	\$5,060,000	308		
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/28/2007	6.781	V	2300	\$5,060,000	308		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T		O	1	S	8/24/2006	6.922	V	2460	\$5,412,000	308		
2243200	K	UNION ST	FRANKLIN SHUTTLE	T		O	2	S	8/21/2006	5.043	G	4100	\$9,020,000	309		
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T		O	2	S	8/15/2006	5.314	G	2500	\$5,500,000	309		
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T		O-PED	3	C	7/11/2007	5.268	G	600	\$1,320,000	309		
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T		O	3	S	10/4/2007	5.097	G	4060	\$8,932,000	309		
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T		O	1	S	10/1/2007	6.275	V	2240	\$4,928,000	309		
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T		O	1	S	8/10/2006	6.281	V	3657	\$8,045,400	309	355	
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T		O	2	S	8/17/2006	4.961	F	11300	\$24,860,000	309		
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T		O	1	S	8/25/2006	4.861	F	7700	\$16,940,000	309	308	
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L		O	9	S	11/19/2006	5.403	G	12276	\$27,007,200	302		
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L		O	7	S	11/19/2006	4.875	F	10823	\$23,810,600	302		
2243310	K	2ND AVE	LIRR BAY RIDGE	N		O	2	S	9/21/2006	6.611	V	17751	\$39,052,200	310		
2243320	K	3RD AVE	LIRR BAY RIDGE	N		O	4	S	11/19/2007	5.347	G	17230	\$37,906,000	310		
2243330	K	4TH AVE	LIRR BAY RIDGE	NT		O	4	S	11/19/2007	5.819	G	13668	\$30,069,600	310		
2243340	K	15TH AVE	LIRR BAY RIDGE	N		O	1	S	9/28/2006	4.745	F	3614	\$7,950,800	311		
2243350	K	60TH ST	LIRR BAY RIDGE	N		O	1	S	11/12/2007	6.267	V	3900	\$8,580,000	311		
2243360	K	16TH AVE	LIRR BAY RIDGE	N		O	1	S	11/10/2006	5.483	G	4345	\$9,559,000	311		
2243370	K	17TH AVE	LIRR BAY RIDGE	N		O	1	S	11/14/2006	4.745	F	3406	\$7,493,200	312		
2243380	K	18TH AVE	LIRR BAY RIDGE	N		O	1	S	11/21/2006	4.813	F	6006	\$13,213,200	312		
2243390	K	52ND ST	LIRR BAY RIDGE	N		O	1	S	11/21/2006	6.467	V	3293	\$7,244,600	312		
2243400	K	50TH ST	LIRR BAY RIDGE	N		O	2	S	11/14/2007	4.701	F	7100	\$15,620,000	312		
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N		O	1	S	11/2/2006	5.172	G	2760	\$6,072,000	312		
2243420	K	E 3RD ST	LIRR BAY RIDGE	N		O	1	S	11/13/2007	6.583	V	1840	\$4,048,000	312		
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N		O	1	S	11/7/2006	5.218	G	7000	\$15,400,000	312		
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N		O	1	S	11/7/2006	5.234	G	3231	\$7,108,200	312		
2243450	K	E 14TH ST	LIRR BAY RIDGE	N		O	1	S	10/25/2006	4.809	F	1775	\$3,905,000	314		
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N		O-PED	3	C	8/31/2007	5.254	G	900	\$1,980,000	314		
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N		O	2	S	10/12/2006	4.912	F	5000	\$11,000,000	314		
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N		O	6	S	10/31/2006	4.458	F	12000	\$26,400,000	314		
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N		O	2	S	10/26/2006	5.085	G	4320	\$9,504,000	314		
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N		O	2	S	10/9/2007	4.702	F	5900	\$12,980,000	318		
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N		O	3	S	10/10/2007	6.236	V	4500	\$9,900,000	318		
2243530	K	AVENUE H	LIRR BAY RIDGE	N		O	2	S	10/10/2007	5.956	G	35100	\$77,220,000	318		
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L		O	75	S	7/8/2006	3.845	F	135100	\$297,220,000	316	305	
2243570	K	86TH ST	BMT SEA BEACH	T		O	1	S	7/17/2006	6.078	V	3840	\$8,448,000	313		
2243580	K	5TH AVE	LIRR & SEA BEACH	NT		O	4	S	10/9/2006	4.353	F	12395	\$27,269,000	310		
2243590	K	6TH AVE	LIRR & SEA BEACH	NT		O	2	S	10/31/2007	6.361	V	14382	\$31,640,400	310		
2243600	K	7TH AVE	LIRR & SEA BEACH	NT		O	7	S	10/9/2006	5.361	G	18628	\$40,981,600	310		
2243610	K	8TH AVE	LIRR & SEA BEACH	NT		O	2	S	10/31/2007	6.319	V	10834	\$23,834,800	310		
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	NT		O	3	S	9/6/2006	4.797	F	14800	\$32,560,000	310		
2243630	K	11TH AVE	LIRR & SEA BEACH	NT		O	5	S	9/7/2006	6.603	V	9700	\$21,340,000	310		
2243640	K	13TH AVE	LIRR & SEA BEACH	NT		O	5	S	10/31/2007	4.694	F	16000	\$35,200,000	310		
2243650	K	14TH AVE	LIRR BAY RIDGE	N		O	1	S	9/22/2006	6.667	V	4720	\$10,384,000	311		
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N		O	1	S	9/28/2006	6.400	V	2350	\$5,170,000	311		
2243670	K	15TH AVE	BMT SEA BEACH	T		O	4	S	9/20/2007	6.386	V	16020	\$35,244,000	311		



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BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243680	K	16TH AVE	BMT SEA BEACH	T		O	3	S	8/11/2006	5.519	G	6816	\$14,995,200	311		
2243690	K	17TH AVE	BMT SEA BEACH	T		O	4	S	8/18/2006	6.288	V	8946	\$19,681,200	311		
2243700	K	18TH AVE	BMT SEA BEACH	T		O	1	S	9/18/2007	6.842	V	5200	\$11,440,000	311		
2243710	K	19TH AVE	BMT SEA BEACH	T		O	4	S	8/8/2006	4.395	F	4800	\$10,560,000	311		
2243720	K	20TH AVE	BMT SEA BEACH	T		O	6	S	7/26/2006	4.897	F	12500	\$27,500,000	311		
2243730	K	65TH ST	BMT SEA BEACH	T		O	4	S	7/21/2006	5.947	G	12000	\$26,400,000	311		
2243740	K	BAY PKWY	BMT SEA BEACH	T		O	4	S	7/19/2006	4.974	F	16800	\$36,960,000	311		
2243750	K	AVENUE O	BMT SEA BEACH	T		O	1	S	9/26/2007	5.863	G	4658	\$10,247,600	311		
2243760	K	AVENUE P	BMT SEA BEACH	T		O	1	S	9/26/2007	6.605	V	5544	\$12,196,800	311		
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T		O	1	S	10/9/2007	6.767	V	5032	\$11,070,400	311		
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T		O	1	S	10/9/2007	6.440	V	6960	\$15,312,000	311		
2243790	K	AVENUE S	BMT SEA BEACH	T		O	1	S	10/11/2007	5.967	G	5360	\$11,792,000	315		
2243800	K	AVENUE T	BMT SEA BEACH	T		O	1	S	10/11/2007	6.033	V	5360	\$11,792,000	311		
2243810	K	AVENUE U	BMT SEA BEACH	T		O	1	S	7/24/2006	5.824	G	5880	\$12,936,000	315		
2243820	K	21ST AVE	BMT SEA BEACH	T		O	4	S	8/11/2006	4.132	F	21400	\$47,080,000	311		
2243839	K	4TH AVE	NYCTA BMT TRACKS	T		O	1	S	10/12/2007	6.600	V	4440	\$9,768,000	307		
2243840	K	9TH AVE	NYCTA BMT YARD	T		O	5	S	10/16/2007	6.319	V	12440	\$27,368,000	312		
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N		O	3	S	6/16/2006	6.559	V	6659	\$14,649,800	316		
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N		O	2	S	10/10/2006	6.559	V	5616	\$12,355,200	316		
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N		O	2	S	10/5/2006	6.662	V	5328	\$11,721,600	316		
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N		O	3	S	10/5/2006	6.542	V	5497	\$12,093,400	316		
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N		O	3	S	10/10/2006	5.036	G	4912	\$10,806,400	316		
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N		O-PED	6	C	8/27/2007	5.000	G	2500	\$5,500,000	316		
2243920	K	7TH AVE	NYCTA BMT YARD	T		O	2	S	9/8/2006	6.211	V	4700	\$10,340,000	307		
2243940	K	9TH AVE	NYCTA IND SBWY	T		O	5	S	10/19/2007	4.737	F	6300	\$13,860,000	312		
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		P	O	1	C	5/15/2007	4.500	F	900	\$1,980,000	355		
2244020	K	W DR OV WK-MA,ENT	MEADOWPORT ARCH		P	O	1	S	4/30/2007	5.679	G	2500	\$5,500,000	355		
2244030	K	EAST DRIVE	BRIDLE PATH		P	O	1	S	6/22/2007	4.755	F	2000	\$4,400,000	355		
2244040	K	EAST DRIVE	EAST WOOD ARCH		P	O	1	C	7/11/2007	4.067	F	900	\$1,980,000	355		
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		P	WO	3	S	4/27/2007	5.000	G	7400	\$16,280,000	355		
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		P	O	1	C	4/17/2007	4.767	F	900	\$1,980,000	355		
2244100	K	WEST FOOTBRIDGE	PROSPCT PK STREAM		P	WO-PED	1	C	12/4/2007	5.000	G	308	\$677,600	355		
2244120	K	HILL DRIVE	PROSPECT PK LAKE		P	WO	3	S	4/25/2007	3.873	F	7800	\$17,160,000	355		
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE		P	WO-PED	1	C	11/26/2007	5.000	G	1260	\$2,772,000	355		
2244150	K	RIDGE BLVD	SHORE RD DRIVE			O	1	S	5/8/2007	6.800	V	4350	\$9,570,000	310		
2244160	K	3RD AVE	SHORE RD DRIVE			O	1	S	5/8/2007	6.727	V	4360	\$9,592,000	310		
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE			O	2	S	9/17/2007	5.474	G	3192	\$7,022,400	305		
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE			O	2	S	9/17/2007	5.175	G	5600	\$12,320,000	305		
2244440	K	SOUTH OF TILLARY ST	NAVY ST			O-PED	1	C	10/9/2007	4.297	F	6200	\$13,640,000	302		
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB			O	1	S	9/28/2006	4.833	F	3800	\$8,360,000	305		
2244470	K	SEELEY ST	PROSPECT AVE			O	1	S	6/7/2007	4.100	F	8482	\$18,660,400	307		
2244480	K	5TH AVE	GREENWOOD CEMETERY			O	1	S	7/20/2007	4.933	F	3600	\$7,920,000	307		
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL		O	39	S	12/15/2006	3.917	F	157500	\$346,500,000	104		
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A		O	8	S	4/18/2006	4.556	F	16500	\$36,300,000	104		
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A		O	2	S	7/3/2007	4.750	F	4620	\$10,164,000	104		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	7/3/2007	4.597	F	11800	\$25,960,000	104		
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/12/2006	4.208	F	6500	\$14,300,000	104		
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	8/30/2006	3.866	F	16400	\$36,080,000	104		
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		P	O	1	C	5/9/2007	6.000	G	750	\$1,650,000	112		
2245050	M	FORT TRYON PARK	UNDERPASS		P	O	1	C	5/9/2007	4.800	F	750	\$1,650,000	112		
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	11/7/2005	6.270	V	7505	\$16,511,000	104		
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	9/27/2006	4.000	F	6200	\$13,640,000	104		
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/27/2006	4.196	F	6300	\$13,860,000	104		
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	4.838	F	4100	\$9,020,000	104		
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	4.662	F	4300	\$9,460,000	104		
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	5.662	G	4100	\$9,020,000	104		
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.441	F	4100	\$9,020,000	104		
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.574	F	4100	\$9,020,000	104		
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.618	F	4100	\$9,020,000	104		
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	12/8/2006	4.574	F	4100	\$9,020,000	104		
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/8/2006	4.853	F	4300	\$9,460,000	104		
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/8/2006	5.088	G	4300	\$9,460,000	104		
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/10/2006	5.074	G	5100	\$11,220,000	104		
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/27/2006	4.647	F	4100	\$9,020,000	104		
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A		O	2	S	11/3/2006	4.588	F	15400	\$33,880,000	104		
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/21/2006	4.619	F	9155	\$20,141,000	104		
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/26/2006	4.809	F	9100	\$20,020,000	104		
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	3	C	7/17/2007	4.183	F	1100	\$2,420,000	109		
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	9/29/2005	6.431	V	29170	\$64,174,000	112		
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	2	C	8/2/2007	4.400	F	1500	\$3,300,000	112		
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A		O-PED	3	C	3/23/2006	3.446	F	800	\$1,760,000	109	112	
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	P	O-PED	6	C	3/28/2006	4.174	F	700	\$1,540,000	112		
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M		O	1	S	11/7/2006	4.627	F	3200	\$7,040,000	111		
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/23/2006	4.388	F	6200	\$13,640,000	104		
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/4/2006	4.574	F	4100	\$9,020,000	104		
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/27/2006	5.540	G	4700	\$10,340,000	104		
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/7/2006	5.441	G	4300	\$9,460,000	104		
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/7/2006	5.529	G	4400	\$9,680,000	104		
2245380	M	E 66TH ST	PED WALK N. OF ZOO		P	O	1	S	3/6/2006	5.000	G	1500	\$3,300,000	108		
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END		P	O	1	S	3/13/2006	4.900	F	1600	\$3,520,000	164		
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/19/2006	3.986	F	9400	\$20,680,000	104		
2245460	M	PARK AVE S.B.	E 45TH ST			O	1	S	7/7/2007	4.514	F	2400	\$5,280,000	105		
2245470	M	PARK AVE N.B	E 45TH ST			O	1	S	7/8/2007	4.865	F	2400	\$5,280,000	105		
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE			O	1	S	5/23/2006	5.143	G	10800	\$23,760,000	112		
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		P	O	1	S	3/3/2006	5.267	G	2500	\$5,500,000	164		
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH		P	O-PED	1	C	9/13/2007	4.894	F	1026	\$2,257,200	164		
2246030	M	PEDESTRIAN BRIDGE	POND		P	O-PED	1	C	5/24/2007	4.172	F	1400	\$3,080,000	164		
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		P	O	1	C	5/16/2007	4.400	F	1200	\$2,640,000	105		
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		P	O	1	S	3/8/2006	4.867	F	2000	\$4,400,000	164		
2246069	M	EAST DRIVE	PEDESTRIAN WALK		P	O	1	S	3/14/2006	4.500	F	2700	\$5,940,000	164		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		P	O	1	C	7/5/2007	4.367	F	1200	\$2,640,000	164		
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		P	O	1	S	2/27/2006	4.667	F	2000	\$4,400,000	164		
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		P	O-PED	1	C	3/24/2007	4.655	F	2300	\$5,060,000	164		
2246100	M	CENTRAL DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.200	F	6000	\$13,200,000	164		
2246110	M	EAST DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.633	F	6000	\$13,200,000	164		
2246120	M	WEST DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.833	F	7900	\$17,380,000	164		
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		P	O	1	C	5/29/2007	4.233	F	1200	\$2,640,000	164		
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		P	O	1	S	3/6/2006	4.500	F	3600	\$7,920,000	164		
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		P	O	3	S	5/10/2006	5.088	G	7300	\$16,060,000	164		
2246160	M	PED BET 73ST&74ST	THE LAKE		P	WO-PED	1	C	1/16/2007	4.750	F	1655	\$3,641,000	164		
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		P	O	1	S	3/23/2006	5.056	G	1900	\$4,180,000	164		
2246230	M	EAST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/21/2006	4.600	F	6500	\$14,300,000	164		
2246240	M	WEST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/21/2006	4.167	F	7200	\$15,840,000	164		
2246250	M	EAST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/30/2006	4.433	F	5100	\$11,220,000	164		
2246260	M	WEST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/22/2006	4.800	F	5100	\$11,220,000	164		
2246270	M	EAST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/25/2006	3.967	F	7000	\$15,400,000	164		
2246280	M	WEST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/25/2006	4.033	F	4700	\$10,340,000	164		
2246330	M	WEST DRIVE	FEEDER TO LAKE		P	WO	1	S	3/15/2006	5.000	G	2019	\$4,441,800	164		
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE		P	WO-PED	4	C	12/20/2007	4.550	F	455	\$1,001,000	164		
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		P	O	1	C	5/22/2007	4.400	F	750	\$1,650,000	164		
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		P	O	1	S	3/15/2006	5.273	G	3100	\$6,820,000	164		
2246380	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/7/2007	4.347	F	714	\$1,570,800	164		
2246390	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	3	C	12/7/2007	4.192	F	1095	\$2,409,000	164		
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		P	O-PED	1	C	3/10/2007	4.233	F	3700	\$8,140,000	164		
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		P	O	1	S	3/31/2006	4.364	F	1739	\$3,825,800	108		
2246430	M	WEST DRIVE	PED OPP 109TH ST		P	O	1	S	3/24/2006	4.250	F	1200	\$2,640,000	164		
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		P	O-PED	1	C	3/10/2007	3.926	F	5900	\$12,980,000	164		
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		P	O-PED	1	C	1/9/2008	4.190	F	5000	\$11,000,000	164		
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		P	O	2	S	3/7/2006	4.368	F	5800	\$12,760,000	164		
2246470	M	EAST DRIVE	THE LOCH		P	WO	1	S	3/23/2006	4.533	F	1100	\$2,420,000	164		
2246489	M	W 181 ST	RAMP TO WASH BR			O	1	S	3/7/2006	4.633	F	8200	\$18,040,000	112		
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD			O	1	S	3/28/2006	4.020	F	5600	\$12,320,000	110		
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		P	O	1	S	4/6/2006	4.333	F	6600	\$14,520,000	112		
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		P	O	1	S	3/7/2006	5.000	G	2200	\$4,840,000	112		
2246540	M	E 34TH ST	PARK AVE TUNNEL			OT	1	S	8/24/2006	4.117	F	36200	\$79,640,000	105		
2246550	M	PARK AVE VIADUCT	E 42ND ST			O	10	S	12/12/2006	4.448	F	22150	\$48,730,000	106		
2246560	M	TUDOR CITY PLACE	E 42ND ST			O	1	S	4/10/2006	5.133	G	6600	\$14,520,000	106		
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL			OT	2	S	8/4/2006	4.843	F	95000	\$209,000,000	106		
2246580	BM	HIGH BRIDGE PDOVP	87I - HARLEM RIVER		P	WA-PED	11	P	8/12/2002	3.759	F	34100	\$75,020,000	112	204	
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.			O-PED	1	C	12/26/2007	4.517	F	1200	\$2,640,000	112		
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST			O-PED	18	C	9/5/2007	4.450	F	2300	\$5,060,000	111		
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS			O	27	S	8/6/2007	4.500	F	148300	\$326,260,000	109		
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE			O	4	S	10/14/2005	4.944	F	7500	\$16,500,000	109		
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		P	O	1	S	6/21/2006	6.261	V	911	\$2,004,200	112		
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET		P	WO-PED	1	C	11/20/2006	4.140	F	285	\$627,000	112		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246710	M	W 153 ST	A.C. POWELL BLVD			O	1	S	3/28/2006	4.093	F	3082	\$6,780,400	110		
2246720	M	RIVERSIDE DRIVE	W 158TH ST	A		O	77	S	11/16/2007	3.750	F	18568	\$408,447,600	109		
2246970	M	RIVERSIDE DRIVE	W 96TH ST			O	3	S	7/19/2007	5.559	G	10600	\$23,320,000	107		
2246980	M	RIVERSIDE DRIVE	W 138TH ST			O	1	S	3/27/2006	4.900	F	6700	\$14,740,000	109		
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE			O-PED	1	C	11/7/2007	4.545	F	500	\$1,100,000	111		
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L		O-PED	5	C	12/6/2006	4.030	F	500	\$1,100,000	404		
2247040	Q	UNION ST	LIRR N SIDE DIV	L		O	1	S	10/12/2007	6.391	V	3313	\$7,288,600	407		
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L		O	1	S	8/28/2006	5.490	G	4974	\$10,942,800	407		
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L		O	1	S	8/29/2006	5.176	G	4200	\$9,240,000	407		
2247070	Q	147TH ST	LIRR N SIDE DIV	L		O	1	S	9/21/2007	5.549	G	2800	\$6,160,000	407		
2247080	Q	149TH ST	LIRR N SIDE DIV	L		O	1	S	9/19/2007	4.776	F	4100	\$9,020,000	407		
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L		O	2	S	9/20/2007	5.000	G	4300	\$9,460,000	407		
2247100	Q	150TH ST	LIRR N SIDE DIV	L		O	2	S	9/18/2007	6.176	V	7830	\$17,226,000	407		
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L		O	1	S	9/17/2007	5.481	G	4000	\$8,800,000	407		
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L		O	3	S	10/5/2007	4.349	F	14900	\$32,780,000	402		
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L		O	1	S	10/11/2007	6.235	V	3379	\$7,433,800	411		
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L		O	1	S	10/10/2007	5.814	G	4320	\$9,504,000	411		
2247150	Q	65TH ST	LIRR N SIDE DIV	L		O	3	S	12/19/2007	6.375	V	6344	\$13,956,800	402		
2247160	Q	65TH PLACE	LIRR N SHR DIV	L		O	3	S	12/19/2007	6.471	V	8381	\$18,438,200	402		
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L		O	3	S	8/30/2006	4.949	F	6300	\$13,860,000	411		
2247180	Q	GRAND AVE	LIRR MAIN LINE	L		O	3	S	10/6/2007	4.849	F	7415	\$16,313,000	404		
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	11/30/2006	4.360	F	13000	\$28,600,000	404		
2247220	Q	80TH ROAD	LIRR MAIN LINE	L		O	3	S	10/21/2007	4.857	F	4100	\$9,020,000	409		
2247230	Q	82ND AVE	LIRR MAIN LINE	L		O	3	S	10/21/2007	5.377	G	4100	\$9,020,000	409		
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L		O	3	S	10/21/2007	5.806	G	5460	\$12,012,000	409		
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L		O	1	S	11/20/2006	6.183	V	4517	\$9,937,400	402		
2247270	Q	21ST STREET	CONRAIL	C		O	6	S	11/9/2007	5.472	G	17590	\$38,698,000	402		
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L		O	5	S	11/28/2007	4.153	F	20400	\$44,880,000	402		
2247300	Q	THOMPSON AVE	AMTRAK YARD	L		O	14	S	10/16/2006	5.264	G	61280	\$134,816,000	402		
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L		O	19	S	10/11/2006	6.577	V	92400	\$203,280,000	402	401	
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL		O	22	S	12/21/2007	5.903	G	99036	\$217,879,200	402	401	
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL		O	14	S	12/21/2007	6.556	V	48200	\$106,040,000	402	401	
2247370	Q	37TH AVE	CONRAIL HELLGATE	C		O	1	S	11/13/2007	6.362	V	5300	\$11,660,000	402		
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C		O	2	S	11/27/2007	5.889	G	5200	\$11,440,000	402	403	404
2247390	Q	41ST AVE	CONRAIL HELLGATE	C		O	2	S	11/13/2007	4.942	F	4400	\$9,680,000	402	404	
2247400	Q	WOODSIDE AVE	CONRAIL	C		O	1	S	11/26/2007	5.033	G	8200	\$18,040,000	402	404	
2247410	Q	43RD AVE	CONRAIL	C		O	1	S	11/26/2007	5.033	G	4800	\$10,560,000	402	404	
2247420	Q	44TH AVE	CONRAIL	C		O	1	S	10/26/2007	5.033	G	5100	\$11,220,000	402	404	
2247430	Q	45TH AVE	CONRAIL	C		O	1	S	11/14/2007	5.306	G	2400	\$5,280,000	402	404	
2247440	Q	GRAND AVE	CONRAIL	C		O	1	S	11/20/2007	6.183	V	3280	\$7,216,000	405		
2247450	Q	57TH AVE	CONRAIL	C		O	1	S	11/20/2007	6.073	V	2248	\$4,945,600	405		
2247460	Q	CALDWELL AVE	CONRAIL	C		O	1	S	9/6/2006	6.194	V	2243	\$4,934,600	405		
2247470	Q	ELIOT AVE	CONRAIL	C		O	1	S	11/20/2007	5.250	G	2960	\$6,512,000	405		
2247480	Q	JUNIPER BLVD SO	CONRAIL	C		O	1	S	11/21/2007	5.111	G	9000	\$19,800,000	405		
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C		O	1	S	9/6/2006	5.362	G	6175	\$13,585,000	405		



# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2247500	Q	METROPOLITAN AVE	CONRAIL	C		O	1	S	11/27/2007	4.233	F	18650	\$41,030,000	405		
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L		O	1	S	9/27/2007	7.000	V	1765	\$3,883,000	405		
2247540	Q	60TH ST	LIRR MONTAUK DIV	L		O	2	S	9/28/2007	5.208	G	5340	\$11,748,000	405		
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L		O	2	S	9/26/2007	5.894	G	9550	\$21,010,000	405		
2247570	Q	80TH ST	71ST TO 77TH AVE	L		O	5	S	9/27/2006	5.169	G	11725	\$25,795,000	405		
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	P	O	5	S	10/18/2007	5.509	G	6000	\$13,200,000	409		
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL		O	1	S	9/7/2006	6.983	V	3024	\$6,652,800	409	482	
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L		O	3	S	1/11/2006	5.111	G	6725	\$14,795,000	482	406	
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR			O-PED	8	C	5/9/2007	5.422	G	900	\$1,980,000	406		
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL		O	9	S	12/20/2007	6.125	V	34100	\$75,020,000	402		
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	11/29/2006	4.934	F	2293	\$5,044,600	405	406	
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	P	O	6	S	4/16/2007	5.286	G	10000	\$22,000,000	409		
2247680	Q	221ST ST	LIRR N SIDE DIV	L		O	3	S	10/9/2007	6.000	G	6050	\$13,310,000	411		
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE			O	3	S	6/6/2006	4.417	F	19400	\$42,680,000	409		
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE			O-PED	7	C	12/27/2007	4.465	F	5500	\$12,100,000	410		
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD			O	2	S	7/2/2007	6.444	V	16544	\$36,396,800	410		
2248040	Q	LINDEN BLVD	CONDUIT AVE			O	1	S	6/22/2006	5.233	G	3352	\$7,374,400	410		
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD		P	O-PED	2	C	7/24/2007	4.708	F	2756	\$6,063,200	408		
2248060	Q	MOTOR PKWY (PED)	BELL BLVD		P	O-PED	2	C	7/13/2007	4.778	F	2648	\$5,825,600	411		
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD		P	O-PED	3	C	7/17/2007	4.524	F	2940	\$6,468,000	411		
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD		P	O-PED	3	C	11/28/2007	5.000	G	2670	\$5,874,000	408		
2248090	Q	FLSHG MDW PK PED.	COLLEGE POINT BLVD		P	O-PED	3	C	12/18/2007	4.694	F	8418	\$18,519,600	407		
2248100	Q	MOTOR PKWY (PED)	73RD AVE		P	O-PED	3	C	2/9/2007	4.965	F	2640	\$5,808,000	408		
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK		P	O-PED	1	C	8/29/2007	5.000	G	963	\$2,118,600	413		
2248129	Q	UNION TPK	CREEDMOORE HOSP RD			O	1	S	7/6/2007	4.867	F	3500	\$7,700,000	413		
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD		P	WO-PED	4	C	4/20/2002	1.000	C	1891	\$4,160,200	481		
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE		P	WO-PED	5	C	11/1/2007	4.880	F	4102	\$9,024,400	481		
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD			O	2	S	8/9/2006	4.288	F	11500	\$25,300,000	404		
2248160	Q	ELLIOT AVE	QUEENS BLVD			O	2	S	8/9/2006	4.922	F	13785	\$30,327,000	406		
2248200	Q	RUST ST	FLUSHING AVE			O	1	S	7/27/2007	5.078	G	2940	\$6,468,000	405		
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE			O	1	S	7/27/2007	5.063	G	2940	\$6,468,000	405		
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB			O	1	S	7/19/2007	4.400	F	3600	\$7,920,000	484		
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE			O	1	S	7/27/2007	5.188	G	2940	\$6,468,000	405		
2248250	Q	102ND ST	HAWTREE BASIN			WO	3	S	7/26/2007	5.941	G	4900	\$10,780,000	410		
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		P	WO	5	S	5/26/2006	4.855	F	4200	\$9,240,000	481		
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH		P	O-PED	1	C	12/4/2007	3.667	F	1856	\$4,083,200	405		
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST			O	1	S	5/30/2006	4.250	F	5900	\$12,980,000	409	406	
2248300	Q	71ST AVE	COOPER AVE			O	1	S	7/16/2007	4.458	F	2800	\$6,160,000	405		
2248340	Q	FOREST PARK DR	MYRTLE AVE		P	O	3	S	6/25/2007	4.984	F	5100	\$11,220,000	409		
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN			WO	2	S	8/7/2007	5.158	G	6000	\$13,200,000	483	413	
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE		P	WO-PED	5	C	4/25/2007	4.500	F	6321	\$13,906,200	481		
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)			O	1	S	4/4/2006	6.234	V	5096	\$11,211,200	501		
2249070	R	JOHN ST	B&O RAILROAD	O		O-PED	3	C	12/26/2007	5.648	G	5800	\$12,760,000	501		
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O		O	4	S	4/20/2007	5.169	G	7900	\$17,380,000	501		
2249100	R	GRANITE AVE	B&O RAILROAD	O		O	4	S	3/21/2006	6.034	V	7300	\$16,060,000	501		

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BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2249110	R	LAKE AVE	B&O RAILROAD	O		O	3	S	4/18/2007	5.333	G	5900	\$12,980,000	501		
2249120	R	SIMONSON AVE	B&O RAILROAD	O		O	3	S	4/20/2007	5.981	G	5819	\$12,801,800	501		
2249130	R	VAN NAME AVE	B&O RAILROAD	O		O	3	S	4/25/2007	5.254	G	5474	\$12,042,800	501		
2249140	R	VAN PELT AVE	B&O RAILROAD	O		O	3	S	4/27/2007	5.644	G	5000	\$11,000,000	501		
2249160	R	DE HART AVE	B&O RAILROAD	O		O	4	S	4/20/2007	6.500	V	6700	\$14,740,000	501		
2249170	R	UNION AVE	B&O RAILROAD	O		O	4	S	4/17/2007	5.426	G	6500	\$14,300,000	501		
2249180	R	HARBOR ROAD	B&O RAILROAD	O		O	4	S	5/18/2007	6.356	V	5778	\$12,711,600	501		
2249200	R	SOUTH AVE	B&O RAILROAD	O		O	3	S	12/8/2007	6.745	V	8322	\$18,308,400	501		
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	3/20/2007	4.309	F	400	\$880,000	503		
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	3/20/2007	4.043	F	200	\$440,000	503		
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S		O	1	S	11/1/2006	4.759	F	3650	\$8,030,000	503		
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S		O-PED	12	C	2/28/2007	3.436	F	500	\$1,100,000	503		
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S		O	4	S	10/19/2007	6.347	V	30710	\$67,562,000	503		
2249270	R	RICHMOND VALLY ROAD	SIRT SOUTH SHORE	S		O	4	S	10/25/2007	5.284	G	9440	\$20,768,000	503		
2249280	R	CHAMP COURT PED BRDG	SIRT SOUTH SHORE	S		O-PED	7	C	3/21/2007	5.049	G	200	\$440,000	503		
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S		O	1	S	10/19/2007	6.016	V	3250	\$7,150,000	503		
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S		O	2	S	10/23/2007	4.864	F	4900	\$10,780,000	503		
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S		O	3	S	11/6/2007	4.623	F	6500	\$14,300,000	503		
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S		O	2	S	10/29/2007	4.409	F	4500	\$9,900,000	503		
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	3/5/2007	4.686	F	300	\$660,000	503		
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S		O	1	S	10/31/2006	5.781	G	3042	\$6,692,400	503		
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S		O	1	S	11/12/2007	6.750	V	2650	\$5,830,000	503		
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S		O	3	S	11/5/2007	4.869	F	6900	\$15,180,000	503		
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/12/2007	4.615	F	600	\$1,320,000	503		
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S		O	2	S	11/5/2007	5.576	G	3700	\$8,140,000	502		
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S		O	2	S	11/7/2007	5.500	G	3800	\$8,360,000	502		
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S		O	2	S	11/5/2007	5.591	G	3800	\$8,360,000	502		
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S		O	2	S	11/7/2007	4.972	F	7600	\$16,720,000	502		
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S		O	3	S	11/9/2007	5.361	G	5900	\$12,980,000	502		
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	3/1/2007	3.488	F	800	\$1,760,000	502		
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S		O	1	S	11/3/2007	5.310	G	4500	\$9,900,000	502		
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S		O	1	S	11/9/2007	5.569	G	3000	\$6,600,000	502		
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S		O	2	S	11/27/2007	6.542	V	5100	\$11,220,000	502		
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S		O	3	S	10/31/2006	6.097	V	5104	\$11,228,800	502		
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S		O	2	S	10/20/2006	5.537	G	5378	\$11,831,600	501		
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S		O	10	S	11/30/2007	4.763	F	10020	\$22,044,000	501		
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	26	C	7/19/2007	5.000	G	1600	\$3,520,000	501		
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/13/2007	5.039	G	400	\$880,000	503		
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	1/3/2007	4.371	F	899	\$1,977,800	501		
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	1/3/2007	4.229	F	899	\$1,977,800	501		
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE		P	WO-PED	1	C	12/11/2007	3.514	F	972	\$2,138,400	501		
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM			WO	2	S	5/16/2007	4.600	F	7000	\$15,400,000	501		
2249770	R	S OF BROOKS LAKE	STREAM IN PARK		P	WO-PED	3	C	12/11/2007	5.000	G	696	\$1,531,200	501		
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		P	WO-PED	1	C	10/29/2007	4.700	F	800	\$1,760,000	501		
2249790	R	FB S OF FOREST AV	STREAM IN PARK		P	WO-PED	3	C	12/10/2007	5.000	G	658	\$1,447,600	501		

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BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		P	WO	1	S	10/18/2007	4.867	F	1600	\$3,520,000	501		
2249810	R	HYLAN BLVD	LEMON CREEK			WO	1	S	2/27/2006	6.406	V	11400	\$25,080,000	503		
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM			WO	1	S	5/2/2007	4.286	F	2000	\$4,400,000	503		
2249840	R	TOMPKINS AVE	GREENFIELD AVE			O	1	S	2/15/2006	5.106	G	2562	\$5,636,400	501		
2249860	R	SLATER BLVD	NEW CREEK			WO	1	S	5/15/2007	5.673	G	2037	\$4,481,400	502		
2249870	R	TRAVIS AVE	MAIN CREEK			WO	1	S	11/10/2007	5.783	G	1700	\$3,740,000	502		
2249880	R	CHELSEA ROAD	SAWMILL CREEK			WO	1	S	5/4/2007	6.833	V	2205	\$4,851,000	502		
2257569	M	MILLER HIGHWAY	TERRAIN			A	64	S	8/24/2007	4.831	F	264190	\$581,218,000	107		
2266129	Q	DOUGLASTON PKWY	BCIP			A	1	S	3/24/2006	4.429	F	4400	\$9,680,000	411		
2266139	Q	DOUGLASTON PKWY	BCIP			A	1	S	3/23/2006	4.633	F	6400	\$14,080,000	411		
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY			A	2	S	3/20/2006	4.207	F	9500	\$20,900,000	413		
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I			A	1	S	6/12/2007	4.078	F	2300	\$5,060,000	407		
2266229	M	HHP	PED UNDERPASS @ 148 ST			A	1	S	4/7/2006	5.476	G	1800	\$3,960,000	109		
2266230	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/27/2006	5.684	G	800	\$1,760,000	112		
2266240	M	HHP	PED UNDERPASS INWD PK			A	1	S	3/3/2006	5.762	G	1100	\$2,420,000	112		
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST			A	2	S	6/5/2007	4.565	F	32900	\$72,380,000	201		
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A		O	9	S	12/11/2006	3.619	F	8800	\$19,360,000	104		
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY			A	1	S	4/21/2006	5.250	G	9508	\$20,917,600	413		
2267130	M	RIVERSIDE DRIVE	W 145TH ST			O	1	S	6/29/2007	5.000	G	5800	\$12,760,000	109		
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD			O	4	S	8/8/2007	4.905	F	7280	\$16,016,000	481		
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD			O	1	S	4/17/2007	5.033	G	7085	\$15,587,000	408		
2267240	M	HRD NB RAMP	HARLEM RIVER DR			A	55	S	11/21/2006	3.083	F	122900	\$270,380,000	112		
2267250	M	HHP	AMTRAK 30TH ST LINE	A		A	55	S	11/29/2006	3.710	F	40000	\$88,000,000	107		
2267380	M	WEST STREET	RECTOR ST			AT	1	S	11/4/2005	5.033	G	25760	\$56,672,000	101		
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		P	A	10	S	5/4/2007	4.519	F	27400	\$60,280,000	107		
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		P	A	34	S	7/6/2007	3.934	F	24130	\$53,086,000	107		
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		P	AR	4	S	5/18/2007	4.221	F	3131	\$6,888,200	107		
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		P	AR	21	S	5/31/2007	4.532	F	8989	\$19,775,800	107		
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	21	S	7/13/2007	4.565	F	9095	\$20,009,000	107		
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	4	S	6/4/2007	4.645	F	2601	\$5,722,200	107		
2267860	K	BROOKLYN BR APPROACH	SANDS STREET			O	1	S	5/5/2006	4.607	F	6490	\$14,278,000	302		
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		P	A-PED	35	C	8/6/2006	3.500	F	46184	\$101,604,800	302		
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY			O-PED	10	C	1/4/2007	5.925	G	3344	\$7,356,800	101		
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST			A	45	S	9/15/2007	4.214	F	86406	\$196,093,200	302		
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	69	S	8/8/2007	4.035	F	1337084	\$2,941,584,800	302		
2268507	K	278I W.B. (B.Q.E.)	YORK ST			A	6	S	5/14/2007	4.167	F	10388	\$22,853,600	302		
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	11	S	5/18/2007	4.034	F	20529	\$45,163,800	302		
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST			A	7	S	7/27/2007	4.059	F	10988	\$24,173,600	302		
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	5	S	10/16/2007	4.214	F	9275	\$20,405,000	302		
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER			A	119	S	9/9/2005	4.264	F	30767	\$67,687,400	106		
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE			O-PED	5	C	2/22/2007	4.857	F	1500	\$3,300,000	112		
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)			O	1	S	5/15/2007	4.667	F	1470	\$3,234,000	413		
2268920	R	AMBOY ROAD	LEMON CREEK			WO	1	S	2/27/2006	6.500	V	1310	\$2,882,000	503		
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ			A-PED	3	C	10/10/2006	4.227	F	1200	\$2,640,000	101		
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE			O	15	S	12/12/2006	4.737	F	14880	\$32,736,000	207		

# INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2269190	M	W.70TH STREET	AMTRAK	A		O	3	S	10/14/2005	6.417	V	17258	\$37,967,600	107		
2269210	M	W.68TH STREET	AMTRAK	A		O	3	S	9/28/2005	6.780	V	5382	\$11,840,400	107		
2269240	M	RIVERSIDE DRIVE	W. 155TH ST			O	1	S	6/29/2007	4.640	F	4397	\$9,673,400	109	112	
2269260	K	W. 8TH STREET	SURF AVE.		P	O-PED	39	C	3/23/2007	3.870	F	14742	\$32,432,400	313		
2269600	K	ERSKINE STREET	BSHP			A	1	S	9/28/2006	6.234	V	8258	\$18,167,600	305	356	
2269730	R	PARKING EXIT RAMP	SIRT	S	F	O	10	S	12/17/2007	4.083	F	20727	\$45,599,400	501		
2269740	R	BUS STATION NORTH	SIRT	S	F	O	12	S	11/16/2006	4.880	F	64605	\$142,131,000	501		
2269750	R	BUS STATION SOUTH	SIRT	S	F	O	12	S	12/21/2007	4.720	F	154688	\$340,313,600	501		
2269760	R	NORTH RAMP	SIRT	S	F	O	9	S	10/26/2007	4.181	F	17589	\$38,695,800	501		
2269770	R	BUS STA ENTR RAMP	SIRT	S	F	O	19	S	11/21/2006	4.319	F	39333	\$86,532,600	501		
2269780	R	PARKING ENTR RAMP	SIRT	S	F	O	3	S	12/12/2007	4.986	F	8589	\$18,895,800	501		
2269790	R	BUS STATION EXIT RAMP	SIRT	S	F	O	7	S	10/12/2006	4.667	F	28721	\$63,186,200	501		
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		P	A-PED	3	C	8/13/2007	3.191	F	900	\$1,980,000	108		
2270030	B	E 156TH ST	ACCESS TO HOUSING		ED	O	16	S	12/16/2006	3.612	F	49696	\$109,331,200	204		
2270170	R	SI FERRY PEDESTRIAN BRIDGE	PARKING LOT EXIT ROADWAY		F	O-PED	5	C	1/10/2006	4.481	F	1750	\$3,850,000	501		
2270180	R	BOROUGH PLACE - RAMP A	STATEN ISLAND RAILWAY	S	F	O	1	S	12/29/2005	4.938	F	1250	\$2,750,000	501		
2270250	B	BROOKE AVENUE	CSX TRANS - PT MORRIS	C		O	1	S	6/8/2007	3.727	F	21035	\$46,277,000	201		
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE			WO	3	S	7/27/2007	6.271	V	18302	\$40,264,400	413		
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	6	C	11/27/2006	3.688	F	400	\$880,000	411		
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	3	C	11/28/2006	4.020	F	600	\$1,320,000	407		
M00001	M	191ST ST. PED. TUNNEL	BROADWAY TO			O-PED	1	C	12/5/2006	5.000	G	2000	\$4,400,000	112		
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH			A	1	C	5/21/2007	4.800	F	900	\$1,980,000	107		
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH			A	1	C	6/5/2007	4.900	F	900	\$1,980,000	107		
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD			A	1	C	5/31/2007	4.667	F	1200	\$2,640,000	413		
788 OPEN BRIDGES				OPEN SPANS 4489		OPEN SF		15,791,539		\$34,741,385,800						



# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
224005B	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	7/26/2007	3.861	F	12100	\$26,620,000	201		
224006A	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	12/19/2007	6.817	V	14037	\$30,881,400	201		
2241000	B	WESTCHESTER AVE	CSX TRANS - PT MORRIS	C		O	1	S	7/17/2006	5.128	G	1740	\$3,828,000	201		
2241010	B	E 156TH STREET	CSX TRANS - PT MORRIS	C		O	1	S	7/18/2006	4.556	F	2400	\$5,280,000	201		
2241040	B	THIRD AVE	CSX TRANS - PT MORRIS	C		O	1	S	10/18/2006	4.563	F	2700	\$5,940,000	201	203	
2241050	B	E 149TH ST/JACKSON AVE	CSX TRANS - PT MORRIS	C		O	1	S	7/19/2006	4.850	F	65000	\$143,000,000	201		
2241060	B	ST. MARYS & CONCORD	CSX TRANS - PT MORRIS	C		O	1	S	8/18/2006	5.333	G	4500	\$9,900,000	201		
2241070	B	WALES AVE	CSX TRANS - PT MORRIS	C		O	1	S	10/20/2006	6.567	V	2535	\$5,577,000	201		
2241080	B	SOUTHERN BLVD	CSX TRANS - PT MORRIS	C		O	1	S	10/20/2006	4.111	F	3900	\$8,580,000	201		
2241099	B	BRUCKNER BLVD	CSX TRANS - PT MORRIS	C		O	1	S	10/19/2006	6.383	V	6700	\$14,740,000	201		
2241129	B	E 149TH ST	AMTRAK - CSX	AC		O	2	S	8/7/2006	4.620	F	12575	\$27,665,000	201	202	
2241550	B	E 144TH ST	METRO NORTH RR HAR	M		O	2	S	11/14/2007	6.444	V	8290	\$18,238,000	201		
2241560	B	E 149TH ST	METRO NORTH RR HAR	M		O	8	S	4/10/2006	4.875	F	27900	\$61,380,000	201	204	
2242260	B	EAGLE AVE	E 161ST ST			O	1	S	3/29/2006	5.150	G	2800	\$6,160,000	201	203	
2242299	B	GRAND CONCOURSE	E 138TH ST			O	1	S	6/1/2007	4.933	F	9500	\$20,900,000	201		
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST			A	2	S	6/5/2007	4.565	F	32900	\$72,380,000	201		
2270250	B	BROOKE AVENUE	CSX TRANS - PT MORRIS	C		O	1	S	6/8/2007	3.727	F	21035	\$46,277,000	201		
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER			WMA	3	S	7/24/2007	5.222	G	12400	\$27,280,000	202	209	
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER			WMA	8	S	7/19/2007	4.567	F	22300	\$49,060,000	202	209	
2075351	B	BRUCKNER EXPWY SB	AMTRAK - CSX	AC		A	1	S	8/8/2006	3.625	F	11600	\$25,520,000	202		
2075352	B	BRUCKNER EXPWY NB	AMTRAK - CSX	AC		A	1	S	9/21/2007	3.188	F	10900	\$23,980,000	202		
2076929	B	BRUCKNER EXPWY	CSX - HUNTS POINT	C		A	1	S	9/20/2007	4.700	F	3800	\$8,360,000	202		
2240180	B	WESTCHESTER AVE	BRONX RIVER			WO	1	S	7/17/2007	4.932	F	5476	\$12,047,200	202	209	
2241139	B	LEGGETT AVE	AMTRAK - CSX	AC		O	3	S	8/7/2006	4.690	F	28300	\$62,260,000	202		
2241159	B	LONGWOOD AVE	AMTRAK - CSX	AC		O	2	S	7/25/2006	5.306	G	10625	\$23,375,000	202		
2241169	B	LAFAYETTE AVE	AMTRAK - CSX	AC		O	1	S	8/8/2006	5.794	G	12000	\$26,400,000	202		
2241170	B	TIFFANY ST	AMTRAK - CSX	AC		O	1	S	9/21/2007	5.627	G	7267	\$15,987,400	202		
2241180	B	BARRETTO ST	AMTRAK - CSX	AC		O	1	S	7/10/2006	6.031	V	5313	\$11,688,600	202		
2241190	B	HUNTS POINT AVE	AMTRAK - CSX	AC		O	1	S	7/24/2006	4.984	F	13700	\$30,140,000	202		
2241200	B	FAILE ST	AMTRAK - CSX	AC		O	1	S	7/28/2006	5.703	G	6208	\$13,657,600	202		
2241210	B	BRYANT AVE	AMTRAK - CSX	AC		O	1	S	9/10/2007	3.136	F	5300	\$11,660,000	202		
2241230	B	WESTCHESTER AVE	AMTRAK - CSX	AC		O	3	S	8/10/2006	6.125	V	15600	\$34,320,000	202	209	
2241020	B	E 161ST STREET	CSX TRANS - PT MORRIS	C		O	1	S	6/28/2006	6.717	V	12800	\$28,160,000	203		
2241030	B	E 163RD STREET	CSX TRANS - PT MORRIS	C		O	1	S	5/19/2006	4.778	F	3200	\$7,040,000	203		
2241110	B	MELROSE AVE	CSX TRANS - PT MORRIS	C		O	8	S	10/16/2007	5.667	G	37854	\$83,278,800	203		
2241620	B	E 162ND ST	METRO NORTH RR HAR	M		O	1	S	4/5/2006	4.984	F	4700	\$10,340,000	203		
2241630	B	E 165TH ST	METRO NORTH RR HAR	M		O	1	S	4/3/2006	4.333	F	16400	\$36,080,000	203		
2241650	B	E 167TH ST	METRO NORTH RR HAR	M		O	1	S	3/13/2006	5.627	G	3363	\$7,398,600	203		
2241660	B	E 168TH ST	METRO NORTH RR HAR	M		O	1	S	3/14/2006	4.922	F	7700	\$16,940,000	203		
2241670	B	E 169TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2006	4.438	F	3300	\$7,260,000	203		
2241680	B	E 170TH ST	METRO NORTH RR HAR	M		O	1	S	3/16/2006	6.333	V	3150	\$6,930,000	203		
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M		O-PED	2	C	11/2/2005	5.000	G	600	\$1,320,000	203		
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M		O	1	S	3/17/2006	4.422	F	6300	\$13,860,000	203		
2241720	B	E 173RD ST	METRO NORTH RR HAR	M		O	1	S	3/20/2006	4.938	F	3000	\$6,600,000	203		
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C		O	11	S	11/10/2007	4.972	F	26566	\$58,445,200	204		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	MT		O	1	S	4/14/2006	3.828	F	16100	\$35,420,000	204		
2241410	B	WALTON AVE	METRO NORTH RR HUD	M		O	1	S	4/17/2006	5.328	G	3600	\$7,920,000	204		
2241420	B	GERARD AVE	METRO NORTH RR HUD	M		O	1	S	4/28/2006	5.922	G	5063	\$11,138,600	204		
2241430	B	RIVER AVE	METRO NORTH RR HUD	M		O	1	S	11/9/2007	6.281	V	5040	\$11,088,000	204		
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M		O	1	S	4/11/2006	4.125	F	17800	\$39,160,000	204		
2241600	B	E 158TH ST	METRO NORTH RR HAR	M		O	1	S	10/31/2007	5.200	G	3400	\$7,480,000	204		
2241610	B	E 161ST ST	METRO NORTH RR HAR	M		O	1	S	10/30/2007	5.050	G	6600	\$14,520,000	204	203	
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	P	O-PED	5	C	11/7/2005	4.290	F	4200	\$9,240,000	204		
2242259	B	GRAND CONCOURSE	E 161ST ST			O	1	S	9/25/2006	3.667	F	24100	\$53,020,000	204		
2242280	B	GRAND CONCOURSE	E 167TH ST			O	2	S	7/21/2006	4.789	F	42900	\$94,380,000	204		
2242300	B	GRAND CONCOURSE	E 170TH ST			O	2	S	5/26/2006	4.789	F	39300	\$86,460,000	204		
2242319	B	GRAND CONCOURSE	E 174TH ST	T		O	1	S	4/4/2006	4.067	F	14900	\$32,780,000	204		
2270030	B	E 156TH ST	ACCESS TO HOUSING		ED	O	16	S	12/16/2006	3.612	F	49696	\$109,331,200	204		
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M		O	8	S	5/11/2006	4.254	F	12900	\$28,380,000	205		
2242329	B	GRAND CONCOURSE	E 175TH ST	T		O	1	S	8/16/2006	5.067	G	11900	\$26,180,000	205		
2242330	B	GRAND CONCOURSE	E TREMONT AVE			O	1	S	10/9/2007	5.983	G	11700	\$25,740,000	205		
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE			O	1	S	4/21/2006	4.567	F	10300	\$22,660,000	205	207	
2242360	B	GRAND CONCOURSE	BURNSIDE AVE			O	2	S	9/27/2006	4.441	F	8400	\$18,480,000	205		
2241740	B	E 175TH ST	METRO NORTH RR HAR	M		O	1	S	3/21/2006	4.031	F	3600	\$7,920,000	206		
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M		O	1	S	11/3/2007	6.517	V	7300	\$16,060,000	206		
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	1	C	10/31/2005	4.918	F	700	\$1,540,000	206		
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	6	C	11/1/2005	5.695	G	700	\$1,540,000	206		
2241790	B	E 180TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2006	4.000	F	5000	\$11,000,000	206		
2241800	B	E 183TH ST	METRO NORTH RR HAR	M		O	1	S	3/23/2006	4.109	F	3600	\$7,920,000	206		
2241810	B	E 188TH ST	METRO NORTH RR HAR	M		O	1	S	3/28/2006	4.188	F	5300	\$11,660,000	206		
2241820	B	E 187TH ST	METRO NORTH RR HAR	M		O	1	S	3/24/2006	4.656	F	3800	\$8,360,000	206		
2241839	B	E 189TH ST	METRO NORTH RR HAR	M		O	1	S	11/1/2007	6.533	V	43157	\$94,945,400	206	207	
2242030	B	CROTONA AVE	BRONX PELHAM PKWY			O	2	S	4/5/2006	5.447	G	7600	\$16,720,000	206		
2242149	B	E TREMONT AVE	BRONX RIVER			WO	2	S	5/24/2006	4.722	F	12900	\$28,380,000	206		
2242400	B	E 180TH ST	BRONX RIVER			WO	1	S	10/18/2006	4.810	F	4500	\$9,900,000	206	227	
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE			A	1	S	5/14/2007	5.609	G	8480	\$18,656,000	207		
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T		A	3	S	5/17/2007	4.711	F	11800	\$25,960,000	207		
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M		O	4	S	11/26/2007	5.694	G	16052	\$35,314,400	207		
2241489	B	W 225TH ST	CSX TRASP - PUTNAM	C		O	2	S	5/26/2006	5.299	G	10900	\$23,980,000	207	208	
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T		O	4	S	9/5/2006	5.708	G	46300	\$101,860,000	207		
2241940	B	W 205TH ST	NYCTA IND YARDS	T		O	4	S	9/6/2006	5.625	G	32508	\$71,517,600	207		
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE			O	2	S	10/3/2006	4.714	F	16500	\$36,300,000	207		
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD			O	1	S	4/24/2006	4.765	F	8418	\$18,519,600	207		
2242380	B	GRAND CONCOURSE	E 204TH ST			O	1	S	8/6/2007	5.391	G	9272	\$20,398,400	207		
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE			O	15	S	12/12/2006	4.737	F	14880	\$32,736,000	207		
2229440	B	HHP	KAPPOCK ST			A	1	S	10/3/2007	4.931	F	3900	\$8,580,000	208		
2229450	B	232ND ST	HHP			A	2	S	10/1/2007	5.026	G	4900	\$10,780,000	208		
2229460	B	236TH ST PED BRDG	HHP			A-PED	3	C	7/16/2007	4.894	F	2500	\$5,500,000	208		
2229470	B	239TH ST	HHP			A	2	S	5/31/2007	5.368	G	6100	\$13,420,000	208		
2229480	B	MANHATTAN COLL PKWY	HHP			A	3	S	5/22/2007	5.368	G	6200	\$13,640,000	208		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2229490	B	246TH ST	HHP			A	2	S	5/8/2007	4.632	F	5600	\$12,320,000	208		
2229500	B	252ND ST	HHP			A	2	S	2/23/2006	3.947	F	4500	\$9,900,000	208		
2229510	B	RIVERDALE AVE	HHP			A	2	S	9/7/2007	4.053	F	5200	\$11,440,000	208		
2229520	B	FIELDSTON ROAD	HHP			A	1	S	9/19/2007	5.500	G	6600	\$14,520,000	208		
2229530	B	HHP	BROADWAY			A	1	S	9/26/2007	4.574	F	7500	\$16,500,000	208		
2241490	B	W 230TH ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	5/9/2007	5.625	G	5600	\$12,320,000	208		
2241509	B	W 231ST ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	10/30/2006	5.059	G	4723	\$10,390,600	208		
2241510	B	W 233RD ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	4/13/2007	5.275	G	3760	\$8,272,000	208		
2241520	B	W 234TH ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	4/18/2007	5.176	G	3770	\$8,294,000	208		
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK			WMA	17	S	10/25/2007	3.597	F	39400	\$86,680,000	209		
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A		A	13	S	10/17/2006	4.250	F	47430	\$104,346,000	209	203	
206672A	B	174TH ST-NTH PED BRDG	895I - SHERIDAN EXPWY			A-PED	4	C	3/14/2007	5.153	G	1800	\$3,960,000	209		
206672B	B	174TH ST-STH PED BRDG	895I - SHERIDAN EXPWY			A-PED	4	C	3/14/2007	5.361	G	1900	\$4,180,000	209		
2241269	B	E 177TH ST	AMTRAK - CSX	AC		O	3	S	8/11/2006	5.458	G	16606	\$36,533,200	209		
2241270	B	E TREMONT AVE	AMTRAK - CSX	AC		O	2	S	7/26/2006	5.153	G	22300	\$49,060,000	209	211	
2242120	B	FTBG N OF RTE 1	BRONX RIVER		P	WO-PED	1	C	5/17/2007	3.667	F	1904	\$4,188,800	209		
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY			A	2	S	12/18/2007	4.472	F	10200	\$22,440,000	210		
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY			A	2	S	3/28/2006	4.389	F	15858	\$34,887,600	210	211	
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY			A	2	S	7/21/2006	3.974	F	17600	\$38,720,000	210	211	
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER			WMA	7	S	11/16/2007	4.859	F	60500	\$133,100,000	210	228	
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	10/5/2007	4.632	F	7800	\$17,160,000	210		
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	2/21/2006	5.105	G	7100	\$15,620,000	210		
2241959	B	HUTCHINSON RVR PKWY	AMTRAK - CSX	AC		O	1	S	8/3/2006	5.915	G	15444	\$33,976,800	210	211	
2229560	B	BRONX PELHAM PKWY	AMTRAK - CSX	AC		A	3	S	8/15/2006	4.972	F	24591	\$54,100,200	211		
2241329	B	WHITE PLAINS ROAD	AMTRAK - CSX	AC		O	1	S	8/17/2006	4.859	F	6900	\$15,180,000	211		
2241330	B	UNIONPORT ROAD	AMTRAK - CSX	AC		O	1	S	8/17/2006	4.875	F	4400	\$9,680,000	211		
2241369	B	WILLIAMSBRIDGE RD	AMTRAK - CSX	AC		O	2	S	7/27/2006	4.836	F	10400	\$22,880,000	211		
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T		O	1	S	9/8/2006	6.000	G	75000	\$165,000,000	211	212	
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M		O	10	S	11/30/2007	4.632	F	57750	\$127,050,000	212		
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER			WO	14	S	6/22/2007	4.444	F	95700	\$210,540,000	212		
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M		O	2	S	3/29/2006	4.127	F	9000	\$19,800,000	212		
2241870	B	E 233RD ST	METRO NORTH RR HAR	M		O	1	S	4/13/2006	4.941	F	7664	\$16,860,800	212	207	
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M		WO	28	S	11/2/2006	4.444	F	49500	\$108,900,000	212		
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T		O	3	S	9/7/2006	4.417	F	13500	\$29,700,000	212		
2242071	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/15/2006	4.700	F	1800	\$3,960,000	212		
2242072	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/16/2006	4.833	F	1800	\$3,960,000	212		
2242081	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/17/2006	4.467	F	2800	\$6,160,000	212		
2242082	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/19/2006	4.467	F	2800	\$6,160,000	212		
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER			WO	1	S	7/12/2006	4.793	F	4700	\$10,340,000	212		
2242430	B	GUN HILL ROAD	BRONX BLVD			O	4	S	5/31/2006	4.912	F	9400	\$20,680,000	212		
2242440	B	GUN HILL ROAD	BRONX RIVER			WO	1	S	3/22/2006	4.900	F	8700	\$19,140,000	212		
2242459	B	E 233RD ST	BRONX RIVER			WO	1	S	5/25/2006	4.367	F	7000	\$15,400,000	212		
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY			O	1	S	2/10/2006	5.033	G	5300	\$11,660,000	212		
2229540	B	VAN CRTLDT PARK	HHP		P	A-PED	2	C	9/20/2007	4.879	F	3900	\$8,580,000	226		
2229550	B	VAN CRTLDT EQUES	HHP		P	A-PED	2	C	9/20/2007	4.643	F	2100	\$4,620,000	226		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH			A	1	S	2/3/2006	4.448	F	4300	\$9,460,000	226		
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C		A	1	S	10/30/2006	4.229	F	5200	\$11,440,000	226		
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP			A	2	S	11/26/2007	5.135	G	7400	\$16,280,000	226		
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO			A	1	S	7/3/2007	5.000	G	6300	\$13,860,000	227		
2230250	B	MOSHOLU PARKWAY	BRONX RIVER			WA	5	S	3/20/2006	4.263	F	16300	\$35,860,000	227		
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M		A	1	S	3/30/2006	5.516	G	8880	\$19,536,000	227	207	
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	P	O-PED	1	C	7/26/2004	4.121	F	4700	\$10,340,000	227	207	
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M		O	1	S	4/6/2006	4.594	F	6400	\$14,080,000	227	207	
2242010	B	BRONX PELHAM PKWY	BRONX RIVER			WA	1	S	5/23/2006	4.931	F	9200	\$20,240,000	227		
2242029	B	SOUTHERN BLVD	EAST FORDHAM ROAD			O	2	S	4/5/2006	4.684	F	12900	\$28,380,000	227		
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		P	WO	1	S	5/22/2006	4.900	F	2200	\$4,840,000	227		
2242110	B	BOSTON ROAD	BRONX RIVER			WO	1	S	5/11/2006	4.273	F	6200	\$13,640,000	227		
2242210	B	S OF ALLERTON AVE	BRONX RIVER			WO	3	S	6/7/2006	4.763	F	6200	\$13,640,000	227		
2242220	B	SOUTHERN BLVD	BRONX RIVER			WO	2	S	3/13/2006	4.395	F	4800	\$10,560,000	227		
2240200	B	SHORE ROAD	HUTCHINSON RIVER			WMO	7	S	7/20/2006	4.478	F	4800	\$10,560,000	228		
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY			WO	7	S	10/9/2007	3.389	F	28900	\$63,580,000	228		
2241380	B	PELHAM BAY PK EQUES	AMTRAK - CSX	AC	P	O-PED	1	C	11/13/1978	5.109	G	4223	\$9,290,600	228		
2241390	B	SHORE RD CIRCLE	AMTRAK - CSX	AC		O	2	S	9/10/2007	3.254	F	4800	\$10,560,000	228		
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER			WMO	52	S	6/13/2005	4.169	F	211788	\$465,933,600	110	204	
2240089	BM	145TH ST BRIDGE	HARLEM RIVER			WMO	8	S	6/24/2006	3.083	F	56700	\$124,740,000	110	204	201
2240059	BM	WILLIS AVENUE	HARLEM RIVER			WMO	26	S	10/16/2006	3.292	F	94700	\$208,340,000	111	201	
2240069	BM	THIRD AVE BRIDGE	HARLEM RIVER			WMO	14	S	11/2/2006	6.859	V	100232	\$220,510,400	111	201	
2240079	BM	MADISON AVE BRIDGE	HARLEM RIVER			WMO	21	S	11/6/2006	4.889	F	80000	\$176,000,000	111	201	
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER			WO	9	S	11/18/2006	4.821	F	128339	\$282,345,800	112	205	204
2240120	BM	W 207TH/W FORDHAM RD	HARLEM RIVER			WMO	5	S	6/8/2006	5.528	G	31784	\$69,924,800	112	207	
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	T		WMO	3	S	10/3/2005	3.986	F	46848	\$103,065,600	112	207	208
2240138	BM	NYCTA IRT	HARLEM RVR/BROADWAY	T		WMO	3	S	10/27/2005	4.882	F	19520	\$42,944,000	112	207	208
2246580	BM	HIGH BRIDGE PDOVP	871 - HARLEM RIVER		P	WA-PED	11	P	8/12/2002	3.759	F	34100	\$75,020,000	112	204	
2240290	K	METROPOLITAN AVE	ENGLISH KILLS			WMO	5	S	7/26/2007	6.319	V	10550	\$23,210,000	301		
2230410	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/11/2006	4.563	F	2500	\$5,500,000	302		
2230420	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/11/2006	4.750	F	2500	\$5,500,000	302		
2230430	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	1/31/2006	5.533	G	1100	\$2,420,000	302		
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.			A	1	S	1/18/2006	5.200	G	2700	\$5,940,000	302		
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.			A	1	S	2/3/2006	4.933	F	2500	\$5,500,000	302		
2230460	K	278I (B.Q.E.)	PEARL ST			A	1	S	2/10/2006	5.333	G	4500	\$9,900,000	302		
2230470	K	278I (B.Q.E.)	JAY ST			A	1	S	4/11/2006	4.900	F	5100	\$11,220,000	302		
2230480	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	3/10/2006	5.093	G	8400	\$18,480,000	302		
2230490	K	278I (B.Q.E.)	SANDS ST			A	1	S	3/13/2006	5.074	G	12600	\$27,720,000	302		
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB			A	1	S	3/1/2006	5.100	G	1300	\$2,860,000	302		
2230510	K	278I (B.Q.E.)	NASSAU ST			A	6	S	3/26/2006	4.236	F	51200	\$112,640,000	302		
2230857	K	278I (B.Q.E.)	JORALEMON ST			A	1	S	4/26/2006	5.000	G	2100	\$4,620,000	302		
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB			A	2	S	4/28/2006	4.177	F	5900	\$12,980,000	302		
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)			A	1	S	4/28/2006	4.500	F	16500	\$36,300,000	302		
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA			A	2	S	5/1/2006	4.426	F	4500	\$9,900,000	302		
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB			A	2	S	5/1/2006	5.053	G	4500	\$9,900,000	302		



# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L		O	9	S	11/19/2006	5.403	G	12276	\$27,007,200	302		
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L		O	7	S	11/19/2006	4.875	F	10823	\$23,810,600	302		
2244440	K	SOUTH OF TILLARY ST	NAVY ST			O-PED	1	C	10/9/2007	4.297	F	6200	\$13,640,000	302		
2267860	K	BROOKLYN BR APPROACH	SANDS STREET			O	1	S	5/5/2006	4.607	F	6490	\$14,278,000	302		
2268350	K	BROOKLYN PROMENADE	2781 N.B. (B.Q.E.)		P	A-PED	35	C	8/6/2006	3.500	F	46184	\$101,604,800	302		
2268497	K	2781 W.B. (B.Q.E.)	FURMAN ST			A	45	S	9/15/2007	4.214	F	86406	\$190,093,200	302		
2268498	K	2781 E.B. (B.Q.E.)	2781 W.B. (B.Q.E.)			A	69	S	8/8/2007	4.035	F	1337084	\$2,941,584,800	302		
2268507	K	2781 W.B. (B.Q.E.)	YORK ST			A	6	S	5/14/2007	4.167	F	10388	\$22,853,600	302		
2268508	K	2781 E.B. (B.Q.E.)	2781 W.B. (B.Q.E.)			A	11	S	5/18/2007	4.034	F	20529	\$45,163,800	302		
2268517	K	2781 W.B. (B.Q.E.)	FURMAN ST			A	7	S	7/27/2007	4.059	F	10988	\$24,173,600	302		
2268518	K	2781 E.B. (B.Q.E.)	2781 W.B. (B.Q.E.)			A	5	S	10/16/2007	4.214	F	9275	\$20,405,000	302		
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY			A	1	S	4/4/2006	4.600	F	4900	\$10,780,000	305		
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	1	S	4/4/2006	4.933	F	3500	\$7,700,000	305		
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	2	S	4/6/2006	4.842	F	4700	\$10,340,000	305		
2230220	K	HIGHLAND BLVD NB	VERMONT AVE			A	1	S	7/13/2007	5.857	G	3995	\$8,789,000	305		
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE			O	2	S	9/17/2007	5.474	G	3192	\$7,022,400	305		
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE			O	2	S	9/17/2007	5.175	G	5600	\$12,320,000	305		
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB			O	1	S	9/28/2006	4.833	F	3800	\$8,360,000	305		
2269600	K	ERSKINE STREET	BSHP			A	1	S	9/28/2006	6.234	V	8258	\$18,167,600	305	356	
2230350	K	SUMMIT ST PED BRDG	2781 (B.Q.E.)			A-PED	2	S	2/28/2006	4.671	F	1400	\$3,080,000	306		
2230360	K	UNION ST	2781 (B.Q.E.)			A	2	S	2/28/2006	4.375	F	5000	\$11,000,000	306		
2230370	K	SACKETT ST	2781 (B.Q.E.)			A	2	S	2/28/2006	4.694	F	5000	\$11,000,000	306		
2230380	K	KANE ST	2781 (B.Q.E.)			A	2	S	4/2/2006	4.153	F	5000	\$11,000,000	306		
2230390	K	CONGRESS ST	2781 (B.Q.E.)			A	2	S	4/2/2006	6.382	V	5000	\$11,000,000	306		
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	10/8/2007	5.444	G	7300	\$16,060,000	306		
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL			WMO	3	S	6/4/2007	6.581	V	5772	\$12,698,400	306		
2240250	K	THIRD ST	GOWANUS CANAL			WMO	5	S	6/5/2007	4.931	F	4900	\$10,780,000	306		
2240260	K	CARROLL ST	GOWANUS CANAL			WMO	2	S	7/18/2007	4.803	F	3000	\$6,600,000	306		
2240270	K	UNION ST	GOWANUS CANAL			WMO	5	S	8/21/2006	4.014	F	4900	\$10,780,000	306		
2240310	K	THIRD AVE	GOWANUS CANAL			WO	1	S	9/4/2007	5.000	G	3200	\$7,040,000	306		
2066100	K	5TH AVE	27 X PROSPECT EXPWY			A	1	S	3/14/2006	5.208	G	8800	\$19,360,000	307		
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	10/8/2007	4.056	F	7300	\$16,060,000	307	306	
2243839	K	4TH AVE	NYCTA BMT TRACKS	T		O	1	S	10/12/2007	6.600	V	4440	\$9,768,000	307		
2243920	K	7TH AVE	NYCTA BMT YARD	T		O	2	S	9/8/2006	6.211	V	4700	\$10,340,000	307		
2244470	K	SEELEY ST	PROSPECT AVE			O	1	S	6/7/2007	4.100	F	8482	\$18,660,400	307		
2244480	K	5TH AVE	GREENWOOD CEMETERY			O	1	S	7/20/2007	4.933	F	3600	\$7,920,000	307		
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/28/2007	6.500	V	2300	\$5,060,000	308		
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/28/2007	6.781	V	2300	\$5,060,000	308		
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T		O	1	S	8/24/2006	6.922	V	2460	\$5,412,000	308		
2243200	K	UNION ST	FRANKLIN SHUTTLE	T		O	2	S	8/21/2006	5.043	G	4100	\$9,020,000	309		
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T		O	2	S	8/15/2006	5.314	G	2500	\$5,500,000	309		
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T		O-PED	3	C	7/11/2007	5.268	G	600	\$1,320,000	309		
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T		O	3	S	10/4/2007	5.097	G	4060	\$8,932,000	309		
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T		O	1	S	10/1/2007	6.275	V	2240	\$4,928,000	309		
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T		O	1	S	8/10/2006	6.281	V	3657	\$8,045,400	309	355	

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T		O	2	S	8/17/2006	4.961	F	11300	\$24,860,000	309		
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T		O	1	S	8/25/2006	4.861	F	7700	\$16,940,000	309	308	
2231249	K	BSHP	BAY RIDGE AVE			A	1	S	5/21/2007	3.313	F	4900	\$10,780,000	310		
2231250	K	81ST ST PED BR	BSHP		P	A-PED	5	C	11/27/2007	5.056	G	3100	\$6,820,000	310		
2231260	K	92ND ST PED BR	BSHP		P	A-PED	6	C	8/30/2007	3.768	F	3000	\$6,600,000	310		
2231270	K	4TH AVE	BSHP			A	2	S	3/7/2006	4.842	F	6100	\$13,420,000	310		
2243310	K	2ND AVE	LIRR BAY RIDGE	N		O	2	S	9/21/2006	6.611	V	17751	\$39,052,200	310		
2243320	K	3RD AVE	LIRR BAY RIDGE	N		O	4	S	11/19/2007	5.347	G	17230	\$37,906,000	310		
2243330	K	4TH AVE	LIRR BAY RIDGE	NT		O	4	S	11/19/2007	5.819	G	13668	\$30,069,600	310		
2243580	K	5TH AVE	LIRR & SEA BEACH	NT		O	4	S	10/9/2006	4.353	F	12395	\$27,269,000	310		
2243590	K	6TH AVE	LIRR & SEA BEACH	NT		O	2	S	10/31/2007	6.361	V	14382	\$31,640,400	310		
2243600	K	7TH AVE	LIRR & SEA BEACH	NT		O	7	S	10/9/2006	5.361	G	18628	\$40,981,600	310		
2243610	K	8TH AVE	LIRR & SEA BEACH	NT		O	2	S	10/31/2007	6.319	V	10834	\$23,834,800	310		
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	NT		O	3	S	9/6/2006	4.797	F	14800	\$32,560,000	310		
2243630	K	11TH AVE	LIRR & SEA BEACH	NT		O	5	S	9/7/2006	6.603	V	9700	\$21,340,000	310		
2243640	K	13TH AVE	LIRR & SEA BEACH	NT		O	5	S	10/31/2007	4.694	F	16000	\$35,200,000	310		
2244150	K	RIDGE BLVD	SHORE RD DRIVE			O	1	S	5/8/2007	6.800	V	4350	\$9,570,000	310		
2244160	K	3RD AVE	SHORE RD DRIVE			O	1	S	5/8/2007	6.727	V	4360	\$9,592,000	310		
2231290	K	BAY 8TH ST	BSHP			A	1	S	5/11/2007	5.921	G	4950	\$10,890,000	311		
2231300	K	17TH AVE PED BRDG	BSHP		P	A-PED	1	C	12/5/2007	3.397	F	2100	\$4,620,000	311		
2231319	K	BSHP	BAY PKWY			A	1	S	4/7/2006	4.395	F	7200	\$15,840,000	311		
2243340	K	15TH AVE	LIRR BAY RIDGE	N		O	1	S	9/28/2006	4.745	F	3614	\$7,950,800	311		
2243350	K	60TH ST	LIRR BAY RIDGE	N		O	1	S	11/12/2007	6.267	V	3900	\$8,580,000	311		
2243360	K	16TH AVE	LIRR BAY RIDGE	N		O	1	S	11/10/2006	5.483	G	4345	\$9,559,000	311		
2243650	K	14TH AVE	LIRR BAY RIDGE	N		O	1	S	9/22/2006	6.667	V	4720	\$10,384,000	311		
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N		O	1	S	9/28/2006	6.400	V	2350	\$5,170,000	311		
2243670	K	15TH AVE	BMT SEA BEACH	T		O	4	S	9/20/2007	6.386	V	16020	\$35,244,000	311		
2243680	K	16TH AVE	BMT SEA BEACH	T		O	3	S	8/11/2006	5.519	G	6816	\$14,995,200	311		
2243690	K	17TH AVE	BMT SEA BEACH	T		O	4	S	8/18/2006	6.288	V	8946	\$19,681,200	311		
2243700	K	18TH AVE	BMT SEA BEACH	T		O	1	S	9/18/2007	6.842	V	5200	\$11,440,000	311		
2243710	K	19TH AVE	BMT SEA BEACH	T		O	4	S	8/8/2006	4.395	F	4800	\$10,560,000	311		
2243720	K	20TH AVE	BMT SEA BEACH	T		O	6	S	7/26/2006	4.897	F	12500	\$27,500,000	311		
2243730	K	65TH ST	BMT SEA BEACH	T		O	4	S	7/21/2006	5.947	G	12000	\$26,400,000	311		
2243740	K	BAY PKWY	BMT SEA BEACH	T		O	4	S	7/19/2006	4.974	F	16800	\$36,960,000	311		
2243750	K	AVENUE O	BMT SEA BEACH	T		O	1	S	9/26/2007	5.863	G	4658	\$10,247,600	311		
2243760	K	AVENUE P	BMT SEA BEACH	T		O	1	S	9/26/2007	6.605	V	5544	\$12,196,800	311		
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T		O	1	S	10/9/2007	6.767	V	5032	\$11,070,400	311		
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T		O	1	S	10/9/2007	6.440	V	6960	\$15,312,000	311		
2243800	K	AVENUE T	BMT SEA BEACH	T		O	1	S	10/11/2007	6.033	V	5360	\$11,792,000	311		
2243820	K	21ST AVE	BMT SEA BEACH	T		O	4	S	8/11/2006	4.132	F	21400	\$47,080,000	311		
2243370	K	17TH AVE	LIRR BAY RIDGE	N		O	1	S	11/14/2006	4.745	F	3406	\$7,493,200	312		
2243380	K	18TH AVE	LIRR BAY RIDGE	N		O	1	S	11/21/2006	4.813	F	6006	\$13,213,200	312		
2243390	K	52ND ST	LIRR BAY RIDGE	N		O	1	S	11/21/2006	6.467	V	3293	\$7,244,600	312		
2243400	K	50TH ST	LIRR BAY RIDGE	N		O	2	S	11/14/2007	4.701	F	7100	\$15,620,000	312		
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N		O	1	S	11/2/2006	5.172	G	2760	\$6,072,000	312		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243420	K	E 3RD ST	LIRR BAY RIDGE	N		O	1	S	11/13/2007	6.583	V	1840	\$4,048,000	312		
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N		O	1	S	11/7/2006	5.218	G	7000	\$15,400,000	312		
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N		O	1	S	11/7/2006	5.234	G	3231	\$7,108,200	312		
2243840	K	9TH AVE	NYCTA BMT YARD	T		O	5	S	10/16/2007	6.319	V	12440	\$27,368,000	312		
2243940	K	9TH AVE	NYCTA IND SBWY	T		O	5	S	10/19/2007	4.737	F	6300	\$13,860,000	312		
2231329	K	BSHP	26TH AVE			A	1	S	3/17/2006	4.800	F	6700	\$14,740,000	313		
2231330	K	27TH AVE PED BRDG	BSHP		P	A-PED	1	C	1/15/2008	4.415	F	2100	\$4,620,000	313		
2231340	K	CROPSEY AVE	BSHP			A	2	S	3/30/2006	5.000	G	13100	\$28,820,000	313		
2231360	K	BSHP	OCEAN PKWY			A	3	S	11/3/2006	7.000	V	29637	\$65,201,400	313		
2231370	K	GUIDER AV RAMP TO BSHP	BSHP			A	4	S	5/10/2006	3.653	F	12800	\$28,160,000	313		
2231380	K	CONEY ISLAND AVE	BSHP			A	4	S	10/5/2007	6.292	V	19866	\$43,705,200	313		
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	9/6/2007	5.113	G	9400	\$20,680,000	313		
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	10/5/2007	5.028	G	9400	\$20,680,000	313		
2240540	K	STILLWELL AVE	CONEY ISLAND CRK			WO	2	S	6/5/2007	6.292	V	17000	\$37,400,000	313		
2243570	K	86TH ST	BMT SEA BEACH	T		O	1	S	7/17/2006	6.078	V	3840	\$8,448,000	313		
2269260	K	W. 8TH STREET	SURF AVE.		P	O-PED	39	C	3/23/2007	3.870	F	14742	\$32,432,400	313		
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T		O	6	S	9/1/2006	4.000	F	48700	\$107,140,000	314		
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/16/2007	4.158	F	6000	\$13,200,000	314		
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/17/2007	4.500	F	20800	\$45,760,000	314		
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/29/2007	4.545	F	18200	\$40,040,000	314		
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	8/24/2007	3.877	F	4200	\$9,240,000	314		
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	9/1/2007	6.167	V	4810	\$10,582,000	314		
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	9/1/2006	5.882	G	4825	\$10,615,000	314		
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	9/6/2007	5.723	G	5150	\$11,330,000	314		
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T		O	3	S	9/6/2007	4.250	F	4100	\$9,020,000	314		
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	9/6/2007	4.550	F	3000	\$6,600,000	314		
2243450	K	E 14TH ST	LIRR BAY RIDGE	N		O	1	S	10/25/2006	4.809	F	1775	\$3,905,000	314		
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N		O-PED	3	C	8/31/2007	5.254	G	900	\$1,980,000	314		
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N		O	2	S	10/12/2006	4.912	F	5000	\$11,000,000	314		
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N		O	6	S	10/31/2006	4.458	F	12000	\$26,400,000	314		
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N		O	2	S	10/26/2006	5.085	G	4320	\$9,504,000	314		
2231390	K	E 12TH ST	BSHP			A	4	S	3/30/2006	4.764	F	17200	\$37,840,000	315		
2231409	K	BSHP	SHEEPSHEAD BAY ROAD			A	1	S	3/21/2006	4.967	F	6500	\$14,300,000	315		
2231419	K	BSHP	OCEAN AVE			A	3	S	3/15/2006	4.292	F	14000	\$30,800,000	315		
2231429	K	BSHP	BEDFORD AVE			A	3	S	3/10/2006	4.278	F	12000	\$26,400,000	315		
2231439	K	BSHP	NOSTRAND AVE			A	3	S	4/14/2006	4.097	F	13000	\$28,600,000	315		
2231449	K	KNAPP ST	BSHP			A	1	S	3/31/2006	4.469	F	9500	\$20,900,000	315		
2233080	K	E 14 ST PED BR	BSHP			A-PED	14	C	7/27/2007	4.500	F	4700	\$10,340,000	315		
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY			WO-PED	30	C	4/16/2007	3.912	F	4000	\$8,800,000	315		
2243790	K	AVENUE S	BMT SEA BEACH	T		O	1	S	10/11/2007	5.967	G	5360	\$11,792,000	315		
2243810	K	AVENUE U	BMT SEA BEACH	T		O	1	S	7/24/2006	5.824	G	5880	\$12,936,000	315		
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L		O	75	S	7/8/2006	3.845	F	135100	\$297,220,000	316	305	
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N		O	3	S	6/16/2006	6.559	V	6659	\$14,649,800	316		
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N		O	2	S	10/10/2006	6.559	V	5616	\$12,355,200	316		
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N		O	2	S	10/5/2006	6.662	V	5328	\$11,721,600	316		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N		O	3	S	10/5/2006	6.542	V	5497	\$12,093,400	316		
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N		O	3	S	10/10/2006	5.036	G	4912	\$10,806,400	316		
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N		O-PED	6	C	8/27/2007	5.000	G	2500	\$5,500,000	316		
2231479	K	BSHP	MILL BASIN			WMA	14	S	12/18/2007	2.955	P	73500	\$161,700,000	318		
2231489	K	BSHP	PAERDEGAT BASIN			WA	15	S	8/11/2007	3.222	F	58300	\$128,260,000	318		
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N		O	2	S	10/9/2007	4.702	F	5900	\$12,980,000	318		
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N		O	3	S	10/10/2007	6.236	V	4500	\$9,900,000	318		
2243530	K	AVENUE H	LIRR BAY RIDGE	N		O	2	S	10/10/2007	5.956	G	35100	\$77,220,000	318		
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	7/7/2006	6.815	V	6016	\$13,235,200	355		
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		P	O	1	C	5/15/2007	4.500	F	900	\$1,980,000	355		
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		P	O	1	S	4/30/2007	5.679	G	2500	\$5,500,000	355		
2244030	K	EAST DRIVE	BRIDLE PATH		P	O	1	S	6/22/2007	4.755	F	2000	\$4,400,000	355		
2244040	K	EAST DRIVE	EAST WOOD ARCH		P	O	1	C	7/11/2007	4.067	F	900	\$1,980,000	355		
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		P	WO	3	S	4/27/2007	5.000	G	7400	\$16,280,000	355		
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		P	O	1	C	4/17/2007	4.767	F	900	\$1,980,000	355		
2244100	K	WEST FOOTBRIDGE	PROSPECT PK STREAM		P	WO-PED	1	C	12/4/2007	5.000	G	308	\$677,600	355		
2244120	K	HILL DRIVE	PROSPECT PK LAKE		P	WO	3	S	4/25/2007	3.873	F	7800	\$17,160,000	355		
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE		P	WO-PED	1	C	11/26/2007	5.000	G	1260	\$2,772,000	355		
2231450	K	BSHP	GERRITSEN INLET			WA	11	S	6/26/2007	3.597	F	52000	\$114,400,000	356		
2231460	K	FLATBUSH AVE	BSHP			A	2	S	10/3/2007	6.306	V	14058	\$30,927,600	356		
2231499	K	BSHP	ROCKAWAY PKWY			A	4	S	10/3/2007	4.000	F	11500	\$25,300,000	356		
2231509	K	BSHP	FRESH CREEK			WA	5	S	8/9/2007	3.333	F	23000	\$50,600,000	356		
2231519	K	PENNSYLVANIA AVE	BSHP			A	2	S	4/24/2007	6.181	V	6640	\$14,608,000	356		
2240019	KM	BROOKLYN BRIDGE	278I (B.Q.E.)			WEO	75	S	11/17/2006	2.917	P	503788	\$1,108,333,600	103	302	101
2240027	KM	MANHATTAN BRIDGE(LL)	EAST RIVER	T		WEO	23	S	11/30/2006	4.407	F	616390	\$1,356,058,000	103	302	
2240028	KM	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T		WEO	43	S	11/30/2006	4.357	F	587424	\$1,292,332,800	103	302	
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T		WEO	53	S	11/3/2006	4.736	F	824000	\$1,812,800,000	103	301	
2240370	KQ	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L		WMO	12	S	7/27/2007	5.111	G	76106	\$167,433,200	301	402	
2240390	KQ	GRAND ST BRIDGE	NEWTOWN CREEK			WMO	2	S	9/5/2006	4.292	F	5100	\$11,220,000	301	405	
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK			WMO	44	S	6/12/2006	4.817	F	205770	\$452,694,000	301	402	
2232000	M	BATTERY PLACE	FDR DRIVE			AT	2	S	10/20/2005	4.727	F	142000	\$312,400,000	101		
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST			AR	17	S	3/30/2006	3.776	F	102225	\$224,895,000	101		
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST			AR	10	S	4/6/2006	3.821	F	44625	\$98,175,000	101		
223201C	M	STH ST RMP TO FDR	SOUTH ST			AR	8	S	3/27/2006	4.134	F	39150	\$86,130,000	101		
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.			AR	22	S	4/4/2006	5.180	G	15825	\$34,815,000	101		
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.			OE	4	S	5/2/2007	4.167	F	10167	\$22,367,400	101		
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY			OE	31	S	6/6/2006	4.148	F	51400	\$113,080,000	101		
224001D	M	TO FDR DR N.B.	PEARL STREET			OE	30	S	5/17/2007	4.906	F	49600	\$109,120,000	101		
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG			OE	3	S	4/28/2007	5.338	G	5200	\$11,440,000	101		
224001G	M	TO PARK ROW	ROSE ST			OE	11	S	5/18/2007	4.549	F	16551	\$36,412,200	101		
2267380	M	WEST STREET	RECTOR ST			AT	1	S	11/4/2005	5.033	G	25760	\$56,672,000	101		
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY			O-PED	10	C	1/4/2007	5.925	G	3344	\$7,356,800	101		
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ			A-PED	3	C	10/10/2006	4.227	F	1200	\$2,640,000	101		
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		P	A	4	S	3/16/2006	4.063	F	4100	\$9,020,000	103		
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		P	A-PED	12	C	9/23/2007	4.676	F	2900	\$6,380,000	103		



# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2232040	M	HOUSTON ST	FDR DRIVE			A	2	S	5/25/2007	3.318	F	11010	\$24,222,000	103		
223204A	M	FDR NB TO HOUSTON ST	RELIEF			AR	4	S	2/28/2006	4.700	F	6150	\$13,530,000	103		
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF			AR	4	S	3/8/2006	4.625	F	7642	\$16,812,400	103		
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	2/18/2007	4.353	F	2200	\$4,840,000	103		
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		P	A-PED	25	C	9/26/2007	5.286	G	1632	\$3,590,400	103		
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG			OE	9	S	5/1/2007	3.814	F	6489	\$14,275,800	103		
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL		O	39	S	12/15/2006	3.917	F	157500	\$346,500,000	104		
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A		O	8	S	4/18/2006	4.556	F	16500	\$36,300,000	104		
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A		O	2	S	7/3/2007	4.750	F	4620	\$10,164,000	104		
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	7/3/2007	4.597	F	11800	\$25,960,000	104		
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/12/2006	4.208	F	6500	\$14,300,000	104		
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	8/30/2006	3.866	F	16400	\$36,080,000	104		
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	11/7/2005	6.270	V	7505	\$16,511,000	104		
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	9/27/2006	4.000	F	6200	\$13,640,000	104		
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/27/2006	4.196	F	6300	\$13,860,000	104		
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	4.838	F	4100	\$9,020,000	104		
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	4.662	F	4300	\$9,460,000	104		
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	5.662	G	4100	\$9,020,000	104		
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.441	F	4100	\$9,020,000	104		
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.574	F	4100	\$9,020,000	104		
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.618	F	4100	\$9,020,000	104		
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	12/8/2006	4.574	F	4100	\$9,020,000	104		
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/8/2006	4.853	F	4300	\$9,460,000	104		
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/8/2006	5.088	G	4300	\$9,460,000	104		
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/10/2006	5.074	G	5100	\$11,220,000	104		
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/27/2006	4.647	F	4100	\$9,020,000	104		
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A		O	2	S	11/3/2006	4.588	F	15400	\$33,880,000	104		
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/21/2006	4.619	F	9155	\$20,141,000	104		
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/26/2006	4.809	F	9100	\$20,020,000	104		
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/23/2006	4.388	F	6200	\$13,640,000	104		
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/4/2006	4.574	F	4100	\$9,020,000	104		
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/27/2006	5.540	G	4700	\$10,340,000	104		
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/7/2006	5.441	G	4300	\$9,460,000	104		
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/7/2006	5.529	G	4400	\$9,680,000	104		
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/19/2006	3.986	F	9400	\$20,680,000	104		
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A		O	9	S	12/11/2006	3.619	F	8800	\$19,360,000	104		
2245460	M	PARK AVE S.B.	E 45TH ST			O	1	S	7/7/2007	4.514	F	2400	\$5,280,000	105		
2245470	M	PARK AVE N.B	E 45TH ST			O	1	S	7/8/2007	4.865	F	2400	\$5,280,000	105		
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		P	O	1	C	5/16/2007	4.400	F	1200	\$2,640,000	105		
2246540	M	E 34TH ST	PARK AVE TUNNEL			OT	1	S	8/24/2006	4.117	F	36200	\$79,640,000	105		
2232070	M	25TH ST PED BRDG	FDR DRIVE			A-PED	4	C	2/18/2007	4.288	F	1700	\$3,740,000	106		
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		P	A-PED	10	C	2/26/2007	4.119	F	2800	\$6,160,000	106		
2233040	M	E 60TH ST	FDR DRIVE			A	17	S	7/9/2007	4.746	F	24480	\$53,856,000	106		
224001E	M	TO PEARL ST	LAND ADJ TO BRDG			OE	3	S	5/4/2007	5.141	G	5300	\$11,660,000	106		
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE			OE	13	S	6/26/2006	5.507	G	14800	\$32,560,000	106		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE			OE	13	S	6/17/2006	5.764	G	14800	\$32,560,000	106		
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST			OE	10	S	7/26/2006	4.985	F	16720	\$36,784,000	106		
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST			OE	12	S	8/24/2006	4.547	F	11781	\$25,918,200	106		
224004J	M	25X	NYC GARAGE			OE	14	S	7/24/2006	4.537	F	22058	\$48,527,600	106		
2246550	M	PARK AVE VIADUCT	E 42ND ST			O	10	S	12/12/2006	4.448	F	22150	\$48,730,000	106		
2246560	M	TUDOR CITY PLACE	E 42ND ST			O	1	S	4/10/2006	5.133	G	6600	\$14,520,000	106		
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL			OT	2	S	8/4/2006	4.843	F	95000	\$209,000,000	106		
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER			A	119	S	9/9/2005	4.264	F	30767	\$67,687,400	106		
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A		A	145	S	12/22/2006	3.448	F	236100	\$519,420,000	107		
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK	A	P	A-PED	5	C	5/10/2004	4.618	F	3480	\$7,656,000	107		
2229290	M	W 79 ST	AMTRAK	A		A	1	S	9/7/2006	4.288	F	4500	\$9,900,000	107		
2229309	M	HHP	RIVERSIDE PARK			A	1	S	3/20/2006	5.267	G	2400	\$5,280,000	107		
2229311	M	HHP SB	RAMP TO 96 ST			A	1	S	3/27/2006	4.273	F	2000	\$4,400,000	107		
2229312	M	HHP NB	RAMP TO 96 ST			A	1	S	3/27/2006	4.364	F	2000	\$4,400,000	107		
2229321	M	HHP SB	RAMP TO 96 ST			A	1	S	5/9/2006	5.200	G	2000	\$4,400,000	107		
2229322	M	HHP NB	RAMP TO 96 ST			A	1	S	5/9/2006	5.300	G	2000	\$4,400,000	107		
2246970	M	RIVERSIDE DRIVE	W 96TH ST			O	3	S	7/19/2007	5.559	G	10600	\$23,320,000	107		
2257569	M	MILLER HIGHWAY	TERRAIN			A	64	S	8/24/2007	4.831	F	264190	\$581,218,000	107		
2267250	M	HHP	AMTRAK 30TH ST LINE	A		A	55	S	11/29/2006	3.710	F	40000	\$88,000,000	107		
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		P	A	10	S	5/4/2007	4.519	F	27400	\$60,280,000	107		
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		P	A	34	S	7/6/2007	3.934	F	24130	\$53,086,000	107		
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		P	AR	4	S	5/18/2007	4.221	F	3131	\$6,888,200	107		
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		P	AR	21	S	5/31/2007	4.532	F	8989	\$19,775,800	107		
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	21	S	7/13/2007	4.565	F	9095	\$20,009,000	107		
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	4	S	6/4/2007	4.645	F	2601	\$5,722,200	107		
2269190	M	W.70TH STREET	AMTRAK	A		O	3	S	10/14/2005	6.417	V	17258	\$37,967,600	107		
2269210	M	W.68TH STREET	AMTRAK	A		O	3	S	9/28/2005	6.780	V	5382	\$11,840,400	107		
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH			A	1	C	5/21/2007	4.800	F	900	\$1,980,000	107		
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH			A	1	C	6/5/2007	4.900	F	900	\$1,980,000	107		
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		P	A-PED	24	C	10/21/2007	4.844	F	2100	\$4,620,000	108		
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		P	A-PED	19	C	8/28/2007	5.818	G	1800	\$3,960,000	108		
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		P	A-PED	9	C	6/6/2007	2.889	P	1700	\$3,740,000	108		
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.			AT	32	S	6/22/2007	4.591	F	54302	\$119,464,400	108		
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		P	A-PED	53	S	10/31/2007	3.857	F	93000	\$204,600,000	108		
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST			AT	34	S	10/23/2006	6.887	V	58700	\$129,140,000	108		
2245380	M	E 66TH ST	PED WALK N. OF ZOO		P	O	1	S	3/6/2006	5.000	G	1500	\$3,300,000	108		
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		P	O	1	S	3/31/2006	4.364	F	1739	\$3,825,800	108		
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		P	A-PED	3	C	8/13/2007	3.191	F	900	\$1,980,000	108		
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	3	C	7/17/2007	4.183	F	1100	\$2,420,000	109		
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A		O-PED	3	C	3/23/2006	3.446	F	800	\$1,760,000	109	112	
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS			O	27	S	8/6/2007	4.500	F	148300	\$326,260,000	109		
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE			O	4	S	10/14/2005	4.944	F	7500	\$16,500,000	109		
2246720	M	RIVERSIDE DRIVE	W 156TH ST	A		O	77	S	11/16/2007	3.750	F	185658	\$408,447,600	109		
2246980	M	RIVERSIDE DRIVE	W 138TH ST			O	1	S	3/27/2006	4.900	F	6700	\$14,740,000	109		
2266229	M	HHP	PED UNDERPASS @ 148 ST			A	1	S	4/7/2006	5.476	G	1800	\$3,960,000	109		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2267130	M	RIVERSIDE DRIVE	W 145TH ST			O	1	S	6/29/2007	5.000	G	5800	\$12,760,000	109		
2269240	M	RIVERSIDE DRIVE	W. 155TH ST			O	1	S	6/29/2007	4.640	F	4397	\$9,673,400	109	112	
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD			O	1	S	3/28/2006	4.020	F	5600	\$12,320,000	110		
2246710	M	W 153 ST	A.C. POWELL BLVD			O	1	S	3/28/2006	4.093	F	3082	\$6,780,400	110		
2232180	M	E 103RD ST PED BRDG	FDR DRIVE			A-PED	20	C	7/15/2007	4.913	F	6000	\$13,200,000	111		
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		P	A-PED	14	C	10/21/2007	4.420	F	2600	\$5,720,000	111		
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		P	A-PED	21	C	7/27/2007	4.565	F	2500	\$5,500,000	111		
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.			A	11	S	6/12/2007	3.194	F	51000	\$112,200,000	111		
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR			OR	19	S	6/8/2006	4.269	F	29900	\$65,780,000	111		
224007A	M	TO MADISON AVENUE	RELIEF			OR	7	S	5/15/2006	5.225	G	19880	\$43,736,000	111		
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER			WMO-PED	10	C	7/26/2007	4.250	F	12600	\$27,720,000	111		
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M		O	1	S	11/7/2006	4.627	F	3200	\$7,040,000	111		
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST			O-PED	18	C	9/5/2007	4.450	F	2300	\$5,060,000	111		
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE			O-PED	1	C	11/7/2007	4.545	F	500	\$1,100,000	111		
2229349	M	HHP	W 158 ST	A		A	44	S	10/18/2006	4.268	F	140000	\$308,000,000	112		
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE	A		AR	26	S	8/2/2006	3.875	F	10800	\$23,760,000	112		
2229400	M	W 181ST ST PED BRDG	HHP N.B.		P	A-PED	7	C	2/8/2007	4.739	F	1500	\$3,300,000	112		
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		P	O	1	C	5/9/2007	6.000	G	750	\$1,650,000	112		
2245050	M	FORT TRYON PARK	UNDERPASS		P	O	1	C	5/9/2007	4.800	F	750	\$1,650,000	112		
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	9/29/2005	6.431	V	29170	\$64,174,000	112		
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	2	C	8/2/2007	4.400	F	1500	\$3,300,000	112		
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	P	O-PED	6	C	3/28/2006	4.174	F	700	\$1,540,000	112		
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE			O	1	S	5/23/2006	5.143	G	10800	\$23,760,000	112		
2246489	M	W 181 ST	RAMP TO WASH BR			O	1	S	3/7/2006	4.633	F	8200	\$18,040,000	112		
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		P	O	1	S	4/6/2006	4.333	F	6600	\$14,520,000	112		
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		P	O	1	S	3/7/2006	5.000	G	2200	\$4,840,000	112		
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.			O-PED	1	C	12/26/2007	4.517	F	1200	\$2,640,000	112		
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		P	O	1	S	6/21/2006	6.261	V	911	\$2,004,200	112		
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET		P	WO-PED	1	C	11/20/2006	4.140	F	285	\$627,000	112		
2266230	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/27/2006	5.684	G	800	\$1,760,000	112		
2266240	M	HHP	PED UNDERPASS INWD PK			A	1	S	3/3/2006	5.762	G	1100	\$2,420,000	112		
2267240	M	HRD NB RAMP	HARLEM RIVER DR			A	55	S	11/21/2006	3.083	F	122900	\$270,380,000	112		
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE			O-PED	5	C	2/22/2007	4.857	F	1500	\$3,300,000	112		
M00001	M	191ST ST. PED. TUNNEL	BROADWAY TO			O-PED	1	C	12/5/2006	5.000	G	2000	\$4,400,000	112		
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END		P	O	1	S	3/13/2006	4.900	F	1600	\$3,520,000	164		
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		P	O	1	S	3/3/2006	5.267	G	2500	\$5,500,000	164		
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH		P	O-PED	1	C	9/13/2007	4.894	F	1026	\$2,257,200	164		
2246030	M	PEDESTRIAN BRIDGE	POND		P	O-PED	1	C	5/24/2007	4.172	F	1400	\$3,080,000	164		
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		P	O	1	S	3/8/2006	4.867	F	2000	\$4,400,000	164		
2246069	M	EAST DRIVE	PEDESTRIAN WALK		P	O	1	S	3/14/2006	4.500	F	2700	\$5,940,000	164		
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		P	O	1	C	7/5/2007	4.367	F	1200	\$2,640,000	164		
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		P	O	1	S	2/27/2006	4.667	F	2000	\$4,400,000	164		
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		P	O-PED	1	C	3/24/2007	4.655	F	2300	\$5,060,000	164		
2246100	M	CENTRAL DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.200	F	6000	\$13,200,000	164		
2246110	M	EAST DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.633	F	6000	\$13,200,000	164		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246120	M	WEST DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.833	F	7900	\$17,380,000	164		
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		P	O	1	C	5/29/2007	4.233	F	1200	\$2,640,000	164		
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		P	O	1	S	3/6/2006	4.500	F	3600	\$7,920,000	164		
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		P	O	3	S	5/10/2006	5.088	G	7300	\$16,060,000	164		
2246160	M	PED BET 73ST&74ST	THE LAKE		P	WO-PED	1	C	1/16/2007	4.750	F	1655	\$3,641,000	164		
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		P	O	1	S	3/23/2006	5.056	G	1900	\$4,180,000	164		
2246230	M	EAST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/21/2006	4.600	F	6500	\$14,300,000	164		
2246240	M	WEST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/21/2006	4.167	F	7200	\$15,840,000	164		
2246250	M	EAST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/30/2006	4.433	F	5100	\$11,220,000	164		
2246260	M	WEST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/22/2006	4.800	F	5100	\$11,220,000	164		
2246270	M	EAST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/25/2006	3.967	F	7000	\$15,400,000	164		
2246280	M	WEST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/25/2006	4.033	F	4700	\$10,340,000	164		
2246330	M	WEST DRIVE	FEEDER TO LAKE		P	WO	1	S	3/15/2006	5.000	G	2019	\$4,441,800	164		
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE		P	WO-PED	4	C	12/20/2007	4.550	F	455	\$1,001,000	164		
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		P	O	1	C	5/22/2007	4.400	F	750	\$1,650,000	164		
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		P	O	1	S	3/15/2006	5.273	G	3100	\$6,820,000	164		
2246380	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/7/2007	4.347	F	714	\$1,570,800	164		
2246390	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	3	C	12/7/2007	4.192	F	1095	\$2,409,000	164		
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		P	O-PED	1	C	3/10/2007	4.233	F	3700	\$8,140,000	164		
2246430	M	WEST DRIVE	PED OPP 109TH ST		P	O	1	S	3/24/2006	4.250	F	1200	\$2,640,000	164		
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		P	O-PED	1	C	3/10/2007	3.926	F	5900	\$12,980,000	164		
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		P	O-PED	1	C	1/9/2008	4.190	F	5000	\$11,000,000	164		
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		P	O	2	S	3/7/2006	4.368	F	5800	\$12,760,000	164		
2246470	M	EAST DRIVE	THE LOCH		P	WO	1	S	3/23/2006	4.533	F	1100	\$2,420,000	164		
2240047	MQ	QUEENSBORO BRIDGE(LL)	EAST RIVER	AL		WEO	53	S	11/15/2006	4.472	F	626900	\$1,379,180,000	108	402	401
2240048	MQ	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL			WEO	37	S	11/15/2006	4.434	F	322300	\$709,060,000	108	402	401
2240640	MQ	ROOSEVELT ISLAND	E. RIVER E. CHANNEL			WMO	8	S	12/6/2006	4.208	F	36500	\$80,300,000	108	401	
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)			A	1	S	11/9/2006	6.667	V	4200	\$9,240,000	401		
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)			A	1	S	11/8/2006	6.667	V	4200	\$9,240,000	401		
2230620	Q	37TH ST	278I (B.Q.E.)			A	2	S	4/18/2006	4.583	F	5300	\$11,660,000	401		
2230630	Q	35TH ST	278I (B.Q.E.)			A	4	S	6/5/2006	4.819	F	9000	\$19,800,000	401		
2230640	Q	32ND ST	278I (B.Q.E.)			A	2	S	6/11/2007	4.903	F	8100	\$17,820,000	401		
2230657	Q	31ST ST	278I (B.Q.E.)			A	2	S	9/29/2006	4.847	F	9500	\$20,900,000	401		
2230690	Q	BQE EAST LEG NB	32ND AVE			A	1	S	8/2/2006	6.627	V	4080	\$8,976,000	401		
2230700	Q	BQE EAST LEG	TO BQE WEST LEG			A	8	S	12/1/2006	7.000	V	31600	\$69,520,000	401	403	
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE			A	1	S	8/31/2007	6.695	V	5240	\$11,528,000	401		
2230720	Q	BQE EAST LEG	BQE NB WEST LEG			A	3	S	5/17/2007	6.273	V	20896	\$45,971,200	401		
2230730	Q	31ST AVE	278I (B.Q.E.)			A	1	S	7/31/2007	6.517	V	5875	\$12,925,000	401		
2230740	Q	BQE WEST LEG SB	31ST AVE			A	1	S	8/31/2007	6.391	V	5246	\$11,541,200	401		
2230750	Q	BQE EAST LEG SB	31ST AVE			A	1	S	9/17/2007	6.407	V	4221	\$9,286,200	401	403	
2230760	Q	BQE WEST LEG NB	31ST AVE			A	1	S	10/23/2006	6.610	V	4161	\$9,154,200	401		
2230770	Q	BQE WEST LEG	30TH AVE			A	1	S	6/26/2007	6.695	V	6199	\$13,637,800	401		
2230790	Q	BULOVA AVE	BQE WEST LEG			A	2	S	3/20/2006	5.667	G	3300	\$7,260,000	401		
2230800	Q	49TH ST	BQE WEST LEG			A	2	S	3/14/2006	5.333	G	4900	\$10,780,000	401		
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG			A	4	S	1/16/2006	4.221	F	8200	\$18,040,000	401		



# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2230820	Q	47TH ST	GCP			A	2	S	4/7/2006	4.944	F	5700	\$12,540,000	401		
2230830	Q	BQE WEST LEG	GCP			A	2	S	8/16/2006	4.639	F	7600	\$16,720,000	401		
2230840	Q	44TH ST	GCP			A	2	S	3/24/2006	4.847	F	5000	\$11,000,000	401		
2230890	Q	49TH ST	GCP			A	2	S	6/14/2006	4.778	F	6350	\$13,970,000	401		
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)			OE	36	S	11/10/2006	4.634	F	8360	\$18,392,000	401	402	
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL			WO	56	S	12/21/2007	4.521	F	183100	\$402,820,000	401	480	
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L		O-PED	5	C	12/1/2006	3.164	F	700	\$1,540,000	402		
2230520	Q	65TH PLACE	278I (B.Q.E.)			A	2	S	1/20/2006	4.191	F	11600	\$25,520,000	402		
2230530	Q	QUEENS BLVD	278I (B.Q.E.)			A	2	S	10/9/2006	6.083	V	25543	\$56,194,600	402		
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)			A	1	S	1/18/2006	5.063	G	7500	\$16,500,000	402		
2230550	Q	69TH ST	278I (B.Q.E.)			A	2	S	1/26/2006	4.842	F	12600	\$27,720,000	402		
2230560	Q	70TH ST	278I (B.Q.E.)			A	2	S	4/16/2007	5.125	G	8500	\$18,700,000	402		
2230570	Q	41ST AVE	278I (B.Q.E.)			A	3	S	4/16/2007	4.931	F	8800	\$19,360,000	402		
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)			A	2	S	12/12/2007	5.833	G	6600	\$14,520,000	402		
2230590	Q	BROADWAY	278I (B.Q.E.)			O	2	S	11/21/2006	4.053	F	16000	\$35,200,000	402		
2230669	Q	278I (B.Q.E.)	35TH AVE			A	1	S	8/28/2007	6.729	V	13135	\$28,897,000	402		
2230679	Q	278I (B.Q.E.)	34TH AVE			A	1	S	6/13/2007	6.305	V	7793	\$17,144,600	402		
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD			A	1	S	12/4/2006	6.492	V	27011	\$59,424,200	402	401	
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.			A	1	S	11/26/2006	4.205	F	7900	\$17,380,000	402		
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE			OE	94	S	12/7/2006	4.792	F	104600	\$230,120,000	402		
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)			OE	63	S	12/12/2006	4.833	F	63310	\$139,282,000	402	401	
224004H	Q	TO 21ST ST FROM NY	22ND ST			OE	43	S	12/14/2006	4.366	F	48100	\$105,820,000	402		
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE			OE	39	S	10/18/2006	5.082	G	59100	\$130,020,000	402		
2240410	Q	BORDEN AVE	DUTCH KILLS			WMO	2	S	6/26/2007	3.500	F	8400	\$18,480,000	402		
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS			WMO	4	S	7/13/2006	5.083	G	12168	\$26,769,600	402		
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L		O	3	S	10/5/2007	4.349	F	14900	\$32,780,000	402		
2247150	Q	65TH ST	LIRR N SIDE DIV	L		O	3	S	12/19/2007	6.375	V	6344	\$13,956,800	402		
2247160	Q	65TH PLACE	LIRR N SHR DIV	L		O	3	S	12/19/2007	6.471	V	8381	\$18,438,200	402		
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L		O	1	S	11/20/2006	6.183	V	4517	\$9,937,400	402		
2247270	Q	21ST STREET	CONRAIL	C		O	6	S	11/9/2007	5.472	G	17590	\$38,698,000	402		
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L		O	5	S	11/28/2007	4.153	F	20400	\$44,880,000	402		
2247300	Q	THOMPSON AVE	AMTRAK YARD	L		O	14	S	10/16/2006	5.264	G	61280	\$134,816,000	402		
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L		O	19	S	10/11/2006	6.577	V	92400	\$203,280,000	402	401	
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL		O	22	S	12/21/2007	5.903	G	99036	\$217,879,200	402	401	
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL		O	14	S	12/21/2007	6.556	V	48200	\$106,040,000	402	401	
2247370	Q	37TH AVE	CONRAIL HELLGATE	C		O	1	S	11/13/2007	6.362	V	5300	\$11,660,000	402		
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C		O	2	S	11/27/2007	5.889	G	5200	\$11,440,000	402	403	404
2247390	Q	41ST AVE	CONRAIL HELLGATE	C		O	2	S	11/13/2007	4.942	F	4400	\$9,680,000	402	404	
2247400	Q	WOODSIDE AVE	CONRAIL	C		O	1	S	11/26/2007	5.033	G	8200	\$18,040,000	402	404	
2247410	Q	43RD AVE	CONRAIL	C		O	1	S	11/26/2007	5.033	G	4800	\$10,560,000	402	404	
2247420	Q	44TH AVE	CONRAIL	C		O	1	S	10/26/2007	5.033	G	5100	\$11,220,000	402	404	
2247430	Q	45TH AVE	CONRAIL	C		O	1	S	11/14/2007	5.306	G	2400	\$5,280,000	402	404	
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL		O	9	S	12/20/2007	6.125	V	34100	\$75,020,000	402		
2230780	Q	BQE EAST LEG	30TH AVE			A	1	S	6/26/2007	6.524	V	7071	\$15,556,200	403	401	
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L		O	1	S	11/29/2007	6.833	V	2760	\$6,072,000	404		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L		O-PED	5	C	12/6/2006	4.030	F	500	\$1,100,000	404		
2247180	Q	GRAND AVE	LIRR MAIN LINE	L		O	3	S	10/6/2007	4.849	F	7415	\$16,313,000	404		
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	11/30/2006	4.360	F	13000	\$28,600,000	404		
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD			O	2	S	8/9/2006	4.288	F	11500	\$25,300,000	404		
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L		O	2	S	9/25/2007	3.762	F	20900	\$45,980,000	405		
2065930	Q	HAMILTON PLACE	49SI (L.I.E.)			A	2	S	4/11/2006	6.069	V	11111	\$24,444,200	405		
2065940	Q	GRAND AVE	49SI (L.I.E.)			A	2	S	10/23/2006	5.264	G	12850	\$28,270,000	405		
2065950	Q	69TH STREET	49SI (L.I.E.)			A	2	S	5/23/2007	5.361	G	10336	\$22,739,200	405		
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY			A	1	S	5/8/2006	5.278	G	5000	\$11,000,000	405		
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY			A	1	S	1/31/2006	5.444	G	4200	\$9,240,000	405		
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY			A	1	S	2/16/2006	5.563	G	6400	\$14,080,000	405	482	
2247440	Q	GRAND AVE	CONRAIL	C		O	1	S	11/20/2007	6.183	V	3280	\$7,216,000	405		
2247450	Q	57TH AVE	CONRAIL	C		O	1	S	11/20/2007	6.073	V	2248	\$4,945,600	405		
2247460	Q	CALDWELL AVE	CONRAIL	C		O	1	S	9/6/2006	6.194	V	2243	\$4,934,600	405		
2247470	Q	ELIOT AVE	CONRAIL	C		O	1	S	11/20/2007	5.250	G	2960	\$6,512,000	405		
2247480	Q	JUNIPER BLVD SO	CONRAIL	C		O	1	S	11/21/2007	5.111	G	9000	\$19,800,000	405		
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C		O	1	S	9/6/2006	5.362	G	6175	\$13,585,000	405		
2247500	Q	METROPOLITAN AVE	CONRAIL	C		O	1	S	11/27/2007	4.233	F	18650	\$41,030,000	405		
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L		O	1	S	9/27/2007	7.000	V	1765	\$3,883,000	405		
2247540	Q	60TH ST	LIRR MONTAUK DIV	L		O	2	S	9/28/2007	5.208	G	5340	\$11,748,000	405		
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L		O	2	S	9/26/2007	5.894	G	9550	\$21,010,000	405		
2247570	Q	80TH ST	71ST TO 77TH AVE	L		O	5	S	9/27/2006	5.169	G	11725	\$25,795,000	405		
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	11/29/2006	4.934	F	2293	\$5,044,600	405	406	
2248200	Q	RUST ST	FLUSHING AVE			O	1	S	7/27/2007	5.078	G	2940	\$6,468,000	405		
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE			O	1	S	7/27/2007	5.063	G	2940	\$6,468,000	405		
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE			O	1	S	7/27/2007	5.188	G	2940	\$6,468,000	405		
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH		P	O-PED	1	C	12/4/2007	3.667	F	1856	\$4,083,200	405		
2248300	Q	71ST AVE	COOPER AVE			O	1	S	7/16/2007	4.458	F	2800	\$6,160,000	405		
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L		O-PED	3	C	12/7/2006	4.000	F	1300	\$2,880,000	406		
2066002	Q	49SI (2066000)	WOODHAVEN BLVD			A	2	S	6/29/2007	5.592	G	25200	\$55,440,000	406	404	
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR			O-PED	8	C	5/9/2007	5.422	G	900	\$1,980,000	406		
2248160	Q	ELLIOT AVE	QUEENS BLVD			O	2	S	8/9/2006	4.922	F	13785	\$30,327,000	406		
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)			A	1	S	8/17/2006	4.683	F	2500	\$5,500,000	407		
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER			WO	40	S	9/20/2006	4.817	F	71900	\$158,180,000	407		
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER			WO	40	S	9/20/2006	4.366	F	78894	\$173,566,800	407		
205580A	Q	N.BLVD WB TO 67th SB	VACANT LAND			AR	16	S	9/1/2006	5.571	G	8600	\$18,920,000	407		
2231900	Q	BCIP	FORT TOTTEN ENTRANCE			A	1	S	6/29/2006	4.797	F	4900	\$10,780,000	407		
2231910	Q	UTOPIA PKWY	BCIP			A	2	S	2/10/2006	5.136	G	7200	\$15,840,000	407		
2231920	Q	160TH ST	BCIP			A	2	S	5/2/2007	5.750	G	5550	\$12,210,000	407		
2231930	Q	FRANCIS LEWIS BLVD	BCIP			A	3	S	2/6/2006	4.773	F	9100	\$20,020,000	407		
2231940	Q	CLINTONVILLE ST	BCIP			A	2	S	2/6/2006	4.705	F	7400	\$16,280,000	407		
2231950	Q	150TH ST	BCIP			A	2	S	2/6/2006	4.977	F	5900	\$12,980,000	407		
2231960	Q	149TH ST	BCIP			A	2	S	2/9/2006	4.841	F	6210	\$13,662,000	407		
2231970	Q	14TH AVE	BCIP			A	2	S	2/9/2006	4.705	F	8100	\$17,820,000	407		
2231980	Q	147TH ST	BCIP			A	2	S	2/9/2006	4.523	F	6300	\$13,860,000	407		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2240507	Q	ROOSEVELT AVE	6781 - VAN WYCK EXPWY			WA	27	S	12/13/2006	3.535	F	84424	\$185,732,800	407	481	
2247040	Q	UNION ST	LIRR N SIDE DIV	L		O	1	S	10/12/2007	6.391	V	3313	\$7,288,600	407		
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L		O	1	S	8/28/2006	5.490	G	4974	\$10,942,800	407		
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L		O	1	S	8/29/2006	5.176	G	4200	\$9,240,000	407		
2247070	Q	147TH ST	LIRR N SIDE DIV	L		O	1	S	9/21/2007	5.549	G	2800	\$6,160,000	407		
2247080	Q	149TH ST	LIRR N SIDE DIV	L		O	1	S	9/19/2007	4.776	F	4100	\$9,020,000	407		
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L		O	2	S	9/20/2007	5.000	G	4300	\$9,460,000	407		
2247100	Q	150TH ST	LIRR N SIDE DIV	L		O	2	S	9/18/2007	6.176	V	7830	\$17,226,000	407		
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L		O	1	S	9/17/2007	5.481	G	4000	\$8,800,000	407		
2248090	Q	FLSHG MDW PK PED.	COLLEGE POINT BLVD		P	O-PED	3	C	12/18/2007	4.694	F	8418	\$18,519,600	407		
2266160	Q	6781 SB TO BCIP EB	ACCESS RD FROM 6781			A	1	S	6/12/2007	4.078	F	2300	\$5,060,000	407		
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	3	C	11/28/2006	4.020	F	600	\$1,320,000	407		
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD		P	O-PED	2	C	7/24/2007	4.708	F	2756	\$6,063,200	408		
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD		P	O-PED	3	C	11/28/2007	5.000	G	2670	\$5,874,000	408		
2248100	Q	MOTOR PKWY (PED)	73RD AVE		P	O-PED	3	C	2/9/2007	4.965	F	2640	\$5,808,000	408		
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD			O	1	S	4/17/2007	5.033	G	7085	\$15,587,000	408		
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T		A	5	S	7/18/2006	4.778	F	37700	\$82,940,000	409		
2247220	Q	80TH ROAD	LIRR MAIN LINE	L		O	3	S	10/21/2007	4.857	F	4100	\$9,020,000	409		
2247230	Q	82ND AVE	LIRR MAIN LINE	L		O	3	S	10/21/2007	5.377	G	4100	\$9,020,000	409		
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L		O	3	S	10/21/2007	5.806	G	5460	\$12,012,000	409		
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	P	O	5	S	10/18/2007	5.509	G	6000	\$13,200,000	409		
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL		O	1	S	9/7/2006	6.983	V	3024	\$6,652,800	409	482	
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	P	O	6	S	4/16/2007	5.286	G	10000	\$22,000,000	409		
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE			O	3	S	6/6/2006	4.417	F	19400	\$42,680,000	409		
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST			O	1	S	5/30/2006	4.250	F	5900	\$12,980,000	409	406	
2248340	Q	FOREST PARK DR	MYRTLE AVE		P	O	3	S	6/25/2007	4.984	F	5100	\$11,220,000	409		
2231559	Q	CROSS BAY BLVD	BSHP			A	4	S	5/19/2006	5.194	G	23205	\$51,051,000	410		
2231560	Q	S CONDUIT BLVD	BSOP			A	2	S	7/20/2006	5.465	G	15776	\$34,707,200	410		
2231570	Q	COHANCY ST	BSOP			A	2	S	4/19/2006	4.632	F	6400	\$14,080,000	410		
2231580	Q	AQUEDUCT RCTK RAMP	BSOP			A	4	S	6/23/2006	4.125	F	14000	\$30,800,000	410		
2231590	Q	130TH ST	BSOP			A	2	S	2/2/2006	4.750	F	6800	\$14,960,000	410		
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN			WO-PED	13	C	4/6/2006	4.357	F	5000	\$11,000,000	410		
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE			O-PED	7	C	12/27/2007	4.465	F	5500	\$12,100,000	410		
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD			O	2	S	7/2/2007	6.444	V	16544	\$36,396,800	410		
2248040	Q	LINDEN BLVD	CONDUIT AVE			O	1	S	6/22/2006	5.233	G	3352	\$7,374,400	410		
2248250	Q	102ND ST	HAWTREE BASIN			WO	3	S	7/26/2007	5.941	G	4900	\$10,780,000	410		
2231860	Q	W ALLEY ROAD	BCIP			A	2	S	8/3/2007	5.474	G	7200	\$15,840,000	411		
2231870	Q	NORTHERN BLVD	BCIP			A	2	S	10/9/2006	6.458	V	9400	\$20,680,000	411		
2231880	Q	CROCHERON PK PED	BCIP		P	A-PED	11	C	5/22/2007	4.826	F	2300	\$5,060,000	411		
2231890	Q	28TH AVE PED BRDG	BCIP		P	A-PED	24	C	7/20/2007	4.600	F	7600	\$16,720,000	411		
2240440	Q	NORTHERN BLVD	ALLEY CREEK			WO	2	S	5/30/2006	4.750	F	8300	\$18,260,000	411		
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L		O	1	S	10/11/2007	6.235	V	3379	\$7,433,800	411		
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L		O	1	S	10/10/2007	5.814	G	4320	\$9,504,000	411		
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L		O	3	S	8/30/2006	4.949	F	6300	\$13,860,000	411		
2247680	Q	221ST ST	LIRR N SIDE DIV	L		O	3	S	10/9/2007	6.000	G	6050	\$13,310,000	411		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2248060	Q	MOTOR PKWY (PED)	BELL BLVD		P	O-PED	2	C	7/13/2007	4.778	F	2648	\$5,825,600	411		
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD		P	O-PED	3	C	7/17/2007	4.524	F	2940	\$6,468,000	411		
2266129	Q	DOUGLASTON PKWY	BCIP			A	1	S	3/24/2006	4.429	F	4400	\$9,680,000	411		
2266139	Q	DOUGLASTON PKWY	BCIP			A	1	S	3/23/2006	4.633	F	6400	\$14,080,000	411		
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	6	C	11/27/2006	3.688	F	400	\$880,000	411		
2231610	Q	GUY R. BREWER BLVD	BSOP			A	4	S	5/21/2007	6.569	V	12342	\$27,152,400	413		
2231620	Q	FARMERS BLVD	BSOP			A	2	S	6/15/2006	4.568	F	6400	\$14,080,000	413		
2231630	Q	SPRINGFIELD BLVD	BSOP			A	2	S	4/27/2006	4.568	F	8500	\$18,700,000	413		
2231640	Q	225TH ST	BSOP			A	2	S	6/16/2006	4.727	F	7000	\$15,400,000	413		
2231650	Q	SUNRISE HWY W.B.	BLP E.B.			A	1	S	3/27/2006	4.623	F	4100	\$9,020,000	413		
2231660	Q	SUNRISE HWY W.B.	BLP W.B.			A	2	S	4/6/2006	4.565	F	5350	\$11,770,000	413		
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.			A	1	S	1/16/2006	4.917	F	4000	\$8,800,000	413		
2231680	Q	N CONDUIT AVE WB	BLP W.B.			A	2	S	1/16/2006	4.932	F	6500	\$14,300,000	413		
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.			A	1	S	3/14/2006	5.167	G	6000	\$13,200,000	413		
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.			A	1	S	3/14/2006	4.833	F	6000	\$13,200,000	413		
2231710	Q	MERRICK BLVD	BLP N.B.			A	1	S	3/23/2006	4.467	F	6000	\$13,200,000	413		
2231720	Q	MERRICK BLVD	BLP S.B.			A	1	S	3/23/2006	4.200	F	6000	\$13,200,000	413		
2231730	Q	130TH AVE	BLP N.B.			A	1	S	1/16/2006	5.267	G	4400	\$9,680,000	413		
2231740	Q	130TH AVE	BLP S.B.			A	1	S	1/11/2006	4.767	F	4400	\$9,680,000	413		
2231750	Q	LINDEN BLVD	BCIP			A	2	S	2/16/2006	4.341	F	6700	\$14,740,000	413		
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE			A	1	S	2/24/2006	4.442	F	7300	\$16,060,000	413		
2231770	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	2/7/2006	4.688	F	3200	\$7,040,000	413		
2231780	Q	HEMPSTEAD AVE	BCIP			A	2	S	3/16/2006	4.161	F	14200	\$31,240,000	413		
2231790	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	1/16/2006	4.656	F	3400	\$7,480,000	413		
2231800	Q	SUPERIOR ROAD	BCIP			A	2	S	3/13/2006	4.318	F	7000	\$15,400,000	413		
2231819	Q	JAMAICA AVE	BCIP			A	2	S	3/3/2006	4.773	F	11500	\$25,300,000	413		
2231829	Q	BRADDOCK AVE	BCIP			A	2	S	3/3/2006	4.591	F	10600	\$23,320,000	413		
2231840	Q	HILLSIDE AVE	BCIP			A	2	S	4/4/2006	4.079	F	9672	\$21,278,400	413		
2231850	Q	UNION TPKE	BCIP			A	2	S	5/23/2006	4.364	F	13600	\$29,920,000	413		
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK		P	O-PED	1	C	8/29/2007	5.000	G	963	\$2,118,600	413		
2248129	Q	UNION TPKE	CREEDMOORE HOSP RD			O	1	S	7/6/2007	4.867	F	3500	\$7,700,000	413		
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY			A	2	S	3/20/2006	4.207	F	9500	\$20,900,000	413		
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY			A	1	S	4/21/2006	5.250	G	9508	\$20,917,600	413		
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)			O	1	S	5/15/2007	4.667	F	1470	\$3,234,000	413		
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE			WO	3	S	7/27/2007	6.271	V	18302	\$40,264,400	413		
Q000002	Q	BCIP	PATH OPPOSITE 88TH RD			A	1	C	5/31/2007	4.667	F	1200	\$2,640,000	413		
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD		P	WO-PED	4	C	4/20/2002	1.000	C	1891	\$4,160,200	481		
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE		P	WO-PED	5	C	11/1/2007	4.880	F	4102	\$9,024,400	481		
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		P	WO	5	S	5/26/2006	4.855	F	4200	\$9,240,000	481		
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE		P	WO-PED	5	C	4/25/2007	4.500	F	6321	\$13,906,200	481		
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD			O	4	S	8/8/2007	4.905	F	7280	\$16,016,000	481		
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE			A	2	S	4/19/2006	5.321	G	8673	\$19,080,600	482		
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY			A	1	S	2/7/2006	5.984	G	5359	\$11,789,800	482		
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY			A	1	S	4/13/2006	5.389	G	4400	\$9,680,000	482	406	
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L		O	3	S	1/11/2006	5.111	G	6725	\$14,795,000	482	406	



# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN			WO	2	S	8/7/2007	5.158	G	6000	\$13,200,000	483	413	
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB			O	1	S	7/19/2007	4.400	F	3600	\$7,920,000	484		
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)			O	1	S	4/4/2006	6.234	V	5096	\$11,211,200	501		
2249070	R	JOHN ST	B&O RAILROAD	O		O-PED	3	C	12/26/2007	5.648	G	5800	\$12,760,000	501		
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O		O	4	S	4/20/2007	5.169	G	7900	\$17,380,000	501		
2249100	R	GRANITE AVE	B&O RAILROAD	O		O	4	S	3/21/2006	6.034	V	7300	\$16,060,000	501		
2249110	R	LAKE AVE	B&O RAILROAD	O		O	3	S	4/18/2007	5.333	G	5900	\$12,980,000	501		
2249120	R	SIMONSON AVE	B&O RAILROAD	O		O	3	S	4/20/2007	5.981	G	5819	\$12,801,800	501		
2249130	R	VAN NAME AVE	B&O RAILROAD	O		O	3	S	4/25/2007	5.254	G	5474	\$12,042,800	501		
2249140	R	VAN PELT AVE	B&O RAILROAD	O		O	3	S	4/27/2007	5.644	G	5000	\$11,000,000	501		
2249160	R	DE HART AVE	B&O RAILROAD	O		O	4	S	4/20/2007	6.500	V	6700	\$14,740,000	501		
2249170	R	UNION AVE	B&O RAILROAD	O		O	4	S	4/17/2007	5.426	G	6500	\$14,300,000	501		
2249180	R	HARBOR ROAD	B&O RAILROAD	O		O	4	S	5/18/2007	6.356	V	5778	\$12,711,600	501		
2249200	R	SOUTH AVE	B&O RAILROAD	O		O	3	S	12/8/2007	6.745	V	8322	\$18,308,400	501		
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S		O	2	S	10/20/2006	5.537	G	5378	\$11,831,600	501		
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S		O	10	S	11/30/2007	4.763	F	10020	\$22,044,000	501		
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	26	C	7/19/2007	5.000	G	1600	\$3,520,000	501		
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	1/3/2007	4.371	F	899	\$1,977,800	501		
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	1/3/2007	4.229	F	899	\$1,977,800	501		
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE		P	WO-PED	1	C	12/11/2007	3.514	F	972	\$2,138,400	501		
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM			WO	2	S	5/16/2007	4.600	F	7000	\$15,400,000	501		
2249770	R	S OF BROOKS LAKE	STREAM IN PARK		P	WO-PED	3	C	12/11/2007	5.000	G	696	\$1,531,200	501		
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		P	WO-PED	1	C	10/29/2007	4.700	F	800	\$1,760,000	501		
2249790	R	FB S OF FOREST AV	STREAM IN PARK		P	WO-PED	3	C	12/10/2007	5.000	G	658	\$1,447,600	501		
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		P	WO	1	S	10/18/2007	4.867	F	1600	\$3,520,000	501		
2249840	R	TOMPKINS AVE	GREENFIELD AVE			O	1	S	2/15/2006	5.106	G	2562	\$5,636,400	501		
2269730	R	PARKING EXIT RAMP	SIRT	S	F	O	10	S	12/17/2007	4.083	F	20727	\$45,599,400	501		
2269740	R	BUS STATION NORTH	SIRT	S	F	O	12	S	11/16/2006	4.880	F	64605	\$142,131,000	501		
2269750	R	BUS STATION SOUTH	SIRT	S	F	O	12	S	12/21/2007	4.720	F	154688	\$340,313,600	501		
2269760	R	NORTH RAMP	SIRT	S	F	O	9	S	10/26/2007	4.181	F	17589	\$38,695,800	501		
2269770	R	BUS STA ENTR RAMP	SIRT	S	F	O	19	S	11/21/2006	4.319	F	39333	\$86,532,600	501		
2269780	R	PARKING ENTR RAMP	SIRT	S	F	O	3	S	12/12/2007	4.986	F	8589	\$18,895,800	501		
2269790	R	BUS STATION EXIT RAMP	SIRT	S	F	O	7	S	10/12/2006	4.667	F	28721	\$63,186,200	501		
2270170	R	SI FERRY PEDESTRIAN BRIDGE	PARKING LOT EXIT ROADWAY		F	O-PED	5	C	1/10/2006	4.481	F	1750	\$3,850,000	501		
2270180	R	BOROUGH PLACE - RAMP A	STATEN ISLAND RAILWAY	S	F	O	1	S	12/29/2005	4.938	F	1250	\$2,750,000	501		
2240350	R	RICHMOND AVE	RICHMOND CREEK			WO	3	S	8/10/2007	5.653	G	32589	\$71,695,800	502		
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S		O	2	S	11/5/2007	5.576	G	3700	\$8,140,000	502		
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S		O	2	S	11/7/2007	5.500	G	3800	\$8,360,000	502		
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S		O	2	S	11/5/2007	5.591	G	3800	\$8,360,000	502		
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S		O	2	S	11/7/2007	4.972	F	7600	\$16,720,000	502		
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S		O	3	S	11/9/2007	5.361	G	5900	\$12,980,000	502		
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	3/1/2007	3.488	F	800	\$1,760,000	502		
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S		O	1	S	11/3/2007	5.310	G	4500	\$9,900,000	502		
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S		O	1	S	11/9/2007	5.569	G	3000	\$6,600,000	502		
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S		O	2	S	11/27/2007	6.542	V	5100	\$11,220,000	502		

# INVENTORY BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S		O	3	S	10/31/2006	6.097	V	5104	\$11,228,800	502		
2249860	R	SLATER BLVD	NEW CREEK			WO	1	S	5/15/2007	5.673	G	2037	\$4,481,400	502		
2249870	R	TRAVIS AVE	MAIN CREEK			WO	1	S	11/10/2007	5.783	G	1700	\$3,740,000	502		
2249880	R	CHELSEA ROAD	SAWMILL CREEK			WO	1	S	5/4/2007	6.833	V	2205	\$4,851,000	502		
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	3/20/2007	4.309	F	400	\$880,000	503		
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	3/20/2007	4.043	F	200	\$440,000	503		
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S		O	1	S	11/1/2006	4.759	F	3650	\$8,030,000	503		
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S		O-PED	12	C	2/28/2007	3.436	F	500	\$1,100,000	503		
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S		O	4	S	10/19/2007	6.347	V	30710	\$67,562,000	503		
2249270	R	RICHMOND VALLY ROAD	SIRT SOUTH SHORE	S		O	4	S	10/25/2007	5.284	G	9440	\$20,768,000	503		
2249280	R	CHAMP COURT PED BRDG	SIRT SOUTH SHORE	S		O-PED	7	C	3/21/2007	5.049	G	200	\$440,000	503		
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S		O	1	S	10/19/2007	6.016	V	3250	\$7,150,000	503		
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S		O	2	S	10/23/2007	4.864	F	4900	\$10,780,000	503		
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S		O	3	S	11/6/2007	4.623	F	6500	\$14,300,000	503		
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S		O	2	S	10/29/2007	4.409	F	4500	\$9,900,000	503		
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	3/5/2007	4.686	F	300	\$660,000	503		
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S		O	1	S	10/31/2006	5.781	G	3042	\$6,692,400	503		
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S		O	1	S	11/12/2007	6.750	V	2650	\$5,830,000	503		
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S		O	3	S	11/5/2007	4.869	F	6900	\$15,180,000	503		
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/12/2007	4.615	F	600	\$1,320,000	503		
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/13/2007	5.039	G	400	\$880,000	503		
2249810	R	HYLAN BLVD	LEMON CREEK			WO	1	S	2/27/2006	6.406	V	11400	\$25,080,000	503		
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM			WO	1	S	5/2/2007	4.286	F	2000	\$4,400,000	503		
2268920	R	AMBOY ROAD	LEMON CREEK			WO	1	S	2/27/2006	6.500	V	1310	\$2,882,000	503		
788 OPEN BRIDGES				OPEN SPANS 4489				OPEN SF				15,791,539	\$34,741,385,800			

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2248250	Q	102ND ST	HAWTREE BASIN			WO	3	S	7/26/2007	5.941	G	4900	\$10,780,000	410		
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A		O	2	S	11/3/2006	4.588	F	15400	\$33,880,000	104		
2243630	K	11TH AVE	LIRR & SEA BEACH	NT		O	5	S	9/7/2006	6.603	V	9700	\$21,340,000	310		
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL		O	39	S	12/15/2006	3.917	F	157500	\$346,500,000	104		
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE			O-PED	1	C	11/7/2007	4.545	F	500	\$1,100,000	111		
2231730	Q	130TH AVE	BLP N.B.			A	1	S	1/16/2006	5.267	G	4400	\$9,680,000	413		
2231740	Q	130TH AVE	BLP S.B.			A	1	S	1/11/2006	4.767	F	4400	\$9,680,000	413		
2231590	Q	130TH ST	BSOP			A	2	S	2/2/2006	4.750	F	6800	\$14,960,000	410		
2243640	K	13TH AVE	LIRR & SEA BEACH	NT		O	5	S	10/31/2007	4.694	F	16000	\$35,200,000	310		
2240089	BM	145TH ST BRIDGE	HARLEM RIVER			WMO	8	S	6/24/2006	3.083	F	56700	\$124,740,000	110	204	201
2231980	Q	147TH ST	BCIP			A	2	S	2/9/2006	4.523	F	6300	\$13,860,000	407		
2247070	Q	147TH ST	LIRR N SIDE DIV	L		O	1	S	9/21/2007	5.549	G	2800	\$6,160,000	407		
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L		O	2	S	9/20/2007	5.000	G	4300	\$9,460,000	407		
2231960	Q	149TH ST	BCIP			A	2	S	2/9/2006	4.841	F	6210	\$13,662,000	407		
2247080	Q	149TH ST	LIRR N SIDE DIV	L		O	1	S	9/19/2007	4.776	F	4100	\$9,020,000	407		
2231970	Q	14TH AVE	BCIP			A	2	S	2/9/2006	4.705	F	8100	\$17,820,000	407		
2243650	K	14TH AVE	LIRR BAY RIDGE	N		O	1	S	9/22/2006	6.667	V	4720	\$10,384,000	311		
2231950	Q	150TH ST	BCIP			A	2	S	2/6/2006	4.977	F	5900	\$12,980,000	407		
2247100	Q	150TH ST	LIRR N SIDE DIV	L		O	2	S	9/18/2007	6.176	V	7830	\$17,226,000	407		
2243670	K	15TH AVE	BMT SEA BEACH	T		O	4	S	9/20/2007	6.386	V	16020	\$35,244,000	311		
2243340	K	15TH AVE	LIRR BAY RIDGE	N		O	1	S	9/28/2006	4.745	F	3614	\$7,950,800	311		
2231920	Q	160TH ST	BCIP			A	2	S	5/2/2007	5.750	G	5550	\$12,210,000	407		
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN			WO-PED	13	C	4/6/2006	4.357	F	5000	\$11,000,000	410		
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	3	C	11/28/2006	4.020	F	600	\$1,320,000	407		
2243680	K	16TH AVE	BMT SEA BEACH	T		O	3	S	8/11/2006	5.519	G	6816	\$14,995,200	311		
2243360	K	16TH AVE	LIRR BAY RIDGE	N		O	1	S	11/10/2006	5.483	G	4345	\$9,559,000	311		
206672A	B	174TH ST-NTH PED BRDG	89SI - SHERIDAN EXPWY			A-PED	4	C	3/14/2007	5.153	G	1800	\$3,960,000	209		
206672B	B	174TH ST-STH PED BRDG	89SI - SHERIDAN EXPWY			A-PED	4	C	3/14/2007	5.361	G	1900	\$4,180,000	209		
2243690	K	17TH AVE	BMT SEA BEACH	T		O	4	S	8/18/2006	6.288	V	8946	\$19,681,200	311		
2243370	K	17TH AVE	LIRR BAY RIDGE	N		O	1	S	11/14/2006	4.745	F	3406	\$7,493,200	312		
2231300	K	17TH AVE PED BRDG	BSHP		P	A-PED	1	C	12/5/2007	3.397	F	2100	\$4,620,000	311		
2243700	K	18TH AVE	BMT SEA BEACH	T		O	1	S	9/18/2007	6.842	V	5200	\$11,440,000	311		
2243380	K	18TH AVE	LIRR BAY RIDGE	N		O	1	S	11/21/2006	4.813	F	6006	\$13,213,200	312		
M00001	M	191ST ST. PED. TUNNEL	BROADWAY TO			O-PED	1	C	12/5/2006	5.000	G	2000	\$4,400,000	112		
2243710	K	19TH AVE	BMT SEA BEACH	T		O	4	S	8/8/2006	4.395	F	4800	\$10,560,000	311		
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	P	O-PED	1	C	7/26/2004	4.121	F	4700	\$10,340,000	227	207	
2243720	K	20TH AVE	BMT SEA BEACH	T		O	6	S	7/26/2006	4.897	F	12500	\$27,500,000	311		
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L		O-PED	6	C	11/27/2006	3.688	F	400	\$880,000	411		
2243820	K	21ST AVE	BMT SEA BEACH	T		O	4	S	8/11/2006	4.132	F	21400	\$47,080,000	311		
2247270	Q	21ST STREET	CONRAIL	C		O	6	S	11/9/2007	5.472	G	17590	\$38,698,000	402		
2247680	Q	221ST ST	LIRR N SIDE DIV	L		O	3	S	10/9/2007	6.000	G	6050	\$13,310,000	411		
2231640	Q	225TH ST	BSOP			A	2	S	6/16/2006	4.727	F	7000	\$15,400,000	413		
2229450	B	232ND ST	HHP			A	2	S	10/1/2007	5.026	G	4900	\$10,780,000	208		
2229460	B	236TH ST PED BRDG	HHP			A-PED	3	C	7/16/2007	4.894	F	2500	\$5,500,000	208		
2229470	B	239TH ST	HHP			A	2	S	5/31/2007	5.368	G	6100	\$13,420,000	208		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2229490	B	246TH ST	HHP			A	2	S	5/8/2007	4.632	F	5600	\$12,320,000	208		
2229500	B	252ND ST	HHP			A	2	S	2/23/2006	3.947	F	4500	\$9,900,000	208		
2232070	M	25TH ST PED BRDG	FDR DRIVE			A-PED	4	C	2/18/2007	4.288	F	1700	\$3,740,000	106		
224004J	M	25X	NYC GARAGE			OE	14	S	7/24/2006	4.537	F	22058	\$48,527,600	106		
2230679	Q	278I (B.Q.E.)	34TH AVE			A	1	S	6/13/2007	6.305	V	7793	\$17,144,600	402		
2230669	Q	278I (B.Q.E.)	35TH AVE			A	1	S	8/28/2007	6.729	V	13135	\$28,897,000	402		
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.			A	1	S	1/18/2006	5.200	G	2700	\$5,940,000	302		
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.			A	1	S	2/3/2006	4.933	F	2500	\$5,500,000	302		
2230470	K	278I (B.Q.E.)	JAY ST			A	1	S	4/1/2006	4.900	F	5100	\$11,220,000	302		
2230857	K	278I (B.Q.E.)	JORALEMON ST			A	1	S	4/26/2006	5.000	G	2100	\$4,620,000	302		
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB			A	2	S	4/28/2006	4.177	F	5900	\$12,980,000	302		
2230510	K	278I (B.Q.E.)	NASSAU ST			A	6	S	3/26/2006	4.236	F	51200	\$112,640,000	302		
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD			A	1	S	12/4/2006	6.492	V	27011	\$59,424,200	402	401	
2230460	K	278I (B.Q.E.)	PEARL ST			A	1	S	2/10/2006	5.333	G	4500	\$9,900,000	302		
2230430	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	1/3/2006	5.533	G	1100	\$2,420,000	302		
2230480	K	278I (B.Q.E.)	PROSPECT ST			A	1	S	3/10/2006	5.093	G	8400	\$18,480,000	302		
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB			A	1	S	3/1/2006	5.100	G	1300	\$2,860,000	302		
2230490	K	278I (B.Q.E.)	SANDS ST			A	1	S	3/13/2006	5.074	G	12600	\$27,720,000	302		
2230410	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/1/2006	4.563	F	2500	\$5,500,000	302		
2230420	K	278I (B.Q.E.)	WASHINGTON ST			A	1	S	4/1/2006	4.750	F	2500	\$5,500,000	302		
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	69	S	8/8/2007	4.035	F	1337084	\$2,941,584,800	302		
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	11	S	5/18/2007	4.034	F	20529	\$45,163,800	302		
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)			A	5	S	10/16/2007	4.214	F	9275	\$20,405,000	302		
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB			A	2	S	5/1/2006	5.053	G	4500	\$9,900,000	302		
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE			A	1	S	8/31/2007	6.695	V	5240	\$11,528,000	401		
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA			A	2	S	5/1/2006	4.426	F	4500	\$9,900,000	302		
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST			A	45	S	9/15/2007	4.214	F	86406	\$190,093,200	302		
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST			A	7	S	7/27/2007	4.059	F	10988	\$24,173,600	302		
2268507	K	278I W.B. (B.Q.E.)	YORK ST			A	6	S	5/14/2007	4.167	F	10388	\$22,853,600	302		
2231330	K	27TH AVE PED BRDG	BSHP		P	A-PED	1	C	1/15/2008	4.415	F	2100	\$4,620,000	313		
2231890	Q	28TH AVE PED BRDG	BCIP		P	A-PED	24	C	7/20/2007	4.600	F	7600	\$16,720,000	411		
2243310	K	2ND AVE	LIRR BAY RIDGE	N		O	2	S	9/21/2006	6.611	V	17751	\$39,052,200	310		
2230730	Q	31ST AVE	278I (B.Q.E.)			A	1	S	7/31/2007	6.517	V	5875	\$12,925,000	401		
2230657	Q	31ST ST	278I (B.Q.E.)			A	2	S	9/29/2006	4.847	F	9500	\$20,900,000	401		
2230640	Q	32ND ST	278I (B.Q.E.)			A	2	S	6/11/2007	4.903	F	8100	\$17,820,000	401		
2230630	Q	35TH ST	278I (B.Q.E.)			A	4	S	6/5/2006	4.819	F	9000	\$19,800,000	401		
2247370	Q	37TH AVE	CONRAIL HELLGATE	C		O	1	S	11/13/2007	6.362	V	5300	\$11,660,000	402		
2230620	Q	37TH ST	278I (B.Q.E.)			A	2	S	4/18/2006	4.583	F	5300	\$11,660,000	401		
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL		O	9	S	12/20/2007	6.125	V	34100	\$75,020,000	402		
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL		O	14	S	12/21/2007	6.556	V	48200	\$106,040,000	402	401	
2243320	K	3RD AVE	LIRR BAY RIDGE	N		O	4	S	11/19/2007	5.347	G	17230	\$37,906,000	310		
2244160	K	3RD AVE	SHORE RD DRIVE			O	1	S	5/8/2007	6.727	V	4360	\$9,592,000	310		
2230570	Q	41ST AVE	278I (B.Q.E.)			A	3	S	4/16/2007	4.931	F	8800	\$19,360,000	402		
2247390	Q	41ST AVE	CONRAIL HELLGATE	C		O	2	S	11/13/2007	4.942	F	4400	\$9,680,000	402	404	
2247410	Q	43RD AVE	CONRAIL	C		O	1	S	11/26/2007	5.033	G	4800	\$10,560,000	402	404	



# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2247420	Q	44TH AVE	CONRAIL	C		O	1	S	10/26/2007	5.033	G	5100	\$11,220,000	402	404	
2230840	Q	44TH ST	GCP			A	2	S	3/24/2006	4.847	F	5000	\$11,000,000	401		
2247430	Q	45TH AVE	CONRAIL	C		O	1	S	11/14/2007	5.306	G	2400	\$5,280,000	402	404	
2230820	Q	47TH ST	GCP			A	2	S	4/7/2006	4.944	F	5700	\$12,540,000	401		
2066002	Q	49SI (2066000)	WOODHAVEN BLVD			A	2	S	6/29/2007	5.592	G	25200	\$55,440,000	406	404	
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L		O	5	S	11/28/2007	4.153	F	20400	\$44,880,000	402		
2230800	Q	49TH ST	BQE WEST LEG			A	2	S	3/14/2006	5.333	G	4900	\$10,780,000	401		
2230890	Q	49TH ST	GCP			A	2	S	6/14/2006	4.778	F	6350	\$13,970,000	401		
2231270	K	4TH AVE	BSHP			A	2	S	3/7/2006	4.842	F	6100	\$13,420,000	310		
2243330	K	4TH AVE	LIRR BAY RIDGE	NT		O	4	S	11/19/2007	5.819	G	13668	\$30,069,600	310		
2243839	K	4TH AVE	NYCTA BMT TRACKS	T		O	1	S	10/12/2007	6.600	V	4440	\$9,768,000	307		
2243400	K	50TH ST	LIRR BAY RIDGE	N		O	2	S	11/14/2007	4.701	F	7100	\$15,620,000	312		
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L		O-PED	5	C	12/1/2006	3.164	F	700	\$1,540,000	402		
2243390	K	52ND ST	LIRR BAY RIDGE	N		O	1	S	11/21/2006	6.467	V	3293	\$7,244,600	312		
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	11/30/2006	4.360	F	13000	\$28,600,000	404		
2247450	Q	57TH AVE	CONRAIL	C		O	1	S	11/20/2007	6.073	V	2248	\$4,945,600	405		
2066100	K	5TH AVE	27 X PROSPECT EXPWY			A	1	S	3/14/2006	5.208	G	8800	\$19,360,000	307		
2244480	K	5TH AVE	GREENWOOD CEMETERY			O	1	S	7/20/2007	4.933	F	3600	\$7,920,000	307		
2243580	K	5TH AVE	LIRR & SEA BEACH	NT		O	4	S	10/9/2006	4.353	F	12395	\$27,269,000	310		
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L		O-PED	3	C	11/29/2006	4.934	F	2293	\$5,044,600	405	406	
2243350	K	60TH ST	LIRR BAY RIDGE	N		O	1	S	11/12/2007	6.267	V	3900	\$8,580,000	311		
2247540	Q	60TH ST	LIRR MONTAUK DIV	L		O	2	S	9/28/2007	5.208	G	5340	\$11,748,000	405		
2230520	Q	65TH PLACE	278I (B.Q.E.)			A	2	S	1/20/2006	4.191	F	11600	\$25,520,000	402		
2247160	Q	65TH PLACE	LIRR N SHR DIV	L		O	3	S	12/19/2007	6.471	V	8381	\$18,438,200	402		
2243730	K	65TH ST	BMT SEA BEACH	T		O	4	S	7/21/2006	5.947	G	12000	\$26,400,000	311		
2247150	Q	65TH ST	LIRR N SIDE DIV	L		O	3	S	12/19/2007	6.375	V	6344	\$13,956,800	402		
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L		O-PED	3	C	12/7/2006	4.000	F	1300	\$2,860,000	406		
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I			A	1	S	6/12/2007	4.078	F	2300	\$5,060,000	407		
2230550	Q	69TH ST	278I (B.Q.E.)			A	2	S	1/26/2006	4.842	F	12600	\$27,720,000	402		
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C		O	1	S	9/6/2006	5.362	G	6175	\$13,585,000	405		
2065950	Q	69TH STREET	49SI (L.I.E.)			A	2	S	5/23/2007	5.361	G	10336	\$22,739,200	405		
2243590	K	6TH AVE	LIRR & SEA BEACH	NT		O	2	S	10/31/2007	6.361	V	14382	\$31,640,400	310		
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L		O	9	S	11/19/2006	5.403	G	12276	\$27,007,200	302		
2230560	Q	70TH ST	278I (B.Q.E.)			A	2	S	4/16/2007	5.125	G	8500	\$18,700,000	402		
2248300	Q	71ST AVE	COOPER AVE			O	1	S	7/16/2007	4.458	F	2800	\$6,160,000	405		
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		P	O	3	S	5/10/2006	5.088	G	7300	\$16,060,000	164		
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		P	O	1	S	3/6/2006	4.500	F	3600	\$7,920,000	164		
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		P	O	2	S	3/7/2006	4.368	F	5800	\$12,760,000	164		
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		P	O-PED	1	C	1/9/2008	4.190	F	5000	\$11,000,000	164		
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		P	A	10	S	5/4/2007	4.519	F	27400	\$60,280,000	107		
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		P	AR	21	S	5/31/2007	4.532	F	8989	\$19,775,800	107		
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		P	AR	4	S	5/18/2007	4.221	F	3131	\$6,888,200	107		
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		P	A	34	S	7/6/2007	3.934	F	24130	\$53,086,000	107		
2243600	K	7TH AVE	LIRR & SEA BEACH	NT		O	7	S	10/9/2006	5.361	G	18628	\$40,981,600	310		
2243920	K	7TH AVE	NYCTA BMT YARD	T		O	2	S	9/8/2006	6.211	V	4700	\$10,340,000	307		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2247220	Q	80TH ROAD	LIRR MAIN LINE	L		O	3	S	10/21/2007	4.857	F	4100	\$9,020,000	409		
2247570	Q	80TH ST	71ST TO 77TH AVE	L		O	5	S	9/27/2006	5.169	G	11725	\$25,795,000	405		
2231250	K	81ST ST PED BR	BSHP		P	A-PED	5	C	11/27/2007	5.056	G	3100	\$6,820,000	310		
2247230	Q	82ND AVE	LIRR MAIN LINE	L		O	3	S	10/21/2007	5.377	G	4100	\$9,020,000	409		
2243570	K	86TH ST	BMT SEA BEACH	T		O	1	S	7/17/2006	6.078	V	3840	\$8,448,000	313		
2243610	K	8TH AVE	LIRR & SEA BEACH	NT		O	2	S	10/31/2007	6.319	V	10834	\$23,834,800	310		
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L		O	1	S	11/29/2007	6.833	V	2760	\$6,072,000	404		
2231260	K	92ND ST PED BR	BSHP		P	A-PED	6	C	8/30/2007	3.768	F	3000	\$6,600,000	310		
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L		O-PED	5	C	12/6/2006	4.030	F	500	\$1,100,000	404		
2243840	K	9TH AVE	NYCTA BMT YARD	T		O	5	S	10/16/2007	6.319	V	12440	\$27,368,000	312		
2243940	K	9TH AVE	NYCTA IND SBWY	T		O	5	S	10/19/2007	4.737	F	6300	\$13,860,000	312		
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD			O	1	S	3/28/2006	4.020	F	5600	\$12,320,000	110		
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S		O	3	S	11/6/2007	4.623	F	6500	\$14,300,000	503		
2268920	R	AMBOY ROAD	LEMON CREEK			WO	1	S	2/27/2006	6.500	V	1310	\$2,882,000	503		
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L		O	1	S	9/27/2007	7.000	V	1765	\$3,883,000	405		
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S		O	2	S	10/29/2007	4.409	F	4500	\$9,900,000	503		
2231580	Q	AQUEDUCT RCTK RAMP	BSOP			A	4	S	6/23/2006	4.125	F	14000	\$30,800,000	410		
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM			WO	1	S	5/2/2007	4.286	F	2000	\$4,400,000	503		
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S		O	1	S	11/1/2006	4.759	F	3650	\$8,030,000	503		
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG			A	4	S	1/16/2006	4.221	F	8200	\$18,040,000	401		
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L		O	75	S	7/8/2006	3.845	F	135100	\$297,220,000	316	305	
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE			O	2	S	9/17/2007	5.474	G	3192	\$7,022,400	305		
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE			O	2	S	9/17/2007	5.175	G	5600	\$12,320,000	305		
2243530	K	AVENUE H	LIRR BAY RIDGE	N		O	2	S	10/10/2007	5.956	G	35100	\$77,220,000	318		
2243750	K	AVENUE O	BMT SEA BEACH	T		O	1	S	9/26/2007	5.863	G	4658	\$10,247,600	311		
2243760	K	AVENUE P	BMT SEA BEACH	T		O	1	S	9/26/2007	6.605	V	5544	\$12,196,800	311		
2243790	K	AVENUE S	BMT SEA BEACH	T		O	1	S	10/11/2007	5.967	G	5360	\$11,792,000	315		
2243800	K	AVENUE T	BMT SEA BEACH	T		O	1	S	10/11/2007	6.033	V	5360	\$11,792,000	311		
2243810	K	AVENUE U	BMT SEA BEACH	T		O	1	S	7/24/2006	5.824	G	5880	\$12,936,000	315		
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S		O	3	S	11/9/2007	5.361	G	5900	\$12,980,000	502		
2241180	B	BARRETTO ST	AMTRAK - CSX	AC		O	1	S	7/10/2006	6.031	V	5313	\$11,688,600	202		
2232000	M	BATTERY PLACE	FDR DRIVE			AT	2	S	10/20/2005	4.727	F	142000	\$312,400,000	101		
2231290	K	BAY 8TH ST	BSHP			A	1	S	5/11/2007	5.921	G	4950	\$10,890,000	311		
2243740	K	BAY PKWY	BMT SEA BEACH	T		O	4	S	7/19/2006	4.974	F	16800	\$36,960,000	311		
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE			A	1	S	2/24/2006	4.442	F	7300	\$16,060,000	413		
2231900	Q	BCIP	FORT TOTTEN ENTRANCE			A	1	S	6/29/2006	4.797	F	4900	\$10,780,000	407		
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD			A	1	C	5/31/2007	4.667	F	1200	\$2,640,000	413		
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	10/5/2007	4.632	F	7800	\$17,160,000	210		
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY			A	2	S	2/21/2006	5.105	G	7100	\$15,620,000	210		
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S		O	2	S	11/5/2007	5.576	G	3700	\$8,140,000	502		
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB			O	1	S	7/19/2007	4.400	F	3600	\$7,920,000	484		
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N		O	6	S	10/31/2006	4.458	F	12000	\$26,400,000	314		
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M		O	1	S	4/6/2006	4.594	F	6400	\$14,080,000	227	207	
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T		O	4	S	9/5/2006	5.708	G	46300	\$101,860,000	207		
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/13/2007	5.039	G	400	\$880,000	503		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L		O	1	S	10/10/2007	5.814	G	4320	\$9,504,000	411		
2231770	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	2/7/2006	4.688	F	3200	\$7,040,000	413		
2231790	Q	BELMONT PARK RAMP	BCIP		P	A	1	S	1/16/2006	4.656	F	3400	\$7,480,000	413		
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S		O-PED	12	C	2/28/2007	3.436	F	500	\$1,100,000	503		
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	8/24/2007	3.877	F	4200	\$9,240,000	314		
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N		O	3	S	10/10/2006	5.036	G	4912	\$10,806,400	316		
2240410	Q	BORDEN AVE	DUTCH KILLS			WMO	2	S	6/26/2007	3.500	F	8400	\$18,480,000	402		
2270180	R	BOROUGH PLACE - RAMP A	STATEN ISLAND RAILWAY	S	F	O	1	S	12/29/2005	4.938	F	1250	\$2,750,000	501		
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER			WO	14	S	6/22/2007	4.444	F	95700	\$210,540,000	212		
2242110	B	BOSTON ROAD	BRONX RIVER			WO	1	S	5/11/2006	4.273	F	6200	\$13,640,000	227		
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		P	WO	1	S	5/22/2006	4.900	F	2200	\$4,840,000	227		
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L		O	1	S	8/28/2006	5.490	G	4974	\$10,942,800	407		
2230780	Q	BQE EAST LEG	30TH AVE			A	1	S	6/26/2007	6.524	V	7071	\$15,556,200	403	401	
2230720	Q	BQE EAST LEG	BQE NB WEST LEG			A	3	S	5/17/2007	6.273	V	20896	\$45,971,200	401		
2230700	Q	BQE EAST LEG	TO BQE WEST LEG			A	8	S	12/1/2006	7.000	V	31600	\$69,520,000	401	403	
2230690	Q	BQE EAST LEG NB	32ND AVE			A	1	S	8/2/2006	6.627	V	4080	\$8,976,000	401		
2230750	Q	BQE EAST LEG SB	31ST AVE			A	1	S	9/17/2007	6.407	V	4221	\$9,286,200	401	403	
2230770	Q	BQE WEST LEG	30TH AVE			A	1	S	6/26/2007	6.695	V	6199	\$13,637,800	401		
2230830	Q	BQE WEST LEG	GCP			A	2	S	8/16/2006	4.639	F	7600	\$16,720,000	401		
2230760	Q	BQE WEST LEG NB	31ST AVE			A	1	S	10/23/2006	6.610	V	4161	\$9,154,200	401		
2230740	Q	BQE WEST LEG SB	31ST AVE			A	1	S	8/31/2007	6.391	V	5246	\$11,541,200	401		
2231829	Q	BRADDOCK AVE	BCIP			A	2	S	3/3/2006	4.591	F	10600	\$23,320,000	413		
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE		P	WO-PED	1	C	12/11/2007	3.514	F	972	\$2,138,400	501		
2230590	Q	BROADWAY	278I (B.Q.E.)			O	2	S	11/21/2006	4.053	F	16000	\$35,200,000	402		
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	T		WMO	3	S	10/3/2005	3.986	F	46848	\$103,065,600	112	207	208
2242072	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/16/2006	4.833	F	1800	\$3,960,000	212		
2242082	B	BRONX BLVD N.B.	BRONX RIVER			WO	1	S	5/19/2006	4.467	F	2800	\$6,160,000	212		
2242071	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/15/2006	4.700	F	1800	\$3,960,000	212		
2242081	B	BRONX BLVD S.B.	BRONX RIVER			WO	1	S	5/17/2006	4.467	F	2800	\$6,160,000	212		
2229560	B	BRONX PELHAM PKWY	AMTRAK - CSX	AC		A	3	S	8/15/2006	4.972	F	24591	\$54,100,200	211		
2242010	B	BRONX PELHAM PKWY	BRONX RIVER			WA	1	S	5/23/2006	4.931	F	9200	\$20,240,000	227		
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY			A	2	S	7/21/2006	3.974	F	17600	\$38,720,000	210	211	
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO			A	1	S	7/3/2007	5.000	G	6300	\$13,860,000	227		
2270250	B	BROOKE AVENUE	CSX TRANS - PT MORRIS	C		O	1	S	6/8/2007	3.727	F	21035	\$46,277,000	201		
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N		O	3	S	10/10/2007	6.236	V	4500	\$9,900,000	318		
2267860	K	BROOKLYN BR APPROACH	SANDS STREET			O	1	S	5/5/2006	4.607	F	6490	\$14,278,000	302		
2240019	KM	BROOKLYN BRIDGE	278I (B.Q.E.)			WEO	75	S	11/17/2006	2.917	P	503788	\$1,108,333,600	103	302	101
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		P	A-PED	35	C	8/6/2006	3.500	F	46184	\$101,604,800	302		
2241099	B	BRUCKNER BLVD	CSX TRANS - PT MORRIS	C		O	1	S	10/19/2006	6.383	V	6700	\$14,740,000	201		
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST			A	2	S	6/5/2007	4.565	F	32900	\$72,380,000	201		
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK			WMA	17	S	10/25/2007	3.597	F	39400	\$86,680,000	209		
2076929	B	BRUCKNER EXPWY	CSX - HUNTS POINT	C		A	1	S	9/20/2007	4.700	F	3800	\$8,360,000	202		
2075352	B	BRUCKNER EXPWY NB	AMTRAK - CSX	AC		A	1	S	9/21/2007	3.188	F	10900	\$23,980,000	202		
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER			WMA	8	S	7/19/2007	4.567	F	22300	\$49,060,000	202	209	
2075351	B	BRUCKNER EXPWY SB	AMTRAK - CSX	AC		A	1	S	8/8/2006	3.625	F	11600	\$25,520,000	202		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER			WMA	3	S	7/24/2007	5.222	G	12400	\$27,280,000	202	209	
2241210	B	BRYANT AVE	AMTRAK - CSX	AC		O	1	S	9/10/2007	3.136	F	5300	\$11,660,000	202		
2231329	K	BSHP	26TH AVE			A	1	S	3/17/2006	4.800	F	6700	\$14,740,000	313		
2231319	K	BSHP	BAY PKWY			A	1	S	4/7/2006	4.395	F	7200	\$15,840,000	311		
2231249	K	BSHP	BAY RIDGE AVE			A	1	S	5/21/2007	3.313	F	4900	\$10,780,000	310		
2231429	K	BSHP	BEDFORD AVE			A	3	S	3/10/2006	4.278	F	12000	\$26,400,000	315		
2231509	K	BSHP	FRESH CREEK			WA	5	S	8/9/2007	3.333	F	23000	\$50,600,000	356		
2231450	K	BSHP	GERRITSEN INLET			WA	11	S	6/26/2007	3.597	F	52000	\$114,400,000	356		
2231479	K	BSHP	MILL BASIN			WMA	14	S	12/18/2007	2.955	P	73500	\$161,700,000	318		
2231439	K	BSHP	NOSTRAND AVE			A	3	S	4/14/2006	4.097	F	13000	\$28,600,000	315		
2231419	K	BSHP	OCEAN AVE			A	3	S	3/15/2006	4.292	F	14000	\$30,800,000	315		
2231360	K	BSHP	OCEAN PKWY			A	3	S	11/3/2006	7.000	V	29637	\$65,201,400	313		
2231489	K	BSHP	PAERDEGAT BASIN			WA	15	S	8/11/2007	3.222	F	58300	\$128,260,000	318		
2231499	K	BSHP	ROCKAWAY PKWY			A	4	S	10/3/2007	4.000	F	11500	\$25,300,000	356		
2231409	K	BSHP	SHEEPSHEAD BAY ROAD			A	1	S	3/21/2006	4.967	F	6500	\$14,300,000	315		
2230790	Q	BULOVA AVE	BOE WEST LEG			A	2	S	3/20/2006	5.667	G	3300	\$7,260,000	401		
2269770	R	BUS STA ENTR RAMP	SIRT	S	F	O	19	S	11/21/2006	4.319	F	39333	\$86,532,600	501		
2269790	R	BUS STATION EXIT RAMP	SIRT	S	F	O	7	S	10/12/2006	4.667	F	28721	\$63,186,200	501		
2269740	R	BUS STATION NORTH	SIRT	S	F	O	12	S	11/16/2006	4.880	F	64605	\$142,131,000	501		
2269750	R	BUS STATION SOUTH	SIRT	S	F	O	12	S	12/21/2007	4.720	F	154688	\$340,313,600	501		
2247460	Q	CALDWELL AVE	CONRAIL	C		O	1	S	9/6/2006	6.194	V	2243	\$4,934,600	405		
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L		O	7	S	11/19/2006	4.875	F	10823	\$23,810,600	302		
2240260	K	CARROLL ST	GOWANUS CANAL			WMO	2	S	7/18/2007	4.803	F	3000	\$6,600,000	306		
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T		O-PED	3	C	7/11/2007	5.268	G	600	\$1,320,000	309		
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/17/2007	4.500	F	20800	\$45,760,000	314		
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	5	C	6/12/2007	4.615	F	600	\$1,320,000	503		
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		P	O	1	S	3/8/2006	4.867	F	2000	\$4,400,000	164		
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		P	WO	3	S	4/27/2007	5.000	G	7400	\$16,280,000	355		
2246100	M	CENTRAL DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.200	F	6000	\$13,200,000	164		
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		P	O	1	C	5/29/2007	4.233	F	1200	\$2,640,000	164		
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY			O-PED	10	C	1/4/2007	5.925	G	3344	\$7,356,800	101		
2249280	R	CHAMP COURT PED BRDG	SIRT SOUTH SHORE	S		O-PED	7	C	3/21/2007	5.049	G	200	\$440,000	503		
2249880	R	CHELSEA ROAD	SAWMILL CREEK			WO	1	S	5/4/2007	6.833	V	2205	\$4,851,000	502		
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/29/2007	4.545	F	18200	\$40,040,000	314		
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY			WO	7	S	10/9/2007	3.389	F	28900	\$63,580,000	228		
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M		O	1	S	3/17/2006	4.422	F	6300	\$13,860,000	203		
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		P	O	1	C	4/17/2007	4.767	F	900	\$1,980,000	355		
2231940	Q	CLINTONVILLE ST	BCIP			A	2	S	2/6/2006	4.705	F	7400	\$16,280,000	407		
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S		O	3	S	10/31/2006	6.097	V	5104	\$11,228,800	502		
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		P	O	1	C	5/22/2007	4.400	F	750	\$1,650,000	164		
2231570	Q	COHANCY ST	BSOP			A	2	S	4/19/2006	4.632	F	6400	\$14,080,000	410		
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)			A	1	S	4/28/2006	4.500	F	16500	\$36,300,000	302		
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M		O	1	S	4/11/2006	4.125	F	17800	\$39,160,000	204		
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB			O	1	S	9/28/2006	4.833	F	3800	\$8,360,000	305		
2231380	K	CONEY ISLAND AVE	BSHP			A	4	S	10/5/2007	6.292	V	19866	\$43,705,200	313		



# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N		O	1	S	11/7/2006	5.234	G	3231	\$7,108,200	312		
2230390	K	CONGRESS ST	278I (B.Q.E.)			A	2	S	4/2/2006	6.382	V	5000	\$11,000,000	306		
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		P	O	1	S	3/7/2006	5.000	G	2200	\$4,840,000	112		
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		P	A	4	S	3/16/2006	4.063	F	4100	\$9,020,000	103		
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L		O	1	S	10/11/2007	6.235	V	3379	\$7,433,800	411		
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T		O	3	S	9/11/2007	6.167	V	4810	\$10,582,000	314		
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		P	O	1	C	7/5/2007	4.367	F	1200	\$2,640,000	164		
2231880	Q	CROCHERON PK PED	BCIP		P	A-PED	11	C	5/22/2007	4.826	F	2300	\$5,060,000	411		
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T		O	4	S	8/16/2007	4.158	F	6000	\$13,200,000	314		
2231340	K	CROPSEY AVE	BSHP			A	2	S	3/30/2006	5.000	G	13100	\$28,820,000	313		
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	9/6/2007	5.113	G	9400	\$20,680,000	313		
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK			WO	3	S	10/5/2007	5.028	G	9400	\$20,680,000	313		
2231559	Q	CROSS BAY BLVD	BSHP			A	4	S	5/19/2006	5.194	G	23205	\$51,051,000	410		
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD			O	2	S	7/2/2007	6.444	V	16544	\$36,396,800	410		
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY			A	1	S	4/21/2006	5.250	G	9508	\$20,917,600	413		
2242030	B	CROTONA AVE	BRONX PELHAM PKWY			O	2	S	4/5/2006	5.447	G	7600	\$16,720,000	206		
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T		O	3	S	10/4/2007	5.097	G	4060	\$8,932,000	309		
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY			A	1	S	5/8/2006	5.278	G	5000	\$11,000,000	405		
2249160	R	DE HART AVE	B&O RAILROAD	O		O	4	S	4/20/2007	6.500	V	6700	\$14,740,000	501		
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		P	A-PED	12	C	9/23/2007	4.676	F	2900	\$6,380,000	103		
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C		O	11	S	11/10/2007	4.972	F	26566	\$58,445,200	204		
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	9/6/2007	5.723	G	5150	\$11,330,000	314		
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	9/11/2006	5.882	G	4825	\$10,615,000	314		
2266129	Q	DOUGLASTON PKWY	BCIP			A	1	S	3/24/2006	4.429	F	4400	\$9,680,000	411		
2266139	Q	DOUGLASTON PKWY	BCIP			A	1	S	3/23/2006	4.633	F	6400	\$14,080,000	411		
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L		O	3	S	8/30/2006	4.949	F	6300	\$13,860,000	411		
2232180	M	E 103RD ST PED BRDG	FDR DRIVE			A-PED	20	C	7/15/2007	4.913	F	6000	\$13,200,000	111		
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		P	A-PED	25	C	9/26/2007	5.286	G	1632	\$3,590,400	103		
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		P	A-PED	14	C	10/21/2007	4.420	F	2600	\$5,720,000	111		
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		P	A-PED	21	C	7/27/2007	4.565	F	2500	\$5,500,000	111		
2231390	K	E 12TH ST	BSHP			A	4	S	3/30/2006	4.764	F	17200	\$37,840,000	315		
2233080	K	E 14 ST PED BR	BSHP			A-PED	14	C	7/27/2007	4.500	F	4700	\$10,340,000	315		
2241550	B	E 144TH ST	METRO NORTH RR HAR	M		O	2	S	11/14/2007	6.444	V	8290	\$18,238,000	201		
2241129	B	E 149TH ST	AMTRAK - CSX	AC		O	2	S	8/7/2006	4.620	F	12575	\$27,665,000	201	202	
2241560	B	E 149TH ST	METRO NORTH RR HAR	M		O	8	S	4/10/2006	4.875	F	27900	\$61,380,000	201	204	
2241050	B	E 149TH ST/JACKSON AVE	CSX TRANS - PT MORRIS	C		O	1	S	7/19/2006	4.850	F	65000	\$143,000,000	201		
2243450	K	E 14TH ST	LIRR BAY RIDGE	N		O	1	S	10/25/2006	4.809	F	1775	\$3,905,000	314		
2270030	B	E 156TH ST	ACCESS TO HOUSING		ED	O	16	S	12/16/2006	3.612	F	49696	\$109,331,200	204		
2241010	B	E 156TH STREET	CSX TRANS - PT MORRIS	C		O	1	S	7/18/2006	4.556	F	2400	\$5,280,000	201		
2241600	B	E 158TH ST	METRO NORTH RR HAR	M		O	1	S	10/31/2007	5.200	G	3400	\$7,480,000	204		
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N		O-PED	3	C	8/31/2007	5.254	G	900	\$1,980,000	314		
2241610	B	E 161ST ST	METRO NORTH RR HAR	M		O	1	S	10/30/2007	5.050	G	6600	\$14,520,000	204	203	
2241020	B	E 161ST STREET	CSX TRANS - PT MORRIS	C		O	1	S	6/28/2006	6.717	V	12800	\$28,160,000	203		
2241620	B	E 162ND ST	METRO NORTH RR HAR	M		O	1	S	4/5/2006	4.984	F	4700	\$10,340,000	203		
2241030	B	E 163RD STREET	CSX TRANS - PT MORRIS	C		O	1	S	5/19/2006	4.778	F	3200	\$7,040,000	203		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241630	B	E 165TH ST	METRO NORTH RR HAR	M		O	1	S	4/3/2006	4.333	F	16400	\$36,080,000	203		
2241650	B	E 167TH ST	METRO NORTH RR HAR	M		O	1	S	3/13/2006	5.627	G	3363	\$7,398,600	203		
2241660	B	E 168TH ST	METRO NORTH RR HAR	M		O	1	S	3/14/2006	4.922	F	7700	\$16,940,000	203		
2241670	B	E 169TH ST	METRO NORTH RR HAR	M		O	1	S	3/15/2006	4.438	F	3300	\$7,260,000	203		
2241680	B	E 170TH ST	METRO NORTH RR HAR	M		O	1	S	3/16/2006	6.333	V	3150	\$6,930,000	203		
2241720	B	E 173RD ST	METRO NORTH RR HAR	M		O	1	S	3/20/2006	4.938	F	3000	\$6,600,000	203		
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A		A	13	S	10/17/2006	4.250	F	47430	\$104,346,000	209	203	
2241740	B	E 175TH ST	METRO NORTH RR HAR	M		O	1	S	3/21/2006	4.031	F	3600	\$7,920,000	206		
2241269	B	E 177TH ST	AMTRAK - CSX	AC		O	3	S	8/11/2006	5.458	G	16606	\$36,533,200	209		
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	1	C	10/31/2005	4.918	F	700	\$1,540,000	206		
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M		O-PED	6	C	11/1/2005	5.695	G	700	\$1,540,000	206		
2242400	B	E 180TH ST	BRONX RIVER			WO	1	S	10/18/2006	4.810	F	4500	\$9,900,000	206	227	
2241790	B	E 180TH ST	METRO NORTH RR HAR	M		O	1	S	3/22/2006	4.000	F	5000	\$11,000,000	206		
2241800	B	E 183TH ST	METRO NORTH RR HAR	M		O	1	S	3/23/2006	4.109	F	3600	\$7,920,000	206		
2241820	B	E 187TH ST	METRO NORTH RR HAR	M		O	1	S	3/24/2006	4.656	F	3800	\$8,360,000	206		
2241810	B	E 188TH ST	METRO NORTH RR HAR	M		O	1	S	3/28/2006	4.188	F	5300	\$11,660,000	206		
2241839	B	E 189TH ST	METRO NORTH RR HAR	M		O	1	S	11/1/2007	6.533	V	43157	\$94,945,400	206	207	
2242459	B	E 233RD ST	BRONX RIVER			WO	1	S	5/25/2006	4.367	F	7000	\$15,400,000	212		
2242460	B	E 233RD ST	ENTR RD BMX RVR PKWY			O	1	S	2/10/2006	5.033	G	5300	\$11,660,000	212		
2241870	B	E 233RD ST	METRO NORTH RR HAR	M		O	1	S	4/13/2006	4.941	F	7664	\$16,860,800	212	207	
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M		WO	28	S	11/2/2006	4.444	F	49500	\$108,900,000	212		
2246540	M	E 34TH ST	PARK AVE TUNNEL			OT	1	S	8/24/2006	4.117	F	36200	\$79,640,000	105		
2243420	K	E 3RD ST	LIRR BAY RIDGE	N		O	1	S	11/13/2007	6.583	V	1840	\$4,048,000	312		
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		P	A-PED	10	C	2/26/2007	4.119	F	2800	\$6,160,000	106		
2233040	M	E 60TH ST	FDR DRIVE			A	17	S	7/9/2007	4.746	F	24480	\$53,856,000	106		
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		P	A-PED	24	C	10/21/2007	4.844	F	2100	\$4,620,000	108		
2245380	M	E 66TH ST	PED WALK N. OF ZOO		P	O	1	S	3/6/2006	5.000	G	1500	\$3,300,000	108		
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		P	A-PED	22	C	2/18/2007	4.353	F	2200	\$4,840,000	103		
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		P	A-PED	19	C	8/28/2007	5.818	G	1800	\$3,960,000	108		
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		P	A-PED	9	C	6/6/2007	2.889	P	1700	\$3,740,000	108		
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		P	A-PED	3	C	8/13/2007	3.191	F	900	\$1,980,000	108		
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M		O	1	S	11/7/2006	4.627	F	3200	\$7,040,000	111		
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		P	O-PED	1	C	3/10/2007	4.233	F	3700	\$8,140,000	164		
2241270	B	E TREMONT AVE	AMTRAK - CSX	AC		O	2	S	7/26/2006	5.153	G	22300	\$49,060,000	209	211	
2242149	B	E TREMONT AVE	BRONX RIVER			WO	2	S	5/24/2006	4.722	F	12900	\$28,380,000	206		
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY			A	2	S	12/18/2007	4.472	F	10200	\$22,440,000	210		
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M		O	1	S	11/3/2007	6.517	V	7300	\$16,060,000	206		
2242260	B	EAGLE AVE	E 161ST ST			O	1	S	3/29/2006	5.150	G	2800	\$6,160,000	201	203	
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		P	O	1	C	5/16/2007	4.400	F	1200	\$2,640,000	105		
2244030	K	EAST DRIVE	BRIDLE PATH		P	O	1	S	6/22/2007	4.755	F	2000	\$4,400,000	355		
2244040	K	EAST DRIVE	EAST WOOD ARCH		P	O	1	C	7/11/2007	4.067	F	900	\$1,980,000	355		
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		P	O	1	S	3/23/2006	5.056	G	1900	\$4,180,000	164		
2246069	M	EAST DRIVE	PEDESTRIAN WALK		P	O	1	S	3/14/2006	4.500	F	2700	\$5,940,000	164		
2246470	M	EAST DRIVE	THE LOCH		P	WO	1	S	3/23/2006	4.533	F	1100	\$2,420,000	164		
2246110	M	EAST DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.633	F	6000	\$13,200,000	164		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246230	M	EAST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/21/2006	4.600	F	6500	\$14,300,000	164		
2246250	M	EAST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/30/2006	4.433	F	5100	\$11,220,000	164		
2246270	M	EAST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/25/2006	3.967	F	7000	\$15,400,000	164		
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	1/3/2007	4.229	F	899	\$1,977,800	501		
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE			O	1	S	4/21/2006	4.567	F	10300	\$22,660,000	205	207	
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T		O	3	S	9/7/2006	4.417	F	13500	\$29,700,000	212		
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T		O	1	S	8/25/2006	4.861	F	7700	\$16,940,000	309	308	
2247470	Q	ELIOT AVE	CONRAIL	C		O	1	S	11/20/2007	5.250	G	2960	\$6,512,000	405		
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L		O	2	S	9/26/2007	5.894	G	9550	\$21,010,000	405		
2248160	Q	ELLIOT AVE	QUEENS BLVD			O	2	S	8/9/2006	4.922	F	13785	\$30,327,000	406		
2269600	K	ERSKINE STREET	BSHP			A	1	S	9/28/2006	6.234	V	8258	\$18,167,600	305	356	
2241200	B	FAILE ST	AMTRAK - CSX	AC		O	1	S	7/28/2006	5.703	G	6208	\$13,657,600	202		
2231620	Q	FARMERS BLVD	BSOP			A	2	S	6/15/2006	4.568	F	6400	\$14,080,000	413		
2249790	R	FB S OF FOREST AV	STREAM IN PARK		P	WO-PED	3	C	12/10/2007	5.000	G	658	\$1,447,600	501		
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST			AR	17	S	3/30/2006	3.776	F	102225	\$224,895,000	101		
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.			AT	32	S	6/22/2007	4.591	F	54302	\$119,464,400	108		
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST			AT	34	S	10/23/2006	6.887	V	58700	\$129,140,000	108		
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER			A	119	S	9/9/2005	4.264	F	30767	\$67,687,400	106		
223204A	M	FDR NB TO HOUSTON ST	RELIEF			AR	4	S	2/28/2006	4.700	F	6150	\$13,530,000	103		
2229520	B	FIELDSTON ROAD	HHP			A	1	S	9/19/2007	5.500	G	6600	\$14,520,000	208		
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S		O	2	S	11/27/2007	6.542	V	5100	\$11,220,000	502		
2231460	K	FLATBUSH AVE	BSHP			A	2	S	10/3/2007	6.306	V	14058	\$30,927,600	356		
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T		O	2	S	8/17/2006	4.961	F	11300	\$24,860,000	309		
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N		O	2	S	10/9/2007	4.702	F	5900	\$12,980,000	318		
2248090	Q	FLSHG MDW PK PED.	COLLEGE POINT BLVD		P	O-PED	3	C	12/18/2007	4.694	F	8418	\$18,519,600	407		
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE			O	1	S	7/27/2007	5.063	G	2940	\$6,468,000	405		
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		P	WO	5	S	5/26/2006	4.855	F	4200	\$9,240,000	481		
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE		P	WO-PED	5	C	11/1/2007	4.880	F	4102	\$9,024,400	481		
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD		P	WO-PED	4	C	4/20/2002	1.000	C	1891	\$4,160,200	481		
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE		P	WO-PED	5	C	4/25/2007	4.500	F	6321	\$13,906,200	481		
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		P	WO-PED	1	C	10/29/2007	4.700	F	800	\$1,760,000	501		
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		P	WO	1	S	10/18/2007	4.867	F	1600	\$3,520,000	501		
2248340	Q	FOREST PARK DR	MYRTLE AVE		P	O	3	S	6/25/2007	4.984	F	5100	\$11,220,000	409		
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	P	O	6	S	4/16/2007	5.286	G	10000	\$22,000,000	409		
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	P	O	5	S	10/18/2007	5.509	G	6000	\$13,200,000	409		
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	NT		O	3	S	9/6/2006	4.797	F	14800	\$32,560,000	310		
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		P	O	1	C	5/9/2007	6.000	G	750	\$1,650,000	112		
2245050	M	FORT TRYON PARK	UNDERPASS		P	O	1	C	5/9/2007	4.800	F	750	\$1,650,000	112		
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		P	O	1	S	4/6/2006	4.333	F	6600	\$14,520,000	112		
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T		O	1	S	9/6/2007	4.550	F	3000	\$6,600,000	314		
2231930	Q	FRANCIS LEWIS BLVD	BCIP			A	3	S	2/6/2006	4.773	F	9100	\$20,020,000	407		
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.			A	1	S	3/14/2006	5.167	G	6000	\$13,200,000	413		
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.			A	1	S	3/14/2006	4.833	F	6000	\$13,200,000	413		
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD			O	1	S	4/17/2007	5.033	G	7085	\$15,587,000	408		
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	3/1/2007	3.488	F	800	\$1,760,000	502		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR			OR	19	S	6/8/2006	4.269	F	29900	\$65,780,000	111		
2242120	B	FTBG N OF RTE 1	BRONX RIVER		P	WO-PED	1	C	5/17/2007	3.667	F	1904	\$4,188,800	209		
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE		P	WO-PED	1	C	11/26/2007	5.000	G	1260	\$2,772,000	355		
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH		P	O-PED	1	C	9/13/2007	4.894	F	1026	\$2,257,200	164		
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	21	S	7/13/2007	4.565	F	9095	\$20,009,000	107		
2241420	B	GERARD AVE	METRO NORTH RR HUD	M		O	1	S	4/28/2006	5.922	G	5063	\$11,138,600	204		
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S		O	1	S	10/31/2006	5.781	G	3042	\$6,692,400	503		
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N		O	2	S	10/10/2006	6.559	V	5616	\$12,355,200	316		
2065940	Q	GRAND AVE	495I (I.I.E.)			A	2	S	10/23/2006	5.264	G	12850	\$28,270,000	405		
2247440	Q	GRAND AVE	CONRAIL	C		O	1	S	11/20/2007	6.183	V	3280	\$7,216,000	405		
2247180	Q	GRAND AVE	LIRR MAIN LINE	L		O	3	S	10/6/2007	4.849	F	7415	\$16,313,000	404		
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD			O	1	S	4/24/2006	4.765	F	8418	\$18,519,600	207		
2242360	B	GRAND CONCOURSE	BURNSIDE AVE			O	2	S	9/27/2006	4.441	F	8400	\$18,480,000	205		
2242299	B	GRAND CONCOURSE	E 138TH ST			O	1	S	6/1/2007	4.933	F	9500	\$20,900,000	201		
2242259	B	GRAND CONCOURSE	E 161ST ST			O	1	S	9/25/2006	3.667	F	24100	\$53,020,000	204		
2242280	B	GRAND CONCOURSE	E 167TH ST			O	2	S	7/21/2006	4.789	F	42900	\$94,380,000	204		
2242300	B	GRAND CONCOURSE	E 170TH ST			O	2	S	5/26/2006	4.789	F	39300	\$86,460,000	204		
2242319	B	GRAND CONCOURSE	E 174TH ST	T		O	1	S	4/4/2006	4.067	F	14900	\$32,780,000	204		
2242329	B	GRAND CONCOURSE	E 175TH ST	T		O	1	S	8/16/2006	5.067	G	11900	\$26,180,000	205		
2242380	B	GRAND CONCOURSE	E 204TH ST			O	1	S	8/6/2007	5.391	G	9272	\$20,398,400	207		
2242330	B	GRAND CONCOURSE	E TREMONT AVE			O	1	S	10/9/2007	5.983	G	11700	\$25,740,000	205		
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE			O	2	S	10/3/2006	4.714	F	16500	\$36,300,000	207		
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	MT		O	1	S	4/14/2006	3.828	F	16100	\$35,420,000	204		
2240390	KQ	GRAND ST BRIDGE	NEWTOWN CREEK			WMO	2	S	9/5/2006	4.292	F	5100	\$11,220,000	301	405	
2249100	R	GRANITE AVE	B&O RAILROAD	O		O	4	S	3/21/2006	6.034	V	7300	\$16,060,000	501		
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S		O	1	S	11/12/2007	6.750	V	2650	\$5,830,000	503		
2240370	KQ	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L		WMO	12	S	7/27/2007	5.111	G	76106	\$167,433,200	301	402	
2231370	K	GUIDER AV RAMP TO BSHP	BSHP			A	4	S	5/10/2006	3.653	F	12800	\$28,160,000	313		
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M		O	2	S	3/29/2006	4.127	F	9000	\$19,800,000	212		
2242430	B	GUN HILL ROAD	BRONX BLVD			O	4	S	5/31/2006	4.912	F	9400	\$20,680,000	212		
2242440	B	GUN HILL ROAD	BRONX RIVER			WO	1	S	3/22/2006	4.900	F	8700	\$19,140,000	212		
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T		O	1	S	9/8/2006	6.000	G	75000	\$165,000,000	211	212	
2231610	Q	GUY R. BREWER BLVD	BSOP			A	4	S	5/21/2007	6.569	V	12342	\$27,152,400	413		
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S		O	3	S	11/5/2007	4.869	F	6900	\$15,180,000	503		
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	10/8/2007	5.444	G	7300	\$16,060,000	306		
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL			WMO	3	S	10/8/2007	4.056	F	7300	\$16,060,000	307	306	
2065930	Q	HAMILTON PLACE	495I (I.I.E.)			A	2	S	4/11/2006	6.069	V	11111	\$24,444,200	405		
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S		O	10	S	11/30/2007	4.763	F	10020	\$22,044,000	501		
2249180	R	HARBOR ROAD	B&O RAILROAD	O		O	4	S	5/18/2007	6.356	V	5778	\$12,711,600	501		
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.			A	11	S	6/12/2007	3.194	F	51000	\$112,200,000	111		
2231780	Q	HEMPSTEAD AVE	BCIP			A	2	S	3/16/2006	4.161	F	14200	\$31,240,000	413		
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY			A	2	S	3/20/2006	4.207	F	9500	\$20,900,000	413		
2267250	M	HHP	AMTRAK 30TH ST LINE	A		A	55	S	11/29/2006	3.710	F	40000	\$88,000,000	107		
2229530	B	HHP	BROADWAY			A	1	S	9/26/2007	4.574	F	7500	\$16,500,000	208		
2229440	B	HHP	KAPPOCK ST			A	1	S	10/3/2007	4.931	F	3900	\$8,580,000	208		



# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2266229	M	HHP	PED UNDERPASS @ 148 ST			A	1	S	4/7/2006	5.476	G	1800	\$3,960,000	109		
2266230	M	HHP	PED UNDERPASS INWD PK			A	1	S	2/27/2006	5.684	G	800	\$1,760,000	112		
2266240	M	HHP	PED UNDERPASS INWD PK			A	1	S	3/3/2006	5.762	G	1100	\$2,420,000	112		
2229309	M	HHP	RIVERSIDE PARK			A	1	S	3/20/2006	5.267	G	2400	\$5,280,000	107		
2229349	M	HHP	W 158 ST	A		A	44	S	10/18/2006	4.268	F	140000	\$308,000,000	112		
2229312	M	HHP NB	RAMP TO 96 ST			A	1	S	3/27/2006	4.364	F	2000	\$4,400,000	107		
2229322	M	HHP NB	RAMP TO 96 ST			A	1	S	5/9/2006	5.300	G	2000	\$4,400,000	107		
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH			A	1	C	6/5/2007	4.900	F	900	\$1,980,000	107		
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH			A	1	C	5/21/2007	4.800	F	900	\$1,980,000	107		
2229311	M	HHP SB	RAMP TO 96 ST			A	1	S	3/27/2006	4.273	F	2000	\$4,400,000	107		
2229321	M	HHP SB	RAMP TO 96 ST			A	1	S	5/9/2006	5.200	G	2000	\$4,400,000	107		
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A		A	145	S	12/22/2006	3.448	F	236100	\$519,420,000	107		
2246580	BM	HIGH BRIDGE PDOVP	871 - HARLEM RIVER		P	WA-PED	11	P	8/12/2002	3.759	F	34100	\$75,020,000	112	204	
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY			A	1	S	4/4/2006	4.600	F	4900	\$10,780,000	305		
2230220	K	HIGHLAND BLVD NB	VERMONT AVE			A	1	S	7/13/2007	5.857	G	3995	\$8,789,000	305		
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	1	S	4/4/2006	4.933	F	3500	\$7,700,000	305		
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY			A	2	S	4/6/2006	4.842	F	4700	\$10,340,000	305		
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH		P	O-PED	1	C	12/4/2007	3.667	F	1856	\$4,083,200	405		
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T		O	1	S	10/9/2007	6.440	V	6960	\$15,312,000	311		
2244120	K	HILL DRIVE	PROSPECT PK LAKE		P	WO	3	S	4/25/2007	3.873	F	7800	\$17,160,000	355		
2231840	Q	HILLSIDE AVE	BCIP			A	2	S	4/4/2006	4.079	F	9672	\$21,278,400	413		
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL		O	22	S	12/21/2007	5.903	G	99036	\$217,879,200	402	401	
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE			WO	3	S	7/27/2007	6.271	V	18302	\$40,264,400	413		
2232040	M	HOUSTON ST	FDR DRIVE			A	2	S	5/25/2007	3.318	F	11010	\$24,222,000	103		
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF			AR	4	S	3/8/2006	4.625	F	7642	\$16,812,400	103		
2267240	M	HRD NB RAMP	HARLEM RIVER DR			A	55	S	11/21/2006	3.083	F	122900	\$270,380,000	112		
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S		O	2	S	10/23/2007	4.864	F	4900	\$10,780,000	503		
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS			WMO	4	S	7/13/2006	5.083	G	12168	\$26,769,600	402		
2241190	B	HUNTS POINT AVE	AMTRAK - CSX	AC		O	1	S	7/24/2006	4.984	F	13700	\$30,140,000	202		
2241959	B	HUTCHINSON RVR PKWY	AMTRAK - CSX	AC		O	1	S	8/3/2006	5.915	G	15444	\$33,976,800	210	211	
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER			WMA	7	S	11/16/2007	4.859	F	60500	\$133,100,000	210	228	
2249810	R	HYLAN BLVD	LEMON CREEK			WO	1	S	2/27/2006	6.406	V	11400	\$25,080,000	503		
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST			O	1	S	5/30/2006	4.250	F	5900	\$12,980,000	409	406	
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	P	O-PED	6	C	3/28/2006	4.174	F	700	\$1,540,000	112		
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		P	O	1	S	6/21/2006	6.261	V	911	\$2,004,200	112		
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET		P	WO-PED	1	C	11/20/2006	4.140	F	285	\$627,000	112		
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY			A	1	S	1/31/2006	5.444	G	4200	\$9,240,000	405		
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE			A	2	S	4/19/2006	5.321	G	8673	\$19,080,600	482		
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L		O	1	S	11/20/2006	6.183	V	4517	\$9,937,400	402		
2231819	Q	JAMAICA AVE	BCIP			A	2	S	3/3/2006	4.773	F	11500	\$25,300,000	413		
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T		A	3	S	5/17/2007	4.711	F	11800	\$25,960,000	207		
2249070	R	JOHN ST	B&O RAILROAD	O		O-PED	3	C	12/26/2007	5.648	G	5800	\$12,760,000	501		
2247480	Q	JUNIPER BLVD SO	CONRAIL	C		O	1	S	11/21/2007	5.111	G	9000	\$19,800,000	405		
2230380	K	KANE ST	2781 (B.Q.E.)			A	2	S	4/2/2006	4.153	F	5000	\$11,000,000	306		
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T		O	1	S	10/9/2007	6.767	V	5032	\$11,070,400	311		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231449	K	KNAPP ST	BSHP			A	1	S	3/31/2006	4.469	F	9500	\$20,900,000	315		
2241169	B	LAFAYETTE AVE	AMTRAK - CSX	AC		O	1	S	8/8/2006	5.794	G	12000	\$26,400,000	202		
2249110	R	LAKE AVE	B&O RAILROAD	O		O	3	S	4/18/2007	5.333	G	5900	\$12,980,000	501		
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L		O	3	S	10/21/2007	5.806	G	5460	\$12,012,000	409		
2241139	B	LEGGETT AVE	AMTRAK - CSX	AC		O	3	S	8/7/2006	4.690	F	28300	\$62,260,000	202		
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N		O	3	S	6/16/2006	6.559	V	6659	\$14,649,800	316		
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S		O	1	S	11/3/2007	5.310	G	4500	\$9,900,000	502		
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T		O	1	S	8/24/2006	6.922	V	2460	\$5,412,000	308		
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T		O	1	S	7/7/2006	6.815	V	6016	\$13,235,200	355		
2231750	Q	LINDEN BLVD	BCIP			A	2	S	2/16/2006	4.341	F	6700	\$14,740,000	413		
2248040	Q	LINDEN BLVD	CONDUIT AVE			O	1	S	6/22/2006	5.233	G	3352	\$7,374,400	410		
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N		O-PED	6	C	8/27/2007	5.000	G	2500	\$5,500,000	316		
2241159	B	LONGWOOD AVE	AMTRAK - CSX	AC		O	2	S	7/25/2006	5.306	G	10625	\$23,375,000	202		
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER			WMO	52	S	6/13/2005	4.169	F	211788	\$465,933,600	110	204	
2240079	BM	MADISON AVE BRIDGE	HARLEM RIVER			WMO	21	S	11/6/2006	4.889	F	80000	\$176,000,000	111	201	
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	3/20/2007	4.309	F	400	\$880,000	503		
2240027	KM	MANHATTAN BRIDGE(LL)	EAST RIVER	T		WEO	23	S	11/30/2006	4.407	F	616390	\$1,356,058,000	103	302	
2240028	KM	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T		WEO	43	S	11/30/2006	4.357	F	587424	\$1,292,332,800	103	302	
2229480	B	MANHATTAN COLL PKWY	HHP			A	3	S	5/22/2007	5.368	G	6200	\$13,640,000	208		
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY			A	1	S	4/13/2006	5.389	G	4400	\$9,680,000	482	406	
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM			WO	2	S	5/16/2007	4.600	F	7000	\$15,400,000	501		
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE			O	15	S	12/12/2006	4.737	F	14880	\$32,736,000	207		
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N		O	1	S	11/2/2006	5.172	G	2760	\$6,072,000	312		
2241110	B	MELROSE AVE	CSX TRANS - PT MORRIS	C		O	8	S	10/16/2007	5.667	G	37854	\$83,278,800	203		
2231710	Q	MERRICK BLVD	BLP N.B.			A	1	S	3/23/2006	4.467	F	6000	\$13,200,000	413		
2231720	Q	MERRICK BLVD	BLP S.B.			A	1	S	3/23/2006	4.200	F	6000	\$13,200,000	413		
2247500	Q	METROPOLITAN AVE	CONRAIL	C		O	1	S	11/27/2007	4.233	F	18650	\$41,030,000	405		
2240290	K	METROPOLITAN AVE	ENGLISH KILLS			WMO	5	S	7/26/2007	6.319	V	10550	\$23,210,000	301		
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L		O	2	S	9/25/2007	3.762	F	20900	\$45,980,000	405		
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S		O	1	S	11/9/2007	5.569	G	3000	\$6,600,000	502		
2257569	M	MILLER HIGHWAY	TERRAIN			A	64	S	8/24/2007	4.831	F	264190	\$581,218,000	107		
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S		O-PED	26	C	7/19/2007	5.000	G	1600	\$3,520,000	501		
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T		O	1	S	10/1/2007	6.275	V	2240	\$4,928,000	309		
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O		O	4	S	4/20/2007	5.169	G	7900	\$17,380,000	501		
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ			A-PED	3	C	10/10/2006	4.227	F	1200	\$2,640,000	101		
2230250	B	MOSHOLU PARKWAY	BRONX RIVER			WA	5	S	3/20/2006	4.263	F	16300	\$35,860,000	227		
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C		A	1	S	10/30/2006	4.229	F	5200	\$11,440,000	226		
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH			A	1	S	2/3/2006	4.448	F	4300	\$9,460,000	226		
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M		A	1	S	3/30/2006	5.516	G	8880	\$19,536,000	227	207	
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP			A	2	S	11/26/2007	5.135	G	7400	\$16,280,000	226		
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE			A	1	S	5/14/2007	5.609	G	8480	\$18,656,000	207		
2248100	Q	MOTOR PKWY (PED)	73RD AVE		P	O-PED	3	C	2/9/2007	4.965	F	2640	\$5,808,000	408		
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK		P	O-PED	1	C	8/29/2007	5.000	G	963	\$2,118,600	413		
2248060	Q	MOTOR PKWY (PED)	BELL BLVD		P	O-PED	2	C	7/13/2007	4.778	F	2648	\$5,825,600	411		
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD		P	O-PED	2	C	7/24/2007	4.708	F	2756	\$6,063,200	408		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD		P	O-PED	3	C	11/28/2007	5.000	G	2670	\$5,874,000	408		
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD		P	O-PED	3	C	7/17/2007	4.524	F	2940	\$6,468,000	411		
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L		O	1	S	9/17/2007	5.481	G	4000	\$8,800,000	407		
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L		O	3	S	1/11/2006	5.111	G	6725	\$14,795,000	482	406	
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY			A	1	S	2/16/2006	5.563	G	6400	\$14,080,000	405	482	
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.			A	1	S	1/16/2006	4.917	F	4000	\$8,800,000	413		
2231680	Q	N CONDUIT AVE WB	BLP W.B.			A	2	S	1/16/2006	4.932	F	6500	\$14,300,000	413		
205580A	Q	N.BLVD WB TO 678I SB	VACANT LAND			AR	16	S	9/1/2006	5.571	G	8600	\$18,920,000	407		
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	3	C	3/5/2007	4.686	F	300	\$660,000	503		
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M		O	10	S	11/30/2007	4.632	F	57750	\$127,050,000	212		
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S		O	2	S	11/7/2007	4.972	F	7600	\$16,720,000	502		
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N		O	1	S	9/28/2006	6.400	V	2350	\$5,170,000	311		
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T		O	3	S	9/6/2007	4.250	F	4100	\$9,020,000	314		
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL			WMO	3	S	6/4/2007	6.581	V	5772	\$12,698,400	306		
2269760	R	NORTH RAMP	SIRT	S	F	O	9	S	10/26/2007	4.181	F	17589	\$38,695,800	501		
2240440	Q	NORTHERN BLVD	ALLEY CREEK			WO	2	S	5/30/2006	4.750	F	8300	\$18,260,000	411		
2231870	Q	NORTHERN BLVD	BCIP			A	2	S	10/9/2006	6.458	V	9400	\$20,680,000	411		
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER			WO	40	S	9/20/2006	4.366	F	78894	\$173,566,800	407		
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER			WO	40	S	9/20/2006	4.817	F	71900	\$158,180,000	407		
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N		O	2	S	10/26/2006	5.085	G	4320	\$9,504,000	314		
2240138	BM	NYCTA IRT	HARLEM RVR/BROADWAY	T		WMO	3	S	10/27/2005	4.882	F	19520	\$42,944,000	112	207	208
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N		O	2	S	10/12/2006	4.912	F	5000	\$11,000,000	314		
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY			WO-PED	30	C	4/16/2007	3.912	F	4000	\$8,800,000	315		
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N		O	1	S	11/7/2006	5.218	G	7000	\$15,400,000	312		
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S		O	4	S	10/19/2007	6.347	V	30710	\$67,562,000	503		
2245470	M	PARK AVE N.B	E 45TH ST			O	1	S	7/8/2007	4.865	F	2400	\$5,280,000	105		
2245460	M	PARK AVE S.B.	E 45TH ST			O	1	S	7/7/2007	4.514	F	2400	\$5,280,000	105		
2246550	M	PARK AVE VIADUCT	E 42ND ST			O	10	S	12/12/2006	4.448	F	22150	\$48,730,000	106		
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL		O	1	S	9/7/2006	6.983	V	3024	\$6,652,800	409	482	
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER			WO	1	S	7/12/2006	4.793	F	4700	\$10,340,000	212		
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.			OE	4	S	5/2/2007	4.167	F	10167	\$22,367,400	101		
2269780	R	PARKING ENTR RAMP	SIRT	S	F	O	3	S	12/12/2007	4.986	F	8589	\$18,895,800	501		
2269730	R	PARKING EXIT RAMP	SIRT	S	F	O	10	S	12/17/2007	4.083	F	20727	\$45,599,400	501		
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T		O	6	S	9/1/2006	4.000	F	48700	\$107,140,000	314		
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L		O	1	S	8/29/2006	5.176	G	4200	\$9,240,000	407		
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG			OE	9	S	5/1/2007	3.814	F	6489	\$14,275,800	103		
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG			OE	3	S	4/28/2007	5.338	G	5200	\$11,440,000	101		
2246160	M	PED BET 73ST&74ST	THE LAKE		P	WO-PED	1	C	1/16/2007	4.750	F	1655	\$3,641,000	164		
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK	A	P	A-PED	5	C	5/10/2004	4.618	F	3480	\$7,656,000	107		
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		P	O-PED	1	C	3/24/2007	4.655	F	2300	\$5,060,000	164		
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR			O-PED	8	C	5/9/2007	5.422	G	900	\$1,980,000	406		
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		P	O-PED	1	C	3/10/2007	3.926	F	5900	\$12,980,000	164		
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE		P	WO-PED	4	C	12/20/2007	4.550	F	455	\$1,001,000	164		
2246380	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	1	C	12/7/2007	4.347	F	714	\$1,570,800	164		
2246390	M	PED WALK OPP 86ST	BRIDLE PATH		P	O-PED	3	C	12/7/2007	4.192	F	1095	\$2,409,000	164		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST			O-PED	18	C	9/5/2007	4.450	F	2300	\$5,060,000	111		
2246030	M	PEDESTRIAN BRIDGE	POND		P	O-PED	1	C	5/24/2007	4.172	F	1400	\$3,080,000	164		
2241380	B	PELHAM BAY PK EQUES	AMTRAK - CSX	AC	P	O-PED	1	C	11/13/1978	5.109	G	4223	\$9,290,600	228		
2231519	K	PENNSYLVANIA AVE	BSHP			A	2	S	4/24/2007	6.181	V	6640	\$14,608,000	356		
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N		O	2	S	10/5/2006	6.662	V	5328	\$11,721,600	316		
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T		O	2	S	8/15/2006	5.314	G	2500	\$5,500,000	309		
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		P	A-PED	53	S	10/31/2007	3.857	F	93000	\$204,600,000	108		
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		P	O	1	C	5/15/2007	4.500	F	900	\$1,980,000	355		
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE			O-PED	5	C	2/22/2007	4.857	F	1500	\$3,300,000	112		
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK			WMO	44	S	6/12/2006	4.817	F	205770	\$452,694,000	301	402	
2230530	Q	QUEENS BLVD	278I (B.Q.E.)			A	2	S	10/9/2006	6.083	V	25543	\$56,194,600	402		
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.			A	1	S	11/26/2006	4.205	F	7900	\$17,380,000	402		
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L		O	19	S	10/11/2006	6.577	V	92400	\$203,280,000	402	401	
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T		A	5	S	7/18/2006	4.778	F	37700	\$82,940,000	409		
2240047	MQ	QUEENSBORO BRIDGE(LL)	EAST RIVER	AL		WEO	53	S	11/15/2006	4.472	F	626900	\$1,379,180,000	108	402	401
2240048	MQ	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL			WEO	37	S	11/15/2006	4.434	F	322300	\$709,060,000	108	402	401
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.			AR	22	S	4/4/2006	5.180	G	15825	\$34,815,000	101		
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE	A		AR	26	S	8/2/2006	3.875	F	10800	\$23,760,000	112		
2240350	R	RICHMOND AVE	RICHMOND CREEK			WO	3	S	8/10/2007	5.653	G	32589	\$71,695,800	502		
2249270	R	RICHMOND VALLY ROAD	SIRT SOUTH SHORE	S		O	4	S	10/25/2007	5.284	G	9440	\$20,768,000	503		
2244150	K	RIDGE BLVD	SHORE RD DRIVE			O	1	S	5/8/2007	6.800	V	4350	\$9,570,000	310		
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL			WO	56	S	12/21/2007	4.521	F	183100	\$402,820,000	401	480	
2241430	B	RIVER AVE	METRO NORTH RR HUD	M		O	1	S	11/9/2007	6.281	V	5040	\$11,088,000	204		
2229510	B	RIVERDALE AVE	HHP			A	2	S	9/7/2007	4.053	F	5200	\$11,440,000	208		
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS			O	27	S	8/6/2007	4.500	F	148300	\$326,260,000	109		
2246980	M	RIVERSIDE DRIVE	W 138TH ST			O	1	S	3/27/2006	4.900	F	6700	\$14,740,000	109		
2267130	M	RIVERSIDE DRIVE	W 145TH ST			O	1	S	6/29/2007	5.000	G	5800	\$12,760,000	109		
2246720	M	RIVERSIDE DRIVE	W 158TH ST	A		O	77	S	11/16/2007	3.750	F	185658	\$408,447,600	109		
2246970	M	RIVERSIDE DRIVE	W 96TH ST			O	3	S	7/19/2007	5.559	G	10600	\$23,320,000	107		
2269240	M	RIVERSIDE DRIVE	W. 155TH ST			O	1	S	6/29/2007	4.640	F	4397	\$9,673,400	109	112	
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN			WO	2	S	8/7/2007	5.158	G	6000	\$13,200,000	483	413	
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)			A	2	S	12/12/2007	5.833	G	6600	\$14,520,000	402		
2240507	Q	ROOSEVELT AVE	678I - VAN WYCK EXPWY			WA	27	S	12/13/2006	3.535	F	84424	\$185,732,800	407	481	
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C		O	2	S	11/27/2007	5.889	G	5200	\$11,440,000	402	403	404
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD			O	4	S	8/8/2007	4.905	F	7280	\$16,016,000	481		
2240640	MQ	ROOSEVELT ISLAND	E. RIVER E. CHANNEL			WMO	8	S	12/6/2006	4.208	F	36500	\$80,300,000	108	401	
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S		O	2	S	11/5/2007	5.591	G	3800	\$8,360,000	502		
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S		O	2	S	11/7/2007	5.500	G	3800	\$8,360,000	502		
2248200	Q	RUST ST	FLUSHING AVE			O	1	S	7/27/2007	5.078	G	2940	\$6,468,000	405		
2231560	Q	S CONDUIT BLVD	BSOP			A	2	S	7/20/2006	5.465	G	15776	\$34,707,200	410		
2242210	B	S OF ALLERTON AVE	BRONX RIVER			WO	3	S	6/7/2006	4.763	F	6200	\$13,640,000	227		
2249770	R	S OF BROOKS LAKE	STREAM IN PARK		P	WO-PED	3	C	12/11/2007	5.000	G	696	\$1,531,200	501		
2230370	K	SACKETT ST	278I (B.Q.E.)			A	2	S	2/28/2006	4.694	F	5000	\$11,000,000	306		
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		P	AR	4	S	6/4/2007	4.645	F	2601	\$5,722,200	107		
2244470	K	SEELEY ST	PROSPECT AVE			O	1	S	6/7/2007	4.100	F	8482	\$18,660,400	307		



# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S		O	1	S	10/19/2007	6.016	V	3250	\$7,150,000	503		
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE			O	1	S	7/27/2007	5.188	G	2940	\$6,468,000	405		
2241390	B	SHORE RD CIRCLE	AMTRAK - CSX	AC		O	2	S	9/10/2007	3.254	F	4800	\$10,560,000	228		
2240200	B	SHORE ROAD	HUTCHINSON RIVER			WMO	7	S	7/20/2006	4.478	F	4800	\$10,560,000	228		
2270170	R	SI FERRY PEDESTRIAN BRIDGE	PARKING LOT EXIT ROADWAY		F	O-PED	5	C	1/10/2006	4.481	F	1750	\$3,850,000	501		
2249120	R	SIMONSON AVE	B&O RAILROAD	O		O	3	S	4/20/2007	5.981	G	5819	\$12,801,800	501		
2249860	R	SLATER BLVD	NEW CREEK			WO	1	S	5/15/2007	5.673	G	2037	\$4,481,400	502		
2249200	R	SOUTH AVE	B&O RAILROAD	O		O	3	S	12/8/2007	6.745	V	8322	\$18,308,400	501		
2244440	K	SOUTH OF TILLARY ST	NAVY ST			O-PED	1	C	10/9/2007	4.297	F	6200	\$13,640,000	302		
2242220	B	SOUTHERN BLVD	BRONX RIVER			WO	2	S	3/13/2006	4.395	F	4800	\$10,560,000	227		
2241080	B	SOUTHERN BLVD	CSX TRANS - PT MORRIS	C		O	1	S	10/20/2006	4.111	F	3900	\$8,580,000	201		
2242029	B	SOUTHERN BLVD	EAST FORDHAM ROAD			O	2	S	4/5/2006	4.684	F	12900	\$28,380,000	227		
2231630	Q	SPRINGFIELD BLVD	BSOP			A	2	S	4/27/2006	4.568	F	8500	\$18,700,000	413		
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)			O	1	S	5/15/2007	4.667	F	1470	\$3,234,000	413		
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/28/2007	6.781	V	2300	\$5,060,000	308		
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M		O-PED	2	C	11/2/2005	5.000	G	600	\$1,320,000	203		
2241060	B	ST. MARYS & CONCORD	CSX TRANS - PT MORRIS	C		O	1	S	8/18/2006	5.333	G	4500	\$9,900,000	201		
2230610	Q	STEINWAY ST	27BI E.B. (B.Q.E.)			A	1	S	11/8/2006	6.667	V	4200	\$9,240,000	401		
2230600	Q	STEINWAY ST	27BI W.B. (B.Q.E.)			A	1	S	11/9/2006	6.667	V	4200	\$9,240,000	401		
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T		O	1	S	9/28/2007	6.500	V	2300	\$5,060,000	308		
223201C	M	STH ST RMP TO FDR	SOUTH ST			AR	8	S	3/27/2006	4.134	F	39150	\$86,130,000	101		
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST			AR	10	S	4/6/2006	3.821	F	44625	\$98,175,000	101		
2240540	K	STILLWELL AVE	CONY ISLAND CRK			WO	2	S	6/5/2007	6.292	V	17000	\$37,400,000	313		
2230350	K	SUMMIT ST PED BRDG	27BI (B.Q.E.)			A-PED	2	S	2/28/2006	4.671	F	1400	\$3,080,000	306		
2231650	Q	SUNRISE HWY W.B.	BLP E.B.			A	1	S	3/27/2006	4.623	F	4100	\$9,020,000	413		
2231660	Q	SUNRISE HWY W.B.	BLP W.B.			A	2	S	4/6/2006	4.565	F	5350	\$11,770,000	413		
2231800	Q	SUPERIOR ROAD	BCIP			A	2	S	3/13/2006	4.318	F	7000	\$15,400,000	413		
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N		O	3	S	10/5/2006	6.542	V	5497	\$12,093,400	316		
2241040	B	THIRD AVE	CSX TRANS - PT MORRIS	C		O	1	S	10/18/2006	4.563	F	2700	\$5,940,000	201	203	
2240310	K	THIRD AVE	GOWANUS CANAL			WO	1	S	9/4/2007	5.000	G	3200	\$7,040,000	306		
2240069	BM	THIRD AVE BRIDGE	HARLEM RIVER			WMO	14	S	11/2/2006	6.859	V	100232	\$220,510,400	111	201	
2240250	K	THIRD ST	GOWANUS CANAL			WMO	5	S	6/5/2007	4.931	F	4900	\$10,780,000	306		
2247300	Q	THOMPSON AVE	AMTRAK YARD	L		O	14	S	10/16/2006	5.264	G	61280	\$134,816,000	402		
2241170	B	TIFFANY ST	AMTRAK - CSX	AC		O	1	S	9/21/2007	5.627	G	7267	\$15,987,400	202		
224004H	Q	TO 21ST ST FROM NY	22ND ST			OE	43	S	12/14/2006	4.366	F	48100	\$105,820,000	402		
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY			OE	31	S	6/6/2006	4.148	F	51400	\$113,080,000	101		
224005B	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	7/26/2007	3.861	F	12100	\$26,620,000	201		
224006A	B	TO BRUCKNER BLVD	RELIEF			OR	5	S	12/19/2007	6.817	V	14037	\$30,881,400	201		
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE			OE	13	S	6/17/2006	5.764	G	14800	\$32,560,000	106		
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST			OE	10	S	7/26/2006	4.985	F	16720	\$36,784,000	106		
224001D	M	TO FDR DR N.B.	PEARL STREET			OE	30	S	5/17/2007	4.906	F	49600	\$109,120,000	101		
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE			O	1	S	5/23/2006	5.143	G	10800	\$23,760,000	112		
224007A	M	TO MADISON AVENUE	RELIEF			OR	7	S	5/15/2006	5.225	G	19880	\$43,736,000	111		
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE			OE	94	S	12/7/2006	4.792	F	104600	\$230,120,000	402		
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)			OE	36	S	11/10/2006	4.634	F	8360	\$18,392,000	401	402	

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)			OE	63	S	12/12/2006	4.833	F	63310	\$139,282,000	402	401	
224001G	M	TO PARK ROW	ROSE ST			OE	11	S	5/18/2007	4.549	F	16551	\$36,412,200	101		
224001E	M	TO PEARL ST	LAND ADJ TO BRDG			OE	3	S	5/4/2007	5.141	G	5300	\$11,660,000	106		
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE			OE	13	S	6/26/2006	5.507	G	14800	\$32,560,000	106		
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST			OE	12	S	8/24/2006	4.547	F	11781	\$25,918,200	106		
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE			OE	39	S	10/18/2006	5.082	G	59100	\$130,020,000	402		
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)			O	1	S	4/4/2006	6.234	V	5096	\$11,211,200	501		
2249840	R	TOMPKINS AVE	GREENFIELD AVE			O	1	S	2/15/2006	5.106	G	2562	\$5,636,400	501		
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S		O	2	S	10/20/2006	5.537	G	5378	\$11,831,600	501		
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S		O-PED	9	C	3/20/2007	4.043	F	200	\$440,000	503		
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		P	O	1	S	3/31/2006	4.364	F	1739	\$3,825,800	108		
2249870	R	TRAVIS AVE	MAIN CREEK			WO	1	S	11/10/2007	5.783	G	1700	\$3,740,000	502		
2246560	M	TUDOR CITY PLACE	E 42ND ST			O	1	S	4/10/2006	5.133	G	6600	\$14,520,000	106		
2249170	R	UNION AVE	B&O RAILROAD	O		O	4	S	4/17/2007	5.426	G	6500	\$14,300,000	501		
2230360	K	UNION ST	278I (B.Q.E.)			A	2	S	2/28/2006	4.375	F	5000	\$11,000,000	306		
2243200	K	UNION ST	FRANKLIN SHUTTLE	T		O	2	S	8/21/2006	5.043	G	4100	\$9,020,000	309		
2240270	K	UNION ST	GOWANUS CANAL			WMO	5	S	8/21/2006	4.014	F	4900	\$10,780,000	306		
2247040	Q	UNION ST	LIRR N SIDE DIV	L		O	1	S	10/12/2007	6.391	V	3313	\$7,288,600	407		
2231850	Q	UNION TPKE	BCIP			A	2	S	5/23/2006	4.364	F	13600	\$29,920,000	413		
2248129	Q	UNION TPKE	CREEDMOORE HOSP RD			O	1	S	7/6/2007	4.867	F	3500	\$7,700,000	413		
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY			A	1	S	2/7/2006	5.984	G	5359	\$11,789,800	482		
2241330	B	UNIONPORT ROAD	AMTRAK - CSX	AC		O	1	S	8/17/2006	4.875	F	4400	\$9,680,000	211		
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL			OT	2	S	8/4/2006	4.843	F	95000	\$209,000,000	106		
2231910	Q	UTOPIA PKWY	BCIP			A	2	S	2/10/2006	5.136	G	7200	\$15,840,000	407		
2229550	B	VAN CRTLDT EQUES	HHP		P	A-PED	2	C	9/20/2007	4.643	F	2100	\$4,620,000	226		
2229540	B	VAN CRTLDT PARK	HHP		P	A-PED	2	C	9/20/2007	4.879	F	3900	\$8,580,000	226		
2249130	R	VAN NAME AVE	B&O RAILROAD	O		O	3	S	4/25/2007	5.254	G	5474	\$12,042,800	501		
2249140	R	VAN PELT AVE	B&O RAILROAD	O		O	3	S	4/27/2007	5.844	G	5000	\$11,000,000	501		
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE			O	4	S	10/14/2005	4.944	F	7500	\$16,500,000	109		
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	3	C	7/17/2007	4.183	F	1100	\$2,420,000	109		
2246710	M	W 153 ST	A.C. POWELL BLVD			O	1	S	3/28/2006	4.093	F	3082	\$6,780,400	110		
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A		O-PED	3	C	3/23/2006	3.446	F	800	\$1,760,000	109	112	
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	9/29/2005	6.431	V	29170	\$64,174,000	112		
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	P	O-PED	2	C	8/2/2007	4.400	F	1500	\$3,300,000	112		
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.			O-PED	1	C	12/26/2007	4.517	F	1200	\$2,640,000	112		
2246489	M	W 181 ST	RAMP TO WASH BR			O	1	S	3/7/2006	4.633	F	8200	\$18,040,000	112		
2229400	M	W 181ST ST PED BRDG	HHP N.B.		P	A-PED	7	C	2/8/2007	4.739	F	1500	\$3,300,000	112		
2241940	B	W 205TH ST	NYCTA IND YARDS	T		O	4	S	9/6/2006	5.625	G	32508	\$71,517,600	207		
2240120	BM	W 207TH/W FORDHAM RD	HARLEM RIVER			WMO	5	S	6/8/2006	5.528	G	31784	\$69,924,800	112	207	
2241489	B	W 225TH ST	CSX TRASP - PUTNAM	C		O	2	S	5/26/2006	5.299	G	10900	\$23,980,000	207	208	
2241490	B	W 230TH ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	5/9/2007	5.625	G	5600	\$12,320,000	208		
2241509	B	W 231ST ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	10/30/2006	5.059	G	4723	\$10,390,600	208		
2241510	B	W 233RD ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	4/13/2007	5.275	G	3760	\$8,272,000	208		
2241520	B	W 234TH ST	CONRAIL (ABANDONED) PUTNAM			O	1	S	4/18/2007	5.176	G	3770	\$8,294,000	208		
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A		O	9	S	12/11/2006	3.619	F	8800	\$19,360,000	104		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SR C	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A		O	8	S	4/18/2006	4.556	F	16500	\$36,300,000	104		
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A		O	2	S	7/3/2007	4.750	F	4620	\$10,164,000	104		
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	7/3/2007	4.597	F	11800	\$25,960,000	104		
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/12/2006	4.208	F	6500	\$14,300,000	104		
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A		O	7	S	8/30/2006	3.866	F	16400	\$36,080,000	104		
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	11/7/2005	6.270	V	7505	\$16,511,000	104		
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	9/27/2006	4.000	F	6200	\$13,640,000	104		
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/27/2006	4.196	F	6300	\$13,860,000	104		
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/19/2006	3.986	F	9400	\$20,680,000	104		
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A		O	3	S	9/23/2006	4.388	F	6200	\$13,640,000	104		
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A		O	4	S	9/21/2006	4.619	F	9155	\$20,141,000	104		
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	4.838	F	4100	\$9,020,000	104		
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	4.662	F	4300	\$9,460,000	104		
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/5/2006	5.662	G	4100	\$9,020,000	104		
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.441	F	4100	\$9,020,000	104		
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.574	F	4100	\$9,020,000	104		
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	5/12/2006	4.618	F	4100	\$9,020,000	104		
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	12/8/2006	4.574	F	4100	\$9,020,000	104		
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/4/2006	4.574	F	4100	\$9,020,000	104		
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/8/2006	4.853	F	4300	\$9,460,000	104		
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/8/2006	5.088	G	4300	\$9,460,000	104		
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/10/2006	5.074	G	5100	\$11,220,000	104		
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/27/2006	5.540	G	4700	\$10,340,000	104		
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/7/2006	5.441	G	4300	\$9,460,000	104		
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	12/7/2006	5.529	G	4400	\$9,680,000	104		
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A		O	3	S	10/26/2006	4.809	F	9100	\$20,020,000	104		
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A		O	2	S	10/27/2006	4.647	F	4100	\$9,020,000	104		
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END		P	O	1	S	3/13/2006	4.900	F	1600	\$3,520,000	164		
2229290	M	W 79 ST	AMTRAK	A		A	1	S	9/7/2006	4.288	F	4500	\$9,900,000	107		
2231860	Q	W ALLEY ROAD	BCIP			A	2	S	8/3/2007	5.474	G	7200	\$15,840,000	411		
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		P	O	1	S	4/30/2007	5.679	G	2500	\$5,500,000	355		
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M		O	4	S	11/26/2007	5.694	G	16052	\$35,314,400	207		
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M		O	8	S	5/11/2006	4.254	F	12900	\$28,380,000	205		
2269260	K	W. 8TH STREET	SURF AVE.		P	O-PED	39	C	3/23/2007	3.870	F	14742	\$32,432,400	313		
2269210	M	W.68TH STREET	AMTRAK	A		O	3	S	9/28/2005	6.780	V	5382	\$11,840,400	107		
2269190	M	W.70TH STREET	AMTRAK	A		O	3	S	10/14/2005	6.417	V	17258	\$37,967,600	107		
2241070	B	WALEY AVE	CSX TRANS - PT MORRIS	C		O	1	S	10/20/2006	6.567	V	2535	\$5,577,000	201		
2241410	B	WALTON AVE	METRO NORTH RR HUD	M		O	1	S	4/17/2006	5.328	G	3600	\$7,920,000	204		
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER			WMO-PED	10	C	7/26/2007	4.250	F	12600	\$27,720,000	111		
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T		O	1	S	8/10/2006	6.281	V	3657	\$8,045,400	309	355	
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER			WO	9	S	11/18/2006	4.821	F	128339	\$282,345,800	112	205	204
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		P	O	1	S	2/27/2006	4.667	F	2000	\$4,400,000	164		
2246330	M	WEST DRIVE	FEEDER TO LAKE		P	WO	1	S	3/15/2006	5.000	G	2019	\$4,441,800	164		
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		P	O	1	S	3/3/2006	5.267	G	2500	\$5,500,000	164		
2246430	M	WEST DRIVE	PED OPP 109TH ST		P	O	1	S	3/24/2006	4.250	F	1200	\$2,640,000	164		

# INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	OTHER OWNER	BRIDGE TYPE	SPAN S	RT NG SRC	Inspection Date	Condition Rating	VR BL RT NG	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		P	O	1	S	3/15/2006	5.273	G	3100	\$6,820,000	164		
2246120	M	WEST DRIVE	TRANSVERSE RD #1		P	O	1	S	4/21/2006	4.833	F	7900	\$17,380,000	164		
2246240	M	WEST DRIVE	TRANSVERSE RD #2		P	O	1	S	4/21/2006	4.167	F	7200	\$15,840,000	164		
2246260	M	WEST DRIVE	TRANSVERSE RD #3		P	O	1	S	3/22/2006	4.800	F	5100	\$11,220,000	164		
2246280	M	WEST DRIVE	TRANSVERSE RD #4		P	O	1	S	4/25/2006	4.033	F	4700	\$10,340,000	164		
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		P	WO-PED	2	C	1/3/2007	4.371	F	899	\$1,977,800	501		
2244100	K	WEST FOOTBRIDGE	PROSPCT PK STREAM		P	WO-PED	1	C	12/4/2007	5.000	G	308	\$677,600	355		
2267380	M	WEST STREET	RECTOR ST			AT	1	S	11/4/2005	5.033	G	25760	\$56,672,000	101		
2241230	B	WESTCHESTER AVE	AMTRAK - CSX	AC		O	3	S	8/10/2006	6.125	V	15600	\$34,320,000	202	209	
2240180	B	WESTCHESTER AVE	BRONX RIVER			WO	1	S	7/17/2007	4.932	F	5476	\$12,047,200	202	209	
2241000	B	WESTCHESTER AVE	CSX TRANS - PT MORRIS	C		O	1	S	7/17/2006	5.128	G	1740	\$3,828,000	201		
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY			A	2	S	3/28/2006	4.389	F	15858	\$34,887,600	210	211	
2241329	B	WHITE PLAINS ROAD	AMTRAK - CSX	AC		O	1	S	8/17/2006	4.859	F	6900	\$15,180,000	211		
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE			O-PED	7	C	12/27/2007	4.465	F	5500	\$12,100,000	410		
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)			A	1	S	8/17/2006	4.683	F	2500	\$5,500,000	407		
2241369	B	WILLIAMSBRIDGE RD	AMTRAK - CSX	AC		O	2	S	7/27/2006	4.836	F	10400	\$22,880,000	211		
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T		WEO	53	S	11/3/2006	4.736	F	824000	\$1,812,800,000	103	301	
2240059	BM	WILLIS AVENUE	HARLEM RIVER			WMO	26	S	10/16/2006	3.292	F	94700	\$208,340,000	111	201	
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE			O	3	S	6/6/2006	4.417	F	19400	\$42,680,000	409		
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD			O	2	S	8/9/2006	4.288	F	11500	\$25,300,000	404		
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)			A	1	S	1/18/2006	5.063	G	7500	\$16,500,000	402		
2247400	Q	WOODSIDE AVE	CONRAIL	C		O	1	S	11/26/2007	5.033	G	8200	\$18,040,000	402	404	
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L		O	3	S	10/5/2007	4.349	F	14900	\$32,780,000	402		
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	P	O-PED	5	C	11/7/2005	4.290	F	4200	\$9,240,000	204		
788 OPEN BRIDGES				OPEN SPANS 4489				OPEN SF				15,791,539	\$34,741,385,800			



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
R00046	R	RICHMOND TERRACE	SNUG HARBOUR		O	2	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
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
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
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

## GLOSSARY

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.

### **AS-BUILT DRAWINGS**

Drawings that are prepared from measurements taken on-site to accurately depict the actual sizes and location of elements of the construction project. The as-built drawings indicate variations from the construction documents that occurred during construction.

### **ASPHALT**

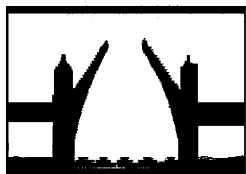
Black bituminous surface material made from AGGREGATE and processed petroleum.

### **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**, **Shore Road (Pelham)**, **Hamilton Avenue**, Third Street, **Union Street**, and **Greenpoint Avenue** Bridges.



Unionport Bridge. (Credit: NYSDOT) Shore Road (Pelham) Bridge. (Credit: Peter Basich)  
Hamilton Avenue Bridge. (Credit: NYSDOT)



Union Street Bridge. Greenpoint Avenue Bridge.  
(Greenpoint Credit: Michele N. Vulcan)

## **BASE COURSE**

The layer of compacted ASPHALT directly under the WEARING SURFACE.

## **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.

## **BORING**

A soil exploration technique of drilling into the ground at various locations in an attempt to construct an accurate subsurface profile.

## **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.

### **BULKHEAD**

A RETAINING WALL-like structure commonly composed of driven piles supporting a wall or a barrier of wooden timbers or reinforced concrete members.

### **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**

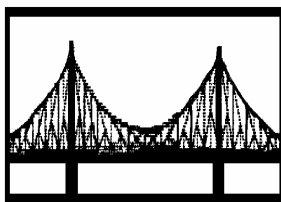
A TRUSS having a curved top chord and straight bottom chord meeting at each end. There is a camelback truss on the Macombs Dam Bridge.



Macombs Dam Camelback Truss.

### **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.



Queensboro Bridge. (Credit: Russell Holcomb)

### **CAST-IN-PLACE**

Concrete that is poured and cured in its final position at the project site.

### **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.

### **CATWALK**

A narrow walkway for access to some part of a structure.

### **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.



Woodhaven Boulevard Bridge Eastbound  
Vertical Clearance Posting. (Credit: NYSDOT)

### **COLONNADE**

A series of regularly spaced columns.





Manhattan Bridge Colonnade.  
(Credit: Peter Basich)

**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.

**DELAMINATION**

The subsurface separation of concrete into layers.

**DESIGN-BUILD CONTRACTS**

A delivery procedure where one company is retained to perform both design and construction, thus expediting the capital bridge rehabilitation program.

**DOLPHIN**

A group of PILES driven close together and placed to protect portions of a bridge or other structure exposed to possible damage by collision with marine traffic.



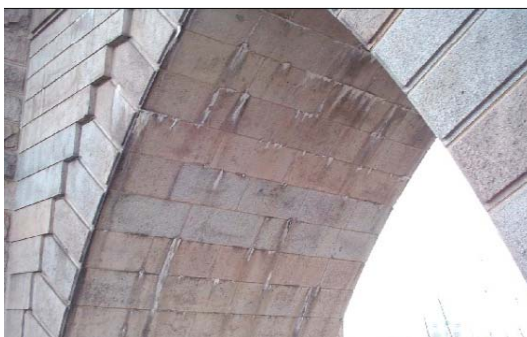
Greenpoint Avenue Dolphin & Fender System.  
(Credit: Peter Basich) Hunters Point Avenue Dolphins.  
(Credit: Michele N. Vulcan)

### ***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.



Moderate Efflorescence on the Brooklyn Bridge  
Brooklyn Tower North Gothic Arch in 2004.  
(Credit: NYSDOT)

### ***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.

### ***FATIGUE***

Cause of structural deficiencies due to repetitive loading over time.

### ***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.

### ***FORMS***

The temporary molds that hold concrete in place while it is hardening; also known as form work.

### ***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.

### **FUNCTIONALLY OBSOLETE**

A status used to describe a bridge that, because of its geometry, is no longer functionally adequate for its task. Reasons for this status include that the bridge doesn't have enough lanes to accommodate the traffic flow, it may be a drawbridge on a congested highway, or it may not have space for emergency shoulders. "Functionally Obsolete" does not communicate anything of a structural nature. A functionally obsolete bridge may be perfectly safe and structurally sound, but may be the source of traffic jams or may not have a high enough CLEARANCE to allow an oversized vehicle.

### **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.



Hook Creek Bridge and Brooklyn's Third Avenue Bridge. (Credit: NYSDOT)

### **GRADE**

The degree of inclination of the ground surface.

### **GRID FLOORING**

A steel floor system comprising a lattice pattern which may or may not be filled with concrete.

### **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.

### **JACKING**

The mechanical lifting or sliding of an element.

### **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.)

### **LOAD RATING**

A value that indicates the LIVE LOAD capacity of a bridge.

### **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).

## **MAINTENANCE AND PROTECTION OF TRAFFIC**

The control plan for traffic around and through a construction site.

## **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.



Cleaning the Masonry of the North Face of the Manhattan Bridge's Brooklyn Anchorage and of the North and East Faces of the Roosevelt Island Pier of the Queensboro Bridge.

## **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. The 25 movable bridges currently under the jurisdiction of the New York City Department of Transportation include the Harlem River group (Broadway, West 207<sup>th</sup>/West Fordham Road, Macombs Dam, 145<sup>th</sup> Street, Madison Avenue, Third Avenue, Willis Avenue, and Wards Island); the Bronx group (Bruckner Expressway/Bronx River, Hutchinson River Parkway, Shore Road, and Bruckner Expressway/Westchester Creek); the Queens group (Borden Avenue, Grand Street, Greenpoint Avenue, Hunterspoint Avenue, Pulaski Avenue, and Roosevelt Island); and the Brooklyn group (Hamilton Avenue, Ninth Street, Third Street, Carroll Street, Union Street, Metropolitan Avenue, and Mill Basin.)

## **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.



A Bulb of the Queensboro Bridge Necklace Lights. (Credit: Peter Basich) Repairing a Manhattan Bridge Necklace Light. (Credit: Hany Soliman)

## **NONDESTRUCTIVE TESTING**

A method of checking the structural quality of materials that does not damage them.



## **NOTICE TO PROCEED**

The formal document authorizing the contractor to commence work under its contract.

## **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.



Metropolitan Avenue Bridge over  
English Kills Operator House.

## **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.



Morris Street, West 8<sup>th</sup> Street, and Ocean Avenue Pedestrian Bridges.

## **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.



**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.

**POSTED**

An announcement or sign limiting dimension, speed, or loading, indicating that larger dimensions and higher speeds and loads cannot be safely taken by the bridge.



Roosevelt Island Bridge Vertical Clearance Restriction and Posted Weight Signs (Credit: NYSDOT)

**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.

### **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.

### **RETAINING WALL**

A structure designed to restrain and hold back a mass of earth.

### **RETARDING AGENT**

A chemical added to mortar to slow down the set.

### **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.



Borden Avenue Bridge. (Credit: Peter Basich). Carroll Street Bridge. (Credit: NYSDOT)

### **RETROFIT**

Upgrading parts of an existing structure to meet current standards.

### **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, Madison Avenue, and Brooklyn 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.

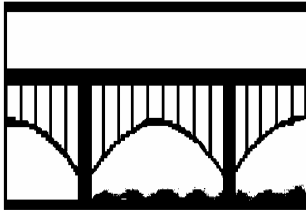


## STAGED CONSTRUCTION

Construction done so that traffic may be maintained on a portion of an existing bridge structure while a longitudinal section of a new structure is constructed. Traffic is then shifted over to that portion of the new structure while the existing structure is removed and the new structure is completed.

## 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. (Credit: Peter Basich) (Second View Credit: NYSDOT)

## STEM

The vertical part of a retaining wall, usually made of concrete or masonry.



East Face of  
Brooklyn Bridge  
North Stem Wall.  
(Credit: NYSDOT)

## 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 Staff Installing Strain Gauges in 1995 and 2006 on the Greenpoint Avenue Bridge. Checking the Measurements in 2006.  
(2006 Credit: Vera Ovetskaya)

### **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) Bridge Repairer & Riveter Joseph Antony Repairing a Red-Flagged Stringer on the Bridge. (Credit: Hany Soliman)

### **STRUCTURAL DEFICIENCY**

An engineering term-of-art used by the Federal government to indicate that there are elements of the bridge that need to be monitored and/or repaired. It covers a wide range of conditions and does not reflect the fundamental integrity of a structure. Any city bridge deemed unsafe would be shut to the public.

### **SUBSTRUCTURE**

The name given to those elements below a bridge's road deck system, namely the ABUTMENTS, ANCHORAGES, BEARINGS, and PIERS.

### **SUPERSTRUCTURE**

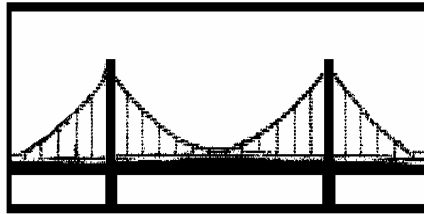
The superstructure is all that part of a structure above the bearings of simple and continuous spans, skewbacks of arches and top of footings of rigid frames; excluding backwalls, WINGWALLS and wing protection railings.

### **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

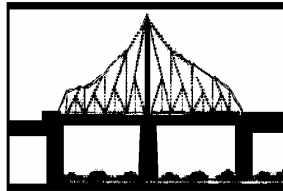
Suspension bridges are high level bridges with spans that usually exceed 1,500 feet in length. Supported by large wire CABLES that are anchored to masses of concrete and which pass over the tops of towers, the road DECK is suspended at regular intervals by smaller cables called suspenders. While the 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.



Williamsburg Bridge. (Credit: Peter Basich)

## 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, 145<sup>th</sup> Street, University Heights, Grand Street** and **Macombs Dam** Bridges.



Third Avenue Bridge. Madison Avenue Bridge and 145<sup>th</sup> Street Bridge.  
(Madison and 145<sup>th</sup> Street Credit: Peter Basich)



University Heights Bridge. (Credit: Michele N. Vulcan) Grand Street Bridge.  
(Credit: NYSDOT) Macombs Dam Bridge. (Credit: Michele N. Vulcan)

## 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. (Credit: Peter Basich) Inspectors on Manhattan Bridge Tower. (Inspector Credit: NYSDOT) Manhattan Bridge Tower. (Credit: Michele N. Vulcan)

## 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.



Brooklyn Bridge Franklin Square Truss.  
(Credit: Andy Hoang).

## 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.





East 174<sup>th</sup> Street Truss Bridge over Sheridan Expressway. (Credit: NYSDOT)

### **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.



Wards Island Pedestrian Bridge. (2<sup>nd</sup> View Credit: Peter Basich)  
Ninth Street Bridge. (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.



Park Avenue Viaduct Bridge.

### **WEARING SURFACE**

The topmost layer of material applied on the DECK or roadway that receives the traffic loads; also known as wearing course.



Brooklyn Bridge Wearing Surface.  
(Credit: NYSDOT)

### **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.



Timber Shoring Supporting a Failing Steel Beam – a Potential Winter Hazard.  
(Credit: Bojidar Yanev)



## 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. (Hutchinson Credit: Anthony Napolitano) 161<sup>st</sup> Street Pedestrian Bridge Over Major Deegan Expressway.



Assistant City Highway Repairer Lashawn Elam and Highway Repairer Anita Ramos Removing Vegetation and Other Debris.

**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.

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Drain Truck on Brooklyn Bridge Ramp. (Credit: Peter Basich)



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

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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.



Power Washing the Corrosive Deicing Solvents Within the Range of the Roadway Splash Zone on The Manhattan Bridge in October 2007. Particular Attention is Directed to Cleaning the Gusset Plate. (Credit: Albert Hong)

## 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)



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Sidewalk Repairs at East 174<sup>th</sup> Street Over The Ramp to The Cross Island Parkway. (Credit: Reza Taheri)

### 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.



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)

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Rolling and Tamping the Asphalt on the Eastbound BQE. (Credit: Anthony Napolitano)



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.



Electrician Robert Stackpole and Supervisor Electrician Ben Cipriano Atop the Queensboro Bridge. Electrician Helper Richard Parisi. (Credit: Peter Basich) Supervisor Electrician Ben Cipriano Installing an Outlet on the Brooklyn Bridge. (Credit: Hany Soliman)

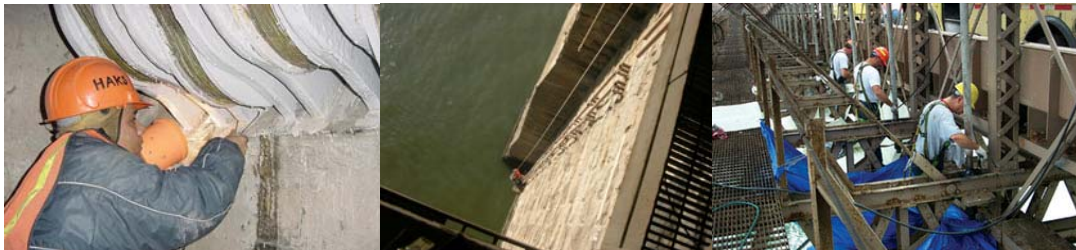


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Changing a Bulb on the Queensboro Bridge Necklace Lighting. (Credit: Peter Basich)

**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) Repairing the Brooklyn Bridge Standpipe System, 130 Feet Below the Roadway. Maintenance Crew Conducting the Annual Cleaning and Lubrication of the Solid Rod Suspenders Spherical Bearings on the Brooklyn Bridge. (Credit: Anatoly Orlov)



Oiler T. McAuliffe at the 9<sup>th</sup> Street Bridge. Oilers Andrew Sorrentino, Rene Francis, Steven Marxhausen, John Garone, and Daniel Cantirino, Along With Mechanical Engineering Intern Vincent Competello at the Third Avenue Bridge Prior to Practicing an Emergency Hydraulic Bridge Opening. (Credit: Vera Ovetskaya)

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



Cleaning and Lubricating the Broadway Bridge. (Credit: Reza Taheri)

### 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 Queensboro Bridge (Credit: Vadim Sokolovsky)  
Containment on Queensboro Bridge Manhattan Ramp. (Credit: Peter Basich)



Inside the Queensboro Bridge Containment. 2005: Roadway Containment.  
(Roadway Credit: Michele N. Vulcan) 2006: Containment Above the Upper Roadway.

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



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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.

**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. Salt Splash Painting on the Williamsburg Bridge. (Salt Splash Credit: Fouad Althaibani)



Containment Examples. Manhattan Bridge - Painting Containment Structures on the Cables of the Manhattan Approach Span. 2005: Queensboro Containment. (Queensboro Credit: Peter Basich)



2005: Queensboro Bridge Containment. (Credit: Peter Basich) 2005: Preventing Paint From Falling Into the Dutch Kills under the Hunters Point Avenue Bridge. (Credit: Sergiy Parayev)  
Working Inside the Queensboro Bridge Containment.

## COMPONENTS OF THE PREVENTIVE MAINTENANCE PROGRAM\*



2007 Queensboro Bridge Lower Level and Upper Level Shielding.

TASK	IMPACT*
Debris Removal	6.1%
Sweeping	5.3%
Clean Abutments & Piers	8.1%
Clean Open Grating	7.0%
Clean Expansion Joints	9.1%
Wash Deck & Splash Zones	5.1%
Paint	4.2%

TASK	IMPACT*
Spot Paint	3.7%
Drain Cleaning	10.6%
Sidewalk & Curb Repair	2.5%
Pavement & Crack Sealing	12.2%
Wash Underside	15.9%
Mechanical Device Maintenance	6.7%
Replace Wearing Surface	3.5%

\*IMPACT ON BRIDGE RATING



Cleaning the Brooklyn Bridge Brooklyn Anchorage in July 2007. (Credit: Serag Saad)

\*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 2007

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)	21	71
BRIDGE PAINTERS	7	34
BRIDGE REPAIRERS/RIVETERS	3	35
CARPENTERS	3	13
CEMENT MASONS	-	9
DEBRIS REMOVERS	-	1
ELECTRICIANS (INCLUDES HELPERS)	5	22
HIGHWAY REPAIRERS (INCLUDES ASSISTANTS & SEASONAL WORKERS)	28	86
MACHINISTS	-	1
MOTOR GRADER OPERATORS	-	1
OILERS	-	14
STATIONARY ENGINEERS (ELECTRIC)	-	1
TRACTOR OPERATORS	-	1
<b>TOTALS</b>	<b>69 SUPERVISORS</b>	<b>293 MECHANICS</b>



Bridge Operator Mary Harrigan at the Union Street Bridge. (Credit: Adal Maldonado)  
Bridge Repairer/Riveters Repairing the Willis Avenue Bridge Grating. (Credit: Reza Taheri)



Bridge Operator-in-Charge Delonda Bates-Pinkney at the Controls of the 9th Street Bridge. She has worked for the Department since 1989. (Credit: Keith Burrowes) BOIC Bates-Pinkney Preparing to Check the Bridge's Mechanisms. (Credit: Vera Ovetskaya)

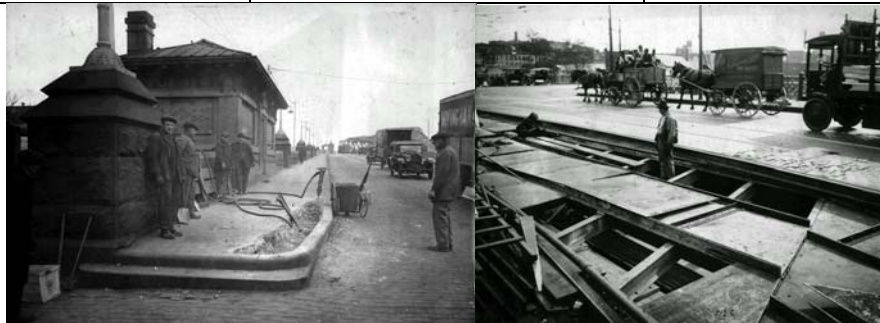
Revised 11/24/07



## 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>



Willis Avenue Bridge Curbing and Road Repair in the Early 1920's.

## 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 Work Gloves Long Cuff Work Gloves Unlined Work Gloves Lined Work Boots Chipping Hammer Clip Boards Deceleration Lanyards Flashlight (2 "D" Cell) Safety Vest 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  OSHA Approved Respirator & Filters Belt With Two Drop Forged D-Rings Hard Hat Flashlight	5 Boro Map Binoculars Broom Digital Camera Camera Card Reader Hand Compass Screwdriver Set (Regular) Screwdriver Set (Phillips) Dye Penetrant Kit Lantern  D-Meter With Test Block Marking Paint Spray Retract Survey Rod 25' Handheld Computer Thermometer Spray Penetrating Oil Cell Phone/Radio Vernier Calipers Wrenches 12" Tool Pouch  Lumber Crayons  Spray Paint Awl Calipers Hacksaw Hacksaw Blades (Extra) Paint Scraper Inspection Mirror Level 24" Pliers 8", Vinyl Coated Plumb Bob Pocket Knife Ruler 25' or 30' (Metal) Ruler 100' (Fiberglass) Scraper Blades (Extra) Wire Brush Folding Ruler 8' Rope 5/8" With 100' Coil	Tool Chest Clip Boards Flashlight (3 "D" Cell) Fire Extinguisher First Aid Kit 3 Safety Flags Step Ladder 6' or 8' 10 Traffic Cones
		<b>Put In Trucks By Highway Repairs When Needed</b>
		Generator Oil For Generator Extension Ladder 32' Extension Ladder 24' Extension Ladder 16' Shovel Push Broom Dust Pan & Sweep Broom  Bottled Water  Bolt Cutter Flood Lights Approved Safety Gasoline Can Sledge Hammer (8 lbs.) Extension Cord Winder
 <p>NYSDOT Inspector on The Brooklyn Bridge. (Credit: Michele N. Vulcan)</p>		 <p>Division Personnel Inspecting Paerdegat Bridge Utilizing a Barge. (Credit: Avelino Leyco Jr.)</p>

\*New York City Department of Transportation, Division of Bridges. *Inspections and Bridge Management Section Equipment Checklist*. 2006.

## JANUARY

<b>"Jumper"</b>	Motion Picture	Manhattan Bridge Roadway
<b>"Richard &amp; Judy"</b>	Television	Brooklyn Bridge Walkway
<b>"F-List"</b>	Television	Brooklyn Bridge Walkway
<b>"Dutifri"</b>	Documentary	Brooklyn Bridge Walkway
<b>"My Sassy Girl"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"I Am Legend"</b>	Motion Picture	Brooklyn Bridge Esplanade



Filming "I Am Legend" at the Brooklyn Bridge in January 2007. Search and Rescue and the Coast Guard Monitoring the Filming. (Credit: Peter Basich)

<b>"Blond Ambition"</b>	Motion Picture	Williamsburg Bridge Roadway
<b>"Cities of the Underworld"</b>	Television	Brooklyn Bridge Walkway
<b>"Jackson Avenue Hustle"</b>	Motion Picture	Brooklyn Bridge Roadway
<b>Footlocker Commercial</b>	Television	Queensboro Bridge Roadway
<b>Self Magazine</b>	Still Photography	Williamsburg Bridge Walkway
<b>"Brooklyn to Manhattan"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"A Journey Through Auden"</b>	Television	Williamsburg Bridge Necklace Lights
<b>"Brazil Tropical Paradise"</b>	Television	Brooklyn Bridge Roadway
<b>Commercial</b>		Brooklyn Bridge Walkway

## FEBRUARY

<b>Cannondale Bicycle Corporation</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Tracking His Majesty King Rama....Footsteps Overseas"</b>	Documentary	Brooklyn Bridge Walkway
<b>L'Officiel Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Malibu" Band Promotion</b>	Still Photography	Brooklyn Bridge Walkway
<b>"The Bourne Ultimatum"</b>	Motion Picture	Queensboro Bridge Roadway
<b>"Horizon: Secret Universe"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>Nike Commercial</b>	Television	Manhattan Bridge Walkway
<b>NYS Lottery Commercial</b>	Television	Brooklyn Bridge Walkway

## MARCH

<b>Sport &amp; Street Magazine</b>	Still Photography	Williamsburg Bridge Walkway
<b>"En Liten Grej"</b>	Short Film	Brooklyn Bridge Walkway
<b>"The Culture Show"</b>	Television	Brooklyn Bridge Walkway
<b>"New Amsterdam"</b>	Television Pilot	Williamsburg Bridge Roadway
<b>"Flight of the Conchords"</b>	Television	Manhattan Bridge Roadway
		Williamsburg Bridge Roadway
<b>"Doorman"</b>	Motion Picture	Williamsburg Bridge Roadway
<b>"The Bourne Ultimatum"</b>	Motion Picture	Brooklyn Bridge and Manhattan
		Bridge Necklace Lights
<b>"Love is All"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"Escape From New York is Not An Option"</b>	Short Film	Brooklyn Bridge Walkway

## APRIL

<b>"The Project"</b>	Motion Picture	Brooklyn Bridge Skate Park
		Union Street Bridge
<b>"Cristóvão Colombo – O Enigma"</b>	Motion Picture	Brooklyn Bridge Roadway
<b>3 Suisses Catalogue</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Unwanted Action"</b>	Short Film	Brooklyn Bridge Walkway
<b>MTV Tr3s Commercial</b>	Television	Brooklyn Bridge Walkway
<b>"My-jinn"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>Town &amp; Country Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Delivery Samurai"</b>	Short Film	Brooklyn Bridge Walkway
<b>"Angel"</b>	Television	Brooklyn Bridge Roadway
<b>Marie Claire Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>The Promise Fund Promotion</b>	Video	Brooklyn Bridge Walkway
<b>"The Story of Math"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>NFL Commerical</b>	Television	Brooklyn Bridge Roadway
		Williamsburg Bridge Roadway
<b>DHL</b>	Still Photography	Manhattan Bridge Walkway
<b>"Best Days"</b>	Music Video	Queensboro Bridge Roadway and Walkway
<b>Gala Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>HIS Travel Agency Commercial</b>	Television	Brooklyn Bridge Walkway
<b>"Hell Special"</b>	Television	Brooklyn Bridge Walkway

## MAY

<b>Kia Motors Commercial</b>	Television	Wards Island Pedestrian Bridge
<b>"We Live Here – Brooklyn"</b>	Television	Brooklyn Bridge Walkway
<b>Lucky Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Entertainment Tonight"</b>	Television	Brooklyn Bridge Walkway
<b>Visa Commercial</b>	Television	Brooklyn Bridge Walkway
<b>Principles Clothing</b>	Still Photography	Brooklyn Bridge Walkway
<b>"The Bourne Ultimatum"</b>	Motion Picture	East 71 <sup>st</sup> Street Pedestrian Bridge
<b>Flair Magazine (Italy)</b>	Still Photography	Manhattan Bridge Walkway
<b>"History of the Internet"</b>	Television Documentary	Queensboro Bridge Roadway
<b>"Flight of the Conchords"</b>	Television	Manhattan Bridge Roadway
<b>CBS News Promotion</b>	Television	Brooklyn Bridge Walkway
<b>Cointreau</b>	Still Photography	Brooklyn Bridge Walkway
<b>Glamour Magazine (Netherlands)</b>	Still Photography	Brooklyn Bridge Walkway



# MOTION PICTURE, TELEVISION, VIDEO, & STILL PHOTOGRAPHY HIGHLIGHTS

## JUNE

<b>"Afterwards"</b>	Motion Picture	Park Avenue Viaduct Queensboro Bridge Roadway Brooklyn Bridge Roadway Tudor City Place Bridge over East 42 <sup>nd</sup> Street Brooklyn Bridge Walkway Brooklyn Bridge Walkway Queensboro Bridge Necklace Lights East 71 <sup>st</sup> Street Pedestrian Bridge Brooklyn Bridge Walkway Brooklyn Bridge Walkway Brooklyn Bridge Walkway Williamsburg Bridge Walkway Brooklyn Bridge Roadway Manhattan Bridge Roadway Queensboro Bridge Roadway 121 Plymouth Street Brooklyn Bridge
<b>Suzuki Motors</b>	Industrial Film	
<b>Siempre Mujer Magazine</b>	Still Photography	
<b>Don Juan Magazine</b>	Still Photography	
<b>Timberland</b>	Still Photography	
<b>"The Bourne Ultimatum"</b>	Motion Picture	
<b>Siemens</b>	Industrial Film	
<b>Foot Locker</b>	Still Photography	
<b>Edipresse Incorporated</b>	Still Photography	
<b>New York Magazine</b>	Still Photography	
<b>"Cool In Your Code"</b>	Television	
<b>Carlsberg Beer Commercial</b>	Television	



Division Painting Facility Exterior Used as Location for Carlsberg Beer Commercial.  
(Credit: Les Fincher)

<b>"27 Dresses"</b>	Motion Picture	Brooklyn Bridge and Manhattan Bridge Necklace Lights Brooklyn Bridge Walkway
<b>Frau Magazine (Japan)</b>	Still Photography	

## JULY

<b>Debenhams</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Law &amp; Order: SVU"</b>	Television	Under the Willis Avenue Bridge
<b>New York Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Haste, Haste"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"Slusho" (working title)</b>	Motion Picture	Brooklyn Bridge Walkway
<b>"Jet Set"</b>	Television Documentary	Brooklyn Bridge Walkway
<b>Sony Brochure</b>	Still Photography	Brooklyn Bridge Walkway
<b>Top Girl Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>Travel + Leisure Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>Elle Magazine (United Kingdom)</b>	Still Photography	Manhattan Bridge Walkway
<b>"The Tyra Banks Show"</b>	Television	Brooklyn Bridge Walkway
<b>Kmart</b>	Still Photography	Brooklyn Bridge Walkway

## AUGUST

<b>"I Am Legend"</b>	Motion Picture	25 <sup>th</sup> Street Pedestrian Bridge
<b>JS Jeans Commercial</b>	Television	Brooklyn Bridge Walkway

# MOTION PICTURE, TELEVISION, VIDEO, & STILL PHOTOGRAPHY HIGHLIGHTS

<b>NY1 News Commercial</b>	Television	Brooklyn Bridge Walkway
<b>Tourism NYC &amp; Co. Commercial</b>	Television	Queensboro Bridge Roadway
<b>Inc. Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"How to Lose Friends &amp; Alienate People"</b>	Motion Picture	Brooklyn Bridge Necklace Lights
<b>"Adventures of Power"</b>	Motion Picture	Carroll Street Bridge
		Union Street Bridge
		9 <sup>th</sup> Street Bridge
<b>"Pageant Place"</b>	Documentary	Brooklyn Bridge Walkway
<b>Wyclef Jean Album Cover</b>	Still Photography	Brooklyn Bridge Walkway
<b>"The Glove"</b>	Instructional Video	Brooklyn Bridge Walkway
<b>"Tom's Phone"</b>	Motion Picture	Brooklyn Bridge Walkway
<b>Forum Gallery</b>	Still Photography	Willis Avenue Bridge Walkway
		Queensboro Bridge Walkway
		Brooklyn Bridge Walkway
<b>Bridal Gown Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>Paris Match Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Hold On"</b>	Short Film	Brooklyn Bridge Walkway
<b>Noise Magazine</b>	Still Photography	Chambers Street Pedestrian Bridge
<b>"I'm the Boss"</b>	Short Film	Queensboro Bridge Roadway
<b>SEPTEMBER</b>		
<b>"Future for Sale"</b>	Documentary	Brooklyn Bridge Walkway
<b>Microsoft Cell Phone Promotion</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Cool in Your Code"</b>	Television	Queensboro Bridge Roadway
		Brooklyn Bridge Roadway
<b>P&amp;O Cruises</b>	Still Photography	Brooklyn Bridge Walkway
		Manhattan Bridge Walkway
<b>"World Without People"</b>	Television	Brooklyn Bridge Walkway
<b>"Most Evil"</b>	Television	Brooklyn Bridge Walkway
<b>Modern Bride Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Bee Movie" Commercial</b>	Television	Queensboro Bridge Roadway
<b>"The Great Masters of Art"</b>	Television	Brooklyn Bridge Walkway
<b>Volkswagen Scirocco Commercial</b>	Television	Queensboro Bridge Roadway
<b>"History of Money"</b>	Television	Brooklyn Bridge Walkway
<b>3 Suisses Catalogue</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Land in Sicht" Aida Cruise Liner Promotion</b>	Video	Brooklyn Bridge Walkway
<b>"Uncertainty"</b>	Motion Picture	Brooklyn Bridge Walkway
		Manhattan Bridge Walkway
<b>PS Magazine</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Masters on Art" Commercial</b>	Television	Brooklyn Bridge Walkway
<b>"Calling it Quits"</b>	Motion Picture	Pulaski Bridge Walkway
<b>La Redoute Catalogue</b>	Still Photography	Brooklyn Bridge Walkway
		Chambers Street Pedestrian Bridge
<b>"Bitter End"</b>	Short Film	Manhattan Bridge Roadway
<b>"Damages"</b>	Television	Riverside Drive Bridge over West 155 <sup>th</sup> Street
		Brooklyn Bridge Walkway
<b>"The Tyra Banks Show"</b>	Television	Brooklyn Bridge Walkway
<b>Harper's Bazaar Magazine (Indonesia)</b>	Still Photography	Brooklyn Bridge Walkway
<b>"Facing Her"</b>	Motion Picture	Williamsburg Bridge Walkway
<b>Chase Bank Commercial</b>	Television	Queensboro Bridge Roadway
<b>"Here And There"</b>	Motion Picture	Queensboro Bridge Roadway

## OCTOBER

**"Sex And The City"**

Motion Picture

Brooklyn Bridge Walkway



Electrician Robert Stackpole and Division Film Liaison Peter Basich Reviewing the Filming Requirements of "Sex And The City" on the Brooklyn Bridge in October 2007. (Credit: Joseph Vaccaro) Actors David Eigenberg and Cynthia Nixon in a Scene From the Movie. (Credit: Michele N. Vulcan) Filming the Movie. (Credit: Peter Basich)

**Lucy.com**

**Northern Trust Bank Commercial**  
**"Vlaanderen Vakantieland"**

**Domani Magazine**

**Ford Motor Commercial**  
**"On 31<sup>st</sup> Street"**

**"Occupation Double"**

**"Pictet"**

**"The Gym"**

**"Big Bigger Biggest"**

**DKNY**

**"Legacy"**

**Maybelline Commercial**

**Target**

**"A Day In The Life of A Bicycle**  
**Commuter in NYC"**

**Cancam**

**"The Sponge"**

**The Julliard School**

**"Take Me Underground"**

**"Friends"**

**"Ancient Discoveries IV"**

**"Uncertainty"**

Still Photography

Television

Television

Still Photography

Television

Television

Television

Industrial Film

Television

Television

Still Photography

Television

Television

Still Photography

Still Photography

Still Photography

Short Film

Still Photography

Short Film

Documentary

Television Documentary

Motion Picture

Brooklyn Bridge Walkway

Manhattan Bridge Roadway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Williamsburg Bridge Roadway

Brooklyn Bridge Walkway

Brooklyn Bridge Roadway

Brooklyn Bridge Roadway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Williamsburg Bridge Walkway

Brooklyn Bridge Walkway

Williamsburg Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

## NOVEMBER

**"John Raztenberger's Made In**  
**America"**

**"Fighting"**

Television

Brooklyn Bridge

**"All For Love"**

**"Two Lovers"**

Motion Picture

Motion Picture

Motion Picture

Brooklyn Bridge Necklace Lights

Manhattan Bridge Necklace Lights

Williamsburg Bridge Necklace Lights

Queensboro Bridge Walkway

Ocean Avenue Pedestrian Bridge  
over Sheepshead Bay

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Manhattan Bridge Roadway

Brooklyn Bridge Walkway

Brooklyn Bridge Walkway

Manhattan Bridge Plaza

Brooklyn Bridge Walkway

**Brave New World Repertory Theatre**

**Flipny Clothing Corporation**

**AT&T Commercial**

**"Origin of Species"**

**Mutual of America**

**Apple iPhone Commercial**

**"Gabriel Byrne Stories From Home"**

Still Photography

Still Photography

Television

Television Documentary

Still Photography

Television

Documentary

## MOTION PICTURE, TELEVISION, VIDEO, & STILL PHOTOGRAPHY HIGHLIGHTS

**Nike Commercial**  
**"24 Hours in New York"**  
**Our Traveler Magazine**  
**"Origin of Species"**  
**"Whose Authority"**  
**"Extreme Jobs"**

Television  
 Video  
 Still Photography  
 Television  
 Short Film  
 Television Documentary

Brooklyn Bridge Walkway  
 Brooklyn Bridge Walkway  
 Brooklyn Bridge Walkway  
 Brooklyn Bridge  
 Williamsburg Bridge Walkway  
 Queensboro Bridge



Interim Director of Bridge Painting Ronald Rauch and Jason Cameron, Host of "Extreme Jobs," on the Queensboro Bridge in November 2007.

### DECEMBER

**Mercer County Community College**  
**"Secret Lives of Women: Sideshow Gals"**  
**"Righteous Kill"**  
**"It's A Dream"**  
**"Radio 1Xtra"**  
**Golf For Women Magazine**  
**"24 Hours in New York"**

Still Photography  
 Television  
 Motion Picture  
 Music Video  
 Television  
 Still Photography  
 Video

Brooklyn Bridge Walkway  
 Brooklyn Bridge Walkway  
 Queensboro Bridge Roadway  
 Brooklyn Bridge Walkway  
 Brooklyn Bridge Walkway  
 Brooklyn Bridge Walkway  
 Brooklyn Bridge Walkway

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## In Memoriam

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The 2007 edition of the New York City Bridges And Tunnels Annual Condition Report is dedicated to the memory of the following employee, whose wisdom and dedication to his work will be sorely missed. His 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.

**Robert J. Ronayne, Deputy Commissioner**

February 14, 1943 – June 15, 2007                      3 years City service

Robert J. Ronayne served as Deputy Commissioner and the Department's Chief Engineer from April 1995 until his retirement in May 1998. This was the culmination of 33 years of distinguished public service.

He began his career as an engineering technician with the New York State Department of Transportation in 1965. First assigned to the New York City Region and later to the Albany main office, he served in many capacities in construction, design and innovative engineering computerization. In addition to directing many highway and bridge projects, he also lectured extensively on the subject of advanced design around New York and internationally.

Mr. Ronayne then became the Executive Director of the \$800 million Route 9A Reconstruction Project in Manhattan, NYSDOT's largest project.

As Deputy Commissioner/Chief Bridge and Roadway Officer for New York City Department of Transportation, he had direct operational responsibility for planning, design, operations and maintenance activities for New York City's bridges and the planning and design responsibility for the roadways.

Mr. Ronayne was affiliated with The Moles, an organization of individuals engaged in heavy construction, especially underground construction, foundations, and tunneling. He was a pioneering engineer, who pursued his passions with a wonderful sense of adventure, enjoyed traveling around the world, had a great thirst for knowledge, and a superlative sense of humor.

Mr. Ronayne led the Division of Bridges with great passion for his work and a deep commitment to reconstructing and maintaining our bridges for future generations. He brought a sense of humor to many situations, and was extremely lively in personality. He was known for telling jokes at many a meeting and would affectionately be described by those who know him as a "character." The staff at Bridges, and throughout the Department, will continue to miss and remember him.



Robert J. Ronayne.  
(Credit: Hasan Ahmed)



## 2007 INVENTORY LOCATION MAPS

Seven 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 Board 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>	80=La Guardia Airport
<b>Manhattan</b>	64= Central Park		81=Alley Pond 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 185.

Some structures fall on Community Board dividing lines: their additional Community Boards are now identified in the inventory in columns CD2 and CD3.



Brooklyn, Manhattan, and Williamsburg Bridges.  
(Credit: Michele N. Vulcan)

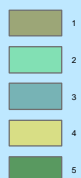
# ALL BOROUGHES



## Legend

### ALL BOROUGHES

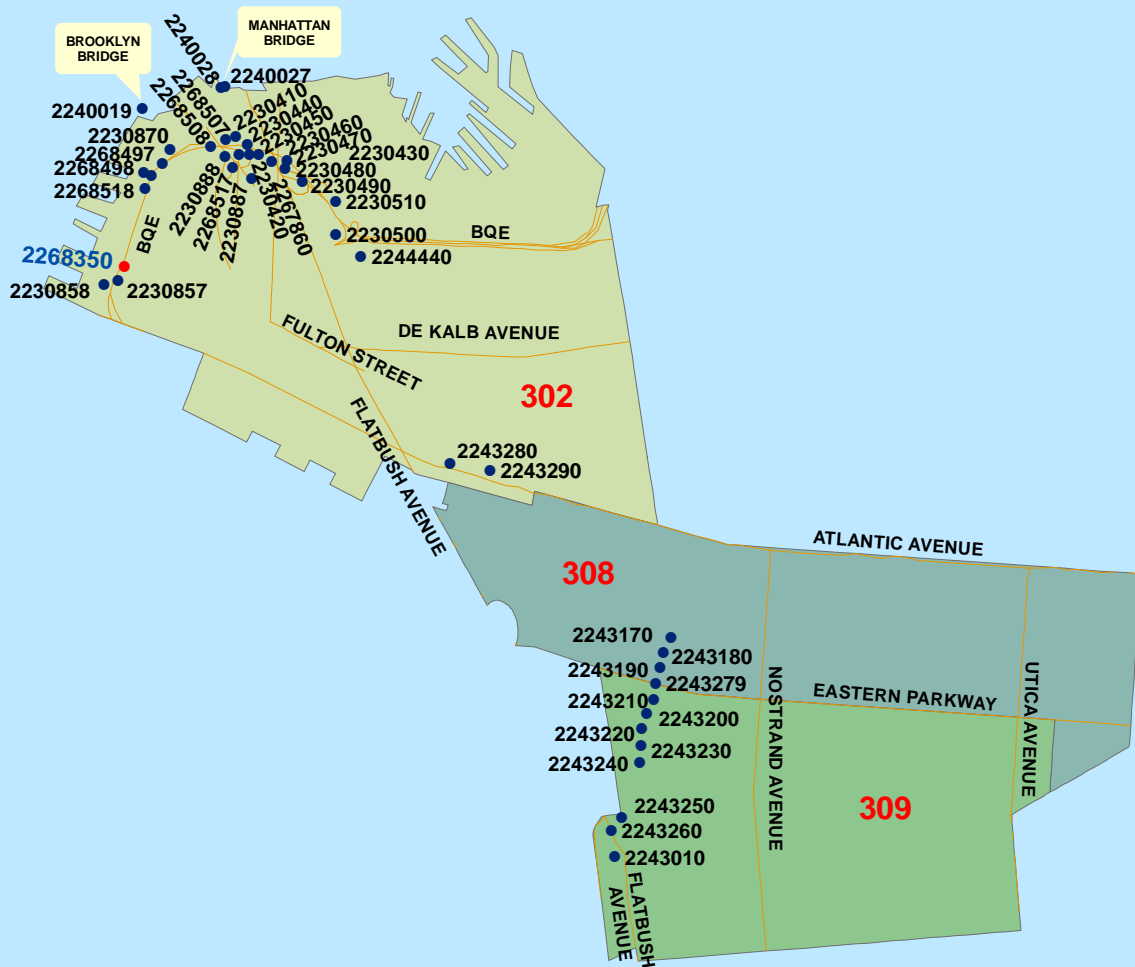
#### BOROUGHES



Scale

# BROOKLYN

## CB 302, 308, 309 DETAIL



### Legend

- Bridges in Parks
- DOT Bridges
- Major Roadways
- 302
- 308
- 309



0 800 1,600 3,200 4,800 6,400 Feet

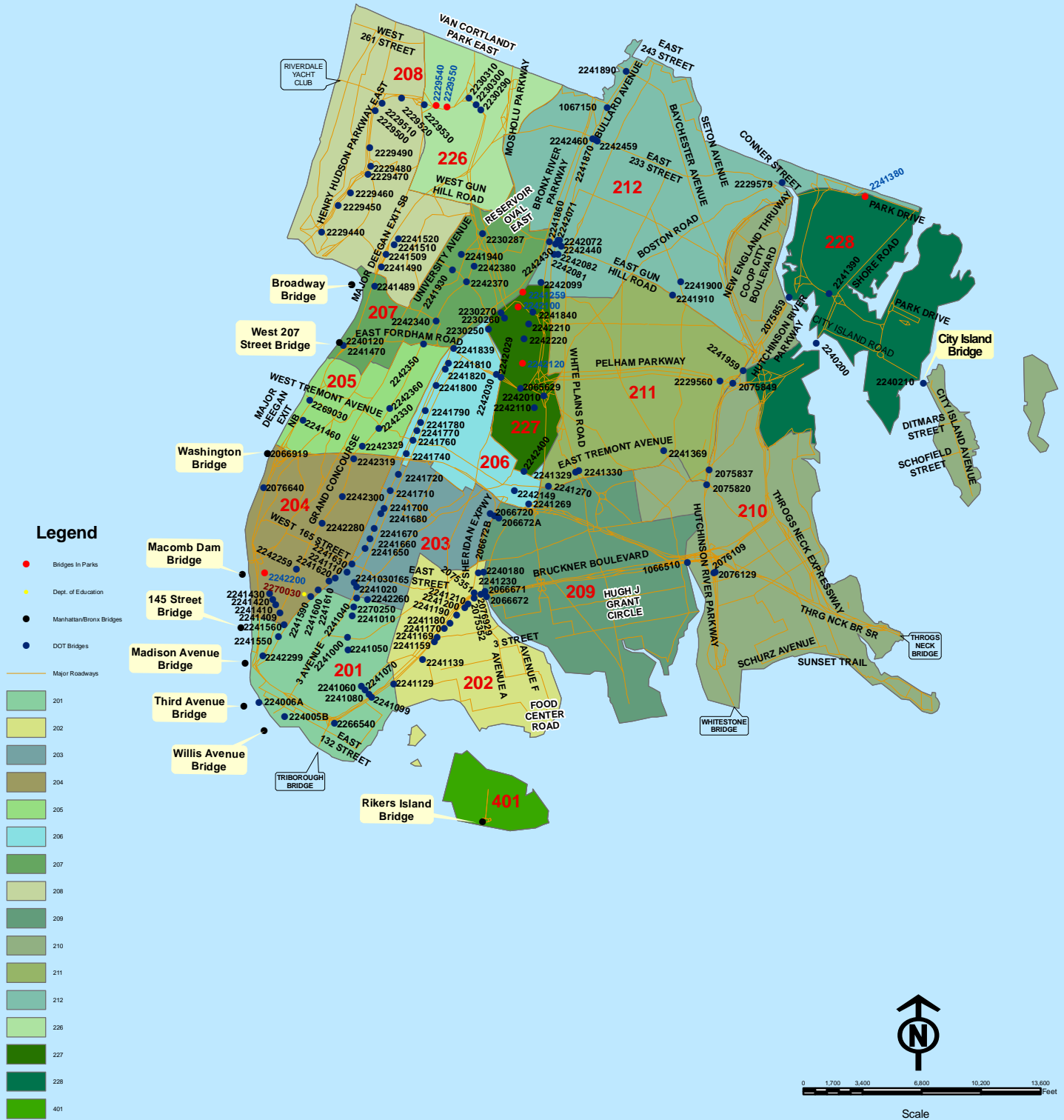
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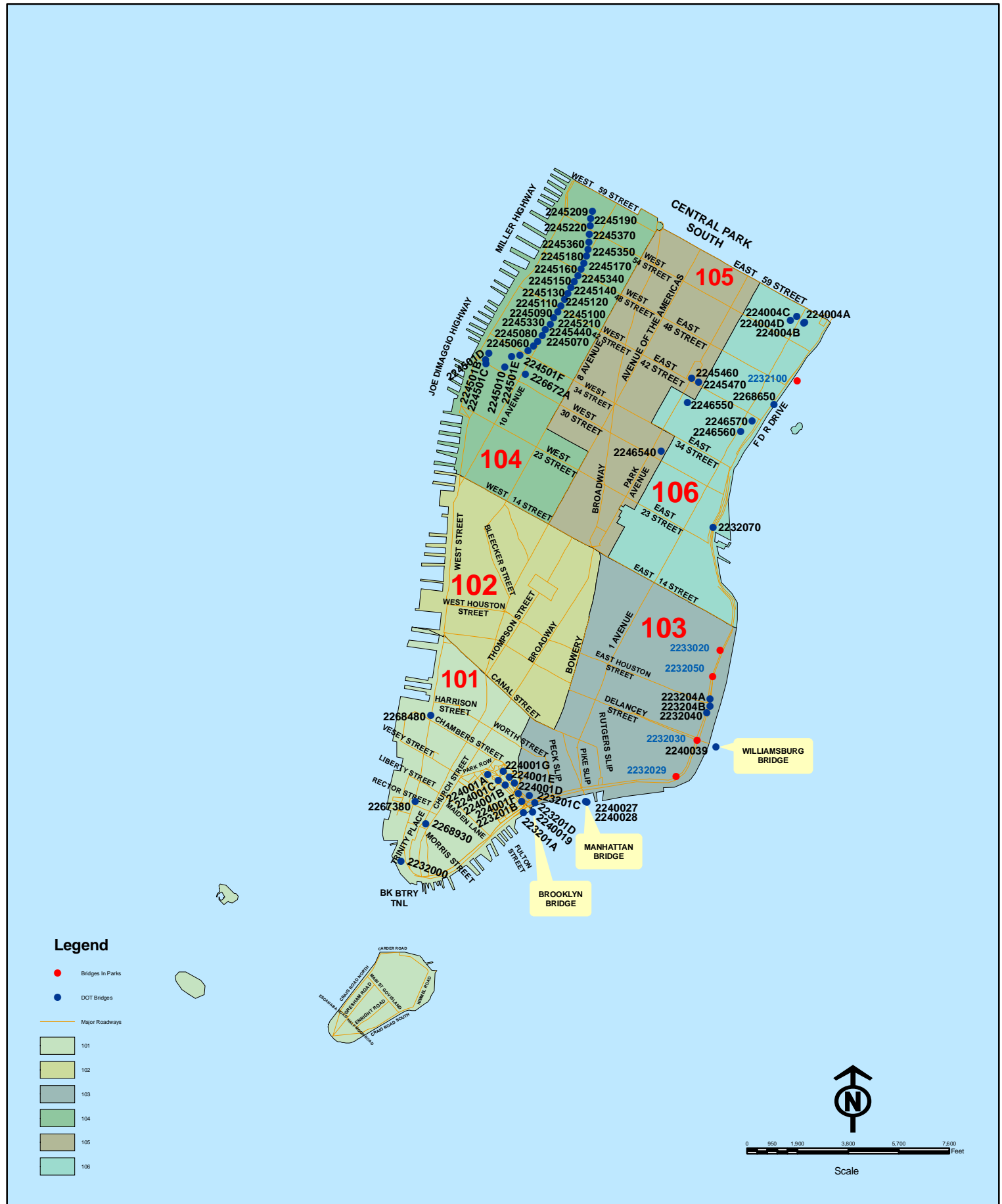
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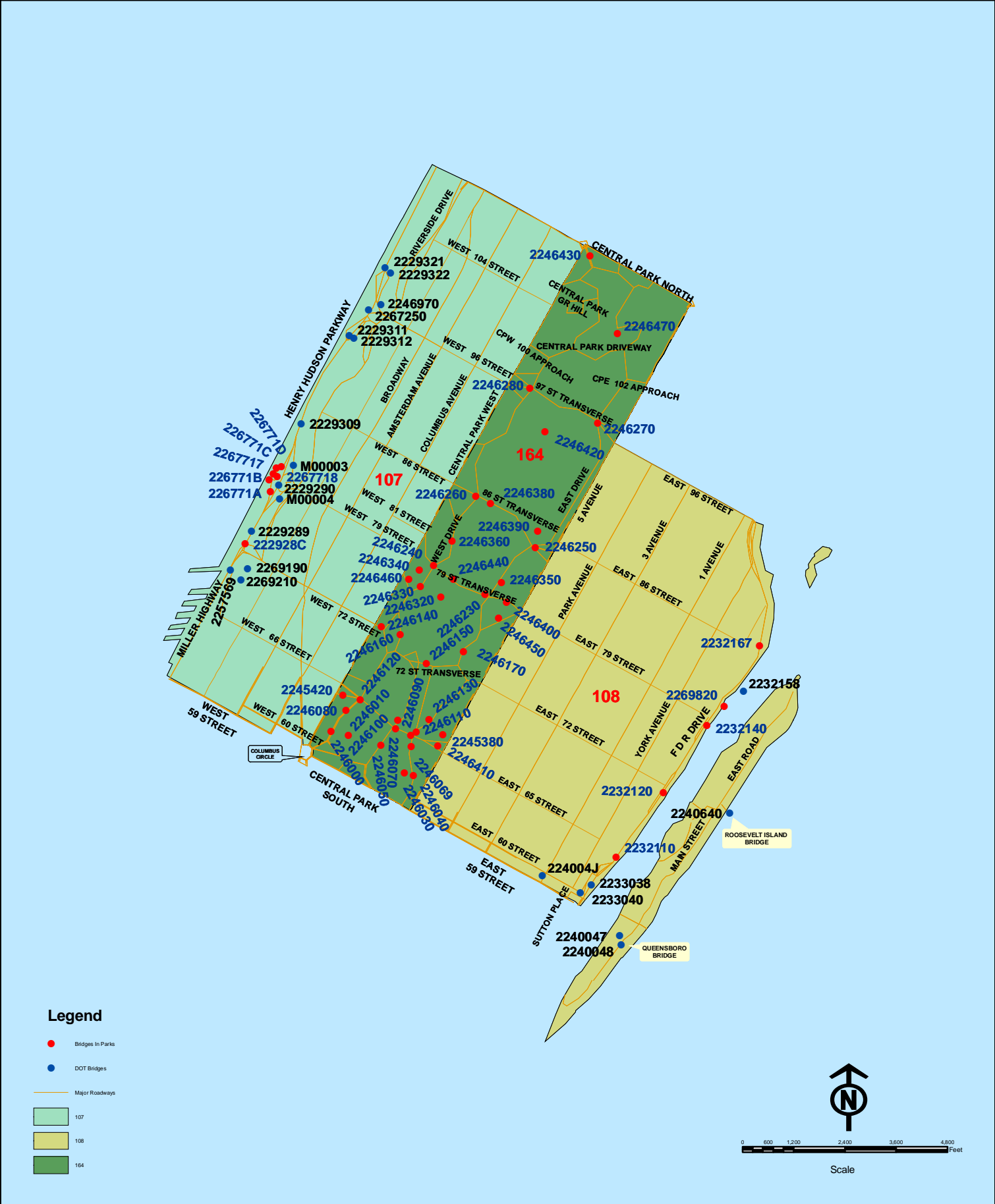
# BRONX



# DOWNTOWN MANHATTAN



## MIDTOWN MANHATTAN



### Legend

- Bridges In Parks  
● DOT Bridges

- Major Roadways

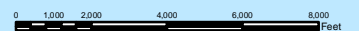
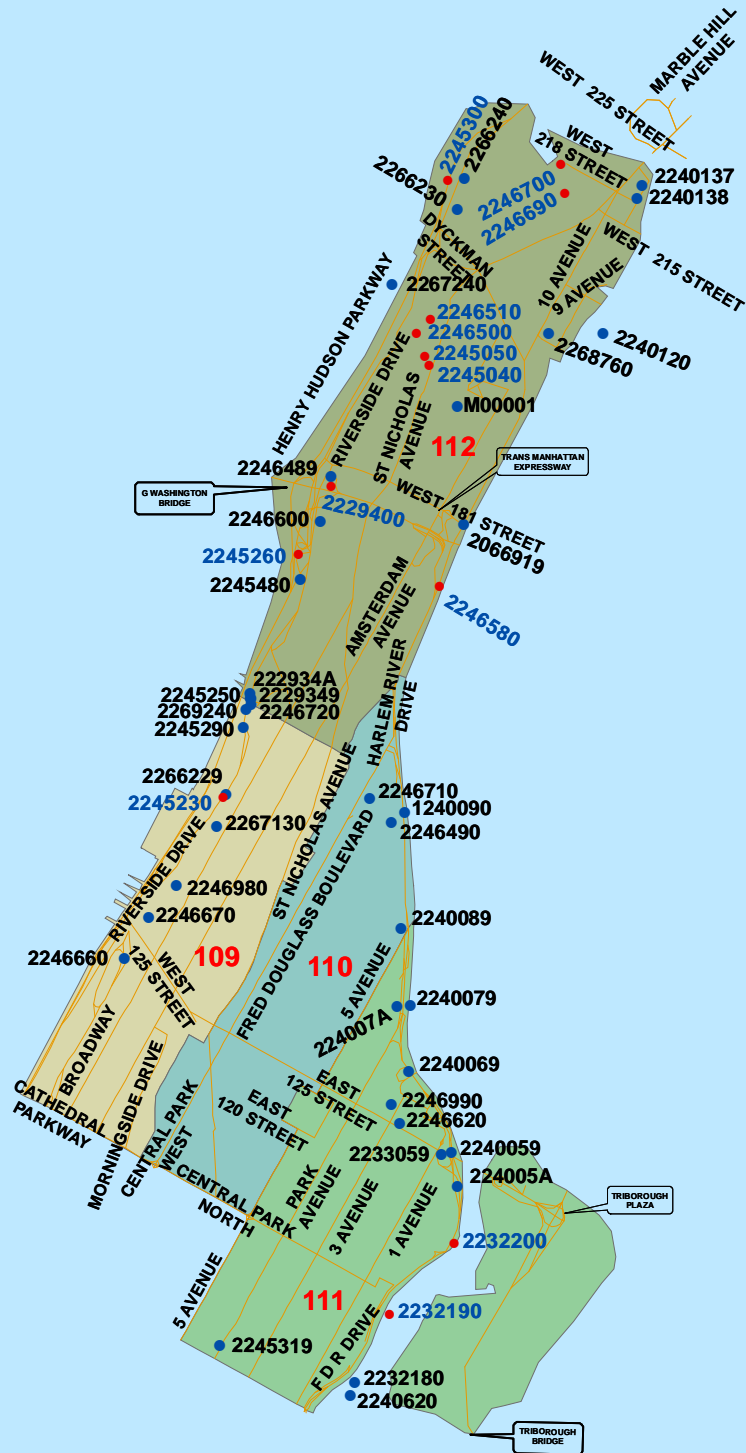
- |     |     |     |
|-----|-----|-----|
| 107 | 108 | 164 |
|-----|-----|-----|



Scale

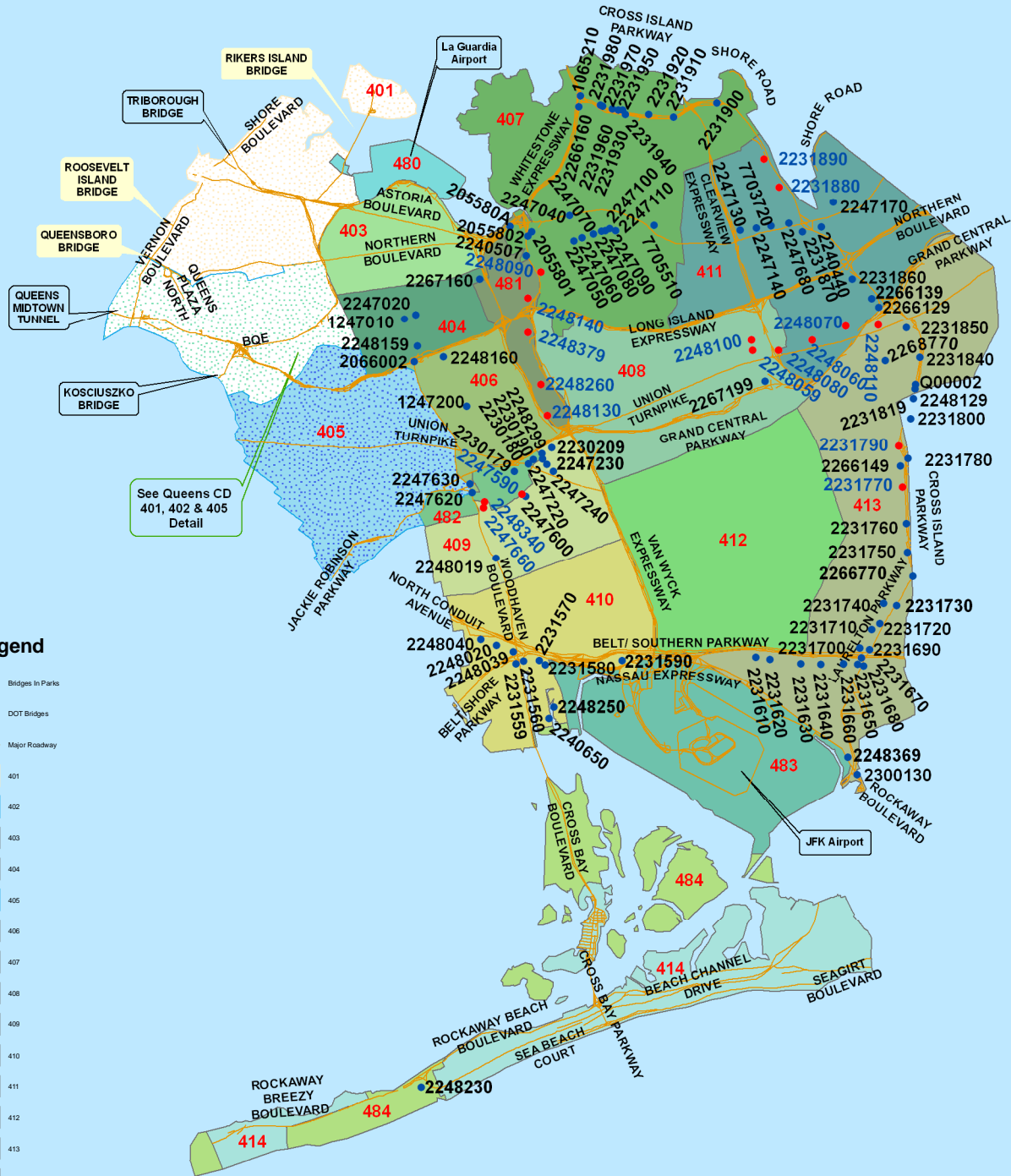


# UPTOWN MANHATTAN



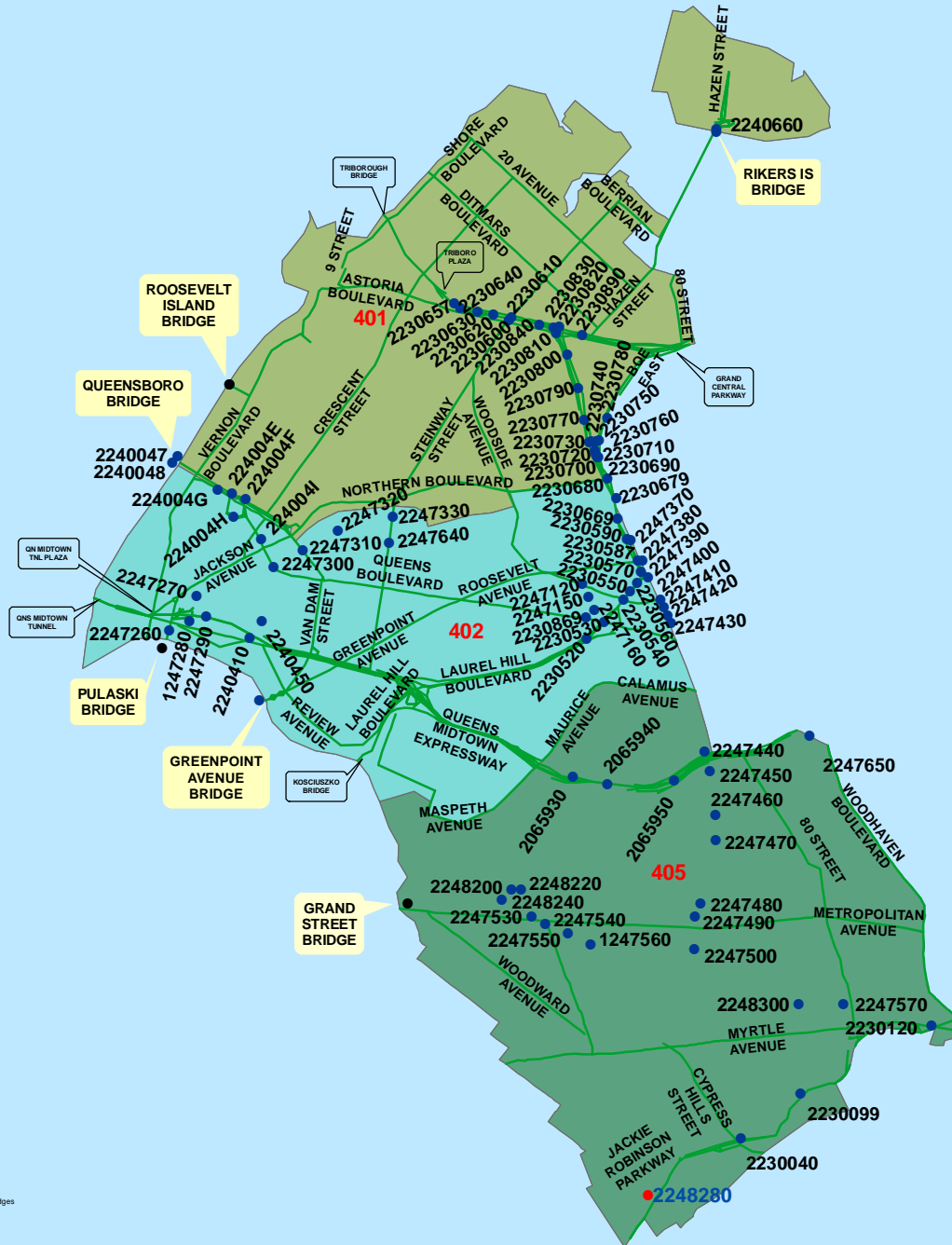
Scale

# QUEENS



# QUEENS

## CB 401, 402, 405 DETAIL



### Legend

- Bridges In Parks
- Manhattan/Queens Bridges
- DOT Bridges
- Major Roadways

### Queens CD 401 402 405

#### Community Districts

- 401
- 402
- 405












0 1,250 2,500 5,000 7,500 10,000 Feet

Scale

# STATEN ISLAND



### Legend

-  Bridges In Parks  
 DOT Bridges  
 Culverts  
 Major Roadways  
 Staten Island Railway  
 501  
 502  
 503  
 596



Scale