



NYC DOT Bridges & Tunnels Annual Condition Report **2015**











NEW YORK CITY DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGES
2015 BRIDGES AND TUNNELS ANNUAL CONDITION REPORT



Summer College Intern Litcy Barreto on the Third Street Bridge During Strain Gauge Installation in July 2015. (Credit: Vera Ovetskaya)

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Cover Photograph

Division staff at work: 174th Street Bridge sidewalk repair in 2006 (Credit: Reza Taheri), lubricating the Broadway Bridge in 2007 (Credit: Reza Taheri), checking the 9th Street Bridge mechanisms in 2005 (Credit: Vera Ovetskaya), resurfacing the Roosevelt Avenue Bridge in 2010 (Credit: Joseph Flood), removing snow on the Brooklyn Bridge in 2003, strain gauge testing on the Roosevelt Island Bridge in 2015, and checking measurements in 2006 (Credit: Peter Basich).

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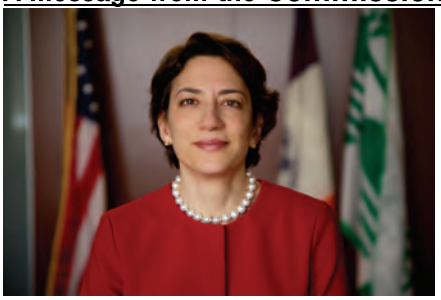
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A Message from the Commissioner



Dear Friends,

On behalf of the many dedicated men and women who staff the Division of Bridges, I am pleased to present the 2015 Edition of the New York City Department of Transportation's Annual Bridges and Tunnels Condition report as mandated under the New York City Charter. This report provides DOT with an opportunity to display the many innovations and improvements that the Division of Bridges achieved in 2015.

DOT focuses on equitable service delivery through its maintenance of critical transportation infrastructure and its commitments to safety and mobility for all New Yorkers. DOT focuses on providing all its services, including bridge maintenance, in an equitable manner.

The Division of Bridges includes 832 hard working professionals who manage the City's Capital Bridge Program, conduct bridge inspections and monitoring, and keep the entire bridge network in a state of good repair. Our inventory includes the iconic East River Bridges, Harlem River Bridges, the Belt Parkway Bridges and pedestrian bridges and elevated roadways across the five boroughs.

To underscore the critical importance of infrastructure investment, City, State, and Federal governments contributed more than $5 billion to bridge reconstruction over the past years. As a result, all of our 789 bridges are rated "Fair" or above.

In 2015 we started construction on the Belt Parkway Bridge over Mill Basin in Brooklyn and the Macombs Dam Bridge in the Bronx, and we broke ground this past summer on the reconstruction of the Roosevelt Avenue Bridge over the Van Wyck Expressway in Queens.

Work is also underway for the rehabilitation of the damages sustained to the electrical and mechanical equipment for 13 of the movable bridges. Several of these bridges will have the mechanical and electrical equipment raised and protected above flood levels.

We will invest $633 million for improvements to the four iconic East River Bridges, $228 million for the Bruckner Expressway, and $97 million for the rehabilitation of northbound FDR from East 42nd – East 49th Streets.

Safe and convenient bridge access for bikes is crucial to making New York City more bike-friendly. We are improving bike connections between Brooklyn and Queens with the construction of a two-way bike path on the Pulaski Bridge.

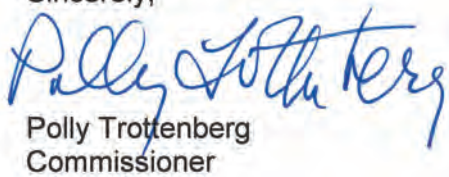
In Brooklyn, we are studying how to rehabilitate and reconstruct the 21 interconnected bridge structures that carry the Brooklyn Queens Expressway from Atlantic Avenue to Sands Street, including the "triple cantilever" stacked section of highway completed in 1948, topped by the iconic Brooklyn Heights Promenade. With no reconstruction work in

recent history, the triple cantilever is in need of major repair with many components experiencing significant deterioration. These structures serve as Brooklyn's only interstate and one of the most heavily traveled roads in New York City. At peak hours, 18% of the Brooklyn Queens Expressway traffic is trucks, which the surrounding street network could not serve. In addition to replacing this crumbling infrastructure, the proposed project will eliminate substandard conditions and bring the roadway up to current safety standards by building wider lanes and full width safety shoulders. As a first step, in 2015, we completed various studies needed to inform the decision on the alignment for the replacement structure (including tunnel options).

Many other accomplishments are outlined in the pages ahead, but there is even more important work to be done. The Independent Budget Office recently reported that a significant number of bridges are now rated at the low end of "Fair", meaning their need for rehabilitation is fast approaching. All of the East River Bridges are well over 100 years old, requiring continual care and attention. The remaining network of over 700 bridges serving neighborhoods across the city are subject to the continuing effects of heavy traffic and rough winters with long cycles of ice, snow, rain, sleet and de-icing activities. Aside from the East River and Movable Bridges, a replacement program of 16 bridges per year needs to be in place to maintain a 50 year life cycle. The current average life of our bridges exceeds 70 years. For New York City to create jobs and opportunities for our residents, and maintain its competitiveness with other leading global cities, we need to invest in our infrastructure.

DOT is committed to preserving all of the City's bridges; they are crucial links in our transportation network and support millions of multi-modal trips each day. The Agency has a rich tradition of bridge design, construction, maintenance and administration, and will continue to use its resources and attract additional funds to provide safe spans that meet the needs of all 8.4 million New Yorkers.

Sincerely,



Polly Trottenberg
Commissioner

Inventory

In calendar year 2015, the inventory of bridges under the jurisdiction of the Division remained at 789. NYCDOT owns, operates, and/or maintains 760 non-movable bridges, 24 movable bridges, and five tunnels. Over the past 10 years, there has been a decline to zero in the number of bridges rated "Poor," and an increase in the number of bridges rated "Good," as shown below.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Poor	***3***	***3***	***3***	****4***	***4***	***3***	***1***	***1***	***0***	***0***
Fair	456	459	455	456	462	459	460	456	[!]456	***458***
Good	210	215	213	209	207	215	212	217	221	228
Vgood	***118***	***111***	***116***	***116***	***113***	***109***	***114***	***114***	***111***	***102***
Closed		1	1	1	1	1	1	1	1	1
	787	**789**	**788**	**786**	**787**	**787**	**788**	**789**	**789**	**789**

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) were rated "Fair," which accounted for the increase in Fair rated bridges. 1 of the Parks additions, Flushing Meadow Park Pedestrian Bridge over Willow Lake and 76th Road, was rated "Poor." It has since been closed.

* In 2009, the newly "Poor" rated Hill Drive Bridge in Prospect Park was closed to vehicular traffic. In 2009, 93 of the Parks bridges accounted for 20.4% of the "Fair" rated structures. In 2013, 100 of the Parks bridges accounted for 21.9% of the "Fair" rated structures.

! In 2014, 104 of the Parks bridges accounted for 22.8% of the "Fair" rated structures.

NYCDOT has no bridges rated "poor."

Contract Acceleration

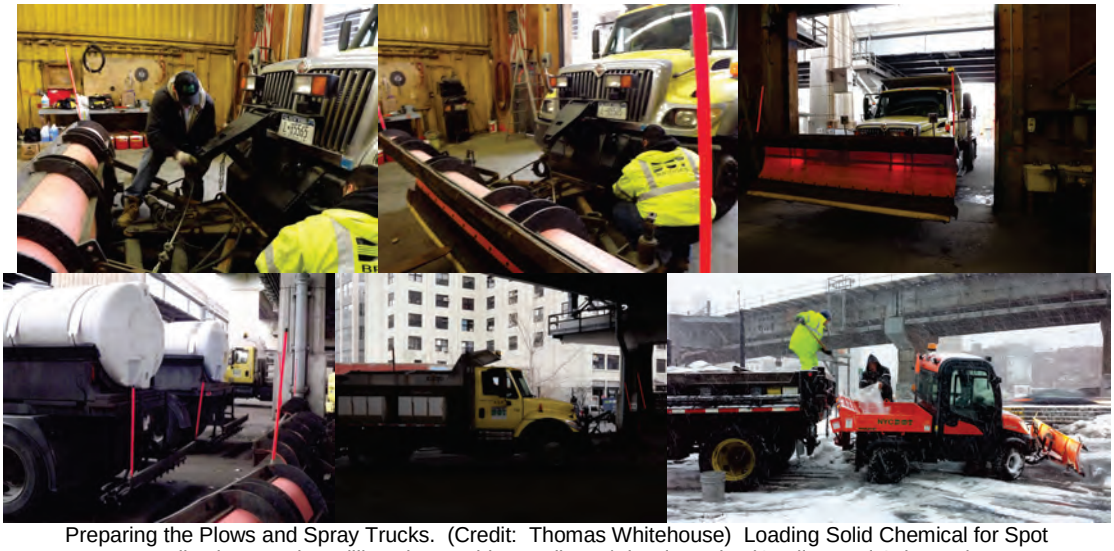
Acceleration measures are a contract provision used in some reconstruction projects that is implemented through a contract pay item. This contract provision provides a mechanism to implement measures to accelerate the contractor's work to maintain critical path milestones. This provision does not apply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

Incentive and disincentive (I/D) clauses are another contract provision used in some reconstruction projects that are 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).

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 application trucks, five 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 2014-2015, a total of 79,100 gallons of potassium acetate and 285 tons of sodium acetate were applied on the roadways of all four East River Bridges.



Preparing the Plows and Spray Trucks. (Credit: Thomas Whitehouse) Loading Solid Chemical for Spot Applications on the Williamsburg Bridge Walkway/Bicycle Path. (Credit: Paul Schwartz)

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. An updated underwater inspection was performed within the limits of the proposed contract in 2009. The construction work commenced in April 2012, and was expected to be complete in August 2016. However, the construction activities will be extended to August 2017, due to site condition and change in scope.

2015 Awards

In 2015, the outstanding work of the Division was recognized by the receipt of several awards.

In January 2015, the Society for Protective Coating selected the painting of the Brooklyn Bridge (Contract #6) for a 2014 George Campbell Award. The project was recognized for outstanding achievement in the completion of a difficult or complex industrial or commercial coatings project.

In March 2015, the American Council of Engineering Companies of New York selected the Bruckner Expressway Bridges over Amtrak project for a Silver Award in the structural systems category in its 2015 Engineering Excellence Awards.

In October 2015, Deputy Chief Engineer for Capital Design and Construction David Dunn received an Honored Industry Leader Award from the South Asian American Association.

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.

As an integral part of New York City's Department of Transportation, the Division of Bridges has a two-fold mission: to maintain an optimal transportation network by ensuring smooth mobility on the city's bridges, and to ensure the safety of the public.

The New York City Department of Transportation's Division of Bridges is comprised of four 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 5 tunnels), and 53 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 design issues, 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 **Bureau of Bridge Maintenance, Inspections and Operations** employs over 500 engineering, professional, administrative, and skilled trades employees in the maintenance and smooth operation of New York City's elevated infrastructure, and in specialized skilled trades and contract supervision functions. It is composed of six 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 5 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 and photographs of the 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. The section monitors the status of each flag, reporting on all activities on a monthly basis.

The ***Bridge Repair and Preventive Maintenance*** section is composed of three major units. *Bridge Repair* performs repairs to resolve 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, brick and masonry repairs, concrete deck repairs, 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-four 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.

Preventive Maintenance is a vital part of the overall bridge program. This section is responsible for functions including debris removal; mechanical sweeping; drain cleaning; and emergency

response, such as snow removal, oil/cargo spills, and overpass hits. The section also performs some corrective repair work such as asphalt deck repairs, sidewalk patching, and fence and guide rail repairs. Preventive Maintenance is responsible for conducting the Department's anti-icing operations on the four East River bridges.

The *East River and Movable Bridges Preventive Maintenance* unit administers federal funds for selected preventive maintenance activities on the East River and movable bridges. This unit is also responsible for highly specialized work such as the lubrication of cables inside anchorages, cleaning and lubrication of solid rod suspender bearings, operation and maintenance of travelling platforms on the East River bridges, and selected projects to replace the wearing surface on suspended spans. Work is performed with a combination of in-house and contracted personnel.

The ***Bridge 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. In conjunction with the Port Authority, MTA Bridges 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.

Bridge and Tunnel Operations is responsible for operating the 24 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 2015, Bridge Operations effected a total of 5,320 openings, 4,804 of which allowed 8,336 vessels to pass beneath the bridges. The remaining 516 openings were for operational and maintenance testing. The section also operates the city's five mechanically-ventilated tunnels, performing electrical maintenance and arranging for roadway cleaning.

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.

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.

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 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 Deputy Chief Engineer for Bridge Maintenance, Inspections and Operations also acts as the **Deputy Chief Bridge Officer**, assuming the responsibilities of the Chief Bridge Officer in that person's absence.

The **Bureau of Bridge Capital Design & Construction** is made up of four major groups:

The **East River and Movable Bridges Group** 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 Group consists of two major sections: ***East River Bridges***, and ***Movable Bridges***. Each of these areas is headed by a Director to whom Section Heads or Engineers-in-Charge 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 **Roadway Bridges Group** 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 Group 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.

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 report to the Director of Component Rehabilitation. Each is assigned a specific bridge, or bridges, for which they are responsible for all component rehabilitation activities. The Component Rehabilitation Program is an ongoing program with cumulative effects. Each Fiscal Year, a number of bridges are selected for inclusion in the program and construction is completed on others. For the ten year period ending fiscal year 2018, the program will obligate approximately $167.6 million.

The **Design-Build/Emergency Contracts 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 **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 (comprised of the Structural, Electrical, and CADD Groups) prepare plans, specifications, and estimates for bridge rehabilitation/replacement 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 repair projects of the **Bureau of Bridge Maintenance, Inspections and Operations**. Over the last 25 years, In-House Design has completed contract documents for over 30 major replacement/rehabilitation projects. Some of these projects were in highly environmentally sensitive areas, such as the Hylan Boulevard Bridge over Lemon Creek, Chelsea Road Bridge over Sawmill Creek, Cropsey Avenue Bridge over Coney Island Creek, the Exterior Street Ramp, Belt Parkway Bridge over Paerdegat Basin, 145th Street Bridge over Harlem River, and the Greenpoint Avenue Bridge over Newtown Creek. The staff also provided plans, working drawings, and shop drawings for in-house built projects such as the temporary Pedestrian Bridge for PS-5, Ferry Terminals at 34th Street, the Hamilton Avenue Asphalt Plant conveyor supports, the Yankee Stadium Ferry Access, the concrete barrier at Cross Bay Boulevard, the fencing at Navy Street Pedestrian Bridge, and the bridge railing at Van Name Street Bridge.

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 and review test results of electrical systems conducted by vendors on the movable bridges.

The ***Engineering Support Section*** is comprised of four units: *Specifications, Survey, Records Management,* and *Special Projects*.

The *Specifications Unit* prepares and reviews contract bid documents and specifications for all Federal and City-funded, private developer, City-let in-house and consultant-designed bridge and various other construction projects, processes the contracts for bidding, after ensuring that they comply with the City, New York State and Federal standards, prepares, reviews, and transmits addenda, maintains and updates City-let bridge construction boiler plates in compliance with FHWA and NYSDOT Engineering bulletins and instructions, and updates and maintains an inventory of all NYC and NYS special specifications used in bridge and other construction projects. This Unit approves and issues item numbers for newly written special specifications for the city funded projects. In addition, it prepares "Revisions to NYSDOT Standard Specifications" (R-pages), which are compiled from NYSDOT Engineering Bulletins and Engineering Instructions, and reviews contract drawings for compliance with contract bid proposal books.

The *Survey Unit* performs field surveys and visual inspections of bridges and retaining walls, monitorings of cracks and longitudinal and transverse movements in bridge structures as well as foundation settlement. This unit surveys bridge girder alignments and twisted movements in steel girders and floor beams due to damage by oversized trucks or fires. It also prepares and verifies elevations in the field to find existing vertical clearances of bridge structures.

The *Records Management and Electronic Media Unit* establishes drafting guidelines for contract plans 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 CDs and DVDs containing pdf and CAD files. This unit maintains original plan files, upgrades the records database and converts original drawings into electronic media in retrievable formats. It also responds to requests received from private, public and other agencies for information regarding records of City-owned bridges.

The *Special Projects Unit* reviews contract bid documents and specifications for public and private agencies to ensure compliance with City, State and Federal standards and guidelines.

The ***Engineering Review Section*** consists of eleven units: *Structural Review*, *Retaining Wall, Bridge Hold*, *Cost Estimate*, *Other Agency/Private Developer*, *Scope Development*, *Overweight Truck Permit*, *Geotechnical*, *Land Use Planning*, *Load Rating*, and *Utilities*.

The *Structural Review Unit* reviews all City-let bridge construction contract drawings, oversees seismic design requirements for City-let contracts for bridge projects, reviews load rating reports and design calculations and ensures that the work to be performed conforms to NYCDOT requirements. This unit establishes design standards, including seismic requirements.

The *Retaining Wall Unit* is 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. Data on poorly rated retaining walls are developed into scope packages and forwarded to the New York City Department of Design and Construction for permanent rehabilitation with DOT funding. Walls of questionable ownership are researched for ownership and jurisdiction. 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 *Bridge Hold Unit* was established in February 2011, based on OCMC requests to review construction permit applications for any proposed work located within 100 feet of any City-owned bridge structure. The permit applications may also originate from other City agencies, private developers, and utility companies. The Unit reviews the proposed work to ensure that it does not compromise the integrity of the structure and that it is in compliance with Agency requirements. Based on the review's recommendations, the hold will be released or rejected.

The *Cost Estimate Unit* reviews and oversees design and construction cost estimates of City projects.

The *Other Agency/Private Developer Unit* currently provides engineering review supervision of projects from other agencies and private developers such as the Atlantic Yards Project, the

Eastside Access Project, the Riverside South Project, the Amtrak Gateway Tunnel project passing under the 11th Avenue viaduct, the Empire Outlet Project in Staten Island, the Hudson Park and Boulevard Project, the Hudson Yards Development Corporation Projects (Related) between 10th Avenue and 11th Avenue and 30th Street and 33rd Street, and the Extell Temporary Access Road. In addition, the unit conducts non-bridge engineering projects, such as the review of large character balloons for the Macy's Thanksgiving Day Parade, and art work installations proposed for bridge structures.

The *Scope Development Unit* reviews inspection reports, as-built drawings, and structural condition ratings, performs field inspection of bridges to develop the scope of work for the rehabilitation of deficient bridges, and initiates the procurement of Design Consultant contracts. The Unit is also responsible for reviewing of quarterly budgetary plans for bridge rehabilitation projects and coordinates these reviews with the Bureau of Bridge Maintenance, Inspections and Operations, and the Capital Procurement and Capital Planning Sections.

The *Overweight Truck Permit Unit,* in coordination with the Division's Truck Permit Unit, reviews the engineering aspects of overweight and over-dimensional truck and self-propelled crane permit applications, to ensure the safety of City owned bridges. Reviews routes proposed by the truck permit applicants, determines the number of City-owned bridges to be crossed over/under on the route, and determines if the proposed route is acceptable or not, considering the bridges' condition. Recommends alternate routes if needed. Reviews and recommends load posting signs for City owned bridges. The Unit also reviews resurfacing, snow removal and other heavy equipment permit requests from within the Agency and from other agencies.

The *Geotechnical Engineering Unit* provides geotechnical-engineering services. This unit reviews bridge rehabilitation/reconstruction project reports, soil investigation/geotechnical foundation reports, City-let bridge construction contract drawings and other agency/private developers' geotechnical work which impacts City-owned projects.

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

The new Load Rating Unit was established in February 2015. Based on the in-depth inspection data received from the Inspections Unit of the Bridge Maintenance, Inspections and Operations Bureau, this unit performs the load rating analysis and maintains the record of safe load carrying capacity of City owned bridges. This information will be used: to determine which bridges have substandard load capacities that may require posting or other remedial action, to assist in the most effective use of available resources for rehabilitation or replacement, or to assist in the overload permit review process.

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

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, timber, 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 Brooklyn Bridge, Belt Parkway Bridge

over Gerritsen Basin, Belt Parkway Bridge over Bay Ridge Avenue, Belt Parkway Bridge over Mill Basin, Protection Against Marine Borers, Ocean Avenue Bridge over NY Atlantic Railroad, City Island Bridge over Eastchester Bay, Bryant Avenue Bridge over Amtrak and CSXT, Harlem River Bridge over East 127th Street, Macombs Dam Bridge, Roosevelt Ave Bridge over Van Wyck Expressway, Trans-Manhattan Expressway Connector Ramp, Restoration of the Electrical and Mechanical Systems for 12 Movable Bridges, and the Restoration of Tunnel Systems at the Battery Park Underpass and West Street Underpass. In addition, the Section provides services to the Component Rehabilitation Section and the Bridge Painting Section on an as-needed basis.

The Section is currently involved in extending its services for inspection of concrete at batching plants for the Sidewalk and Inspection Management Citywide Concrete Program via its contract with a City-contracted inspection firm.

Through its *Environmental Engineering Unit*, Quality Assurance also oversees the implementation of the Final Environmental Impact Statement 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 manages other environmental concerns. 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, management of storm water runoff, soil erosion controls, management of concrete washout wastewater, site safety, and OSHA compliance. Typically, the unit participates in the design stage to ensure that any environmental issues are addressed during the construction phase of the project. During construction, the unit provides on-site quality assurance oversight and environmental management to ensure compliance with environmental regulations and contract documents. The role of this unit in ensuring public safety has been recognized and commended by the community.

The unit continues to monitor impacts to the City's waterways for numerous projects. This includes dredging and dewatering activities, such as the Belt Parkway Bridges project and the reconstruction of the City Island Bridge. This work often includes dewatering of cofferdams and drill casings, dredge spoil dewatering, and treatment of water for discharge to recharge basins or to surface waters. Potential contaminants such as turbidity, pH, and suspended solids are monitored for compliance with regulatory standards.

The unit is responsible for site-specific 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, 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 Manhattan Bridge, Williamsburg Bridge, Brooklyn Bridge, and Belt Parkway Bridges, as well as Component Rehabilitation, Roadway Bridges, and the Harlem River Drive over 127th Street Viaduct.

The unit is currently coordinating mitigation projects such as the Floyd Bennett Field Wetland Mitigation and the Wetland Mitigation at Bergen Beach, which were initiated to compensate for disturbance of wetlands during construction activities such as at the Belt Parkway bridges. Wetland mitigation projects are also on going at Turtle Cove in the Bronx as part of the City Island Bridge Reconstruction project.

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, Administration and Finance, Project Delivery, Capital Procurement, Capital Coordination, and the Truck Permit Unit.*** 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 enforcement, confidential investigations, Bridges' litigation claims, 311 Siebel complaints, Bridges' Engineering Service Agreements, space allocation, and special projects, the ***Executive Director*** oversees, on an executive level, the following areas and functions:

The ***Senior Director of the Administration and Finance 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 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 55 Water Street and 59 Maiden Lane in Manhattan.

The Senior Director of the Administration and Finance Section also oversees the following three 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 the NYCDOT Communication Center; and collects required documentation from field personnel for checking Driver Certifications with the Department of Motor Vehicles and EZ Pass.

The *Finance Unit* 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 ***Project Delivery Section*** monitors and collects data for all current and future capital Bridge projects from the identification and initiation phase through design and construction completion. The unit serves as a liaison with internal Agency divisions, sharing project schedule data related to procurement registration, Capital Commitment Plan forecasts, and project status.

The ***Capital Procurement Section*** serves as a liaison between the Division of Bridges and the Office of the Agency Chief Contracting Officer, other Agency Divisions, the public and private railroads, and the various consulting firms involved with the procurement process. The duties of

this unit include: overseeing the Division's capital consultant contract procurement from scope to registration; preparing status reports; processing of the Division's change orders through registration, and coordinating Railroad Force Account Agreements and railroad invoice payments for Division construction projects.

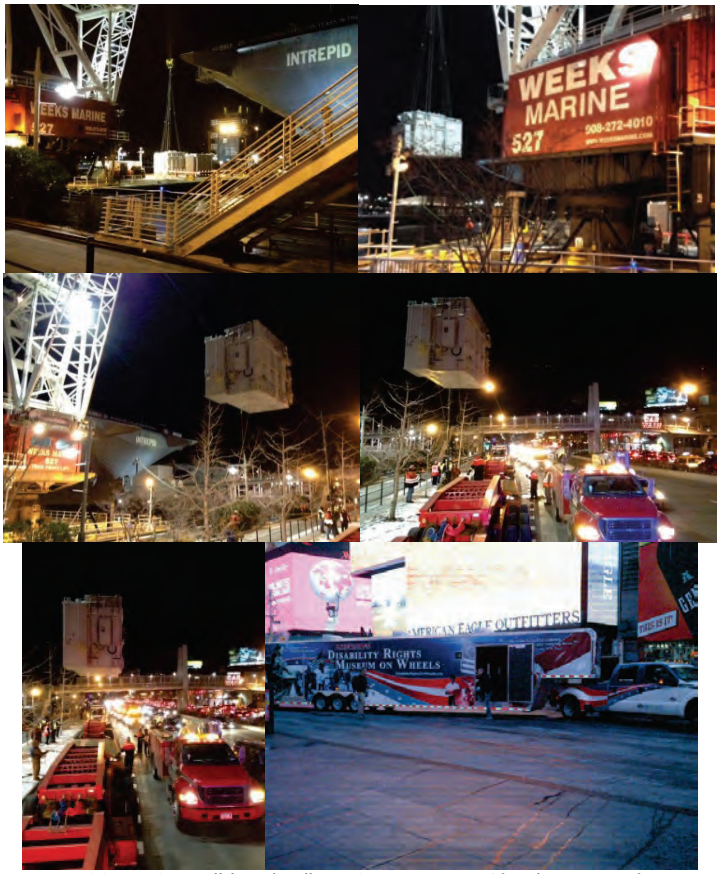
Railroad Force Account Agreements are a vital component in the rehabilitation/reconstruction program since train traffic affects 327 (41.4%) of City-owned bridges. Careful cooperation between the NYCDOT and the various railroad agencies that service the metropolitan area is required. The Railroad Coordinator 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. Upon registration of the railroad force account contracts between the City of New York and the respective railroad, Notices to Proceed [NTPs] are issued, and invoices are generated. The invoices, once approved by the engineers for the railroad and the corresponding DOT Project Manager, are sent to the Railroad Coordinator for processing and actual payment by the New York City Comptroller's Office.

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.

Certificates to Proceed [CPs] are a critical component for the registration of any Construction, Consultant Programs, Force Account, Change Order and Engineering Service Agreement and assigned ESA tasks. Coordinating the submission of New and Revised Certificates to Proceed for submission to the Capital Budget is overseen by the Capital Procurement Unit.

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 $4.5 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; reviewing and processing transfer of fund requests in an attempt to resolve funding issues; and maintaining the Division's registration report for all current year capital contracts. In addition, this section coordinates the Division's submission of Initial Financial Plans, Annual Financial Plan and Construction Management Plans prepared by Project Mangers that must be submitted to the Office of Finance, Contracts & Program Management.

The ***Truck Permit Section*** issues approximately 1000 Annual Overweight Load Permits (mostly renewals), and approximately 40,350 other permits, including Annual Self-Propelled Crane Permits, Daily Oversize/Overdimensional/Supersize Truck Permits, and Bulk Milk Permits; all in accordance with the New York City Department of Transportation Policy and Procedures and the New York City Traffic Rules and Regulations section 4-15.



January 2015: Consolidated Edison Super Move. Shutting Down the West Side Highway on a Saturday Night to Unload a Transformer From a Barge Crane on the Hudson River (Over the Linear Park) to a Waiting Super-Load Trailer Sitting on the West Side Highway. (Credit: Scott Davis – Peak Engineering) Times Square in October 2015: 48-Foot Long Interactive Traveling Museum Touring America, the "Disability Rights Museum on Wheels" Tells the Story of the Fight for Equal Rights by People with Disabilities in the United States.

ACCOMPLISHMENTS & PLANNED PROJECTS

Bridge Capital Design & Construction

East River Bridges

Movable Bridges

Roadway Bridges

Brooklyn and Manhattan Roadway Bridges

Bronx, Queens, and Staten Island Roadway Bridges

Design-Build/Emergency Contracts

Component Rehabilitation

Engineering Review & Support

In-House Design

Engineering Support

Engineering Review

Quality Assurance

Bridge Maintenance, Inspections & Operations

East River Bridges

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 and daughter-in-law Emily Roebling, this elegant structure was, at the time of its completion in 1883, the longest suspension bridge in the world. The bridge remains the iconic representative of the hybrid suspension/stay system worldwide. It was declared a National Historic Landmark in 1967.



Testing the William Feehan Fireboat Near the Bridge in November 2015. Brooklyn Bridge. (2nd Credit: Earlene Powell)

The bridge has a 1595.5-foot long main span and 933-foot long side spans. The Brooklyn Bridge carries some 99,986 vehicles and 2,566 commuter bicyclists daily. The $936 million reconstruction commenced in 1980 with Contract #1, and continues with Contract #6, scheduled for completion in 2016. This contract includes the rehabilitation of both approaches and ramps, the painting of the entire bridge, as well as the seismic retrofitting of the structural elements that are within the Contract #6 project limits.

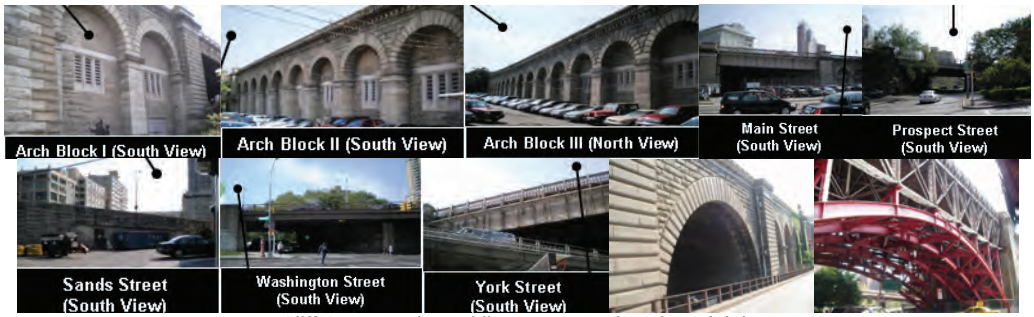
Work completed on the bridge to date includes reconditioning of the main cables, replacement of the suspenders and cable stays, rehabilitation of the stiffening trusses, and the replacement of the suspended spans deck and the four travelers.

Contract #6

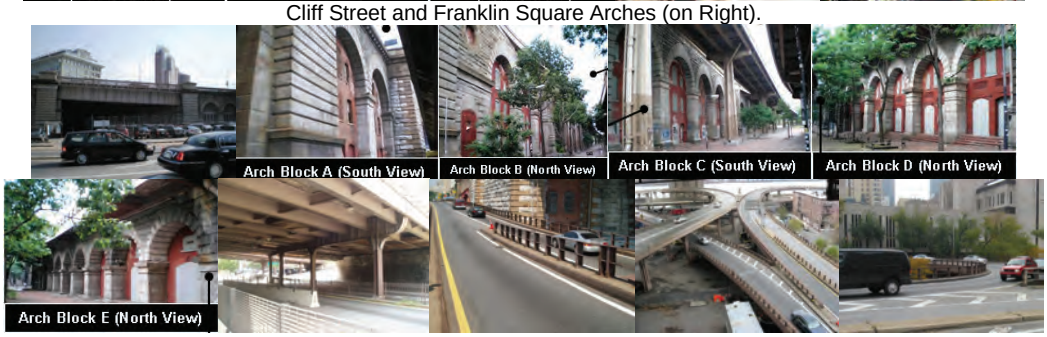
A Notice to Proceed for this $508 million project was issued to the contractor with a start date of January 19, 2010. The ramps and approaches to the Brooklyn Bridge were in need of rehabilitation and repair, to improve safety and reduce congestion along both the Brooklyn-side and Manhattan-side approaches, particularly from the FDR Drive. With stimulus money from the federal government's American Recovery and Reinvestment Act, the ramps in Brooklyn and Manhattan are being rehabilitated and widened and the entire bridge is being repainted to prevent steel corrosion on the structure.

The approach roadway to the Brooklyn Bridge was aging, with a failed membrane system and deteriorated closure walls. The existing roadway pavement above the historic arch blocks and masonry structures was rehabilitated. A precast concrete roadway slab was installed in segments, over sprayed-on waterproofing membrane. Rusted historic railings at Franklin Square, York, and Main Street structures, some from the original bridge construction, were refurbished and reinstalled. The existing ramp from the FDR southbound roadway was widened from one to two lanes to reduce bottlenecks and pinch points in traffic flow. All steel structures, including the ramp structures and the main span, are being painted, restoring them to the Brooklyn Bridge Tan color, as chosen by the Landmarks Preservation Commission.

On all the bridge approach structures on both the Manhattan and Brooklyn sides, the existing deck was removed by lifting out sections and replacing them panel by panel with precast concrete-filled steel grid deck panels. This approach greatly reduced noise from drilling and jackhammers, and also increased the reliability of the start and end times of construction activities every night.



Cliff Street and Franklin Square Arches (on Right).



Main Street Structure (on Left). Park Row Structure and Ramp A (on Right).



Ramp F. Rose Street Structure. Vandewater Street Arch. York Street over Brooklyn-Queens Expressway.

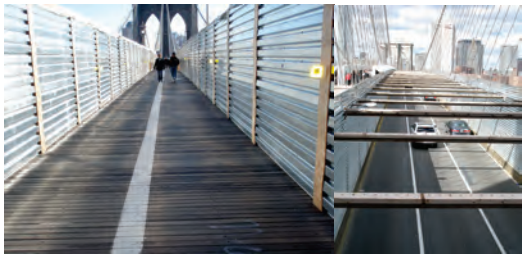
Painting work, to prevent steel corrosion and improve aesthetics, occurred in negative-pressure containment units that progressed along the bridge structure. All three Brooklyn-bound travel lanes were maintained during the course of this work, and painting took approximately six years to complete. Equipment was placed underneath the FDR Drive, and on land abutting the Brooklyn tower. Dust collection, vacuum and recycle units were employed to minimize environmental air quality risks, and there has been continuous air and noise monitoring during operations. All painting work has been conducted in accordance to the US Environmental Protection Act and NYS Department of Environmental Conservation requirements. Noise generated by these units conformed to the NYC Noise Code standards adopted in 2007.

In order to facilitate the reconstruction and associated painting work, the contractor mobilized in the area known as the Brooklyn Banks and Red Brick Park, between Pearl Street and Park Row on the north side of the Manhattan approach of the Brooklyn Bridge. The area was closed to the public starting June 2, 2010. The security plan for this area required that the Red Brick area be completely closed to the public for the duration of adjacent work. Pedestrian access between Pearl Street and the Rose Street/City Hall area was maintained through a walkway adjacent to the banks along Avenue of the Finest.

On the Brooklyn side, two lanes of free-flowing traffic were created at the Cadman Plaza exit, and approach roadways were rehabilitated to replace the membrane system and deteriorated closure walls. On the Manhattan side, rusted railings and safety barriers were replaced, and two lanes of free-flowing traffic were created from the southbound FDR Drive onto the Brooklyn Bridge.

The contract allowed for 24 full weekend closures over the duration of the contract; however, the contract also contains clauses that encourage fewer weekend closures with monetary compensation. Although the promenade remained open, there were sections immediately over the painting area, which were narrowed by a foot on each side to facilitate work.

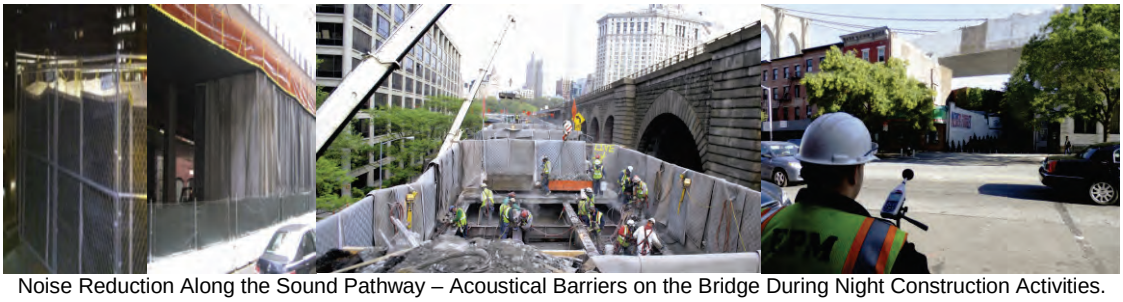
In 2010, after mobilization, the contractor started work on the ramp foundation; installed protective shielding under the Brooklyn main and Brooklyn side spans, the Franklin Square structure, and some of the Manhattan ramps; installed vertical walls at both sides of the Brooklyn and Manhattan-bound roadways at the Brooklyn main and Brooklyn side spans; began the set-up of the containment for the lead paint removal at all of these locations; and proceeded with blasting and painting activities. Other activities included detailed surveying, installation of super slabs and the fabrication of precast members.



Bicycle/Pedestrian Path with Protective Shielding in November 2010. Roadway Shielding in October 2010.

Lead paint removal operations were conducted in a Class 1A containment unit. Rigid containment walls, HEPA filters, and negative air pressure were used to prevent material release. Ambient air quality readings were conducted during lead paint abatement work. Airborne lead levels were continuously monitored using high-volume total suspended particulate samplers at multiple locations in Brooklyn and Manhattan. Additional in-depth testing for volatile organic compounds was conducted at five locations in the summer of 2011.

In March 2012, airborne particulate samples were collected in accordance with regulatory guidelines, at locations where dust was most likely to be deposited during dust-generating activities. Additional tests were replicated in June 2012 for respirable silica, suspended particulates and asbestos. All results were acceptable according to standards set by the Occupational Safety and Health Administration, the National Institute for Occupational Safety and Health, and the American Conference of Industrial Hygienists.



Noise Reduction Along the Sound Pathway – Acoustical Barriers on the Bridge During Night Construction Activities. Acoustical Curtains Along Frankfort Street. Two Crews Work Along Frankfort Street in April 2012. Cranes (On Left) Lift Material In And Out of Walled Enclosures of Sound Blankets. Inspector Taking Noise Measurements.

In 2011, painting was completed at the Franklin Square structure and continued at the Manhattan ramps and Brooklyn main and Brooklyn side spans with continuous installation of protective shielding and containment. Painting of the truss top struts was also started at the Brooklyn-bound Manhattan side span. The following construction work was started in 2011: on the Manhattan approach, activities included Brooklyn-bound roadway removal, waterproofing and super slab installation, Franklin Square floor beam replacement, south cantilever beam excavation and repair, and arch block strengthening. On the Manhattan ramps, work included bearing replacement, widening, and deck replacement, and fascia removal. Asbestos abatement work took place in the Brooklyn maintenance shop. Electrical work was also in progress with activities that included light pole and abandoned equipment removal, temporary lightning installation, and temporary power provisions. Other activities included detailed surveying, testing and repairing of dry-standpipe system, fabrication of precast and steel members.

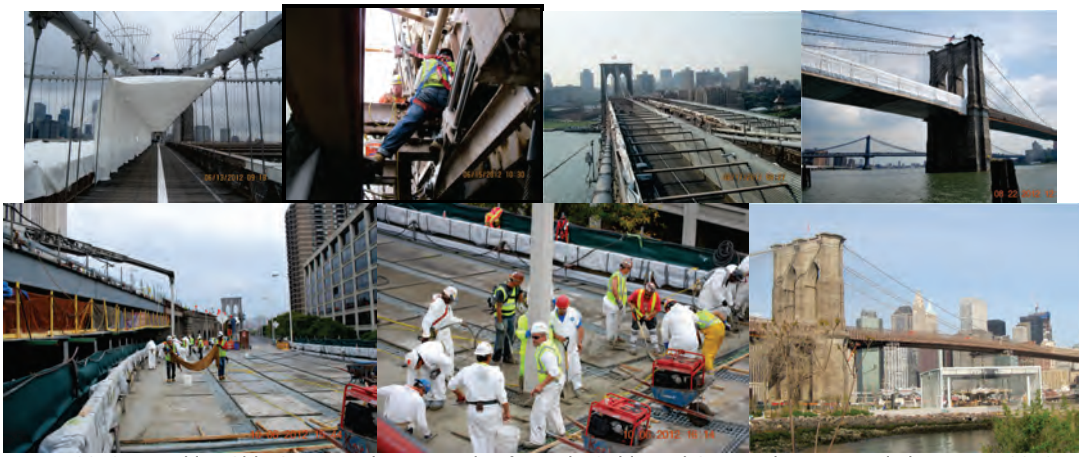


December 2011: Painted Top Struts of the Brooklyn-Bound Manhattan Side Span. Summer 2011: Manhattan Approach - Ramp C Deck Replacement. December 2011: Ramp C.

In 2012, work continued on the Manhattan side of the bridge, including deck replacement on ramps and the south cantilever, super-slab installation and arch block strengthening. Painting under the Brooklyn main and side spans was completed, as well as the top struts along the Brooklyn-bound roadway. Painting of the Manhattan main and side spans started in 2012 and continued through 2013.

In Brooklyn, new shielding was installed under the Prospect and Washington Street structure in anticipation of deck removal. In addition, preparatory work was ongoing for superstructure replacement of the York and Main Street structures.

Asbestos abatement was completed in the Brooklyn maintenance shop and was in progress in the Manhattan arch blocks. By the end of 2012, 321 bearings were replaced under the Manhattan ramps and the flag repairs on the suspended spans were in progress.



June 2012: Brooklyn Side Span Netting Protection for Main Cable and Suspender Rope Painting. June 2012: Structural Steel Repairs. 2012: Manhattan Main Span Vertical Wall. August 2012: Manhattan Side Span Containment at Manhattan Tower. First Full Roadway Closure: Ramp A Concrete Placement. Second Full Roadway Closure: Brooklyn Approach. December 2012: Brooklyn Main Span in Finish Coat.

In 2013, lead-based paint removal and new coating applications were completed on the Manhattan main and side spans including all four stiffening trusses, the under-deck system, and the promenade. The main bridge vertical protective shield systems were removed. Painting of the main cables, suspender cables and overhead struts continued and was approximately 60% complete. In addition to the Main Bridge painting, paint removal and coating application continues on the Manhattan side ramps and was also approximately 70% complete.



May 2013: Painter Applying Primer Stripe Coat on the Manhattan Main Span. June 2013: Painter on Sway Bracing on the Brooklyn Side Span. (View Credit: Earlene Powell) November 2013: Painting Fascia Steel on Ramp C.

2013 saw significant progress for structural rehabilitation work, which included: completion of the Brooklyn-bound orthotropic deck panel installation at the Franklin Square Structure; the installation of the new concrete-filled grid deck systems at the outbound York Street, Main Street and Park Row structures as well as Prospect Street, Washington Street and the maintenance shop deck systems for both inbound and outbound directions. Concrete-filled grid deck installation for the inbound York Street, Main Street, North Cantilever and Franklin Square structures was begun. The approach super slab installation was completed in the outbound direction and was about 20% complete inbound. The main bridge structural steel flag repairs continued to be identified by biennial and special inspections.

In 2013 three significant traffic improvements were implemented that changed exits from one-lane exit to two-lane exits, thereby reducing queuing-related congestion. In May 2013, key access ramps to and from the Brooklyn Bridge and the FDR Drive were expanded. Each of the two enhanced ramps now accommodates two traffic lanes and simplifies traffic patterns, easing notorious traffic bottlenecks for many of the 99,986 vehicles that cross the bridge daily as the bridge rehabilitation continues. The first ramp, connecting the exit from the bridge's Manhattan-bound lanes with the FDR Drive, was expanded from one to two lanes, easing backups that often extend across the bridge. The second ramp, connecting the southbound FDR Drive with the approach to the bridge's Brooklyn-bound lanes, was also expanded from one to two lanes, easing congestion and reducing the impact of cars that aggressively cut into the queue of cars at the entrance to the ramp. The work on a third ramp, connecting the bridge's Brooklyn-bound lanes to Cadman Plaza West and Old Fulton Street in Brooklyn Heights, which was also expanded to two travel lanes, was completed in September 2013.

Noise monitoring and mitigation efforts continue for all night-time project operations with ongoing community and sensitive receptor coordination.

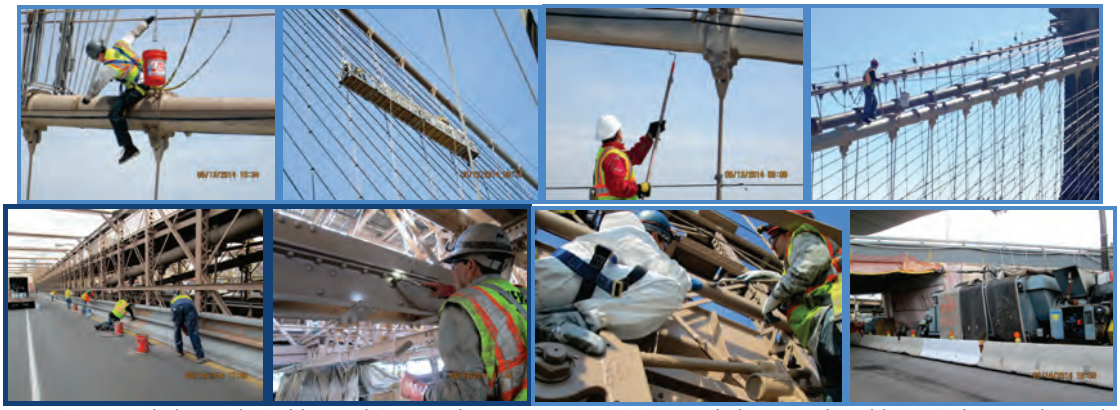


April 2013: Installation of Temporary Deck Units at the York Street Structure Over Brooklyn-Queens Expressway. July 2013: Removal of the Existing Concrete Slab on the Eastbound Main Street Structure. August 2013: Ironworker Replacing Cable Clamp Assemblies on the Suspended Span. October 2013: Grid Deck Panel Installation at the Eastbound Park Row Structure.

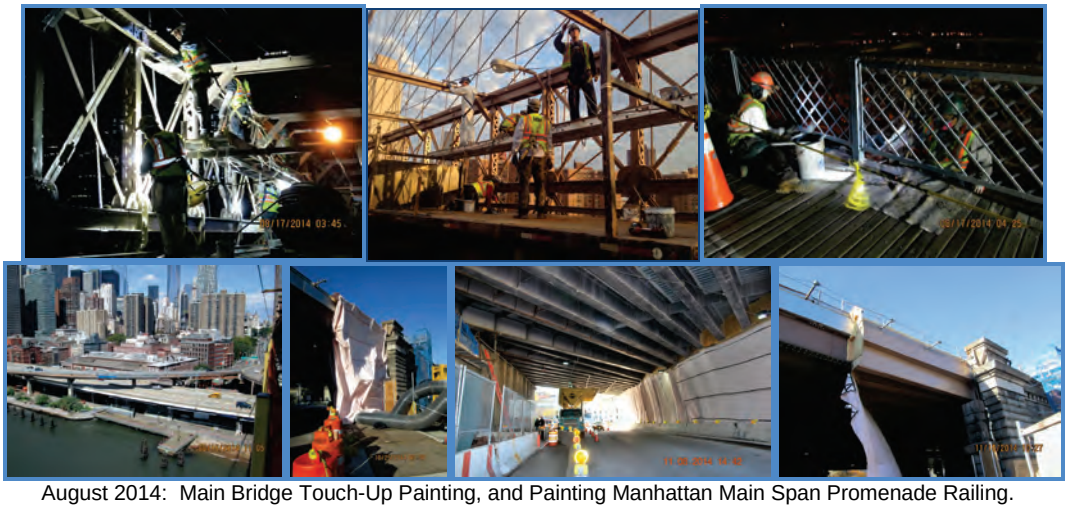


October 2013: Eastbound Brooklyn-Queens Expressway Traffic Flowing Under the Exposed Steel of the Eastbound York Street Structure. Removing the Fascia Steel From the Eastbound York Street Structure. November 2013: Concrete Placement at the Eastbound York Street Structure.

In 2014, lead-based paint removal and new coating applications were completed at the Manhattan ramps and approach structures. Subsequently, primary protective shield removal commenced at the Manhattan ramps and is in progress. Painting of the overhead struts and promenade approach railing was completed, while painting of the main cables and suspender cables continues and is at approximately 80% complete. Additionally, abrasive blast cleaning and painting began at the Brooklyn approach structures, with a portion of the Prospect Street structure completed.



May 2014: Painting Main Cables and Suspension Ropes. June 2014: Painting at Main Bridge – Safety Barrier and Touchup. Containment at Ramp A, Span 4.



August 2014: Main Bridge Touch-Up Painting, and Painting Manhattan Main Span Promenade Railing. August 2014: Painted Manhattan Ramps. October and November 2014: Blasting and Painting – Brooklyn Approach Structures.

In response to residents' concerns about airborne silica, a type of dust that is emitted during concrete demolition operations, the project team conducted a series of tests to monitor the levels of this substance in the air in January 2014. In addition to three types of silica, the tests also monitored for general respirable dust. Monitors were placed in four locations near concrete demolition operations occurring at the Main Street and York Street structures on the Brooklyn approach. Two monitors were placed within 50 feet of the construction activities themselves, one was placed at ground level north of the activity, and another placed directly in front of a residential building just south of the work. Analysis was undertaken by the project's environmental experts using procedures established by the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety & Health (NIOSH). All results were well below the permissible exposure levels as established by the NYS Department of Labor Public Employee Safety and Health and threshold limit values established by the American Conference of Governmental Industrial Hygenists.



Respirable Dust & Airborne Silica Monitoring.

2015 saw the completion of the majority of the painting portion of Contract #6. The contractor finished the abrasive blast cleaning and painting of all the structural steel at the Prospect Street, Washington Street, and Sands Street Structures, as well as the promenade support steel at the York Street and Main Street Structures at the Brooklyn Approach, in addition to completing the coat application at the main cables and suspender ropes throughout the suspended spans. Steel repair painting, both for contract repairs and incidental and flag repairs, progressed systematically throughout the suspended spans as well as the Franklin Square and Park Row Structures at the Manhattan Approach. Touch-up painting of the completed suspended spans and approach ramps and structures continued to the end of the painting season, and are expected to be completed in 2016.



May 2015: Class 1A Abrasive Blast Containment System for the Main Street Structure Promenade Steel. Power-Tool Cleaning on Steel Repairs at the Suspended Spans. June 2015: Brooklyn Approach Structures.

Significant portions of the structural rehabilitation of the bridge were completed during 2014. Orthotropic deck panels were installed at the inbound Franklin Square Structure, and were aligned and welded in place. Replacement of the superstructure and installation of concrete-filled grid deck panels was completed for the inbound York Street and Main Street structures. New concrete-filled grid-deck panel installation was completed for the Sands Street structure in both directions as well as at the inbound Park Row structure. Approach SuperSlab installation is complete at both inbound approaches. Asphalt paving and road striping is complete at both inbound and outbound approaches, leaving only the outbound Cadman Plaza exit. Bearing replacement continues at the Brooklyn approach structures, with 652 of 666 bearings replaced by the end of 2015. Several operations still remain in Manhattan: these include the remaining installation of super slabs on the Manhattan-bound roadway, grid deck installation at the Park Row structure, and pier replacement at Ramp C. The latter two operations continued through the end of 2015.

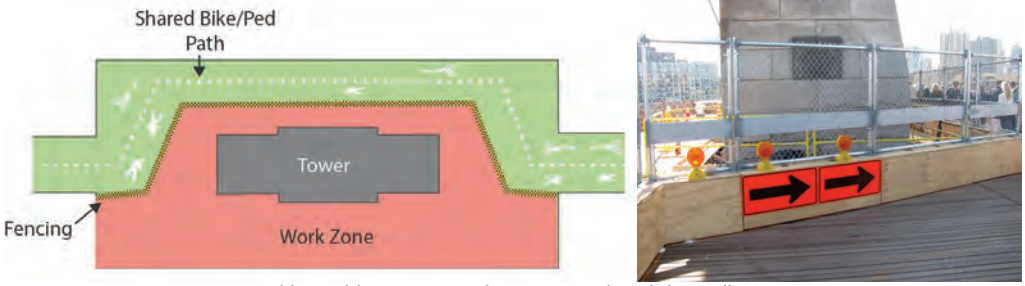


April 2014: York Street Structure Deck Replacement During Full Weekend Closure. May 2014: Main Street Structure – Abutment Concrete Placement. May 2014: Ascending the Cable. July 2014: Preparation for Closure Pour at Main Street Structure.



September 2014: Franklin Square Structure – New Orthotropic Deck. November 2014: Manhattan-Bound Brooklyn Approach Paving. December 2014: Super Slab Installation in Manhattan-Bound Lanes.

Beginning on March 26, 2015, and lasting through December, 2015 the Brooklyn Bridge promenade was reduced in width for pedestrians and cyclists at various locations. This closure was necessary to perform steel improvements at tower locations as well as structural joint repair on the Brooklyn and Manhattan Approaches. At the towers, the work zone was in effect continuously during this period. Pedestrians and cyclists were directed to cautiously share the narrowed pathway.



Brooklyn Bridge Promenade. Narrowed Path in April 2015.

Structural repairs continue to be identified by biennial inspections and the construction consultants, and the repair work in ongoing. Over 4,150 incidental steel defects were identified that could not be anticipated prior to the removal of the existing paint. Approximately 3,000 of them have been corrected to date.



Steel Repair Process: Although Deteriorated Steel is Often Apparent Right Away, Many More Instances are Encountered Only After Removing the Paint. In Some Cases the Location of Deterioration is Painted Along With the Healthy Steel and its Location is Documented for Later Repair. Iron Workers Then Return to Those Locations and Replace the Deteriorated Sections With New Steel. The New Steel is Then Painted Over Again for the Final Protective Coating.

Drumgoole Park, a public park located on Frankfort Street between Park Row and Gold Street was reopened to the public as of October 6, 2015. The park was closed because of its proximity to rehabilitation work being performed on the Brooklyn Bridge.

Substantial completion of the project is now expected at the end of 2016. Multiple unforeseen factors have served as major obstacles, including the discovery of additional deterioration of bridge elements, discovery of a former trolley structure thought to be removed over 50 years ago,

the cancellation of full weekend closures due to additional citywide events, and the Superstorm Sandy construction embargo. There will be steel repair work that carries over into 2016 due to staging of the work over the river, as only one half of the channel can be closed.



January 2015: Welding on the Bridge above Pearl Street (Franklin Square Structure). Replacing the First Column Supporting the Exit Ramp From the Northbound FDR Drive. Ramp C Steel Column Erection. Cast-in-Place Concrete Barrier Installation. Commissioner Polly Trottenberg Visited the Summit Street Pedestrian Overpass to Thank Division Staff for Clearing the Snow and De-icing the Walkway. March 2015: New Flag. April 2015: Containment System at Prospect Street.



April 2015: Division Crews Removed another 450 (75 pounds) of "Love Locks" in One Day. The Locks Pose a Danger to the Infrastructure and the Cars on the Brooklyn Bridge - 9,363 Locks Were Removed From January 1 to September 25 in 2015. (Warning Sign Credit: Eugene Parker). Cleaning at Drumgoole Park. Working on the Stone Balustrade at Arch Block II. After Removing it in Sections, the Granite was Either Repaired and Reinstalled or Replaced With Completely New Granite. Sand Street Structure Curtain Wall Installation.



May 2015: Manhattan-Bound Approach SuperSlabs. New Curb Mall and Barrier on Adams Street Access Road. Brooklyn Approach Concrete Headers.



May 2015: Brooklyn Arch Blocks Steel-Faced Curb. June 2015: Division Quality Assurance Personnel Observe Closure Pour Concrete Placement at Westbound Park Row Structure. Asphalt Paving of Brooklyn Approach. Division Quality Assurance Personnel Observe Testing on the Newly-Applied Asphalt Overlay at the Westbound Brooklyn Approach. Manhattan-Bound Approach North Cantilever. Paving of the Manhattan-Bound Brooklyn Approach, Demolition at Ramp D in Manhattan, and Super Slab Installation During the Full Weekend Closure in June.



July 2015: Franklin Square Structure Seismic Retrofitting. Ironworkers Install New Railings and Toe Boards for the Inspection Catwalk Under the Promenade. New Steel Beams Installed Across the North Cantilever. This allowed for a New Grid Deck to be Set on the Manhattan Approach. Additional Deck Work was Added During a Full Weekend Closure in July to Ensure a Seamless Transition to the Two Lane Off Ramp to the FDR Drive and Pearl Street. August 2015: Concrete Closure Pours on the Manhattan Approach During a Full Weekend Closure. Diver Inspects the Fender System at the Brooklyn Tower. September 2015: Park Row Bridge – Westbound Stage II Deck Replacement.



October 2015: Brooklyn Bridge Site Visit by FHWA and Agency Executive Management. Deputy Chief Engineer - Bridge Capital Design & Construction David B. Dunn, Deputy Commissioner for Finance, Contracting, and Program Management Joseph H. Jarrin, Brooklyn Bridge Engineer-in-Charge Ohene Duodu, Federal Highway Administration - NYC Federal Aid Liaison John Formosa, and Resident Engineer Douglas Reese. FHWA John Formosa and Director of East River Bridges Hasan Ahmed. Manhattan Approach Westbound Paving. Brooklyn Tower Fender System.

Contract #7

Contract #7's construction costs are estimated at $250 million with an estimated construction start date of November 2018. The scope includes the rehabilitation of approach arches, towers and ramp structures on the Brooklyn Bridge and the maintenance and protection of traffic.

MANHATTAN BRIDGE

The youngest of the three NYCDOT suspension bridges that traverse the East River, the Manhattan Bridge carries some 478,476 commuters – 84,048 vehicles, 4,428 bicyclists, and 390,000 mass transit riders - between Manhattan and Brooklyn daily. The bridge's total length is 5,780 feet long abutment to abutment at the lower level, and 6,090 feet on the upper roadways portal to portal; its main span length is 1,470 feet and each of its four cables is 3,224 feet long. It was designed by Leon Moisseiff and first opened in 1909. The bridge supports seven lanes of vehicular traffic, a Class 1 bikeway, a walkway, as well as four transit tracks upon which four different subway train lines operate. The Manhattan entrance to the bridge is distinguished by an elaborate arch and colonnade (which was designated a City Landmark in 1975), designed by the architectural team of Carrère and Hastings, who also designed the main branch of the New York Public Library.

The $1152.52 million reconstruction program commenced in 1982 with Contract #1, and will continue with Contract #15 for structural and component rehabilitation. Work completed on the bridge to date includes reconstruction of the south and north upper roadways, re-anchoring the north interior main cable, 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, replacement of the lower roadway, rehabilitation of the Brooklyn Plaza, rehabilitation of the existing main cables with new wire wrapping and a neoprene barrier to insulate from weather, and replacement of the vertical suspenders.

Contract #15

The scope of work for the structural and component rehabilitation of the bridge will include: maintenance painting of the south side approaches and suspended spans to include Trusses A and B, replacement of the south fascia railing and fencing; removal and replacement of the tower ornamental cornices, globes, cable collars and brackets; replacement of the finger joints with modular joints; rehabilitation of the drainage troughs under the south upper roadway and the roadway trench drain grating on the south upper roadway in the suspended span; rehabilitation of the masonry and cable housing at the anchorage; rehabilitation of the truss gusset plates at the approach and suspended spans to improve the load rating; replacement of the work platform at the anchorages; rehabilitation of the joints in the south upper roadway approach spans and the existing standpipe system; and strengthening of the subway floorbeam connections in the approach spans. Construction is anticipated to start in summer 2017.



Manhattan Bridge in 2014. (Credit: NYSDOT)

NECKLACE LIGHTS

In the fall of 2008, to compare options for energy efficiency, we replaced 20 100-watt mercury vapor lamps of the necklace lights on the Brooklyn and Manhattan Bridges with 10 LED fixtures and 10 induction fixtures. The test was completed in spring 2009; we chose an LED fixture in a dish style and will obtain them for the Ed Koch Queensboro, Williamsburg and Brooklyn Bridges. The test fixtures were removed on April 24, 2009. The replacement of the existing mercury vapor lights on the Williamsburg Bridge was completed in summer 2012. The replacement of those on the Ed Koch Queensboro and the Manhattan Bridges was completed in June 2013. The replacement of the Brooklyn Bridge necklace lights will not be scheduled until the completion of Contract #6. Approximately 80% of the old fixtures from the Ed Koch Queensboro and Williamsburg Bridges have been sold at auction.



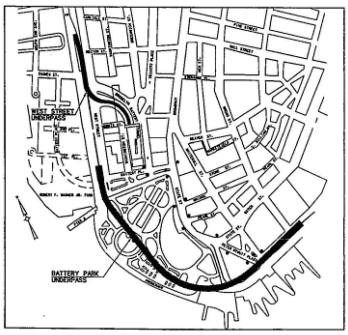
Installing New LED Necklace Lights on the Williamsburg Bridge in April 2012: Electrician Thomas Cipriano, Supervisor Bridge Repairer and Riveter Gean Pilipiak (in Front). (Credit: Thomas Whitehouse) May 2012: Electricians Thomas Cipriano and Robert Stackpole on the Williamsburg Bridge. Bridge Repairer and Riveter Neil Dalton. (Credit: Hany Soliman). Installing New LED Necklace Lights Along D Cable on the Manhattan Bridge in May 2012. New LED Necklace Light on Cable D of Williamsburg Bridge. (Credit: NYSDOT)

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.

BATTERY PARK UNDERPASS AND WEST STREET UNDERPASS (MANHATTAN) – EMERGENCY CONTRACT

The Battery Park Underpass is a two-span rigid frame reinforced concrete tunnel structure connecting eastbound and westbound traffic between the FDR Drive and West Street (Route 9A) at the southern end of Manhattan. The West Street Underpass is a one-span rigid frame reinforced concrete tunnel structure connecting southbound traffic from West Street heading toward the entrance to the Brooklyn Battery Tunnel (Hugh L. Carey Tunnel).



PROJECT LOCATION MAP

Battery Park and West Street Underpasses.

On October 29, 2012, the New York Metropolitan area was impacted by Hurricane Sandy, causing flooding, loss of power and damage to many components of New York City's infrastructure. On October 30, 2012, a site inspection by the Department revealed major damage to both underpasses. Specifically, certain electrical, mechanical and structural issues with regard to the tunnels had to be addressed.

Salt water penetrated the electrical and mechanical equipment in both underpasses, including but not limited to, motors, lighting and pumps. It is therefore, necessary to solicit the services of a specialty contractor to perform all necessary repairs.



October 2012 - Battery Park Underpass - View Looking West at the South Portal Entrance Near the FDR Drive. View Looking South at the North Portal Entrance Near West Street. West Street Underpass – Approach at South Portal Looking Southeast. Both Tunnels Were Flooded to Their Roofs, Which Means That all Tunnel Ventilation, Electrical, and Mechanical Systems Were Entirely Submerged in Saltwater.

Due to the potentially serious danger to life and public safety posed by the current condition, it is

critical that the repair work be performed as expeditiously as possible.

On November 7, 2012, in the interest of public safety, pursuant to Section 103(4) of the General Municipal Law and Section 315 of the New York City Charter, the Department declared that an emergency exists relative to the Battery Park Underpass and West Street Underpass on Route 9A in Manhattan.



October 2013 – Battery Park Underpass – Elevation Right Span 1 and Left Span 1. (Credit: NYSDOT) September 2013 - Span 2 Looking Westbound (FDR Drive to West Street). June 2014 – The Underside of the Tunnel is Completely Covered With Tiles. October 2013 - West Street Underpass - Elevation Right Span. (Credit: NYSDOT)

A Letter of Intent for the emergency repairs of these underpasses was issued to the contractor with a start date of February 17, 2015. The scope of work includes replacement of all of the exhaust fans, motors, sump pumps, traffic signals/VMS, heating and ventilation units, fire and CO monitoring control systems, and the street lighting and emergency response systems. The project will be constructed in four phases and was already in the second phase in Fall 2015. The scope of work also includes providing temporary fan control systems to operate based on CO levels, install permanent CO monitoring system and sump pumps and tunnel lighting at the West Street Underpass. Construction is expected to be complete in January 2018.



May 2015: Paver Installation in Battery Park. June and July 2015: Removing Existing Conduits at West Street and Batter Park Underpasses. (Credit: Reza Sharif)

METROPOLITAN AVENUE BRIDGE OVER ENGLISH KILLS (BROOKLYN), GRAND STREET BRIDGE OVER NEWTOWN CREEK (BROOKLYN/QUEENS), GREENPOINT AVENUE BRIDGE OVER NEWTOWN CREEK (A.K.A. J. J. BYRNE MEMORIAL BRIDGE (BROOKLYN/QUEENS), PULASKI BRIDGE OVER NEWTOWN CREEEK (BROOKLYN/QUEENS), BORDEN AVENUE BRIDGE OVER DUTCH KILLS (QUEENS), HUNTERS POINT AVENUE BRIDGE OVER DUTCH KILLS (QUEENS), UNION STREET BRIDGE OVER GOWANUS CANAL (BROOKLYN), CARROLL STREET BRIDGE OVER GOWANUS CANAL (BROOKLYN), THIRD STREET BRIDGE OVER GOWANUS CANAL (BROOKLYN), NINTH STREET BRIDGE OVER GOWANUS CANAL (BROOKLYN), THIRD AVENUE BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN), MADISON AVENUE BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN), 145TH STREET BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN), MACOMBS DAM BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN), AND WEST 207TH STREET/WEST FORDHAM ROAD BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN) (A.K.A. UNIVERSITY HEIGHTS BRIDGE) – EMERGENCY CONTRACT

On October 29, 2012, the New York Metropolitan area was impacted by Hurricane Sandy, causing flooding, loss of power and damage to many components of New York City's infrastructure. On October 30, 2012, a site inspection by the Department revealed major damage to the operational portions of these bridges. Specifically, certain electrical and mechanical issues parts had to be repaired or replaced immediately.

Salt water penetrated the electrical and mechanical equipment in the bridges, including but not limited to, motors, electric relays, lock control devices, gates, pier lights, and pumps. It was therefore, necessary to solicit the services of a specialty contractor to perform all necessary repairs.

As the procurement proceeded, the groupings of bridges were changed. The Metropolitan Avenue Bridge was bid separately due to the number of openings. All of the other bridges were bid together.

The Metropolitan Avenue Bridge over the English Kills is located between Queens and Brooklyn and is a double-leaf trunnion bascule that carries four lanes of vehicular traffic and two sidewalks. The bridge opens approximately 450 to 500 times per year for marine traffic, primarily taking barges of fuel oil to a facility south of the bridge. The bridge was subject to heavy flooding.

The Grand Street Bridge over the Newtown Creek is located between Queens and Brooklyn and is a rim-bearing swing bridge that carries two lanes of vehicular traffic and two sidewalks. The bridge opens approximately 3 times per year. The bridge was subject to extreme surge tide.

The Greenpoint Avenue Bridge over Newtown Creek is located in Queens and is a double-leaf trunnion bascule that carries four lanes of vehicular traffic and two sidewalks. The bridge was subject to an extreme surge tide and minor repairs are necessary. The navigation lights on the fender system were flooded.

The Pulaski Bridge over Newtown Creek is located in Queens and is a double leaf trunnion bascule that carries four lanes of vehicular traffic and two sidewalks. The bridge was subject to heavy winds. Minor repairs are required to the warning gate arms damaged during storm.

The Borden Avenue Bridge over Newtown Creek is located in Queens and is a single-leaf retractile span that carries two lanes of vehicular traffic and two sidewalks. The bridge and its mechanical and electrical systems were subject to heavy flooding.

The Hunters Point Avenue Bridge over the Dutch Kills is located in Queens and is a single-leaf rolling bascule bridge that carries two lanes of vehicular traffic and two sidewalks. The bridge was subject to heavy flooding as well as high winds. The warning gate arm was damaged due to high winds.

The Union Street Bridge over the Gowanus Canal is located in Brooklyn and is a double leaf rolling bascule that carries two lanes of vehicular traffic and two sidewalks. The bridge opens approximately 36 times per year. The bridge was subject to heavy flooding.

The Carroll Street Bridge over the Gowanus Canal is located in Brooklyn and is a single-leaf retractile span that carries one lane of vehicular traffic and two sidewalks. The bridge opens approximately 95 times per year. The bridge and its mechanical and electrical systems were subject to heavy flooding which resulted in extensive damage.

The Third Street Bridge over the Gowanus Canal is located in Brooklyn and is a double-leaf rolling bascule that carries two lanes of vehicular traffic along with two sidewalks. The bridge and its mechanical and electrical systems were subject to heavy flooding.

The Ninth Street Bridge over Gowanus Canal is located in Brooklyn and is a tower-drive vertical lift bridge that carries four lanes of vehicular traffic and two sidewalks. The bridge opens approximately 600 times per year. The bridge and portions of its mechanical and electrical systems were subject to minor flooding.

The Third Avenue Bridge over the Harlem River is located between Manhattan and the Bronx and is a center-bearing swing bridge that carries four lanes of vehicular traffic and two sidewalks. The bridge opens approximately 4 times per year. The bridge was subject to flooding of the land on either side of bridge as well as the center pivot fender system.

The Madison Avenue Bridge over the Harlem River is located between Manhattan and the Bronx and is a rim-bearing swing bridge that carries four lanes of vehicular traffic and two sidewalks. The bridge opens approximately 6 times per year. The bridge was subject to flooding of the land on either side of bridge as well as the center pivot fender system.

The 145th Street Bridge over the Harlem River is located between Manhattan and the Bronx and is a rim-bearing swing bridge that caries four lanes of vehicular traffic and two sidewalks. The bridge opens approximately 6 times per year. The bridge center pivot pier was subject to an excessive high tide.

The Macombs Dam Bridge over the Harlem River is located between Manhattan and the Bronx and is a rim bearing swing bridge that carries four lanes of vehicular traffic and two sidewalks. The bridge opens approximately 20 times per year. The bridge was subject to an extreme surge tide, and the center pivot pier and fender were flooded.

The West 207th Street (University Heights) Bridge over the Harlem River is located between Manhattan and the Bronx and is a rim-bearing swing bridge that carries four lanes of vehicular traffic and two sidewalks. The bridge opens approximately 23 times per year. The bridge was subject to an extreme surge tide and the center pivot pier and fender were subject to flooding. The traffic signal assembly was subject to high winds and was damaged.

The level of repair varies from bridge to bridge. In general, the work entails the rehabilitation of the mechanical and electrical systems that are used to operate the movable spans, provide navigational lighting to guide mariners in the waterway and provide vehicular traffic control when a bridge opening is necessary.

Common to all the bridges will be the need for the maintenance and protection of traffic. This shall primarily consist of daily temporary lane or shoulder closures to allow contractor access to the bridge for material delivery and equipment usage. For the structures that have extensive damage to the electrical system, full roadway closures will be performed to allow the operating systems to be tested. This will be done at night and occur over a period of evenings. On bridges that have sidewalks, at least one walkway will be maintained through the contract.

Also common to all the bridges will be the local removal of hazardous or asbestos containing materials. Areas where suspect materials that may contain lead, PCB and/or asbestos have been identified based on visual inspection. Testing will be performed as part of the contract prior to the start of work to confirm their presence. This will include PCB caulking, lead paint and/or asbestos containing material in various components. If testing proves their presence exists,

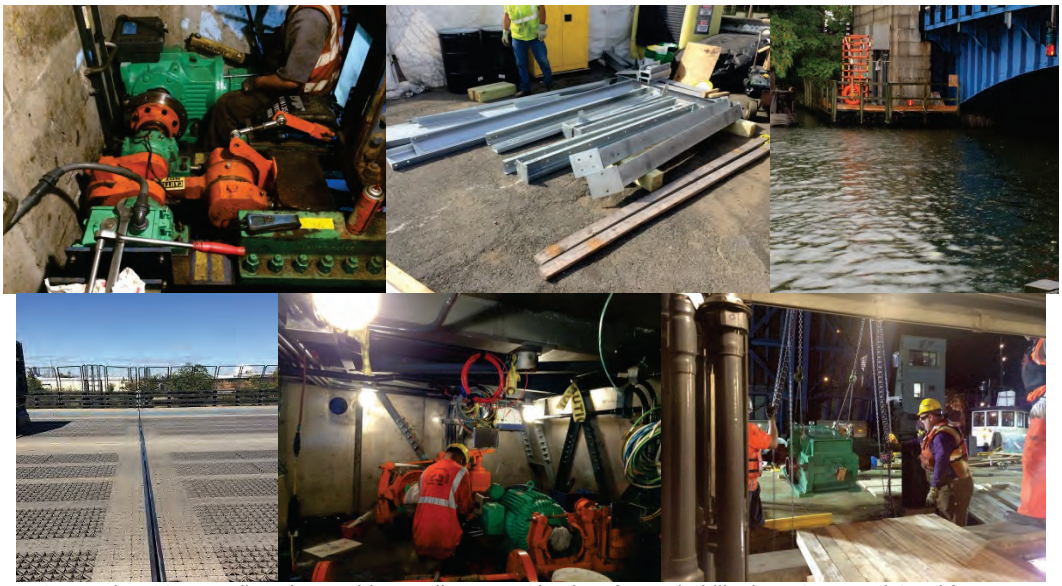
abatement will be done before repairs occur to the mechanical and electrical systems.

These bridges provide a necessary service in compliance with federal law which requires that the bridges be operational for marine traffic. It is critical that the repair work be performed as expeditiously as possible.

On November 20, 2012, in the interest of public safety, pursuant to Section 103(4) of the General Municipal Law and Section 315 of the New York City Charter, the Department declared that an emergency exists relative to these 15 movable bridges in the Bronx, Brooklyn, Manhattan, and Queens.

As of May 28, 2013, all Hurricane Sandy-related damages on the Pulaski Bridge and Greenpoint Avenue Bridge were repaired by the in-house bridge maintenance group. As such, these two bridges will now be eliminated from the first group of bridges, leaving only the Metropolitan Bridge in this category.

A Letter of Intent for the emergency repairs of the Metropolitan Avenue Bridge over English Kills (Brooklyn) was issued to the contractor with a start date of June 23, 2014. The contractor performed the following work in 2015: repaired/replaced various components of the bridge operating machinery; repaired/replaced the tail lock machinery; replaced the existing hydraulic machinery; replaced the bridge's span brakes; replaced the primary and secondary motors, resistors, brakes, limit switches, encoders, tachometers, motor control centers, drive cabinets and other miscellaneous electrical equipment damaged by Hurricane Sandy; replaced the bridge's fire alarm and security system; replaced the light fixtures, channel flood lights, electrical receptacles, and channel navigational lights; replaced damaged conduits, junction boxes, and wiring that were damaged due to flooding; installed new sump pumps; installed a new generator, load bank and other associated wiring; repaired damaged barrier gates; repaired the bridge's central joint to address the expansion issue during hot summers; and removed falling tiles from the control house.



September 2015: Tail Locks Machinery Alignment Checks After Rehabilitation. Structural Steel for East Machinery Platform. October 2015: Above Average High Tide From Hurricane Joaquin. Bridge Joint. Operating Machinery Lowered Inside Machine Room and Into Bascule Pits.

The second group of bridges consists of Macombs Dam Bridge over Harlem River (Bronx/Manhattan), 145th Street Bridge over Harlem River (Bronx/Manhattan), Third Avenue Bridge over Harlem River (Bronx/Manhattan), Madison Avenue Bridge over Harlem River (Bronx/Manhattan), Hunters Point Avenue Bridge over Dutch Kills (Queens), Carroll Street Bridge over Gowanus Canal (Brooklyn), Ninth Street Bridge over Gowanus Canal (Brooklyn), Third

Street Bridge over Gowanus Canal (Brooklyn), Union Street Bridge over Gowanus Canal (Brooklyn), West 207th Street/West Fordham Road Bridge over Harlem River (Bronx/Manhattan), Borden Avenue Bridge over Dutch Kills (Queens), and Grand Street Bridge over Newtown Creek (Brooklyn/Queens). A Letter of Intent for the emergency repairs of the second group of bridges was issued to the contractor with a start date of December 15, 2014.

The contractor performed the following work on the Carroll Street Bridge in 2015: installed a new temporary operating system; removed the existing operating machinery from the control house; repaired the deteriorated sections of the existing rail tracks; removed the existing conduits and wiring in control house and pier; and repaired the leaking control house roof.

The contractor performed the following work on the Ninth Street Bridge in 2015: removed the span locks, including the motors, limit switches, brakes, and gear reducers driving the limit switches; and replaced the navigational lights on the fenders along with conduit, junction boxes and wiring.

The contractor performed the following work on the Grand Street Bridge in 2015: cleaned the center pivot and flushed the grease; repaired the southwest sidewalk hatch; and repaired the access platform under the bridge.

In April 2015, all Hurricane Sandy-related damages on the Union Street Bridge were repaired by the in-house bridge maintenance group. As such, contract work on this bridge will be eliminated from the second group of bridges.

The project is being funded by the Federal Highway Administration (FHWA) and the Federal Emergency Management Agency (FEMA). The work on all twelve bridges will be performed under a single construction contract with an overall contract duration of 36 months.



Inspection in Late 2012: East End of the West 207th Street Bridge - Missing Traffic Signal was Knocked Down by the Hurricane Winds. Borden Avenue Bridge Operator's House Basement Level – Depicted Flood Line was Approximately 5 Feet Above the Floor. Third Street Bridge – Northwest Channel Light Missing. Ninth Street Bridge – Manually Pulling the Cable Reel Because the Motor Failed.



Inspection in Late 2012: Carroll Street Bridge - Navigational Fixtures on North Side of Span – Only the Center Span Fixture was Operational. Grand Street Bridge – Standing Water in the Access Light Fixture at the East Wedge Walkway. Typical Impact Damage to Pier Light.



Inspection in Late 2012: Grand Street Bridge – Standing Water in the Access Light Fixture at the East Wedge Walkway. Union Street Bridge – Standing Water in East Span Maintenance Light. Madison Avenue Bridge - General View of Fender and Center Pier—the Red Line Depicts the Approximate Water Level. Macombs Dam Bridge – Pier Lighting Fixture with Cover Removed – Silt Deposit on Lamp Tops, and Corrosion on the Fixture Frame. 145th Street Bridge in August 2015. (Credit: Litcy Barreto)

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 20th 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 2015, the number of openings declined further to a total of only 214 openings.

In addition, significant and costly traffic congestion results from the operation of this outmoded drawbridge. In 2014, the Mill Basin Bridge carried 141,150 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.



Mill Basin Bridge. (Credit: NYSDOT)

In 2015, on a New York State-mandated scale from 1 to 7, this bridge had a condition rating of 3.209, or "fair." While the bridge is not in any immediate danger of structural failure, its reconstruction is required in order to maintain mobility and public safety on this vital artery.

The 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 2,645-foot long, 17 span, 60-foot high fixed bridge. It will consist of a steel composite superstructure and reinforced concrete substructure on piled footings, and will be constructed on a new alignment set on the north side of the existing bridge and partially overlapping with the existing bridge. The new bridge and approach will have three 12-foot wide traffic lanes, a 12-foot wide right shoulder on the bridge, a 10-foot wide right shoulder on the

approaches, and a minimum left shoulder in each direction. The eastbound side will carry a dedicated pedestrian/bicycle path along the south fascia. The new bridge will be a fixed structure with a 60-foot vertical 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. The reconstruction of the Mill Basin Bridge (part of the second Belt Parkway Group) is scheduled to start in summer 2015, and to last approximately 4 years.

A Notice to Proceed for the replacement of this bridge was issued to the contractor with a start date of June 22, 2015.

BROADWAY BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

Broadway extends from the southern tip of Manhattan, through the Bronx and terminates in Westchester County. The Broadway Bridge, a lift type movable bridge crossing the Harlem River, is located between West 220th Street in Manhattan and West 225th Street in the Bronx. The bridge carries Broadway over the Harlem River. The bridge provides vehicular, subway, pedestrian and bicycle access across the river between the Inwood section (New York County) and the Marble Hill section (New York County) which is surrounded by the Kingsbridge section (Bronx County). In 2014, the bridge carried 34,239 vehicles per day. Three tracks of the IRT subway are carried on its upper deck and a five-lane two-way roadway with sidewalks on either side is carried on its lower deck. The two roadways each measure 34 feet and the sidewalks are 7 feet wide.

The vertical lift bridge is the third movable steel structure at this location. The original steam powered single-deck swing span built in 1895 carried only highway and pedestrian traffic. The second structure was built in 1905 to accommodate the extension of IRT subway into the Bronx from Manhattan. The second bridge was again a double deck swing span to carry the subway line on the upper deck and highway traffic on the lower deck. The current structure, a double deck vertical lift bridge to carry the subway and vehicular traffic, was built in 1960.



Broadway Bridge – West and East Elevations. (Credit: Bhaskar Gusani)

The bridge underwent a protective coating project to protect the steel components of the bridge against the effects of corrosion. This project was completed in October 2003 at a cost of approximately $8.7 million.

The bridge also underwent component rehabilitation, including miscellaneous steel repairs, grating replacement, sealing and waterproofing of its deck, repair of spalled concrete pavement, new expansion joints and new median barrier at an approximate cost of $2.14 million. This project was completed in May 2004.

Currently in its final design phase, the reconstruction of the bridge is scheduled to start in July

2017. The project's scope of work includes a major rehabilitation of the roadway deck, superstructure steel and substructure elements of the vertical lift span, as well as the approach spans. It will also include the replacement and rehabilitation of the electrical and mechanical components of the vertical lift span, as well as replacement of the existing timber fender system with a new concrete one. The existing fender system will be reconstructed such that the navigable channel width will be reduced from 288 feet to 260 feet. Location and alignment of the bridge will not be altered. The vertical navigable channel width will remain unchanged. Construction is expected to be complete in July 2020.

BRUCKNER EXPRESSWAY (NORTHBOUND & SOUTHBOUND SERVICE ROAD) OVER WESTCHESTER CREEK (UNIONPORT BRIDGE) (BRONX)

A bridge has been located in this location since the late 19th century: the original swing-type bridge was built around 1872, replaced by a new double-leaf bascule bridge in 1918. The current double-leaf trunnion bascule bridge was built in 1953, and underwent major modifications in 1971, including the demolition of the north side of the bridge, to allow for the construction of the overhead Bruckner Expressway. The approach roadways, ramp structures, and south bascule span were altered accordingly to accommodate two way traffic. In addition to maintenance over the years, several enhancements were made in the 1990's. The mechanical and electrical systems and traffic control devices were rehabilitated. The bascule span open deck grating and grating support channels were replaced in the late part of 1997 and early part of 1998.



Project Location.

The Unionport Bridge lies in the midst of the Bruckner Expressway (I-278) interchange which is comprised of the Bruckner Expressway (I-278), the Cross Bronx Expressway (I-95) and the Hutchinson River Parkway. Along with providing a connection to the Bruckner Interchange and Cross Bronx Expressway, the Unionport Bridge also connects the local streets including Brush Avenue, east of the bridge, and Zerega Avenue, west of the bridge. It is an important link between the Unionport section and Schuylerville sections of the Bronx. This 17-span structure (three waterway spans and fourteen concrete approach spans) carries five lanes of the Bruckner Boulevard Expressway service road traffic over Westchester Creek. This bridge opens for important fuel oil deliveries up to 300 times a year. The bascule span open deck grating and grating support channels were all replaced by Division staff during the late part of 1997 and early part of 1998. In 2014, the bridge carried 62,715 vehicles per day.


Unionport Bridge in 1953 and 2009. Existing Bridge North Sidewalk and Movable Span Looking West. Looking east at the south sidewalk.



Existing Bridge - Looking North. Looking South.

The project is in its final design phase for the replacement of the existing bridge with a new wider bridge. The project's scope of work includes: a complete replacement of the bascule, flanking, and approach substructures and superstructures, providing six 12-foot travel lanes with shoulders on both sides of the bridge; a new 12-foot bicycle/pedestrian path and a 8-foot sidewalk, separated from traffic with a barrier; 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. Construction is anticipated to start in spring 2017.



Proposed Twin Single Leaf Bascule (Looking North). Proposed Control House.



Looking West – Towards Current And Proposed Bridge.



Looking East – Towards Current And Proposed Bridge.

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, and was designated a City landmark in 1992. The bridge and the West 155th Street

Viaduct carry two lanes of traffic in each direction. In 2014, the bridge carried 38,417 vehicles per day. The $145 million reconstruction of this landmark bridge, which was completed in May 2007, included the West 155th 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. The rehabilitation work not only strengthened the structure, it returned the bridge's appearance to its turn of the century grandeur.

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.

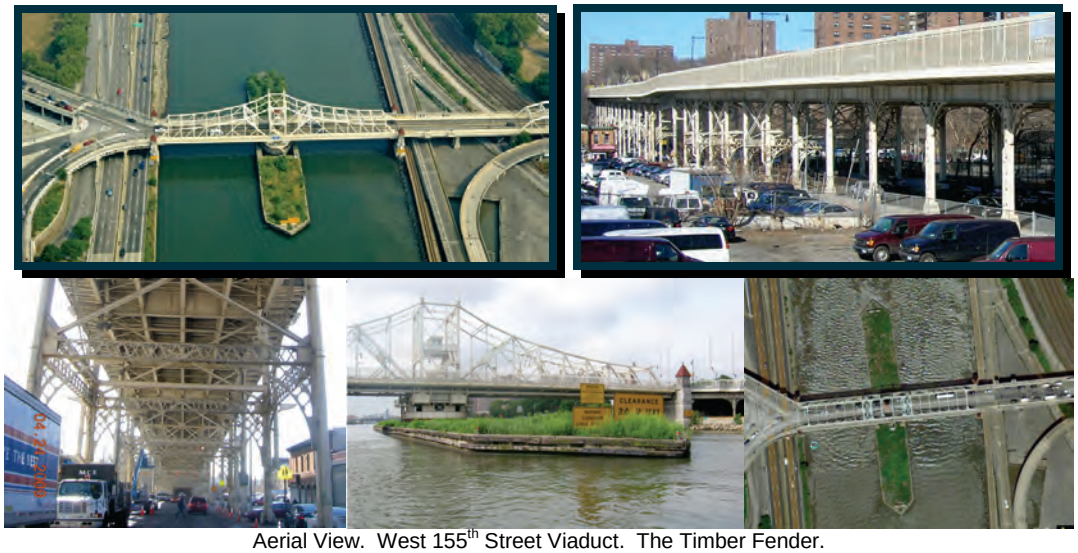






Bridge With View of Yankee Stadium. Close-up of the 1894 Dedication Plaque. (Credit: Hani Faouri) West Approach to Bridge.

A new project will rehabilitate the West 155th Street Viaduct and the fender system. The viaduct serves as the western approach to the bridge in Manhattan and provides connections to West 155th Street, Macombs Place, and Adam Clayton Powell Jr. Boulevard. The scope of work includes replacement of columns, floorbeams, girder ends, bearings, expansion deck joints above floorbeams, cross frames and lateral bracings, and the ornamental brackets. The existing swing span fender is misaligned with the swing span in open position, and the timber cribbing is under attack by marine borers which could lead to the failure of the timber cribbing and the collapse of the stone fill. The project's scope of work includes installing formwork around the perimeter of the existing fender, filling the voids in the fender sand-cement grout, bonding the existing timber and rock into one solid mass, and constructing a fender extension on the northeast corner. In addition, in connection with the fender repair, the work activities will include removal of debris located on the river bottom in the channels adjacent to the swing spans. A Notice to Proceed for this rehabilitation project was issued to the contractor with a start date of July 27, 2015. The currently expected construction duration is 30 months.



Aerial View. West 155th Street Viaduct. The Timber Fender.

MADISON AVENUE BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN)

A project for electrical, mechanical, and miscellaneous operating system-related work is necessary, as the bridge is currently operating with very old machinery components, along with a temporary electrical system known as the "Interim Drive System" installed during the 1994 rehabilitation contract. Some of the machinery components currently in service are over 100 years old and have far exceeded their service life. Moreover, the bridge does not have any back-up operating system which renders the bridge inoperable in case of failure of any component of the Interim Drive System. The preliminary design phase of this project began in early 2011, and is expected to be complete in early 2016. Construction is anticipated to begin around July 2017. In 2014, the bridge carried 41,340 vehicles per day.



Madison Avenue Bridge Sign in 2007. (Credit: Duane Bailey-Castro) Bridge in 2009. (Credit: Bernard Ente) General View of Truss Swinging in 2010 and Right Elevation of Span 15 in 2012. (Credit: NYSDOT) North Elevation View.

PARK AVENUE TUNNEL OVER 34TH STREET (MANHATTAN)

The Park Avenue Tunnel was originally built as an open cut in 1836 to accommodate horse drawn trolley cars between East 33rd Street and East 42nd Street. In 1854, a five course brick arch roof was constructed and the underground tunnel was used by the New York and Harlem River Railroad steam engine trains from East 42nd Street to its terminal then located at East 30th Street and Park Avenue. In 1870 the rail road was converted to electric powered trolleys.

The tunnel in its present form was converted to vehicular traffic only in 1917, when trolley tracks were covered with fill and roadway pavement was built. In its present form, the tunnel is located under the center mall of Park Avenue South. The roadway width inside the tunnel varies from 19'-2" to 22'-5" and used to carry a single lane of traffic in each direction. On August 3, 2008, the traffic in the tunnel was restricted to only a single northbound lane.

Some rehabilitation work was completed on the tunnel in November 2005. That contract included the rehabilitation of the fans and the ventilation system. The new project is currently in its final engineering design phase. The scope of work encompasses complete rehabilitation of the civil and structural components of the tunnel, including: removal and replacement of the tunnel and approach roadway pavements and curbs; removal of the existing corrugated metal cladding and stainless steel gutters at the brick arch section; waterproofing the brick arch from the inside of the tunnel; strengthening the brick arch section of the tunnel with shotcrete reinforced with lattice girders; removal and replacement of the roof slab and stringers at the Park Avenue median and the south side of 34th Street; repairs to the concrete tunnel roof and beams at the south and north portal sections; repairs to the joints at the tunnel abutment walls; repairs to the stone masonry walls and parapets of the south open approach; repairs to the concrete walls at the north portal section and installation of architectural precast concrete wingwall fascia panels to simulate south open approach masonry wingwalls; repairs to the concrete walls and metal picket fence at the north open approach; replacement of the catch basins and manholes; replacement of the storm sewer line; cleaning and painting the steel stringers; repairs to the damaged sections of the iron fence; cleaning and painting of the iron fence; lead abatement of various tunnel components; replacing in kind missing sections of the stone parapet walls located at the south portal and at the north end of the east wingwall of the south open approach at the Park Avenue median; modifying the parapet wall at the north portal; milling and re-grading at the 33rd and 40th Street intersections; providing a concrete median and picket fence extending from the south wingwall to the pedestrian refuge area at 33rd Street; providing a traffic railing along Park Avenue at both wingwalls of the north and south open approaches; extending the median refuge area at 38th Street; installing a concrete barrier with integrally cast stone masonry veneer at the 34th and 38th Streets median refuge area; and cleaning the exposed walls and ceiling associated with the tunnel. It will also include safety improvements at the East 33rd, 34th, and 39th Street intersections. Construction is anticipated to start around July 2016 and be complete in July 2018.



Two Views of Park Avenue Tunnel in 2010. (Credit: NYSDOT)



Abutment Beginning. Underside of South Arch. 2014: Framing of South Portal. (Credit: NYSDOT)

SHORE ROAD BRIDGE OVER THE HUTCHINSON RIVER (BRONX)

This bridge, built in 1908, was originally called the Pelham Parkway Bridge over Eastchester Bay. The bridge crosses the mouth of the Hutchinson River at the western edge of Eastchester Bay, a tidal cove of Long Island Sound, connecting two separate sections of Pelham Bay Park. The bridge and its approaches are located entirely within the Pelham Bay Park. The existing bridge consists of a double leaf, rolling lift bascule span, flanked on each end by three earth filled concrete spandrel arch approach spans. The bridge is 864 feet in length. It carries two traffic lanes in each direction, and a sidewalk on its south side. The bridge provides recreational access to Pelham Bay Park via the sidewalk and also functions as the route of the Mosholu-Pelham Bay Greenway bicycle and pedestrian path. The existing bascule leaves at mid-span consist of steel grating deck which is concrete filled over the machinery portion of the structure. In 2014, the bridge carried 18,117 vehicles per day. A $5 million interim rehabilitation of the existing bridge superstructure and substructure, completed in 2002, enables 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.



Shore Bridge in 2007. (Credit: Peter Basich)

The width of the channel at the crossing is delineated by a fender system which is directly attached to the bascule piers. The existing horizontal clearance is the least of all of the bridges over the Hutchinson River. In the closed position, the bridge provides only about 13 feet of vertical clearance above the mean high water level, and the channel between the bridge's fenders is only about 59 feet wide.

Numerous instances of marine vessel hits have been reported to the fender system of the Shore Road Bridge. Damage to the fender system due to these vessel impacts has become a chronic problem requiring frequent repairs to the fender system over the life of the bridge.

A new mid-level movable bridge will be designed. It will be constructed on an offline alignment parallel to the existing bridge, with a wider navigation channel, and incorporate a raised profile to

effectively increase the vertical clearance above the navigation channel of the main span. In its closed position, the main span will have a vertical clearance above mean high water of approximately 35 feet. This clearance will accommodate 83% of marine vessels passing beneath. For taller vessels, the bridge will be drawn to its open position providing the required vertical clearance. With a longer main span than the existing structure, the mid-level bridge will offer a widened navigation channel as well as improved lateral clearance to the structure. These improvements are expected to lessen the likelihood of vessel damage to the fender system and the substructure when compared to the existing structure configuration. The increased vertical clearance above the navigation channel would also reduce wear on the bridge's mechanical and electrical components by decreasing the frequency of bascule openings and closings. The scope of work will include a complete replacement of the bascule, flanking and approach spans (superstructures and substructures) with a new widened structure that provides two lanes and standard shoulders in each direction, and a dedicated bike path and pedestrian path. There will be a new control house, new utilities, new machinery and electrical system, new fender system and dolphins, and new street lighting. In 2015, a detailed scope of work for procuring the design services was prepared and a request for proposals will be solicited in 2016. The design is anticipated to begin in early 2017 and the construction is anticipated to begin in 2020. The new bridge is anticipated to be in service in 2025.



Open Bridge in 2007. (Open Credit: Peter Basich) Bridge Closing in 2010. (Credit: NYSDOT) General View of Bridge Operator House #3 in 2011. 2014 - Span 2 Left Fascia (Credit: NYSDOT) Bridge Operator House Exterior Wall in 2015.

UNION STREET BRIDGE OVER GOWANUS CANAL (BROOKLYN)

The original Union Street Bridge over the Gowanus Canal was constructed in 1870 as part of the construction of Prospect Park. A major crossing over the Gowanus Canal, this bridge is the last in a series of five eastbound crossings, and it is 885 feet from the canal's end. The neighborhood, located in the Gowanus section of Brooklyn, is primarily industrial; however, public facilities such as schools, parks, and public transportation are nearby.

In its current configuration, the bridge is a double-leaf Scherzer type (rolling lift) bascule bridge, which was opened in 1905. The bridge carries two lanes of eastbound traffic, a delineated bike lane and a sidewalk. It has a vertical clearance of 12 feet 9 1/2 inches at mean low water and 8 feet 10 inches at mean high water in the closed position. In 2014, the bridge carried 4,777 vehicles per day.

During the preliminary design, eight alternatives were identified for the rehabilitation/replacement of the bridge. In 2015, the Agency revisited all eight with an emphasis on resilience during an extreme storm event. We are contemplating proceeding with either a vertical lift bridge or a heel trunnion bascule bridge at this location to ensure that the majority of electrical and mechanical

systems will be located above the flood plain during an extreme storm event. These alternates will be presented to the community and OMB in 2016 before finalizing the preliminary design. The construction is anticipated to begin around April 2019.



Aerial View of Union Street Bridge. Bridge in 1949 and 2010. (2010 Credit: NYSDOT) Operator House.



Union Street Bridge - Schoolchildren Crossing in 2012. (Credit: NYSDOT) 2014: Eleven Steel Plates Covering the Steel Grid Deck.

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

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

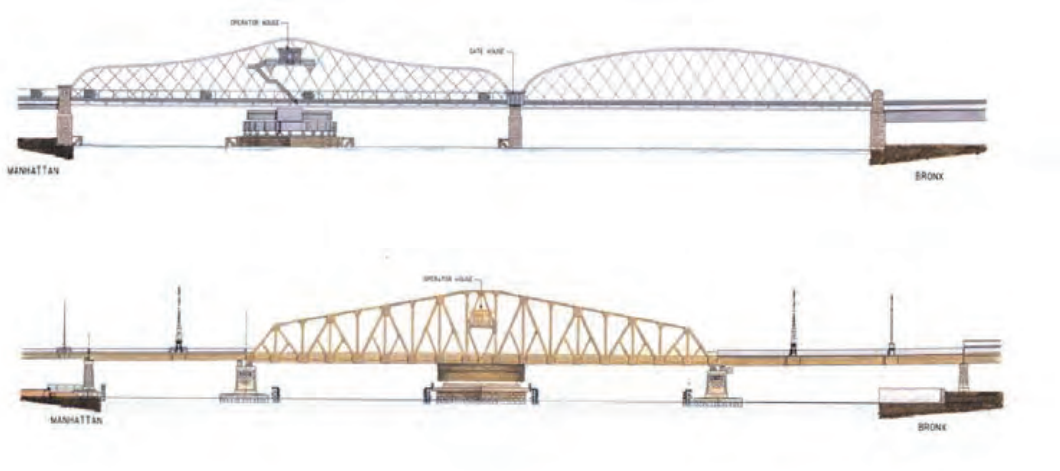
A major hub between the FDR Drive in Manhattan, the Major Deegan Expressway and the Bruckner Boulevard in the Bronx, the Willis Avenue Bridge carried approximately 67,951 vehicles per day in 2014. Ten local and interstate bus lines use the bridge as a principal route from New York City to points throughout the northeastern United States.

Because of substandard curves that were present on the structure's approaches, the Willis Avenue Bridge was 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.

Because of the advanced age and condition of the Willis Avenue Bridge, the City of New York decided to replace the existing bowstring truss swing bridge with a new swing span bridge constructed just to the south of the existing bridge. The project also replaced the FDR Drive approach ramp and the ramp onto Bruckner Boulevard, and improved the alignment. NYCDOT

will also reconstruct Willis Avenue over the Major Deegan Expressway for the New York State Department of Transportation. It also included a direct connection to the northbound Major Deegan Expressway in the Bronx with wider travel lanes and shoulders, and a broader, combined pedestrian/bicycle pathway along the north side of the bridge.

The old swing bridge, which opened for tall vessels, had a vertical clearance of 24 feet above Mean High Water Level (MHWL) when closed. The new swing bridge when closed has a 25 foot clearance above the Mean High Water Line which makes it consistent with other bridges along the river. It also incorporated the placement of a solid riding surface on the swing span instead of the existing open grating deck. In addition, modern electrical, mechanical and communications systems are being installed.



Old and New Willis Avenue Bridge Span.

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.

Traffic continued to use the current bridge until the new bridge opened, resulting in limited impact to motorists and nearby communities. The NYC Marathon was not impacted: runners continued to use the old bridge each year until the new swing span was completed.

Throughout the project, little impact to marine traffic was experienced. The new swing span was fabricated and assembled off site, and floated into place once the foundations, center pier and rest piers were ready to receive it.

On January 3, 2008, the East 125th Street exit ramp off the northbound FDR Drive was closed. This closure was necessary so that work on the construction of a temporary loop ramp, as well as construction of the new north-bound FDR Drive ramp to the Willis Avenue Bridge, could begin. The East 125th Street exit ramp, which typically carries only a low volume of traffic, was reopened after its reconstruction in June 2012.

In 2008, the project focused on foundation construction work, along with construction of a temporary ramp from the north-bound FDR Drive onto the bridge. At the end of 2008 the loop ramp was nearing completion. It went into service on January 24, 2009. This allowed the removal of the existing ramp and the construction of the new ramp to proceed. One half of the foundations for the new FDR Ramp were installed. Additionally one of the four piers in the river was in place, and work on a second had begun. The foundations in the Harlem River Rail Yard were more than 50 percent complete, and work had begun on the footings for the new Bruckner Boulevard Ramp.

In 2009, the project continued to focus on foundation construction work, with the installation of footings and piers for the new ramp from the FDR Drive as well as the one-half of the 1st Avenue Approach. The precast concrete pier box for River Pier 5 was transported in February 2009 by

oceangoing tug and barge from the fabrication yard in Virginia to the contractor's yard in Jersey City, New Jersey. Over 30 automobiles were removed from the Manhattan channel in spring 2009. At the end of 2009 the contractor began the installation of the steel superstructure over the FDR Drive. The work in the river consisted of the installation of the drilled shafts for the four river piers and the installation of three of the four precast pier boxes in the river. The assembly of the new swing span began in Coeymans, near Albany, New York in June 2009.

In the Bronx, a temporary pedestrian bridge was installed in May 2009 over the Major Deegan Expressway, just south of the existing bridge, to carry pedestrians until the new bridge is constructed. More than half of the paving and drainage work on the expressway was completed. One-half of the bridge over the Major Deegan was removed and work on the new abutment wall began. One-half of the abutment at Bruckner Boulevard was reconstructed and the piers to carry the south half of the new bridge were installed. The foundations in the Harlem River Rail Yard were completed and the first phase of the new Bruckner Boulevard exit ramp was also completed.

The contractor began 2010 with construction of the FDR Drive entrance ramp, and the First Avenue Approach on the Manhattan side of the bridge. On the Bronx side, the new Bruckner Boulevard exit ramp was partially opened to traffic on February 12, 2010. The work then proceeded with the demolition of the existing ramp. Assembly of the new swing span along with new machinery and electrical system was continued.

The swing span was floated down the river and towed to the bridge site on July 26, 2010. The new swing span was floated on to the new pier on August 9, 2010.



Voyage up the East River on July 26, 2010. New Willis Avenue Bridge Span Passing Under the Brooklyn Bridge. (Credit: Douglas Reese)

Work continued on the new bridge span in August 2010 with the placement of a new lightweight concrete deck surface, bridge machinery and electrical utility work. Demolition of the existing Willis Avenue Overpass over the Major Deegan Expressway was completed by September 2010.

On October 2, 2010, with the completion of the FDR Drive approach, partial First Avenue Approach, and the Willis Approach in Bronx, traffic was allowed over the new swing span and the existing bridge was closed to traffic. The old bridge was retired after 109 years of service.



New and Old Willis Avenue Bridges on October 2, 2010. Old Willis Avenue Spans in December 2010. (Credit: Duane Bailey-Castro) Aerial View in September 2011. (Credit: Hardesty and Hanover)

The float-out of the old existing swing span took place on October 21, 2010, and the adjacent, flanking bow-string arch span was floated out on November 3, 2010. Both spans remained on

site through November for the asbestos abatement process before being floated to the contractor yard in Jersey City. The first bridge test operation of the new swing span was conducted successfully during the early morning hours of December 23, 2010.

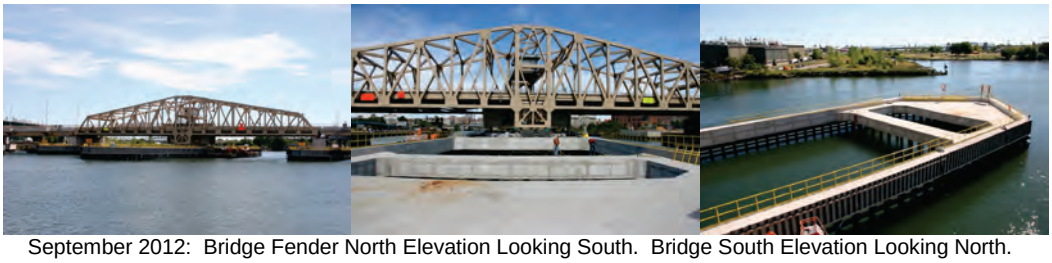
In 2011, the contractor completed work on the existing swing and flanking spans and towed them to the recycling facility in New Jersey. In Manhattan, work continued on the remaining half of the First Avenue approach roadway and spans, the demolition of the temporary loop ramp, and the reconstruction of the 125th Street exit and local streets. In the last quarter of 2011, work also continued on the Manhattan ramp and stairs and the auxiliary bridge operator's house.

In the river, the contractor started removal of the river piers and continues work to complete the demolition of center pier and the west rest pier by blasting. They also worked on the installation of the fender system for the new piers as well as the final alignment of the bridge machinery and testing of the electrical and mechanical system. In the last quarter of 2011, the contractor completed demolition work at pier 10 and carried out blasting of pier 9. Post-blasting excavation continued at Pier 9 for removal of the pier, and fender building work continued in the river. Work also continued for the construction of bridge machinery and testing of the electrical and mechanical systems. Installation of granite continued throughout the project.

In the Bronx, the contractor continued work on the relieving platforms, construction of the remaining superstructure and decks for the spans over the Harlem River Yard and mainline. They also worked on the construction of combined pedestrian/bicycle bridge over the Major Deegan Expressway as well as the new direct ramp to the northbound Major Deegan Expressway.

2012 started with the opening of the ramp to the northbound Major Deegan Expressway as well as the complete opening of the Bruckner Ramp and Bruckner Boulevard. Ramp C, which provides a direct connection to the Major Deegan Expressway, was opened on January 10. The contractor opened the sidewalk to the North Access Road on January 30. Most of the landscaping was done in the spring with some minor work left for the fall. Reconstruction of the 125th Street exit ramp and the 127th Street work was completed and opened to traffic. In the river, fenders for the new piers were completed and testing of electrical, machinery and control system continued. Reconstruction of Willis Avenue between 132nd Street and Bruckner Boulevard was completed and was opened to traffic on September 24, 2012.

Architectural work at the bridge operator house is near completion. By October 2012, all of the traffic lanes and shoulders throughout the project were completed with final pavement markings. The pedestrian bridge over the Major Deegan Expressway and the adjacent walkway/bikeway were opened to the public on November 1, 2012.



September 2012: Bridge Fender North Elevation Looking South. Bridge South Elevation Looking North. Pier 6 South Fender Looking South.

In 2013, the contractor completed granite masonry work in the Bronx, architectural work at the bridge, and landscaping, and began testing of the bridge's electrical and mechanical systems. In addition, all construction work on the Manhattan Ramp and stairs connecting to the waterfront area below was substantially completed in 2013, however, these structures will not be opened to the public until the waterfront area is developed for public use.



February 2013: Bridge Operator House. General View Taken From the West Side – Looking East. Pier 11- Continued installation of granite stone retrofit anchors. March 2013: Fenders of the River Piers. Pier 4 Picket Fence. Willis Avenue Bridge Plaque.

In 2014, the contractor continued working on the operating system of the new swing span, and successfully completed 150 test openings (5 openings per night for 30 days) in the Fall.



Willis Avenue Bridge in 2014.

The replacement and reconstruction project was substantially completed on September 24, 2015.



Sequence Showing the Span Opening as Seen From the Bridge.



May 2015: Beginning Abutment of C Ramp and the West End of the Pedestrian Bridge. Bruckner Boulevard and Willis Avenue at Grade. Bruckner Boulevard and B Ramp at Pulaski Park. Bronx Spans 9 – 13. Pier 7 Rest Pier – Supports the East End of the Swing Span. Swing Span. Control Operating House. A Ramp. Piers 8 – 11.

WILLIS AVENUE GRANITE IN PUBLIC PLAZAS

New York City has a program to encourage public plazas in neighborhoods lacking in open space. The program plays a key role in ensuring that all New Yorkers live within a 10-minute walk of quality open space, as proposed in the PlaNYC 2030. Public plazas improve the quality of life and transform the cityscape by providing spaces where people can sit, socialize, and enjoy public life. During the reconstruction of the Willis Avenue Bridge, more than 7,500 square yards of granite (approximately 5,000 blocks) were removed from the site, mostly excavated from the bridge piers, abutments and gate houses both in Manhattan and the Bronx. These granite slabs have been repurposed as seating in several of the plazas.

In 2015, the slabs were added to the Parkside and Osborn Street Plazas and Union Avenue in Brooklyn.



Parkside Plaza.

Roadway Bridges

INNOVATIONS

Innovations in the design and construction of Roadway Bridges continued in 2015. Where feasible, the continued use of accelerated bridge construction methods helped reduce construction duration and the resulting negative impacts on the traveling public. In addition, the use of Best Management Practices (BMP) in all applicable projects, most notably in stormwater drainage design, will mitigate the impact of bridge projects on the surrounding environment.

BROOKLYN AND MANHATTAN BRIDGES

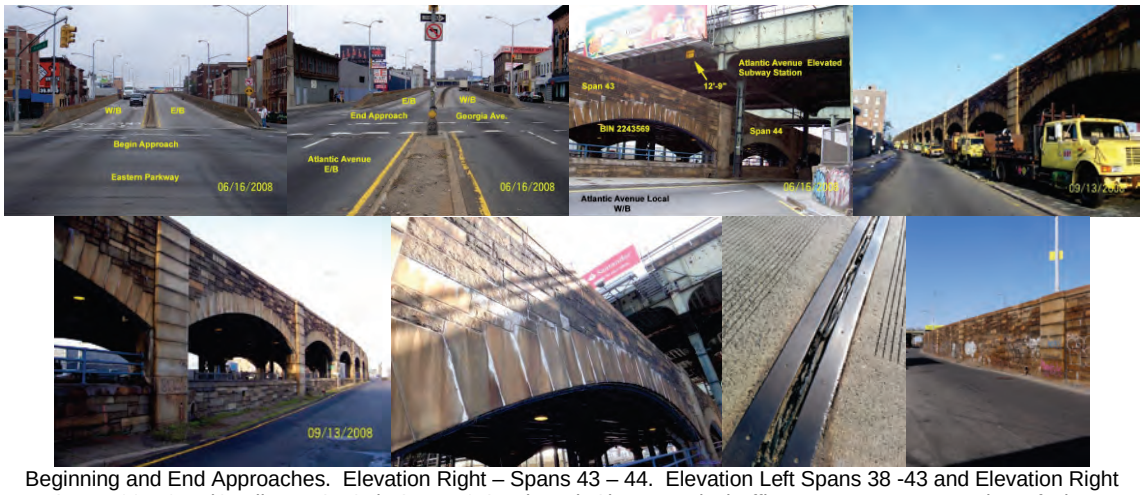
ATLANTIC AVENUE BRIDGE OVER LIRR – ATLANTIC BRANCH (BROOKLYN)

The Atlantic Avenue Bridge is a 75 span viaduct located between Eastern Parkway and Georgia Avenue in Brooklyn. The bridge carries two traffic lanes each eastbound and westbound, divided by a center median. Two LIRR tracks (of the Atlantic Branch) run under and parallel to the bridge for its entire length. The bridge was built in 1942 by the Transit Commission. The bridge superstructure consists of steel stringers and floor beams. The substructure consists of steel piers and concrete bearing walls founded on spread footings. The Agency replaced the structural deck in 1985 with a new concrete slab deck with high density/latex modified overlay. Other work completed at that time included steel repairs (column and beam reinforcement), interior and exterior bridge wall repairs, and new drainage scuppers and piping to the service road street level. Between 1999 and 2002, the paint on the structural steel was removed and a spot prime and two paint coats were applied. There are no sidewalks on the bridge.

The project will include rehabilitating the deteriorated steel members, concrete abutments and bearing walls; replacing the existing reinforced concrete bridge deck, including wearing surface, drainage scuppers, and expansion joints; performing localized concrete deck repairs; and retrofitting the viaduct to meet current seismic requirements. In addition, the action includes the rehabilitation or replacement of the end approach slab and travel lane approach pavement milling and resurfacing as necessary, milling and resurfacing of the adjacent Atlantic Avenue service roads, concrete barrier end terminal improvements, roadway and under bridge lighting repairs, the removal of graffiti, and new reflectorized pavement markings. The bridge will still consist of two 11-foot travel lanes in each direction, separated by a 2-foot wide concrete median barrier. The existing horizontal and vertical alignment will remain unchanged. Superstructure rehabilitation will be performed in stages with a minimum of one lane open in each direction. Construction is expected to begin in early 2017.



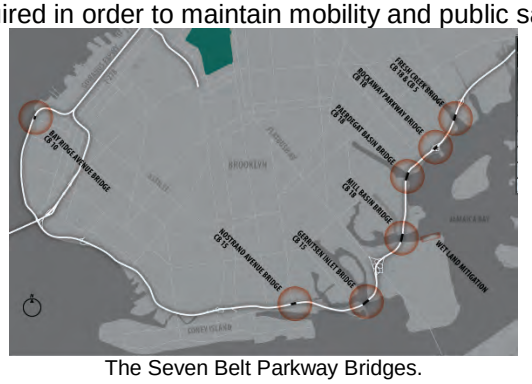
Aerial View in 2009. Location Map.



Beginning and End Approaches. Elevation Right – Spans 43 – 44. Elevation Left Spans 38 -43 and Elevation Right Spans 20 – 34. (Credit: NYSDOT) Span 43 South Arch Shows Typical Efflorescence at Mortar Joints of Ring Stones. Deteriorated and Leaking Seal at Expansion Joint. Stone Curtain Wall.

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

The newly constructed Paerdegat Basin Bridges and the reconstructed Fresh Creek, Rockaway Parkway, and Bay Ridge Avenue Bridges are now rated "very good." On a New York State-mandated scale from 1 to 7, the remaining three of the seven bridges possess a condition rating of "fair" (3.001 – 4.999). In 2015, the Gerritsen Inlet Bridge was 3.239; the Mill Basin Bridge was 3.209; and the Nostrand Avenue Bridge was 4.264. All are original 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) began in the fall of 2009. Group 1 (Paerdegat Basin, Fresh Creek, and Rockaway Parkway Bridges) was substantially completed in August 2013. Gerritsen Inlet Bridge started in February 2013 and is expected to be complete in summer 2017. Mill Basin Bridge started in summer 2015, and is expected to be complete in winter 2021. Bay Ridge Avenue Bridge started in November 2013 and was substantially completed in November 2015. Nostrand Avenue Bridge is expected to start in Fiscal Year 2022.

During the past 75 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 vehicles 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, safety shoulders, concrete median barriers, super-elevation of the roadway around curves, and realignment of the approach roadways to improve 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.

On July 18, 2006, the Art Commission (now known as the Public Design Commission) selected the Seven Belt Parkway Bridge Reconstruction Project for a Design Award in its 24th annual Excellence in Design Awards.

All of the bridges, except for the Bay Ridge Avenue and Nostrand Avenue Bridges, are located adjacent to the Gateway National Recreation Area, (GNRA) a division of the National Park Service. This bridge and highway program is in full compliance with New York City Department of Environmental Protection 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, the New York State Department of Environmental Conservation, Gateway National Recreation Area, the US Coast Guard, and the US Army Corps of Engineers to ensure compliance with all environmental protocols.

An upland mitigation project, to be administered by the New York City Department of Parks and Recreation, will include the planting of replacement trees to offset the number of trees being removed during the course of the bridge replacement project. The number of trees that will be planted will be determined in accordance with the caliper rule for tree replacement.

In addition to mitigating environmental impacts along the Belt Parkway corridor, an off-site Tidal Wetland Mitigation project was performed. A Notice to Proceed was issued to the contractor with a start date of March 8, 2011. The plan focused on compensating for wetland losses at the waterway bridges by increasing and improving the quality of habitats at a nearby location. Approximately 2.3 acres of land at Floyd Bennett Field was cleaned of rubbish and debris and converted to tidal wetland area. The project was substantially completed during 2012.

The overall goal of the mitigation project was to restore selected areas of the Floyd Bennett shoreline with productive habitats, including unvegetated intertidal areas, vegetated intertidal areas restored with naturally occurring Spartina marsh, and high marsh habitats. A significant portion of the area involved the removal of approximately 20,000 cubic yards of previously filled areas and the restoration of the areas to productive vegetated and unvegetated wetland resources.

Restoration of the area, specifically, the removal of existing fill and debris from the Floyd Bennett Field Mitigation site, has increased the functional value of the area. This area is an important contributor to primary production and breakdown of organic materials. In addition, algal communities often found in these areas are producers, and provide a food source for snails and other benthic organisms, which in turn, provide food sources for larger animals that forage along the shorelines of Jamaica Bay.

Planting at the intertidal wetland and the high marsh zones was completed in summer 2011. The installation of cabled concrete erosion control revetment was started in June 2011 and completed in July 2011. In fall 2012, all replacement and final upland tree plantings were completed.

Monitoring of the wetland mitigation project, as mandated by the New York State Department of Environmental Conservation, is expected to be complete in 2017.

On October 29, 2012, Hurricane Sandy impacted the east coast and caused major damage. A survey after the storm discovered severe plant and revetment damage at the contract site. The established site grades were overwhelmed by the storm surge, ground protection and slope stabilization measures were displaced, and the plantings were uprooted and washed away. The National Park Service put the worksite off limits while Hurricane Sandy cleanup operations were in progress. A site inspection was held in the winter of 2013, and again in the summer of 2014. In June 2015, approximately 22,000 intertidal wetland plants (*Spartina Alterniflora*) were re-established. In addition goose fence and overhead protection were installed. The location of the planting was then adjusted to better fit the tidal contours. The plants were watered in June and July, and the site was monitored in September. The area will continue to be monitored through 2017.

In June 2011, the contractor was directed to perform Bergen Beach Wetland Mitigation of 1.4 acres for the work associated with outfalls at the Paerdegat Basin and Rockaway Parkway bridges, the temporary trestles at the Paerdegat Basin Bridge, and the temporary bridge at Fresh Creek. Later, the Agency decided to increase the mitigated wetland area to 3.6 acres at the Bergen Beach site, adjacent to bridle paths and a horse riding academy. The additional acreage will be used to offset future impacts on upcoming Belt Parkway bridge projects. The mitigation converted the invasive reed *Phragmites Australis* into native salt marsh species, *Spartina Alterniflora*. At the low marsh (twice daily tides), *Spartina Alterniflora* was planted, and at the high marsh (above mean high water), *Spartina Patens*, Distichlis Spicata, and high marsh shrubs were planted. Other work that was performed included removal of all surface debris on the site, clearing and grubbing, followed by excavating to intertidal grades, seeding and planting. Existing stands of *Spartina* and native coastal communities on site were protected and preserved. The Bergen Beach mitigation work was completed in two phases. The first phase of 1.4 acres was started in the first week of June 2013. By the end of June 2013, grading was completed. Planting started on July 9, 2013, and was completed by the end of the month. The second phase grading started in mid-September 2013, and was completed on November 13, 2013. The planting was completed in the spring and fall planting seasons of 2014, and will be monitored for five years in accordance with the requirements of the New York State Department of Environmental Conservation.



Tidal Wetland Mitigation Site. Before Mitigation – Large and Heavy Surface Debris and Deteriorated Bulkhead. Inspecting the Hurricane Sandy Damage at the Site in January 2013.



July 2013: Phase I Planting at the Bergen Beach Mitigation Area. August 2014: Grass Plantings Protected by Waterfowl Exclusion Fence. Placing the Plantings. Fence in October 2014.

The old Paerdegat Basin Bridge was 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 had 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 were demolished and replaced by two new bridges and new approach roadways on split alignments. The existing structure was permanently closed to traffic on December 20, 2012, upon opening of the new westbound structure. Demolition of the existing structure was completed in May 2013.

The two replacement bridges consist of 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 have a 36-foot wide roadway with a 12-foot wide right shoulder. The eastbound bridge has a 4-foot wide left shoulder, while the westbound bridge has a 10-foot wide left shoulder. The southern structure carries eastbound traffic while the northern structure accommodates westbound traffic. Both the horizontal and vertical alignments changed, resulting in improved sight distances on the bridge and its approach roadways. The bridge carrying eastbound traffic also has a dedicated pedestrian/ bicycle path along the south side. The pedestrian/bicycle path is separated from traffic lanes by a concrete barrier on the bridge, and by a 15-foot wide grass mall on the approach roadways.



Old Paerdegat Basin Bridge. New Bridges in November 2013.

The Fresh Creek Bridge was 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. One navigation channel passed under the bridge. The bridge had 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 bicycle/pedestrian path on the south side. The existing structure and immediate approaches were demolished in spring 2012, and the replacement structure was fully opened in August 2013.

The replacement bridge is a 316-foot, 3-span structure; the new structure has only two support piers, resulting in a wider channel. The bridge deck and approaches were widened to 126 feet from the former 86 feet to accommodate three 12-foot lanes in each direction, 12-foot wide right shoulders, and a 12-foot wide bicycle/pedestrian path, separated from the traffic lanes by a barrier system. The profiles of the approach roadways and bridge structure accommodate stopping sight distances for a design speed of 60 miles per hour. The remainder of the construction resulted in improved landscaping on the bridge approaches. The existing pedestrian and bicycle pathway were maintained and open at all times during construction.



Old Fresh Creek Bridge. New Bridge in November 2013. (2002 Credit: NYSDOT)

The Rockaway Parkway Bridge was 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 had two 34'-2" wide roadways, a 5-foot wide center median/barrier, and a 10-foot wide south sidewalk. The existing structure and immediate approaches were demolished in fall 2012, and the replacement structure was fully opened in August 2013.

The replacement bridge is a single span structure to improve visibility along Rockaway Parkway. The new structure was built in the same alignment as the existing bridge. The bridge deck was widened to 109 ½ feet from the former 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 on each approach is 10 feet wide (while the width of the right shoulders on the bridge structure are 12 feet), with the other dimensions the same width as those on the bridge. In addition to reconstruction of the bridge, four access ramps were also reconstructed as was Rockaway Parkway in the vicinity of the Belt Parkway.



Old Rockaway Parkway Bridge. New Bridge in November 2013. (2002 Credit: NYSDOT)

A Notice to Proceed for the reconstruction of the Group 1 bridges was issued to the contractor with a start date of October 26, 2009. Milestone A consisted of all work required to complete the reconstruction of the Paerdegat Basin, Fresh Creek, and Rockaway Parkway Bridges, including all roadway sections and ramps, within the limits of the construction, adjacent to and between the bridge structures. The contract provided for an incentive of $35,000 per day for each day that

milestone A was finished early, with a maximum incentive of $14.98 million. There was a similar disincentive if the milestone date were to be exceeded, with no maximum. By reaching substantial completion on August 22, 2013, the contractor earned the maximum incentive. On December 12, 2013, the project was awarded the Excellence in Partnering Award for Informal Partnering from the AGC of New York State, LLC.



Summer 2014: Paerdegat, Fresh Creek, and Rockaway Parkway Bridges.



January 2015: Paerdegat Basin Bridges. Eastbound Belt Parkway Bridge over Paerdegat Basin. Newly installed Pier Bumpers at Low tide Facing East. Navigation Lights Over Center of Channel. Barge-Mounted Back Hoe used to Complete Installation of Pier Bumpers.

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 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/bicycle path along the south fascia. A Notice to Proceed was issued to the contractor with a start date of February 25, 2013.

Construction operations performed in spring 2013 included the installation of temporary concrete barriers as part of the Stage 1 maintenance and protection of traffic; the installation of construction fences and tree protection; clearing and grubbing along the north side of the parkway including the removal of existing trees as specified in the contract; and the installation of soil stabilization and erosion control measures. As the summer and Stage 1 progressed, the contractor installed earth embankments for the new eastbound and westbound approach roadways, installed new drainage structures and pipe, and repaired bridge flags on the existing bridge structure. In the fall, the Stage 1 abutment piles and footings were constructed, as were the two deep foundation cofferdams for the new water piers. The pier pile installation work was completed in December 2013, in advance of the substructure work, including the pier footings, plinths, columns and pier caps.



Gerritsen Inlet Bridge in 2013. Proposed Gerritsen Inlet Bridge.



June 2013: North Side of Gerritsen Bridge - Turbidity Curtains Placed on Both Sides of Navigable Channel. July 2013: Work Barges Driving Steel Sheeting for Pier #1 Cofferdam. September 2013. October 2013: Rebars and Form Work for Footing and Walls at the Northwest Abutment. Stage 1 Piles. November 2013: Inspecting Rebar. December 2013: Tremie Concrete Pour at Pier #2. Inspecting Spans 7 & 8 of the Existing Bridge From a Barge. (Inspection Credit: NYSDOT)

In 2014, the contractor completed all of the Stage 1 (north side) substructure work, including the placement of the concrete piers and abutments. The Stage 1 concrete approach roadways on the north side of the project were also completed in 2014, as were the temporary asphalt transition areas on the approaches.



March 2014: Setting Footing Rebars Prior to Placing Pier Rebars and Concrete at Pier No. 2. April 2014: Setting Rebars for Footing and Pier Inside Cofferdam at Pier #1. May 2014: Plinth and Column Reinforcement Inside the Cofferdam for Pier 2. June 2014: Placing and Vibrating Concrete for Plinth at Pier #1. Rebars for Column in Place. West Abutment of Bridge. New Roadway Under Construction at top Next to Westbound Lanes. East Abutment of Bridge. Crane on Barge at Cofferdam for New Pier #2. August 2014: Workers Inside Rebar Cage During Operation of Pumping Concrete Into Pier #2 Column. November 2014: Steel Sheeting in Place for the East Approach Temporary Access Roadway.

Navigation lights were repaired In January 2015. Temporary drainage installation to relieve flooding, installation of demolition shielding for Stage 2, and preparation of embankment for the temporary east side access road were completed in February. In March, Stage 1 east side

structural steel painting was completed and the steel was moved to the yard for assembly. In addition, erection was completed of the Stage 1 west side structural steel.



January 2015: Saw Cutting the Westbound Roadway to Install a Temporary Pipe and Catch Basin to Mitigate Flooding Conditions at East Side of the Bridge. Stage I Belt Parkway Temporary Westbound Approach to Bridge over Gerritsen Inlet. Steel Sheeting Located Between Roadway and Golf Course - Facing East. Placing Temporary Concrete Barrier in Front of Steel Sheeting at Stage I Temporary Westbound Roadway - Facing West. March 2015: Unloading Structural Steel From a Barge to set on West Abutment and Pier #1 on North Side of Bridge – Facing West. Lowering Girder onto West Abutment and Pier #1. Existing Bridge at Right - Facing East. Lowering a Girder onto the North Side of Pier #1 - Facing Southwest. Attaching Intermediate Braces Between Girders set Between the West Abutment and Pier #1 - Facing East. Girders set Between Pier #1 and West Abutment. Existing Bridge at Right Side - Facing East.

Fabrication of Stage 1 structural steel was completed in April 2015, followed by placement of stay in place forms, and stud shear connectors, and the placement of the concrete bridge deck in July. Approach slabs on both sides of the bridge were placed in July, and an armorless joint system was installed for the bridge.



April 2015: Erecting Work Platform Supported by Brackets at Fascia Girder – Facing East. Lowering the Third of Five Gerritsen Bridge Girders Between the East Abutment and Pier #2 - Facing West. Four Girders With Diagonal Braces Set Between the East Abutment and Pier #2. May 2015: Barge-Mounted Crane Setting Structural Steel for Westbound Roadway. Eastbound Traffic at Right. Jamaica Bay at Top. Turbidity Curtains in Place at Both Sides of the Channel. Setting Stay-in-Place Galvanized Steel Forms at West Side of Bridge. June 2015: Placing Epoxy-Coated Deck Reinforcement Steel - Facing West. Placing and Finishing Deck Concrete. July 2015: Pumping Deck Concrete for Stage 1. Setting Forms and Rebars for the Parapet Barrier at New Westbound Deck. Placing Armorless Joint in the Deck of the Westbound Bridge.

On August 14, 2015, the contractor transitioned to Stage 2, through the movement of all traffic to the new northern (westbound) section of the bridge. Stage 2 work completed in 2015 included the demolition of the northern portion of the existing bridge, placement of embankment material for the Stage 2 approach roadway, and installation of the Stage 2 drainage facilities. Installation

of the Stage 2 cofferdams began in late 2015, and will be followed by all foundation and substructure concrete operations, as well as the installation of structural steel and the concrete bridge deck in 2016.



August 2015: Parapet Coating Operation at Westbound Bridge. Applying Sealing Compound to the Westbound Bridge Deck Prior to the Stage 2 Traffic Shift. Saw Cutting Deck of Bridge Prior to Removal. September 2015: Removing Saw-Cut Deck Panels. Deck Removed Prior to Steel Removal. Removing Stringers. October 2015: Removing Girder Over the Westbound Roadway With a Crane Mounted on a Barge on the North Side of the Bridge. Bridge After Removal of Steel Superstructure From North Side of Existing Bridge. South Half of Old Bridge at Right - Facing East. Partially Demolished Pier - Facing East. New Westbound Bridge at Left, Old East Bound Bridge at Right. Stage 2 Traffic Pattern. Westbound Traffic at Right on New Bridge. Eastbound Traffic at Left on Existing Bridge. December 2015: Driving 14-Inch Diameter Steel Shell Piles at East Abutment - Facing East. Barge-Mounted Hoe-Rams Demolishing Old Piers – Facing East.

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 20th 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 2015, the number of openings declined further to a total of only 214 openings.

In addition, significant and costly traffic congestion results from the operation of this outmoded drawbridge. In 2014, the Mill Basin Bridge carried 141,150 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 piers 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 2,645-foot long, 17-span, 60-foot high fixed bridge. It will consist of a steel composite superstructure and reinforced concrete substructure on piled footings, and will be constructed on a new alignment set on the north side of the existing bridge and partially overlapping with the existing bridge. The new bridge and approach will have three 12-foot wide traffic lanes, a 12-foot wide right shoulder on the bridge, a 10-foot wide right shoulder on the approaches, and a minimum left shoulder in each direction. The eastbound side will carry a dedicated pedestrian/bicycle path along the south fascia. The new bridge will be a fixed structure with a 60-foot vertical clearance over Mean High Water, obviating the need for opening and closing the structure to accommodate tall vessels. 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. The contract will be completed in four stages of work (including two additional sub-stages) and will maintain three lanes of vehicular traffic in each direction, as well as pedestrian and bicycle traffic during all construction stages. Construction began in the summer of 2015 and is scheduled to last for 5 ½ years, including demolition of the existing bridge.



Current Belt Parkway Bridge Over Mill Basin. Aerial Views. Proposed Bridge. Open Bridge. May 2013 – Inspecting the Bridge From a Barge.



Freshwater and Tidal Wetland Mitigation Sites.

A Notice to Proceed for the replacement of this bridge was issued to the contractor with a start date of June 22, 2015. Bridge deck flag repairs were made in August. The contractor mobilized on the site, and completed all tree removal, guide rail repairs, and clearing and grubbing operations in September. Temporary, asphalt approach roadways were placed throughout the fall, and traffic was transitioned on to the temporary roadways in December.

Substructure work, including the installation of cofferdams, excavation of footings, and installation of piles, began in the fall, and the placement of the concrete piers and abutments are scheduled to begin in early 2016. The installation of drainage facilities also began in 2015.



July 2015: Eastbound Traffic on Right. Westbound Traffic at Left. August 2015: Span 3, Top of Deck, Westbound (Left) Sidewalk. Span 8, Top of Deck, Steel Grating Side. September 2015: Bascule Span Fully Lifted. Median Guide Rail Repair Operations on East Side of Bridge. October 2015: Removal of Existing Fender at North Side of Pier #6. Temporary Walkway on North Side of Bridge for Access to Pier #9. November 2015: Extracting Wood Piles From the Existing Bridge Fender System at New Pier #9 Site. Pier #9 Steel Framing for the Cofferdam on the West Side of the Existing Bridge. Pier #9 – Driving "Pin Pile" for Support of the Cofferdam Steel Frame. Site After Completion of Tree Removal. December 2015: Outfall #2. Pressure Treated Wood Piles – Facing East. Hyrdroseeded Topsoil Stockpile to Prevent Erosion at Southwest Quadrant, Protected by a Silt Fence.

The Bay Ridge Avenue Bridge was 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. There is pedestrian access under the bridge to both the American Veterans Memorial Pier and the Shore Parkway Seawall pedestrian and bicycle paths. The underpass also serves as access to the NYCDEP Owl's Head Wastewater Treatment Plant. The existing superstructure was demolished and replaced.

The replacement bridge superstructure consists of precast, pre-stressed concrete box beams and a reinforced concrete slab. The bridge has 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/bicycle path on the structure. The clearance was increased to 14-feet 6-inches, which eliminated the need for clearance signs previously posted for a substandard condition. A Notice to Proceed was issued to the contractor with a start date of November 4, 2013. The only construction operations performed in fall 2013 were the survey and stake out of the project.



Bay Ridge Avenue Bridge in 2012. (Credit: NYSDOT) Proposed Bay Ridge Avenue Bridge. Current Aerial View.

During 2014, two of the five construction stages were completed and commencement of the third stage was underway as of November. Work completed during this time included temporary deck reconstruction and flag repairs. Permanent reconstruction included the new concrete bridge barriers along the westbound roadway and new pre-stressed concrete box beams, superstructure slab, pavements, pressure relief joints, approach slabs and upper abutment stem wall reconstruction for the westbound segment of the new bridge and approaches.



March 2014: Rebar Cage. May 2014: May 2014: Core Sampling. July 2014: Saw Cutting the Existing Northwest Abutment. August 2014: Lowering the Last of the Seven Pre-cast Concrete Box Beams on the North Side Abutments. September 2014: Placing Rebars for the North Parapet. October 2014: The Main Bridge Deck Undergoing Wet Cure. November 2014: Washing the New Westbound Concrete Deck Prior to the Placement of the Temporary Barrier at Left Side Before Stage III Traffic Shift. Facing East. Demolition of the Saw Cut Westbound Bridge Deck During Stage III.

In January 2015, the contractor received and set six precast pre-stressed deck beams on new bearings. In February and March, the Stage 3 deck surface was prepared and the deck was placed, rebars for the back walls were installed, and the wing wall stone panels began to be restored.

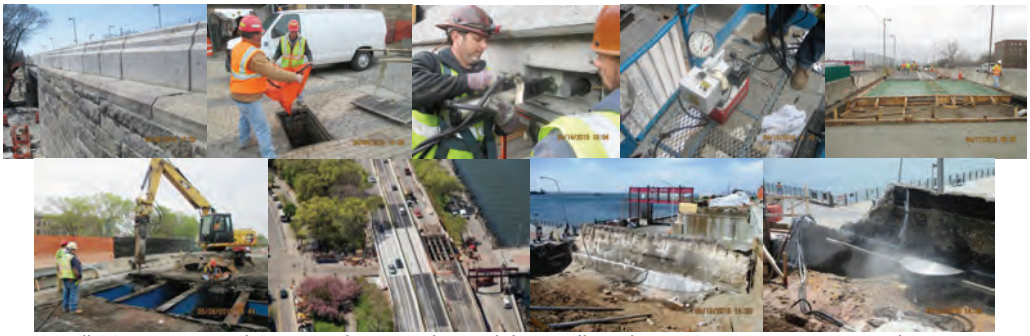


January 2015: Unloading Precast, Prestressed Concrete Box Beams During Stage III. Newly Placed Precast Box Beams in Median Area. Finished Deck From Stage II in Foreground. Existing Bridge Deck of Eastbound Roadway at Top - to be Removed in Future Stage. February 2015: Deteriorated Southwest Wingwall and Abutment of the Bridge After Dislodged Concrete Fell to the Sidewalk Below. Underdeck Timber Shielding at Right.



February 2015: Northwest Abutment and Wingwall Prior to Stonework Restoration. March 2015: Installation of Temporary Concrete Barrier on Eastbound Bridge in Response to a Red Structural Flag. Dumping Sub Base Soil for East Approach Slab. Placing and Finishing the Deck Wearing Surface for the Stage III Concrete Deck. Workers Resetting the Stone Facing on the Northwest Abutment and Retaining Wall.

In April 2015, the precast deck beams were post-tensioned, backfilling of abutments and roadway approaches for Stage III was completed, as was the installation of pressure relief joints, the longitudinal saw grooving of the deck and approaches, and the shifting of eastbound traffic into the Stage IV configuration on the new deck. In May, the contractor completed installation of stone panels on northeast wing walls, demolished the Stage IV deck and steel superstructure, drilled and grouted dowels for the abutment stem walls, and leaned and repointed the stone masonry.



April 2015: Restored Stonework on North Retaining Wall, and New Concrete Parapet Facing East. Placing a Silt Sack in a Catch Basin on the South Side of the Bridge. The Sack is Used to Catch Debris Entering the Catch Basin. Connecting Jacks to Transverse Tendons at the North Fascia. Hydraulic Jack Gauge Used to Measure Force in Post Tension Operation. Future Roadway Facing West. Foreground Formed Out Area for Pressure Relief Joint, Adjacent to Rebars for Approach Slab. Far Side is Precast Deck in Place for Future Stage IV Traffic Shift. Compaction Testing at Pressure Relief Joint on Bridge Approach. May 2015: Demolishing the Bridge Deck Prior to Removal of Structural Steel. Stage IV - Two Traffic Lanes Westbound at Left, Two Traffic Lanes Eastbound at Middle. All Four Lanes on New Precast Deck. Old Bridge at Right After Deck Removal, Prior to Removal of Structural Steel. Back of Southeast Abutment Wall After Removal of Structural Steel for the Eastbound Roadway. Note the Marked-Out Cut-Line at Back of the Southeast Abutment. Saw Cutting the East Abutment Wall. Drilling and Grouting Dowels Into Cut Down West Abutment Wall.

In June and July 2015, the Stage IV precast/prestressed concrete beams were erected, the Stage IV concrete deck was placed and cured, approach slab form work and railing were installed, south fascia barriers, rebars, and concrete were placed, and the final post-tensioning of the bridge deck beams was completed.



June 2015: Placing Concrete at Southeast Abutment - Veteran's Memorial Pier in Background. Erecting Precast Prestressed Concrete Beams at South Side of the Bridge Onto Elastomeric Bearing Pads. Placing Grout Between Recently Placed Precast Prestressed Beams - Facing Southeast. July 2015: Final Post-Tensioning of Precast Concrete Deck Beams From the North Fascia of the Bridge. Placing and Vibrating Concrete for the Parapet on the Eastbound Bridge. Compaction Testing of the Asphalt Pressure Relief Joint at the West Side of the Eastbound Roadway. Stage IV Existing Eastbound Bridge Deck Removed. Eastbound and Westbound Traffic on New Pre-Cast Pre-Stressed Beams. Westbound Traffic at Left. Veterans Pier at Right. Shore Road at Left. Stage IV - Preparing to Remove the Structural Steel From the South Side of the Existing Bridge.

In August 2015, the abutment fascia were repaired, and the bridge deck and approaches were saw cut and sealed. Eastbound traffic was shifted to the south side of the bridge for Stage V on August 13. In September and October, the contractor placed concrete for the median barriers, completed stone panel installation on the southeast wingwall, applied protective sealing and anti-graffiti coating to the bridge substructure, and made the final traffic switch. This concluded the three remaining construction stages. Permanent reconstruction of the bridge included the new concrete barriers along the median and eastbound roadway, new pre-stressed concrete box beams, superstructure slab, pavements, pressure relief joints, approach slabs, and upper abutment stem wall reconstruction for the center and eastbound segments of the new bridge and approaches. The Bay Ridge Avenue Bridge was substantially completed on November 2, 2015.



August 2015: Stage V Preparing Bridge Deck for Placement of Final Median Barrier. Placing Concrete for Final Median Barrier During Stage V – Facing East at East Approach. Epoxy Coated Reinforcing Mesh at Future Abutment Wall Repair. September 2015: Forming Operations at Final Median Barrier at East End of Bridge - Facing East.



October 2015: Post-Construction Drainage Cleaning and Inspection at Southwest Abutment. Applying Protective Sealant to the East Abutment Wall. Belt Parkway Roadway at West Side of Bridge. NYCDEP Owl's Head Waste Water Treatment Plant at Top. November 2015: Construction Complete.

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. Reconstruction is anticipated to start in 2021. The condition rating of this bridge is better than the other remaining bridges in this program; rescheduling will not negatively impact the bridge users.



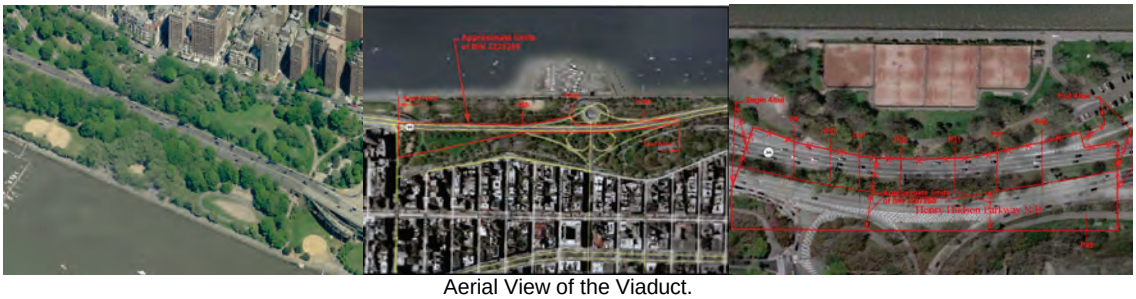
Nostrand Avenue Bridge Right Girder in November 2012. Pier 1 and 2 Columns in December 2014. Left and Right Elevations in 2014. Span 1 Deck – Hollow Sounding Concrete Areas are Covered by Timber Planks That are in Good Condition. (2014 and 2015 Credit: NYSDOT)

HENRY HUDSON PARKWAY VIADUCT FROM WEST 72ND STREET TO WEST 82ND STREET AND FROM WEST 94TH STREET TO WEST 98TH STREET (MANHATTAN)

The viaduct was originally constructed in 1937. Since then, several rehabilitation projects were performed, including deck replacement and structural steel repair at various locations. This rehabilitation project will consist of repairs of the deck and steel elements of the viaduct superstructure in 145 spans from West 72nd Street to West 82nd Street, and 55 spans from West 94th Street to West 98th Street. The concrete repairs will include underdeck spall repairs, retaining wall spall repair, concrete barrier repairs, deck joints replacement, and concrete column base repairs. The steel repairs will include installation of reinforcements to the deteriorated girders, columns, connections and bearings. All of the steel will be painted. The top of deck work will be performed in stages to minimize the parkway closures. Construction is expected to begin in mid-2017.



West 72nd Street Viaduct Left Elevation Spans #1 -5, and Span #107. Piers #3 – 10. (Credit: NYSDOT)



Aerial View of the Viaduct.

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

The landmark Hill Drive Bridge was built in 1890, and was designed by Calveart Vaux. It was previously known as the Breeze Hill Bridge. The existing Parks 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 underground 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 masonry abutments with U-type wing walls.

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; 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 to reconstruct the bridge has been suspended until such time as Parks funding is available. Repairs requiring immediate attention are performed by the When and Where contractor. This bridge is closed to vehicular traffic.



Hill Drive Bridge Span 2 Pier 1 End Face in 2013. View of Bridge in 2012. End Approach in May 2011: The Bridge is Closed to Vehicular Traffic. The Left Half of the Bridge is Closed to Pedestrians. (Credit: NYSDOT)

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.

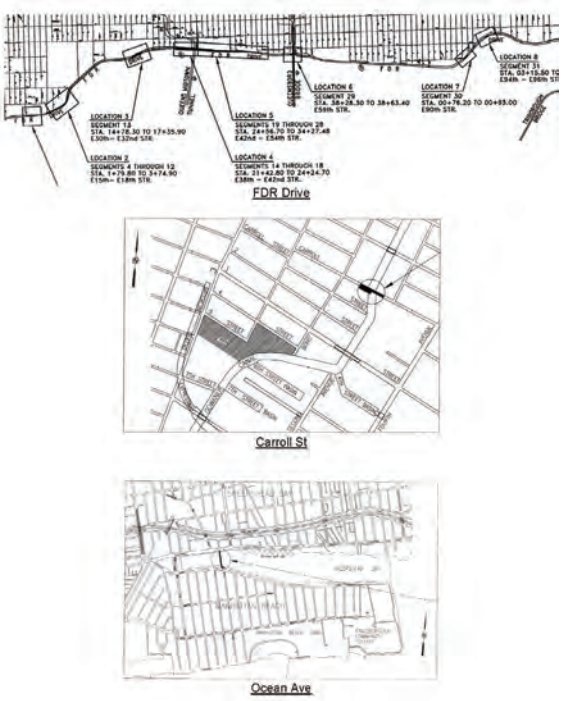


Marine Borer – Limnoria Species (the Common "Gribble," a Genus of Crustacea Borers). Marine Borer – Teredo Species (a Genus of Molluscan Borers, Commonly Called the "Shipworm"). Teredo Damage (Holes up to ¼" Diameter).



From Study of FDR Drive: Location #2 – Damaged Seawall at Segment #5. Sinkhole at Location #6 at East 59th Street. From Study of Carroll Street Bridge: General View of the Southwest Crib Wall With the Delamination of the Timber Stretchers in the Tidal Zone.

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 (from East 15th to East 96th Street) Drive, 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. An updated underwater inspection was performed within the limits of the proposed contract in 2009. Final design was completed in June 2011.



Project Locations.



Severe Marine Borer Infestation in Timber Cribbing of Carroll Street Bridge and Moderate Marine Growth Below Waterline on the Ocean Avenue Pedestrian Bridge in 2009. (Credit: NYSDOT) FDR Drive. Location #4 on FDR Drive. Work Barges. Diver Applying Petrolatum Tape. Lower Wrap Section Applied.

The construction project is being performed almost entirely underwater and will include barrier wrapping (placement of plastic barrier wrap around a timber pile to prevent marine borers from

settling on and penetration into exposed wood); pile encasement (concrete encasement of selected severely damaged piles to reinforce and protect them from marine borers); pile posting (cutting off deteriorated upper portion of pile and replacing it with a new treated timber post); pile cap encapsulation (encapsulation of submerged timber pile caps and timber fascia with plastic lumber and synthetic mastic); bracing replacement (replacement of structural timber bracing with new treated lumber); timber removal (removing timber stays, bracing and formwork located at the top of the piles); installation of additional two-way bracing (installation of two-way bracing using tread lumber to upgrade the strength of piles by reducing the unbraced length); placement of light weight concrete fill (filling in locations where the distance from underside of the platform deck to the top of the mudline is less than one meter creating insufficient headroom for divers to wrap or jacket piles); and superstructure timber replacement (timber pile caps, railing members and other timber superstructure elements along with severely corroded steel correction hardware located above the high water line will be replaced in kind).

The Marine Borer Remediation project will affect water quality and will require offsite mitigation. NYC Parks and NYS DEC have identified Sunset Cove Salt Marsh (Sunset Cove), located in Queens, as the mitigation site. The Sunset Cove Project will enhance the resiliency of the natural systems within Jamaica Bay by restoring wetland in the project site. Up to three acres of salt marsh will be created, with up to seven acres of maritime scrubland and forest restored, and the existing hardened shoreline rehabilitated. Funds received from NYCDOT will be applied to the construction of .99 acres of wetland at Sunset Cove as mitigation for the Marine Borers project. The Sunset Cove project provides opportunities to remove concrete, debris and other fill material; create and enhance salt marsh; and establish a maritime forest buffer. Altogether, the project will restore vital coastal ecosystem at Sunset Cove Park and promote greater resiliency in the Broad Channel and Jamaica Bay communities.

A Notice to Proceed was issued to the contractor with a start date of April 2, 2012. The construction work was expected to be complete in August 2016. However, the construction activities will be extended to August 2017, due to site condition and change in scope.

RIVERSIDE DRIVE BRIDGE OVER WEST 158TH STREET (MANHATTAN)

The Riverside Drive Viaduct is located between West 153rd Street and West 161st Street. It is approximately 1,924 feet long and has 77 spans. This viaduct consists of intermittent straight portions, and six curves of different radii. It was constructed in two sections. The south cantilever section, from West 153rd Street to West 155th Street, was completed in 1908 and a portion of it spans over the Amtrak right of way. The north bent type section, from West 155th Street to south of West 161st Street, was completed in 1928. The bent type portion of the viaduct includes a windowed enclosure under the bridge that houses NYCDOT and NYPD facilities. The building structure to the north of West 158th Street is used by NYPD for a vehicle repair garage. The building structure to the south of West 158th Street is used by NYCDOT for storage of vehicles, roadway maintenance materials and is also a NYCDOT Maintenance and Repair Facility. The bridge carries four lanes (two each way).

Project work will include the repair of deteriorated structural steel members; replacement of the existing deck; abutment and retaining wall repair; repairs and replacement of concrete barriers and bridge rails; complete expansion joint replacement; approach slabs and pavement replacement; cleaning and necessary repairs of drainage system, and paint removal, lead abatement and recoating of steel. The bridge will remain open to traffic throughout field work and construction. Construction is expected to begin in 2018.



Riverside Drive Bridge in 2010. (Credit: NYSDOT) Vehicle Repair Facility.

TRANS-MANHATTAN EXPRESSWAY CONNECTOR RAMP FROM THE HARLEM RIVER DRIVE (HARLEM RIVER DRIVE RAMP TO GEORGE WASHINGTON BRIDGE OVER HARLEM RIVER DRIVE SOUTHBOUND) (MANHATTAN)

The Trans-Manhattan Expressway Connector Ramp is an elevated viaduct that consists of a multi-span steel superstructure supporting a concrete deck. The ramp connects the Trans-Manhattan Expressway to the Harlem River Drive and it was built in 1939. It is a 2,080 foot long and 57 foot wide structure, consisting of 14 steel spans and 41 reinforced concrete spans, carrying two lanes of traffic in each direction, northbound and southbound. In 2008, New York State DOT completed an approximately $4.5 million "top-side" repair project of the wearing surface, joints, median, parapets, and other above-deck elements. The scope of work includes rehabilitation of the bridge steel and concrete components; repairing outstanding structural flags on the ramp; repairing existing spalls and removing existing protective netting; and restoration of adjacent parkland including placement of a gravel base within the footprint of the bridge structure, construction of a paved access roadway, and landscape restoration including grass seeding. A Notice to Proceed for the $10 million project was issued to the contractor with a start date of August 10, 2015. Construction is expected to be complete in February 2017.



Aerial View. Trans-Manhattan Expressway Connector Ramp in 2014: Elevation Right Spans 1 – 25, 33 – 40. (Credit: NYSDOT)



Span 42, Netting at Deck Underside, Looking Ahead. (Credit: NYSDOT) March 2015 Field Inspection.



On September 29, 2015, Division Personnel Conducted Emergency Repairs on Two Punch-Through Locations on the Top of the Deck. Steel Plates Were Installed. The Repairs Were Then Added to the Contractor's Work Scope. From Left: Bridge Repairer and Riveters Charlie Zhao and Ignazio Trapani, Carpenter Gregory Nolan, Supervisor Bricklayer Edward Alfano, Cement Mason Luigi Mula, Commissioner Polly Trottenberg, Assistant Civil Engineer Andrew Hoang, Carpenter Edward Alfano Jr., Assistant Civil Engineer Fouad Althaibani, Area Supervisor Highway Maintenance Edward Pedersen, Supervisor Highway Repairer Andrew Bondi, Supervisor Carpenter Joseph Diblasi, Bridge Repairer and Riveter David Fontanez, Assistant City Highway Repairers James Cummings, Anthony Connelly, and James Kelleher, Bricklayer Stephen Daniel, and Cement Masons Victor Porowski and Frank Finzio. Foreground: Bridge Repairer and Riveter Chris Mauldin.

17TH AVENUE AND 27TH AVENUE PEDESTRIAN BRIDGES OVER BELT PARKWAY (BROOKLYN)

The 17th Avenue and 27th Avenue Bridges are three-hinged, steel arch girder bridges with granite-faced concrete abutments and Art Deco steel railings. These two pedestrian overpasses have deteriorated over time, and due to low vertical clearance, have suffered impact damage from oversize vehicle traffic on the Belt Parkway below. The 17th Avenue Bridge has a vertical clearance of 10'-8", at its lowest point, and the 27th Avenue Bridge a 12'4" vertical clearance at its lowest point. Both bridges have an overall span length of approximately 125 feet, and a bridge deck width of 15 feet. In addition, these structures are not in compliance with American Disability Act (ADA) requirements.

The 17th Avenue Bridge provides the only pedestrian access to the shoreline promenade from the surrounding Bath Beach and Bensonhurst communities. The 27th Avenue Bridge provides the main pedestrian access from the community to Dreier Offerman-Calvert Vaux Park.



17th Avenue Bridge – Existing Conditions. Deteriorated Left Girder. Span 1 Left Girder over Belt Pkwy Eastbound Left Lane was Hit in September 2015.



27th Avenue Bridge – Existing Conditions.

In this project, the overpasses at 17th and 27th Avenues will be completely replaced. The structures will be designed to current codes and standards and all substandard features will be eliminated. Additionally, as the existing bridges were constructed under the Robert Moses era Master Plan for NYC, the proposed bridge designs will follow the Shore (Belt) Parkway Design Guidelines which were developed in November 2006, in order to preserve and reestablish the historic character of the parkway for drivers and pedestrians while enhancing and strengthening the visual cohesiveness of the greenspace connected to the adjacent park and recreation land. Construction is anticipated to begin in 2018, and is expected to be complete in 2020.



17th And 27th Avenue Bridges – Proposed Bridges.

WEST 79TH STREET BRIDGE OVER AMTRAK, 79TH STREET PEDESTRIAN PLAZA OVER 79TH STREET BOAT BASIN GARAGE, 79TH STREET TRAFFIC CIRCLE OVER 79TH STREET PEDESTRIAN PLAZA, 79TH STREET RAMP TO HENRY HUDSON PARKWAY OVER 79TH STREET BOAT BASIN GARAGE, 79TH STREET RAMP TO GARAGE OVER 79TH STREET BOAT BASIN GARAGE, GARAGE RAMP TO 79TH STREET OVER 79TH STREET BOAT BASIN GARAGE, AND SOUTHBOUND HENRY HUDSON PARKWAY RAMP TO 79TH STREET OVER 79TH STREET BOAT BASIN GARAGE (MANHATTAN)

The centerpiece of Riverside Park is the Rotunda. Accessible by stepped ramps from the park and Riverside Drive, the concourse level of the Rotunda and the adjoining large terrace offer dramatic views of the Hudson River and the boats of the marina. The structure includes the West 79th Street traffic circle, the ramps to and from Henry Hudson Parkway southbound, and the ramps to and from the boat basin garage. By nature of this configuration, the rotunda is structurally part of the bridges. The rotunda and appurtenant bridge structures, however, lie within the limits of Riverside Park. Because of this, NYC Parks and Recreation has jurisdiction over the architectural features of the structure, as well as the non-vehicular operational features of the structures, including restrooms, concessionaire operations (food service), boat basin elements, including an office, storage space, workshops, and garage facilities. The structure is listed in State and National Registers for Historic Places.

The West 79th Street Bridge over Amtrak, built in 1937, is a single span structure, with steel, non-composite girders and a reinforced concrete slab. The bridge carries two lanes of traffic in each direction and has a sidewalk on each side. The project work will include the removal of the existing concrete deck, sidewalks and the pedestrian safety barrier. The deck will be replaced with a 9.5 inch concrete slab with integral wearing surface, a new sidewalk and safety barriers on a rehabilitated superstructure. Construction is expected to begin in 2018.

The three-level West 79th Street Rotunda is a structure with common foundations consisting of pile caps, foundation walls, and steel framing, which support the garage level, fountain level and street level. These levels, along with their interconnected ramps have been assigned separate Bridge Identification Numbers, but actually act as an integrated structure with similar issues and needs.

West 79th Street accesses the West 79th Street traffic circle from the east, while ramps from and to southbound Henry Hudson Parkway access the traffic circle from the north and south, respectively. Furthermore, the traffic circle forms the top level of the rotunda structure, which has a pedestrian plaza level below, followed by a garage level on the ground floor. The garage is accessed from the rotunda structure's west end via ramps to and from the traffic circle.

The West 79th Street Rotunda Complex consists of six bridges: the West 79th Street Traffic Circle consists of 34 steel spans over Pedestrian Plaza. There are two traffic lanes. The project work will include the removal of the existing roadway, concrete slab, and steel superstructure. A new steel superstructure and roadway slab will be provided along with new approach roadways, and the existing stone masonry will rehabilitated.

The West 79th Street Pedestrian Plaza is below the Traffic Circle and over the Boat Basin Garage. It consists of ten simply supported spans. Access to the pedestrian plaza is from steps from West 79th Street to passageways that lead into the plaza from the north and south, or from the west end of the rotunda, where a terrace and stairs lead to the Hudson River esplanade in Riverside Park. This Rotunda has landmark status and includes Gustavino type arches, a promenade, a fountain and a restaurant built in 1939 as part of the Riverside Drive Park improvements. The project work will include the structural rehabilitation and extensive architectural restoration of the plaza. This Rotunda complex also contains four ramps that will be part of the reconstruction project.



West 79th Street Bridge Over Amtrak in 2010. Underside of Bay 7. (Credit: NYSDOT) Traffic Circle Level. Plaza Level. Ramps and Façade. Aerial View of 79th Street Ramps. (Aerial Credit: NYSDOT)

BRONX, QUEENS, AND STATEN ISLAND BRIDGES

EIGHT CULVERTS: GALLOWAY AVENUE OVER MARIANNE STREET, FOREST AVENUE OVER CRYSTAL AVENUE, MIDLAND AVENUE OVER HYLAN BOULVARD, ROCKLAND AVENUE OVER BRIELLE AVENUE, FOREST AVENUE OVER RANDALL AVENUE, GREGG PLACE OVER RANDALL AVENUE, ARTHUR KILL ROAD OVER MULDOON AVENUE, AND ARTHUR KILL ROAD OVER RIDGEWOOD AVENUE (STATEN ISLAND)

This eight culvert reconstruction project is in the final design stage.

The Galloway Avenue culvert is a single span timber pedestrian culvert supported on a concrete abutment. It is located approximately 262.4' east of the intersection of Galloway Avenue and Crystal Avenue. The channel beneath the culvert bisects Galloway Avenue, thereby making the culvert the only means of carrying pedestrians from one side of the channel to the other. The existing culvert will be removed and a new culvert will be constructed. The culvert will be closed during construction.

The Forest Avenue culvert over Crystal Avenue is a single span reinforced concrete box culvert. It is located approximately 230' east of the intersection of Forest Avenue with Crystal Avenue. The reconstruction will consist of the demolition of the existing culvert, clearance of debris from the channel, replacement of the culvert with a concrete deck slab supported on steel beams on reinforced concrete abutment and wingwalls. The construction work is planned to be performed in four stages with proposed four traffic lanes being maintained at all times.

The Midland Avenue culvert consists of a single span reinforced concrete box, which will be replaced with a new pre-cast box culvert. It is located on Midland Avenue between Boundary Avenue and Mason Avenue. The rehabilitation will include replacing the existing concrete box structure with a new concrete box structure, new sidewalk, curb, pipe railing, chain link fence and asphalt wearing surface. The work will be performed in three stages, with one lane of traffic maintained in each direction at all times.

The Rockland Avenue reinforced concrete culvert project will include concrete repair and a lined and stabilized north embankment. It is located approximately 361' west of the intersection of Rockland and Manor Avenue. The rehabilitation work includes clearing the debris and vegetation from the channel and installing a structural lining. The construction is planned to be performed in one stage and no street closures will be required during construction.

The Forest Avenue culvert over Randall Avenue is a single span concrete box culvert, located at Forest Avenue between Randall Avenue and University Place. It will be replaced with a new precast concrete box culver with new sidewalks and asphalt pavement. The work will take place in three stages while maintaining one traffic lane in each direction during construction.

The Gregg Place culvert is a single span reinforced concrete box culvert, located approximately 98.4' west of the intersection of Gregg Place and Randall Avenue. The rehabilitation includes replacing the southern portion with a new precast box culvert with new pavement. The construction is planned to be performed in one stage and the north side of the road will remain open to through traffic.

The Arthur Kill Road culvert over Muldoon Avenue consists of a reinforced concrete pipe at north and a reinforced box culvert at south. It is located on Arthur Kill Road between Muldoon Avenue and Arden Avenue. The box culvert will be replaced with a new box culvert, and a structural lining will be installed in the pipe culvert. The construction will be performed in one stage with one lane of traffic maintained in each direction.

The Arthur Kill Road culvert over Ridgewood Avenue consists of a non-reinforced concrete pipe at south and a corrugated metal pipe at north. It is located approximately 100' west of the intersection of Arthur Kill Road and Ridgewood Avenue. The rehabilitation work will include

installing a structural lining inside the concrete pipe and repairing the concrete at the head walls and catch basins. There will be one stage of construction and one lane of traffic will be maintained in each direction.

This project to rehabilitate and/or replace the eight culverts is currently in the final design stage, and is expected to begin in December 2016 and to be complete in 2018.



Galloway Avenue over Marianne Street – Wearing Surface, Looking Northwest. Forest Avenue over Crystal Avenue. Midland Avenue over Hylan Boulevard – Looking South. Rockland Avenue over Brielle Avenue. Forest Avenue over Randall Avenue. Gregg Place over Randall Avenue. Arthur Kill Road over Muldoon Avenue. Arthur Kill Road over Ridgewood Avenue.

BRYANT AVENUE BRIDGE OVER AMTRAK AND CSX (BRONX)

The Bryant Avenue Bridge, oriented east to west between Buckner Boulevard and Garrison Avenue, is a one span structure constructed in 1908. It spans 90 feet over four railroad tracks. This project includes replacement of the steel superstructure, bearings, approaches, water mains and rehabilitation of the existing substructures by removing and replacing the top portion of the concrete abutments to accommodate the new superstructure. The abutments will be retrofitted to meet seismic criteria. The new superstructure consists of a reinforced concrete deck over pre-stressed concrete box beams. The two water mains were removed and replaced. Both water mains were installed on top of the north sidewalk in a fenced-off area. The Division's in-house design staff completed the design for this project. A Notice to Proceed for the project was issued to the contractor with a start date of August 18, 2014. The bridge is completely closed to vehicles during its construction; however, pedestrian access is being maintained.

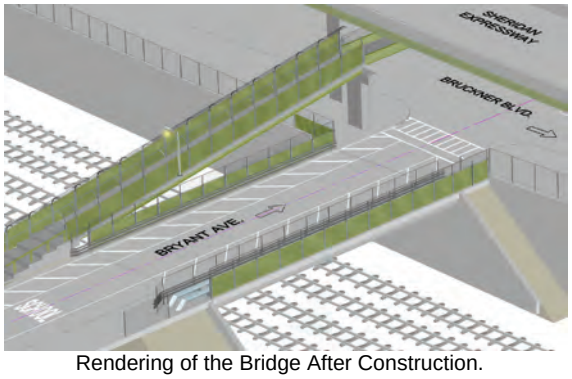


Location Map. Bridge Views Looking North and South. 11/1/11 Approach Begin and End. (Credit: NYSDOT) Bridge View From the Pedestrian Overpass.

Construction of the water-mains, and demolition of the existing deck (superstructure) and upper portion of the abutments was completed in 2015. The construction of the abutment caps, installation of the pre-stressed box-beam girders, placement of the concrete deck, repairs to the substructure and the construction of curb, road base, sidewalks and asphalt pavement, including lane markings, were also completed. The installation of bridge fences and safety railing system were in progress at the end of 2015. This project is expected to be complete in February 2016.



March 2015: Chipping Out Roadway Deck Concrete and Removing Shielding Concrete. May 2015: Installing Overhang Brackets on South Side of Pedestrian Walkway. Removal of Sidewalk Stringer Panel. Summer 2015: Existing Structure Removed. September 2015: Placing the Concrete for the Bridge Deck. The Concrete Pump Placed 110 Cubic Yards of Concrete Into the Deck. Covering and Protecting the Fresh Concrete with Wet Burlap.



Rendering of the Bridge After Construction.

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 2014, the bridge carried 15,915 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. Spans two and three are supported by an overhead truss that originally functioned as a movable swing span but was permanently fixed in 1963.



View of City Island Bridge From the Esplanade. Aerial View of Current Bridge. Welcome Sign.

The existing bridge will be replaced along the same alignment with a new three span bridge with two piers in the water. 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 bridge will be a multi-girder continuous bridge with an integral deck. Galvanized steel stay-in-place forms will be used for the deck to both facilitate deck placement and shield the concrete from the corrosive environment of the saltwater bay below. The stainless steel rebar will also not be vulnerable to the deicing salt in the same way that epoxy coated rebar is. Therefore, the deck will have a much longer life expectancy since rebar corrosion is a primary factor in the deterioration of concrete. 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. It will also eliminate the vehicle height restriction caused by the existing overhead truss. 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. Marine traffic will remain undisturbed beneath the bridge during peak boating season.

The contractor's Value Engineering proposal was accepted to utilize a prefabricated steel bridge system for the temporary bridge with an asphalt riding surface on a steel-plated deck instead of a steel grid system and utilities located on the outside of the roadway between the riding surface and the sidewalk. Pedestrians and bicyclists will be separated with a steel truss system and fence from vehicular traffic. The temporary bridge sections will be fabricated off-site while the foundation work is being performed. Therefore, the bridge will be erected on a complete per span system rather than "stick" built. This will minimize the amount of time the contractor will be in Eastchester Bay erecting the temporary bridge. The schedule advantage will allow traffic to be shifted off the existing bridge sooner, reducing the required maintenance of the aging bridge. Removal of the bridge will be done similar to the erection reducing the time required to be in the bay.

As part of the bridge replacement project, the Legion Triangle at the intersection of City Island Avenue, City Island Road and Bridge Street will be modified.



Current Legion Triangle and Rendering. The Design is Slightly Larger Than the Existing Triangle, Features a Wide Variety of Flora, and Will Provide Ample Space for Visitors who Come to Pay Homage to the Veteran's Memorial.

At the City Island side there is a seawall along the shore which is about 500 feet in length starting from the bridge and heading in a southerly direction. This seawall will be rehabilitated and turned over to the Department of Parks and Recreation along with the esplanade which it is supporting. The rehabilitation of the existing concrete seawall will include a steel rod tieback system as a precaution against loss of stability due to overturning or sliding. In addition, all unsound concrete will be removed from the face of the wall and a new reinforced concrete facing will be cast along the entire length. The esplanade will receive landscape improvements such as a new railing above the wall, new plantings, trees, grass, and paver blocks.



Existing Seawall. Proposed Treatment.

Turtle Cove Culvert is located under City Island Road approximately half a mile west of the existing bridge. As part of the wetland impact mitigation activities for the project, this culvert will be replaced with a larger one that will allow for greater tidal flooding from Eastchester Bay to the upland portions of Turtle Cove.



Turtle Cove. Existing Culvert – South Side.



City Island Road Bridge in 2010. (Credit: Bojidar Yanev) Span 4, Right Sidewalk Near Pier 4 in October 2013. Vertical Clearance Posting. (Credit: NYSDOT) 9 Foot Tall Ornamental Finial.

A Notice to Proceed for the project was issued to the contractor with a start date of September 30, 2013. At the end of 2013, the contractor started mobilizing the project activities. During 2014, the contractor surveyed the area, set up temporary work zone traffic control devices, installed temporary signals, relocated the 16 inch water main on the existing bridge, and started and installed most of the foundation work for the temporary bridge. Stage 1 of the Turtle Cove culvert replacement also began in 2014.



August 2014: Excavating on the West Side of the Bridge in the Presence of an Archeologist. Approximately 300 Linear Feet of a Turbidity Curtain was Installed on the Southwest Side of the Bridge to Protect the Shore During Construction. A Turbidity Curtain is a Floating Barrier Designed to Contain and Control the Dispersion of Sediment. October 2014: Drilled Shafts – Installing Rebar Cage at Pier 6. October 2014: The Contractor Airlifted Drilled Shaft Casings Into Position on a Platform Constructed Beside a Construction Barge. The Contractor Assembled the Temporary Bridge Segments at the Brooklyn Navy Yard. The Pieces Were Transported to City Island by Barge.

During 2015, the contractor constructed the remainder of the substructure and superstructure for the temporary bridge. Temporary water mains, gas main and other utilities were installed on the temporary bridge. Opening of the temporary bridge to traffic and closure of the existing bridge for demolition is expected in early 2016. On December 16, the Division conducted strength testing of the temporary bridge roadway. Heavily equipped vehicles from the FDNY's Engine 70 Ladder 53 station crossed the temporary bridge to demonstrate the structural integrity of the roadway. The larger of the two vehicles weighed approximately 80,000 pounds, and the smaller vehicle weighed closer to 60,000 pounds. On December 18, all City Island Bridge traffic (vehicular and pedestrian) was transferred onto the temporary bridge. Stage I work of the Turtle Cove culvert replacement was completed and Stage II work was in progress at the end of 2015.



January 2015: Drilled Shaft Operations on Snow-Covered Barges. Drilling Rig Construction Vehicle Used to Install Land-Based Drilled Shaft Casing for the Temporary Bridge. The Bucket Drills Carve Out the Casings With Teeth Capable of Tearing Through Rock. February 2015: Cap Beams Installed on 4 Piers of the Temporary Bridge. Construction Zone Amidst a Frozen Eastchester Bay. March 2015: Construction of Marine Span Began for the Temporary Bridge.



April 2015: Turtle Cove Culvert Replacement. Excavating. Installing Culvert Under Utilities. May 2015: Waterproofing the Joint. Backfilling. Completed Stage 1. Water Flow Inside the Culvert was Restored on May 18. The New Culvert is an 8 Foot by 7 Foot Concrete Box - About a 3x Larger Capacity. April 2015: - Installation of the Pedestrian Walkways for the Temporary Bridge. The contractor Constructed 2 Cantilevered Sidewalks - Approximately 5.5' Wide With a Chain-Link Fence.



June 2015: Installing Marine Span 13 for the Temporary Bridge. July 2015: Installing Temporary Water Main on the Temporary Bridge. Installing Decking for Span 15. October 2015: Milling the Existing Asphalt Surface and Repaving at Both Approaches.



November 2015: New Culvert Boxes to Replace the Aging Conduit that Connects the Bay with Turtle Cove, Located Beneath City Island Road. December 18, 2015: Commissioner Polly Trottenberg Leading the Final Trip Over the Historic Bridge.

The construction of the new bridge is expected to start in early 2016, and it will be completed within the original contract schedule end date of December 30, 2016.



Existing and Proposed City Island Road Bridge Furnishings: Lighting, Fence, and Rail. Side View Rendering of New Bridge.

GRAND CONCOURSE BRIDGE OVER METRO NORTH (BRONX)

The bridge was originally built in 1906. It is a single span bridge consisting of a concrete deck supported on five steel plate girders, one truss, and a steel truss subway structure located in the center of the bridge. The bridge carries three lanes of vehicular traffic in each northbound and southbound direction as well as NYCT subway traffic underneath the Grand Concourse Boulevard and above the Metro North railroad right of way. The upper portion of the bridge carrying the roadway is now structurally supported by the lower portion carrying the subway. The two portions of the bridge are dependent upon each other for support and stability but are being maintained individually by two separate agencies, the NYC Department of Transportation, and NYC Transit Subways respectively. The subway portion of the structure, comprised of four warren trusses, is stabilized by the roadway portion floor beams and the roadway portion is supported by the subway trusses.

In the current rehabilitation scheme, the roadway will be supported independently from the subway structure: the structures will be physically separated. Steel members will be added to the subway trusses to provide the stability previously provided by the roadway portion floor beams. The substructure consists of two concrete abutments bearing on rock ledges. The tops of these abutments lie at two levels, an upper level which supports the bridge stringers and a lower level which supports the subway trusses. The bridge stringers over the subway tracks bear on a composite steel beam/concrete backwall which will be replaced as part of this project. The foundation for the new trusses being installed to carry the roadway superstructure will bear on the rock behind the existing abutments.

The reconstruction project will also include building new sidewalks, as well as bridge railings with protective fencing, electrical conduits and fixtures, and the relocation of the existing water main under the sidewalk. The new roadway deck will made be of reinforced concrete with superpave type paving. A jointless deck will be installed to reduce or eliminated the corrosive effects of dripping water on both the existing steel members to remain as well as the new steel bridge members to be installed. Two lanes of vehicular traffic and the pedestrian walkway will be maintained in each direction on the Grand Concourse. Deterioration was discovered during a final design inspection to assess the structural condition of the bridge, and the consultant has been instructed to prepare an interim load rating to establish the structural capacity.

A value engineering workshop was held in August 2014 with the goal of developing recommendations to be considered by the project design team, construction and construction support personnel and the Agency to improve all aspects of the project. The resulting report is under review and discussion by the design consultant and the Agency.

DOT and NYC Transit are in negotiations to resolve the jurisdictional issues arising from the separation of the existing jointly-operated bridge. NYC Transit will hire a consultant who will be conducting an inspection of this bridge in early 2016 to see the condition of their structure. This project, currently in the final design phase, is expected to begin construction in February 2018, and is expected to be complete in August 2020.

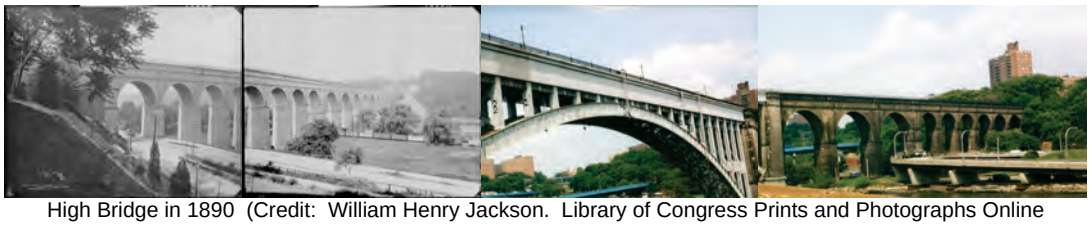


Grand Concourse Bridge over Metro North in 2010. (Credit: NYSDOT) Aerial View. Sidewalk and Top of Bridge.

HIGH BRIDGE PEDESTRIAN BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

This eleven span landmark structure is the oldest (circa 1848) bridge over the Harlem River. It is listed on the New York State and National Register of Historic Places. The bridge is under the Department of Parks and Recreation's (DPR) jurisdiction. It was erected to carry water from the Croton aqueduct, and had been closed since 1970. The bridge spans the Harlem River, connecting the neighborhoods of Highbridge in the Bronx and Washington Heights in Manhattan. The bridge was designated as a New York City landmark in 1970 and it was listed on the National Register of Historic Places in 1972.

Designed on principles of Roman aqueduct architecture, the granite bridge is about 116 feet in height, with the peak of its arches 100 feet above the Harlem River. The bridge is 1,450 feet long, measured from gatehouse to gatehouse, with a 1,200-foot-long brick walkway. The High Bridge was begun in 1839 and completed in 1848. Larger water pipes were added and the walkway was built in 1861-64. In 1927-28, after many years of calls for complete demolition of the bridge, the city replaced five of the original 15 arches with a central steel span to ease the passage of large ships. The rest of the majestic stone arches still stand, the majority on the Bronx side of the river. The bridge has never carried vehicles.

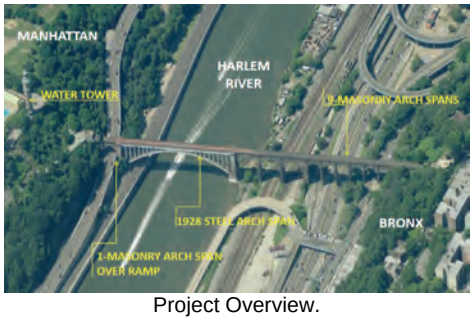


High Bridge in 1890 (Credit: William Henry Jackson. Library of Congress Prints and Photographs Online Catalogue) http://lcweb2.loc.gov/service/pnp/det/4a30000/4a32000/4a32600/4a32659v.jpg and http://lcweb2.loc.gov/service/pnp/det/4a30000/4a32000/4a32600/4a32660v.jpg (accessed September 9, 2014).
High Bridge Pedestrian Bridge in 2004. (Credit: Michele N. Vulcan)

In support of DPR, the Division prepared a detailed scope of work for the comprehensive in-depth inspection of the bridge. Engineering consultants conducted this inspection, which was completed in the summer of 2006, at an estimated cost of $2.5 million. The Division administered and supervised this work.

The $61.73 million restoration of the bridge was managed by the New York City Department of Design and Construction in partnership with DPR. The reopened High Bridge is an essential link in New York City's expanding waterfront Greenway. It allows Bronx residents to reach the Highbridge Pool and Recreation Center, and Manhattan residents to reach the Harlem River shoreline. The improvements make the bridge more accessible and safe. The rehabilitation followed historic preservation principles to restore the architectural details of this landmarked structure for public enjoyment.

Both the central steel span and the stone arches were cleaned and repaired; the steel span was repainted and the masonry structure were repointed and strengthened. Architectural lighting was installed beneath both spans. The brick paver walkway on top of the structure was removed and reconditioned, new waterproofing and concrete were installed, and then the historic brickwork was reinstalled. The aqueduct running beneath the structure was repaired and stabilized. New lampposts and safety fencing were installed and the original iron railing was repaired. Barrier-free access ramps were built on both sides of the bridge to allow access for the disabled. Three viewing platforms with bench seating were installed along the length of the bridge.



Project Overview.

The design of the restoration of the bridge was completed in December 2011. Construction began in August 2012. In March and April of 2013, the contractor began mobilization. Safety shield installation, and lead abatement and stone cleaning operations began. In May and June, brick paver removal and preservation operations and railing post restorations began. In July and August, safety fence and scaffolding installation, painting operations, and aqueduct pipe preservation were underway, along with repairing, repointing and cleaning of the masonry stone. Reconstruction of the brick walkway and ADA ramp excavation began. In September and October, installation of electrical lines and tie-rods were underway. In November and December, de-leading operations at the steep span were completed, bridge deck waterproofing operations and mast climber removal were in progress, and brick masonry work in the bridge attic began.



Northern View of High Bridge in 2013. Early Spring 2013: Temporary Work Platform on the Bridge. Temporary Work Platform on Sedgwick And Undercliff Avenues. Spring 2013: Mast Climber and Lead Abatement Containment on the Bridge. Summer 2013: Brick Paver Removal and Preservation. Fall 2013: Aqueduct Pipe Preservation. Reconstruction of the Walkway. (Credit: NYCDDC)



Late Fall 2013: Mast Climber Removal. Winter 2014: South View of the Bridge. (Credit: NYCDDC)

From January through April of 2014, brick and concrete spall repairs and steel repairs continued. Installation of underlayment pavers on bridge deck began in May and June, and the steel installation for the Manhattan and Bronx ADA ramps was completed. In July and August, waterproofing operations on the bridge and lead abatement and painting operations were completed. In November and December, paver installation on the bridge deck was completed. At the end of 2014, continuing work included: steel repairs, scaffold installation for masonry stone cleaning and repointing work on the bridge, Manhattan gatehouse rehabilitation, and historic railing and ADA ramp installation.



Winter 2014: Steel Stringer Installation. Spring 2014: Brick Repairs and Stone Cleaning. Summer 2014: Brick Installation. ADA Ramp Steel Installation. Summer 2014: Brick Installation. Winter 2015: LED Lighting on the Arch. Scaffolding. (Credit: NYCDDC)

In January and February 2015, the contractor continued steel repairs, scaffold installation for masonry stone cleaning and repointing work on the bridge, and installation of safety fence posts and historic railings. Construction was completed in late May 2015, and the bridge reopened to the public on June 6, 2015.



Masonry Arch Before and After Cleaning. Scaffolding and Containment. New Brick Pavers. (Credit: A.A. Mallick - NYCDDC)

In November 2015, *Roads & Bridges Magazine* selected the restoration of the High Bridge as one of North America's top 10 bridge projects for 2015. The bridge was restored with preservation and rehabilitation methods in accordance with the Secretary of the Interior's Standards for the Preservation of Historic Properties.



High Bridge Walkway in January 2004 and June 2015. The Brickwork Dating to the 1860's was Restored at Either End, With the Center Section was Completed With Replicas. (Credit: Gordon I. Goldberg)

HIGHLAND PARK PEDESTRIAN BRIDGE OVER PEDESTRIAN PATH (QUEENS)

The Highland Park Pedestrian Bridge, built in 1902, is a single span arch structure with a clear opening of 59 feet under the bridge. Unlike a conventional steel or concrete bridge structure, the main structure is a brick masonry arch, with wing walls and parapet walls consisting of stacks of rounded river stones set in mortar. The roadway on its top has a 2 inch thick asphalt-concrete wearing surface. The height of the parapet walls from the roadway surface varies from two to four feet. The bridge carries lighting utilities and has lampposts located on either side of the approach roadways. The bridge, located inside Highland Park, spans a hiking trail, and carries pedestrian and bicycle traffic. The only motorized vehicles permitted on the bridge are emergency vehicles and Parks Department's maintenance vehicles. It is 27 feet wide with neither sidewalks nor shoulders.

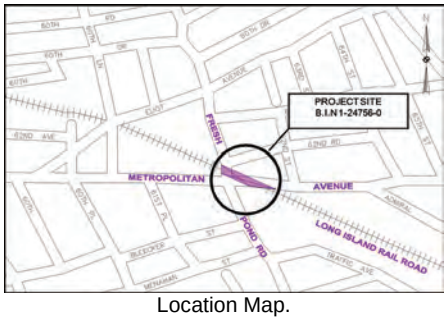
The bridge is under the jurisdiction of the New York City Parks Department and the DOT is conducting this rehabilitation project on their behalf. The existing stone and brick arch bridge displays deficiencies in the form of cracking, missing mortar, spalled and missing masonry units and dissimilar grouting. The rehabilitation work will correct these defects while preserving the original elements of the structure to the greatest extent possible. The masonry will be cleaned and repointed in place. The asphalt roadway will be completely removed and the top of the arch will be excavated. This will allow for any necessary repairs on the top side of the arch and for the application of a reinforced concrete saddle with a waterproofing membrane. The arch will then be backfilled and the roadway repaved. In addition, new lamp posts and under deck lighting will be added. An eight foot wide gravel path will be installed below the bridge, and the landscape will be restored with trees and shrubs. The bridge will be completely closed to traffic during the construction which will be detoured to other parts of the park. Construction is expected to begin in March 2016, and is expected to be complete in March 2017.



Highland Park Bridge. Dirt Pathway Under Bridge. Under-Deck Cracks and Missing Bricks - North-East Side. Under-Deck Arch Wall Showing Efflorescence Along the Cladding Stone and Brick Arch. Top of Bridge - Map Cracking, spalled, and Patched Areas. Inspecting the Bridge in December 2014.

METROPOLITAN AVENUE (FRESH POND) BRIDGE OVER LIRR -NY&ATL (QUEENS)

This bridge is a two span structure built between 1914 and 1915. It spans over the Long Island Railroad (LIRR) Montauk Branch and carries the roadway that is part of the intersection of Metropolitan Avenue with Fresh Pond Road and the adjoining property of the former Mobil gasoline station which was acquired by the City. The bridge originally crossed two railroad tracks located in each span and oriented in the east-west direction. One of the southern railroad tracks was abandoned and the remaining track is used by freight trains. The two northern railroad tracks are still in service and are part of the Long Island Rail Road Montauk line. The Fresh Pond Road portion of the bridge carried two trolley tracks located in two central bays oriented in the northbound and southbound direction. The Metropolitan Avenue portion of the bridge carried two trolley tracks located 4 feet nine inches from the original bridge centerline.



Location Map.

The superstructure consists of concrete encased steel beams with a concrete deck and varying depths of asphalt wearing surface. The substructure consists of a reinforced concrete pier and gravity type plain concrete abutments and wing walls.

There is a hole in the deck on the northeast sidewalk of the intersection which has been covered with a small transition barrier. The underside of the concrete deck displays typical water leakage, efflorescence and stalactites. The east fascia girder concrete encasement is severely deteriorated. There are medium to wide cracks, aggregate exposures, heavy spalls and exposed reinforcing throughout the length of the bridge. The concrete parapet of the utility bay and its west end is in poor condition. There are severe spalls in the bridge seat causing a loss of bearing area of the east fascia girder at the north abutment. The central pier is also severely deteriorated with cracks, spalls, exposed reinforcement and water leakage.

The existing vertical clearance over LIRR tracks is 15 feet 9 inches. Per New York State Railroad Law Section 51-a (7), a minimum clearance of 22 feet is required over a railroad whenever a structure built prior to 1959 is to be reconstructed unless a waiver is granted by NYSDOT. Since a 22 foot clearance was not achievable due to the existing grades of the bridge being restricted by adjacent buildings and the constraint from an existing sewer line under the tracks, the waiver request was not granted by NYSDOT. However, NYSDOT agreed to a clearance of 20 feet 6 inches. In May 2012, NYCDEP conceptually accepted the modification of the existing sewer to achieve the requisite clearance of 20 feet 6 inches.

One alternative to achieve the required 20 feet 6 inches clearance is to lower the railroad tracks. The primary obstruction to lowering the railroad tracks is the existing 60" diameter combined sewer which runs along the centerline of Fresh Pond Road. The sewer crosses beneath the tracks and is approximately 3 feet below the top of rail. To lower the tracks, the combined sewer must be rerouted or reconfigured (or both).

In September 2012, the LIRR and NY Atlantic Railways agreed to have 17 feet 6 inches clearance as an immediate goal and 20 feet 6 inches as a future goal. In response to the LIRR waiver request made in December 2012, NYSDOT accepted LIRR waiver request of railroad 17 feet 6 inches above the top of rail, incorporating provisions for lowering the track to a clearance of 20 feet 6 inches in the future. In 2015, bridge design progressed from a two span bridge to a single span bridge in concurrence with the LIRR and NY Atlantic Railways. A new north abutment was to be constructed, filling the area between the existing central pier and the south abutment, and a new south abutment was to be constructed near the existing central pier. The immediate goal was to design a bridge with 17.5 feet clearance and to make provision for achieving the 20.5 feet clearance in the future by lowering the railroad tracks and modifying the existing sewer. The proposed intersection geometry would have provided improvements to turning movements for buses and trucks. New roadway pavement, sidewalks, curbs, American Disability Act (ADA) compliant accessible ramps, approach slabs, drainage, and lighting would have been provided. A new utility bridge would have been constructed on the southeast side of the new bridge parallel to Metropolitan Avenue for the relocation of water and gas mains. All private utilities would have been relocated under the new bridge deck between girders. A new traffic signal would have been provided at the intersection of Metropolitan Avenue and Fresh Pond Road. The work was proposed to be done in seven construction stages. The bridge was to be open to vehicular, pedestrian and railroad traffic during construction. Construction was expected to begin in early 2017 and was expected to be complete in late 2019. However, by the end of 2015, the Agency was not able to gain support from community for this reconstruction project.

The concrete deck is in very poor condition with several areas plated over with steel plates in order to maintain vehicular traffic and protect the LIRR below. The department does not have the available personnel or equipment to perform the necessary work. Therefore, the deck needs to be replaced immediately as there is potential for more damage to occur in the near future. The Agency is currently discussing the possibility of declaring that an emergency exists relative to the bridge. Due to the potentially serious danger to life and public safety posed by the current condition, it is critical that the repair work be performed as expeditiously as possible. The general proposed scope of work includes: replacement of the bridge deck, repair of the beam encasements, and necessary steel superstructure and substructure repairs.



Metropolitan Avenue Bridge in 2009. (Credit: NYSDOT) 2010 Inspection - Hands-On Inspection of A Pier. Obtaining a Steel Coupon Sample From a Stringer.



February 2014: View of Plates on Left Sidewalk (Fresh Pond Road). September 2014: Spans 1 and 2 Right Concrete Parapet. (Parapet Credit: NYSDOT) March 2015: Looking West, South, and East Across Bridge Deck.

ROOSEVELT AVENUE BRIDGE OVER VAN WYCK EXPRESSWAY (QUEENS)

The existing bridge is a two level dual-use steel viaduct consisting of 27 spans. The first level, which carries Roosevelt Avenue, consists of a plate girder floor beam system supported by steel columns, intermediate piers supporting a bascule span spanning over the Van Wyck Expressway and Flushing River, and end abutments. This level carries two lanes of vehicular traffic in each direction and pedestrian sidewalks on each side. The second level of the viaduct supports and carries the overhead NYC Transit Authority's #7 – Flushing line three track subway structure, with two local tracks on the outside and one bi-directional express track in the middle. The bridge is oriented in the east-west direction. The bridge structure is divided into four sections: the west approach cellular structure, the west viaduct, the bascule span, and the east viaduct. It is an essential regional facility and truck route that links communities east and west over the Grand Central Parkway and provides access to Flushing Meadows Park, the National Tennis Center, and Citifield, home of the New York Mets.

The viaduct structure consists of 22 steel bents supporting longitudinal steel girders at the roadway and track level. The length of the east viaduct is approximately 284 feet and the length of the west viaduct is 809 feet. The overall length of the bascule and viaduct structures is 1400 feet. The bridge was originally built between 1925 and 1927. The original bridge had a double leaf bascule span, which was used as a draw bridge, providing clearance for boat traffic passing beneath. When the Van Wyck Expressway (Interstate 678) portion between Grand Central Parkway and Northern Boulevard was built in the late 1950's and the river was no longer navigable, the bridge was permanently set in a closed position. Subsequently, major roadway modifications were performed in the early 1980's. Concrete deck repairs were performed in July, August, and October of 2003, June and July of 2004, April, May, June, and July of 2005, and June and July of 2006. In the summer of 2005, the When and Where contractor repaired red and

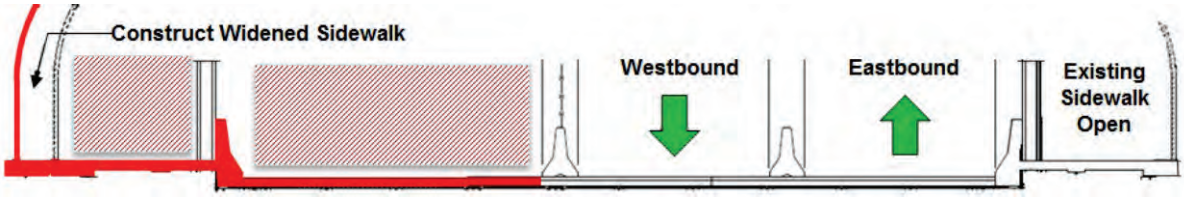
yellow flag conditions caused by damage by over-sized trucks using the Van Wyck Expressway. Red-flagged steel shoring and yellow-flagged cracked stringer connection angles were repaired in the spring of 2008.

The project will include the construction of a new concrete-filled steel grid deck, rehabilitation of the existing east and west viaduct sections, bascule span, piers, abutments, removal of the operator houses, and painting of the entire bridge. In addition, a new bicycle/pedestrian path will be constructed on the north and south sides of the bridge.



Roosevelt Avenue Bridge – In 1927. (Credit: NYC Records). Looking East. Existing and Proposed Bicycle/Pedestrian Path. 2014: Right Wingwall at the End Abutment. The Top Exhibits an area of Diagonal Cracks With Efflorescence and Spalls. The Deteriorated Concrete Areas are in Safe and Stable Condition. (Credit: NYSDOT)

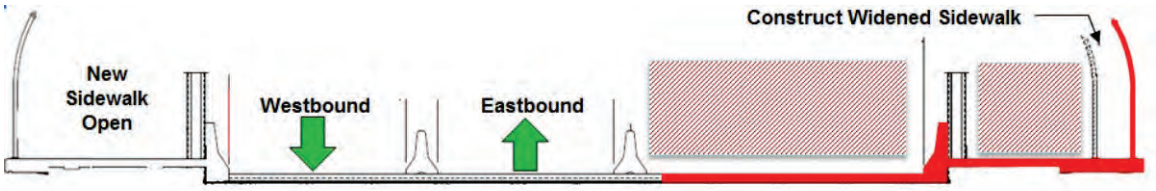
The lower level carrying Roosevelt Avenue will be reconstructed in three stages. Both vehicular and pedestrian traffic will be maintained throughout the construction of the bridge, with one lane in each direction.



Stage 1 - Corona-Bound - 12 Months. The Two Westbound Lanes and Walkway Will be Closed. All Traffic Shifts Into Eastbound Lanes, One Lane in Each Direction.



Stage 2 - Center Roadway - 12 Months. The Center Roadway will be Closed. All Traffic Shifts to One Eastbound and One Westbound Lane in Each Direction.



Stage 3 - Flushing-Bound - 12 Months. The Two Eastbound Lanes and Walkway will be Closed. All Traffic Shifts Into Westbound Lanes, One Lane in Each Direction.

A Notice to Proceed for this federally-funded project was issued to the contractor with a start date of August 10, 2015.

Abrasive blasting and protective coating operations began in late 2015. The first stage of the work will consist of paint removal by abrasive blasting. Since the existing paint is expected to contain lead, the work will be performed within an entirely sealed Class 1A Containment. Abrasive blasting involves use of compressed air to propel abrasive particles against the surface to be cleaned. The area to be cleaned will be entirely contained within impermeable walls with the sealed joints. Negative pressure maintained within the containment during blasting operations will prevent paint waste dust from being released. The air in the area surrounding the containment enclosure will be monitored and tested with scientific equipment, and the abrasive blasting will be stopped if there is any indication that the containment enclosure is not working as designed. In the unlikely event of emissions, they will be cleaned utilizing high-efficiency HEPA vacuums in accordance with approved methods. All paint wastes will be packaged and shipped from the site for disposal, meeting all applicable local, state and federal guidelines, regulations and laws.

All operations will be performed under the guidelines set forth in the Final Environmental Impact Statement. In addition, all safety requirements of the United States Environmental Protection Agency, the Occupational Safety and Health Administration, New York State Department of Health, New York State Department of Environmental Conservation, the New York City Department of Health and Mental Hygiene, and the New York City Department of Environmental Protection are strictly observed. The painting is scheduled to be completed by April 2019. Paint removal by abrasive blasting will not necessarily occur during the entire time period.

Stage 1 construction is expected to begin in early 2016. It is expected to be complete in August 2019.



Roosevelt Avenue Bridge (#2240507) in 2002, 2004, and 2010. (Credit: NYSDOT) Aerial View.

WESTCHESTER AVENUE BRIDGE OVER THE HUTCHINSON RIVER PARKWAY (BRONX)

The bridge spans over the Hutchinson River Parkway and it supports the NYCT elevated subway structure of the Pelham Bay Line. Six of the transit columns are supported by the bridge girders. The bridge is located between Waters Place and Middletown Avenue. It has four travel lanes with parking lanes and sidewalks on both sides. This two span continuous multi-stringer bridge is supported by reinforced piers and abutments. It was built in 1940 by the Triborough Bridge and Tunnel Authority in conjunction with the construction of the Bronx-Whitestone Bridge approach. No major modifications to the bridge are recorded except for minor repairs at the south approach sidewalk and temporary flag repairs to bridge girders damaged by vehicle impacts in the southbound and northbound roadway. The underdeck at both spans is currently covered by approximately 154 square feet of timber planking. In addition, the underdeck at span 1 is covered with approximately 18 square feet of steel wire mesh netting.



Westchester Avenue Bridge Elevation Left and Right in 2012. (Credit: NYSDOT) April 2014: Span 2 – Deteriorated Areas Shielded With Planks.

The Westchester Avenue Bridge's vertical clearance over the Hutchinson River Parkway is sub-standard. The existing posted vertical clearance of 10'-2" is far less than the 12'-6" minimum vertical clearance required per AASHTO standards for parkways with passenger cars only. 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. Between 2009 and October 2014, 32 freight vehicles struck this bridge at the southern approach. After a bridge strike, up to a four hour delay may occur before traffic can resume a normal pattern.



Damaged Bridge, Cargo Container, and Contractor Truck After An Over-Height Trailer Struck the Bridge in January 2012.

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. The limits of the project will be from Waters Place just west of the bridge to Ericson Place, just east of the bridge.

In March 2011, a value engineering study was conducted in which it was recommended that further studies of alternative options be performed to raise the bridge clearance through a shallower bridge structure and/or by raising the roadway profile above the bridge.

Following the recommendation of the value engineering study, a hazardous material field investigation of the bridge was conducted in May 2013 and a hazardous material report was issued in June 2013. The report included the results of asbestos, lead and other hazardous

materials field investigations, including laboratory testing results.

An alternative analysis/feasibility report was prepared in August 2013 to review the recommendation options by the value engineering team. A preferred option was then selected and incorporated into the February 2014 bridge conceptual design report. NYC Transit was receptive to the preferred option in the April 3, 2014 meeting.

This rehabilitation project is proceeding with the preferred option, and is currently in final design. Construction is expected to begin in June 2016, and is expected to be complete in February 2019.

WHITESTONE EXPRESSWAY/VAN WYCK EXPRESSWAY (SB) TO CROSS ISLAND PARKWAY EB) OVER ACCESS ROAD FROM WHITESTONE EXPRESSWAY/VAN WYCK EXPRESSWAY (QUEENS)

The bridge is a multi-girder, single span, simply supported structure with a span length of 77 feet and is 24 feet wide curb to curb. It was constructed in 1939. There are two lanes (one way) on the bridge. The substructure consists of two gravity type concrete abutments. The west and east abutments of the existing bridge are constructed integral with the abutments of the Whitestone Bridge access ramp overpass. Construction is expected to begin in August 2018, and is expected to be completed in 2020.



Bridge (Lower Structure) in 2010. Left and Right Elevations. (Credit: NYSDOT) August 2013: Span 1 Underside of Deck from End Abutment, Looking Northwest - Areas of Spalled Concrete Deck Are Protected With Timber Planks. March 2014: Steel Plates on Wearing Surface. South and North Fascia - Along the Fascias are Built-Up Riveted Steel Girders. The Steel Railing Posts are Welded at the Base to the Top Flange of the Fascia Steel Girders.

EAST 175TH STREET BRIDGE OVER METRO NORTH (BRONX)

The East 175th Street Bridge over Metro North was originally built in 1889 and it underwent reconstruction in 1938. The reconstruction work included a new steel superstructure, concrete deck slab and sidewalk in conjunction with repairs to the existing stone masonry substructure and relocation of various utilities. It is a single span multi-girder steel structure with a steel reinforced concrete deck, and it measures 61.68 feet long from abutment to abutment and 60 feet wide from parapet to parapet. The upcoming major rehabilitation will include replacing the existing single span steel multi-girder superstructure with a single span pre-stressed concrete box beam bridge in conjunction with replacement of the concrete bridge seat, back walls, top of the wingwalls and approach slabs of the substructure, and and partial depth repairs of the existing stone masonry. Construction is expected to begin in 2019.



2014: East 175th Street Bridge Left and Elevations. (Credit: NYSDOT) Sidewalk conditions.

Design-Build

Design-Build 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.

NYCDOT is currently progressing these projects on a Design-Bid-Build basis until the legislation is passed in Albany allowing unconstrained use of this procurement method. NYCDOT may pursue projects utilizing Design-Build if a special case determination can be justified for a specific project.

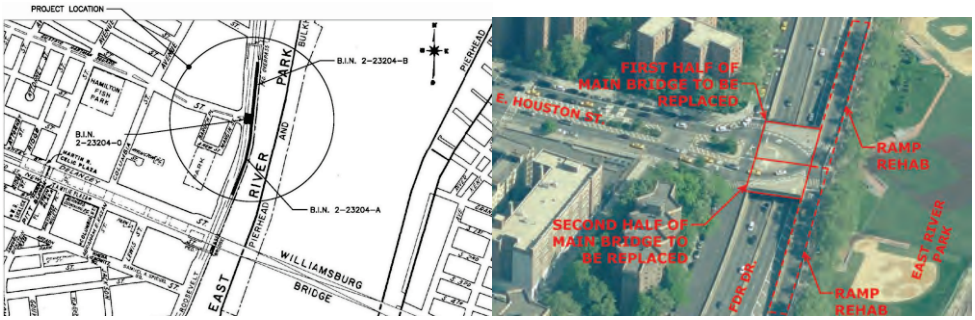
FDR DRIVE AT HOUSTON STREET OVERPASS (MANHATTAN)

The overpass consists of three bridge structures. The main bridge is a two-span reinforced concrete slab structure spanning over the FDR Drive's northbound and southbound roadways. Two approach ramp structures provide access to and from the FDR Drive northbound roadway and the main bridge. Each of these structures is also a reinforced concrete slab structure supported on longitudinal concrete walls that run adjacent to the FDR Drive's northbound roadway. These bridges were constructed circa 1953, and are thus almost 60 years old. On the main bridge, the superstructure slab is supported on bearing wall abutments continuously founded on piles, and on one pier at the center of the FDR Drive that consists of a steel cap beam supported on multi-steel columns continuously founded on piles. The structural slabs have asphalt overlays, and the main bridge has three sections of concrete sidewalks.

The general scope of work for the main bridge structure includes the demolition of the entire two-span, reinforced-concrete slab superstructure, and its replacement with new two-span pre-stressed concrete slab units, the demolition and replacement of the existing center pier cap and steel columns, and the reconstruction of the abutment walls for the substructure. The superstructure includes the deck slab, sidewalks, center median, parapets with fencing, lampposts, and signal posts.

The rehabilitation of the two ramp structures (including the adjacent pedestrian ramp), includes the repair of the existing concrete slab and wall structures, removal of asphalt overlay, installation of waterproofing, repair of joints, removal of safety walks, replacing parapets with new concrete barriers, and the placement of new asphalt overlay over the existing deck slabs.

The reconstruction of the main bridge will be performed in two main stages, with half of the bridge being replaced at a time. A Notice to Proceed was issued to the contractor with a start date of January 4, 2016.



Project Location. Construction Staging.



The Three Structures of the FDR Drive at Houston Street Overpass. 2014: Main Bridge – Left and Right Elevations. South Approach Ramp - Span 2, Left Side Safety Walk and Curb. North Approach Ramp - Span 2, Top of Cantilevered Pedestrian Walkway. (Credit: NYSDOT)



2011: Main Bridge – Top of Deck Looking West. South Approach Ramp – Top of Deck Looking South. North Approach Ramp – Top of Deck Looking North.

HARLEM RIVER DRIVE BRIDGE AT EAST 127TH STREET (MANHATTAN)

The Harlem River Drive Bridge over the ramp from East 127th Street is an eleven-span structure consisting of seven main spans of multiple steel stringers and concrete deck and four approach spans of reinforced concrete structural slabs supported by reinforced concrete girders and retaining walls. The bridge currently carries three traffic lanes in the southbound direction and two lanes plus a wide striped shoulder in the northbound direction. The parkway is not subject to truck traffic with the exception of emergency vehicles and school buses.

The existing bridge was designed and built by the Department from 1955 to 1958 as part of the Harlem River Drive Improvement Project from East 125th Street to East 132nd Street. The bridge is owned and maintained by the Department; the rest of the Drive is owned by the New York State Department of Transportation.

This project includes over $82 million in Federal funds. Construction will follow the on-line bridge replacement with auxiliary exit and entrance lanes and left-lane exit to Second Avenue. It 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. The northbound and southbound structures will share a single south abutment, but will be supported by independent abutments at the north. The new bridge will carry two through lanes in the northbound direction, and three lanes in the southbound direction; each lane will have an average width of 11 feet. The new bridge will also include new fascia and median barriers. The abutments, wingwalls and piers will be replaced with new substructures that will conform to current seismic design criteria. The project length is approximately 3,280 feet.



Harlem River Drive Bridge at East 127th Street.



Rendering of New Harlem River Drive Bridge.

The viaduct currently serves approximately 79,000 vehicles per day. This area currently has 40 times the State average number of accidents. Two features of the viaduct contribute to the accidents. First, the hump as the Harlem River Drive passes over East 127th Street limits drivers' visibility; vehicles approach the hump at a higher speed only to find slow moving vehicles at the other side of the hump, and too often they are not successful in decelerating or stopping their vehicles on time to prevent an accident. Second, there are weaving movements as vehicles exiting the Third Avenue Bridge enter the southbound Harlem River Drive in the right but try to immediately pull to the left in order to continue their travel further south on the Harlem River Drive and the FDR Drive. At the same time and within the same stretch of highway, vehicles that are in the left lanes of the southbound Harlem River Drive immediately north of the Third Avenue Bridge try to pull to the right in order to exit at Second Avenue. The lack of an appropriate weaving distance is the root of many of the accidents in the area. The project will also allow at-grade access for a future Park/Promenade to be developed by the Department of Parks at 127th Street between the Harlem River Drive and the Harlem River. A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of November 10, 2014.



Project Location. 2014: Left and Right Elevations. (Credit: NYSDOT)



Looking East at the 127th Street Off-Ramp: Current and Proposed View.



Looking East at 2nd Avenue: Current and Proposed View. Looking South From 3rd Avenue Bridge: Current Harlem River Drive and 2nd Avenue Exit and Proposed Harlem River Drive With Left Lane Exit to 2nd Avenue.

This project will be completed in five stages in order to maintain the traffic flow on the active highway throughout the duration of the project. Stage 1 included the closure of the 127th Street northbound exit, construction of a temporary roadway for the northbound traffic, and relocation of traffic onto the temporary roadway. Stage 2 will include the relocation of three southbound traffic lanes to the existing northbound structure, demolition of the existing southbound structure, construction of the future southbound structure, and relocation of two southbound traffic lanes onto new southbound structure. Stage 3 will include the construction of the remaining portion of the southbound structure and the relocation of the remaining southbound traffic. Stage 4 will include the closure of the 2nd Avenue southbound exit, the relocation of two northbound traffic lanes onto future southbound structure, and the construction of northbound structure. Finally, Stage 5 will include opening the northbound lanes and the southbound 2nd Avenue exit, relocating the two northbound traffic lanes to the new northbound structure, and removing all of the temporary pavement near the East 127th Street viaduct.

TBTA recently proposed construction of a new connecting ramp between the westbound Manhattan approach of the RFK Bridge and the northbound Harlem River Drive that would provide direct access to the northbound Harlem River Drive from the RFK Bridge via a “tie in” on the left of the northbound Harlem River Drive 127th Street viaduct structure. In February 2015, the Agency and TBTA agreed to have seven of the foundations for the RFK/HRD Connector Ramp constructed by the contractor in connection with its work under the HRD Contract. The foundations for each pier will consist of drilled shafts and reinforced concrete pile caps that will be built below grade to accommodate the pier columns required to support the RFK/HRD connector ramp superstructure.

Exit 19 (East 125th Street) of the northbound Harlem River Drive was closed at 10:00 AM, February 23, 2015, and will remain closed through 2017. Motorists are using Exit 21 (East 135th Street) as an alternate exit.

Stage 1 is complete and the project was in Stage 2 at the end of 2015. Construction is expected to be complete in December 2018.



February 2015: Exit 19 Closed. June 2015: Locating and Removing Utilities.



February 2015: Removing the Massive Reinforced Concrete Substructure Near the Third Avenue Bridge. Excavating and Removing Big Rocks. (Credit: Artemio Angeles)



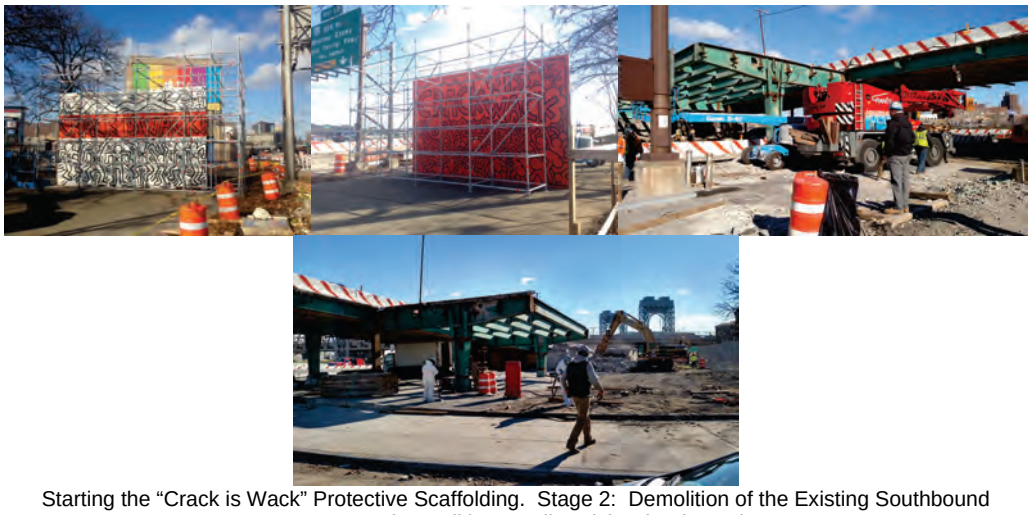
August 2015: Backfilling Utilities at Second Avenue. Contractor Working on the Temporary Roadway Placing the Sub-Base Second Layer. September 2015: Preparing New Concrete Crane Pads With Reinforcement. Painted Concrete Barriers Near Ramp C and Temporary Roadway. October 2015: Adjusting the Grading on the New Temporary Roadway. (Credit: Artemio Angeles)



On October 5, the Temporary Roadway was Opened on the Northbound Harlem River Drive. This will enable the Start of Construction of the New 2nd Avenue Exit Ramp.



December 2015: Ramp C Concrete Placement. (Credit: Artemio Angeles) Test Pit Pier 6.



Starting the "Crack is Wack" Protective Scaffolding. Stage 2: Demolition of the Existing Southbound Structure. (Demolition Credit: Richard Solomon)

Component Rehabilitation

MOSHULU PARKWAY BRIDGE OVER CONRAIL (ABANDONED), LEGGETT AVENUE BRIDGE OVER AMTRAK, EAST 162ND STREET BRIDGE OVER METRO NORTH RR HAR, EAST 165TH STREET BRIDGE OVER METRO NORTH RR HAR, EAST 187TH STREET BRIDGE OVER METRO NORTH RR HAR, SOUTHERN BOULEVARD BRIDGE OVER EAST FORDHAM ROAD, GRAND CONCOURSE BRIDGE OVER EAST 167TH STREET, EAST 180TH STREET BRIDGE OVER BRONX RIVER, RIVERSIDE DRIVE BRIDGE OVER WEST 138TH STREET, RIVERSIDE DRIVE BRIDGE OVER WEST 145TH STREET, AND THE PULASKI BRIDGE BICYCLE PATH (MCGUINESS BOULEVARD OVER NEWTOWN CREEK)

A Notice to Proceed for the component rehabilitation of these 10 bridges in the Bronx and Manhattan, as well as the creation of a protected bicycle path on the Pulaski Bridge was issued to the contractor with a start date of November 3, 2014.

The Mosholu Parkway Bridge over Conrail (Abandoned) was built in 1939. It is a single span concrete arch bridge. There is a concrete parapet along both the north and south fascia of the bridge. The existing bridge geometry consists of two travel lanes and a shoulder in each direction, divided by a 4'-0" wide concrete median barrier, as well as a 15'-wide asphalt path for golf carts and pedestrians on the south side of the bridge. The scope of rehabilitation work includes the following: removing and replacing the asphalt overlay, waterproofing, pavement striping, north fascia barrier replacement and median barrier repairs, corrugated guide rail transition, and wingwall joint filler; removing, storing and reinstalling lighting lampposts on north fascia barrier and replacing luminaires with new luminaires; installing a temporary lighting system; excavating, backfilling and paving the local depression in the asphalt golf cart path; repairing

chain link fence section and concrete on the underdeck and abutment walls; installing weepholes in the abutments and preformed joint seal in the concrete parapet; cleaning and flushing catch basins; and removing graffiti by power wash and applying anti-graffiti protective coating. Vehicular and pedestrian access will be maintained during the 5-month rehabilitation period. Construction work began in June 2015. The project involves nighttime closures.



Mosholu Parkway Bridge over Conrail (Abandoned). Conditions in June 2015. Asphalt Work in July.

The Leggett Avenue Bridge over Amtrak was built in 1906. It is a three span steel truss. There is a corrugated metal fence along both the east and west fascias of the bridge. The existing bridge geometry consists of two travel lanes and a sidewalk in each direction, divided by a 4'-10" wide concrete median barrier. The scope of rehabilitation work shall include the following: removing and replacing deck joint, deck joint seals and portions of the concrete sidewalk; repairing concrete on the abutment and approach slab; repairing structural steel members and existing fuse box; installing pavement striping; and cleaning and painting steel surfaces and bottom of stay-in-place form. Vehicular and pedestrian access will be maintained during the estimated 5-month rehabilitation period.



Leggett Avenue Bridge over Amtrak.

The East 162nd Street Bridge over Metro North was built in 1888. It is a single span steel jack arch bridge with built-up steel beams encased in concrete. There is a fence along both the north and south fascia of the bridge as well as a non-standard decorative bridge rail along the north fascia. The existing bridge geometry consists of one travel lane, a parking lane and a sidewalk in each direction. The scope of rehabilitation work shall include the following: locally removing and replacing the asphalt and concrete overlays and sidewalk; installing pavement striping; repairing guide railing, concrete on the underdeck and abutment, and cracks in the asphalt overlay and

sidewalk; cleaning and painting steel surfaces locally; resealing sidewalk joints; and repointing stone masonry. Vehicular and pedestrian access will be maintained during the estimated 4-month rehabilitation period.



East 162nd Street Bridge over MNRR.

The East 165th Street Bridge over Metro North was built in 1897. It is a single span steel jack arch bridge with built-up steel beams encased in concrete. . A chain link fence runs in front of steel railing atop both the west and east fascia of the bridge. The existing bridge geometry consists of one travel lane in each direction on East 165th Street, and one travel lane, a turning lane and a sidewalk in each direction on Melrose/Webster Avenue. The scope of rehabilitation work shall include the following: locally removing and replacing the asphalt overlay and sidewalk; repairing the concrete underdeck; cleaning and painting steel surfaces; resealing sidewalk joints; installing new multi-rotational bearings at the south abutment; partially removing and replacing the bridge seat at the new bearing locations; installing a temporary support system; and performing jacking operations. Vehicular and pedestrian access will be maintained during the estimated 8-month rehabilitation period.



East 165th Street Bridge over MNRR.

The East 187th Street Bridge over Metro North was built in 1889. It is a single span steel jack arch bridge with built-up steel beams encased in concrete. The bridge has a chain link fence and a non-standard decorative bridge rail along both the north and south fascia. The existing bridge geometry consists of one 17' travel lane and an 11' sidewalk in each direction. The scope of rehabilitation work shall include the following: removing and replacing concrete overlay and waterproofing membrane, concrete sidewalk, corrugated guide rail, bridge railing, chain link fence wire mesh, and steel faced curb and handicap ramp at sidewalk corners; sealing the deck overlay; repairing the concrete underdeck; and cleaning and painting the steel surfaces locally. Vehicular and pedestrian access will be maintained during the estimated 5-month rehabilitation period.



East 187th Street Bridge over MNRR.

The Southern Boulevard Bridge over East Fordham Road was built in 1962. It is a two span concrete arch bridge with stone masonry facing on the abutments and spandrel walls. The bridge has a concrete parapet with stone facing topped with a non-standard decorative bridge rail at both the east and west fascia. The existing bridge geometry consists of two travel lanes, a turning lane and a sidewalk in each direction, divided by a 4'-3" wide concrete median. The scope of rehabilitation work shall include the following: removing and replacing asphalt overlay, waterproofing membrane and pavement striping; repairing bridge railing, light fixtures and concrete on the underdeck and sidewalk; resealing sidewalk joints and vertical fascia joint at abutment; repointing and repairing cracks in stone masonry; installing weep holes in the underdeck and guide railing; and cleaning fascia stone masonry and catch basins. Vehicular and pedestrian access will be maintained during the estimated 5-month rehabilitation period.



Southern Boulevard Bridge over East Fordham Road.

The Grand Concourse Bridge over East 167th Street was built in 1923. It is a two span steel girder bridge. The bridge has a concrete sidewalk and concrete parapet topped with a chain link fence at each fascia. The existing bridge geometry consists of two travel lanes and a turning lane in each direction on the Grand Concourse, and one travel lane, a parking lane and a sidewalk in each direction on the Grand Concourse service road. The overall structure extends several blocks to the north and south of the Grand Concourse where it carries a two-aisle parking area between the eastbound and westbound ramp lanes of East 167th Street. There is an NYCTA subway station under the Grand Concourse. Both the subway station and the railroad tracks are above East 167th Street. The subway station structures are not included in the scope of the bridge project. The scope of rehabilitation work shall include the following: removal and replacement of asphalt overlay; repairing concrete on the underdeck, abutments, piers, wingwalls and sidewalks; repairing underdeck light fixtures and drain pipe; resealing sidewalk and parapet joints; grouting the gap below the parapet curb along the pavement; and removing graffiti by power wash and applying anti-graffiti protective coating. Vehicular and pedestrian access will be maintained during the estimated 4-month rehabilitation period.



Grand Concourse Bridge over East 167th Street.

The East 180th Street Bridge over Bronx River was built in 1925. It is a single span concrete arch bridge with stone masonry facing. The bridge has a parapet at both the north and south fascia. The existing bridge geometry consists of one travel lane, a parking lane and a sidewalk in each direction; the sidewalks on both sides are protected from the roadway by a concrete barrier. The scope of rehabilitation work shall include the following: replacing pedestrian railing; repairing concrete underdeck, crack, spall and joint seal in concrete barrier, and the retaining wall at the northwest corner of the bridge; resealing sidewalk joints; repointing stone masonry and stone coping mortar joint; cleaning drain holes in the concrete barrier; removing a tree from the south fascia and northwest retaining wall; and removing graffiti by power wash and applying anti-graffiti protective coating. Vehicular and pedestrian access will be maintained during the estimated 4-month rehabilitation period.



East 180th Street Bridge over Bronx River.

The Riverside Drive Bridge over West 138th Street was built in 1920. It is a single span concrete arch bridge with stone masonry facing on the abutments and spandrel walls. There is a stone parapet on the east and the west side of the bridge. The existing bridge geometry consists of two travel lanes and a parking lane in each direction; the bridge also contains a sidewalk on the east side and an entrance to Riverbank State Park on the west side. The scope of rehabilitation work shall include the following: removing and replacing the asphalt overlay; repairing granite and brick pavers and concrete on the underdeck and sidewalk; repointing and repairing cracks in stone masonry joints; resealing underdeck joints; installing weepholes in the concrete underdeck; installing pavement striping; removing graffiti by power wash and applying anti-graffiti protective coating; cleaning and painting steel staircase railing and bollards; and replacing lighting fixture and refurbishing existing fuse box. Vehicular and pedestrian access will be maintained during the estimated 4-month rehabilitation period.



Riverside Drive Bridge over West 138th Street.

The Riverside Drive Bridge over West 145th Street was built in 1930. It is a single span concrete arch bridge with stone masonry facing on the abutments and west spandrel wall. There is only one fascia on this bridge; the east side of the arch bridge is a filled backwall. There is a stone parapet on the west side of the bridge. The existing bridge geometry consists of two travel lanes and a parking lane in each direction; the bridge also contains an entrance to Riverbank State Park on the west side. The scope of rehabilitation work shall include the following: clearing and grubbing; removing and replacing the asphalt overlay, concrete overlay, waterproofing membrane and granite and brick pavers; repairing concrete on the underdeck; repointing and repairing cracks in stone masonry joints; resealing underdeck joints; installing pavement striping; removing graffiti by power wash and applying anti-graffiti protective coating; removing and resetting steel gate; and cleaning and painting bollards. Vehicular and pedestrian access will be maintained during the estimated 4-month rehabilitation period.



Riverside Drive Bridge over West 145th Street.

Bicycle use has grown at an unprecedented rate over the last five years in New York City. Currently, the Pulaski Bridge, which connects Greenpoint, Brooklyn with Long Island City, Queens, merges pedestrian and bicycle traffic into a shared travel lane creating dangerous conditions for both pedestrians and bicyclists. The Pulaski Bridge project will convert one southbound car lane (between Jackson Avenue in Queens and Eagle Street) on the bridge into a protected bicycle lane, giving more room to pedestrians on what is now a shared-use path and calming traffic headed toward McGuinness Boulevard in Brooklyn. A $2.5 million Federal Transportation Enhancements grant awarded by the State will cover some of the $4.2 million costs. The new pathway is expected to open in spring 2016.

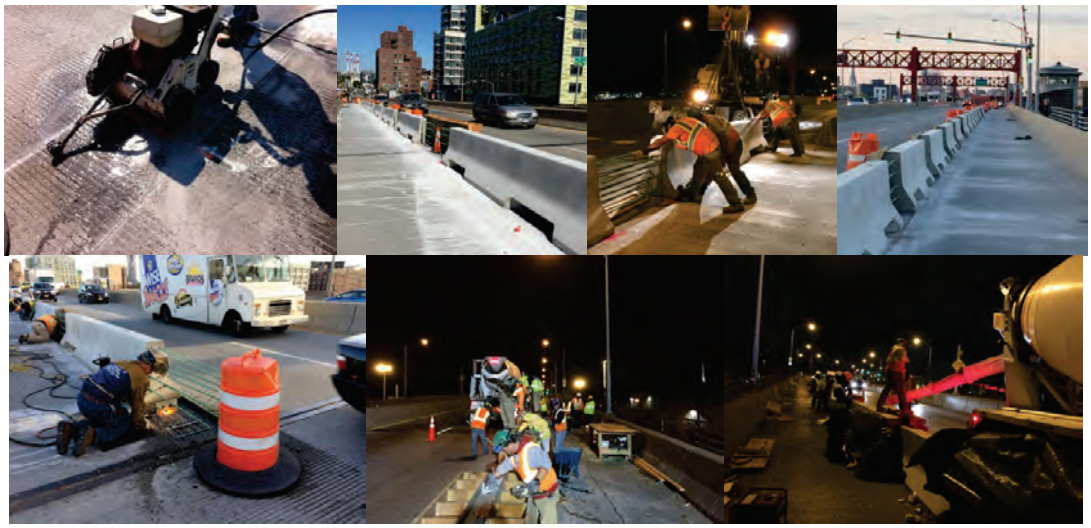
Opened in 1954 and rebuilt in 1994, the Pulaski Bridge is a 44 span bascule drawbridge that opens about 400 times a year, mostly for barges delivering heating oil to a facility on Newtown Creek. The opened drawbridge cannot support the weight of an additional concrete barrier, so in the middle of the bridge, the project will eliminate the barrier that separates the current bicycling and walking path from traffic. On this stretch, pedestrians and cyclists will have physical (metal) separation from traffic, but not between each other. Along other sections of the bridge, there will be two concrete barriers, separating the bikeway from both car traffic and pedestrians. The scope of work will also include installing impact attenuation devices at breaks in barrier system; replacing the finger joint at the center break of the bridge with a bicycle friendly joint; balancing

the bascule leaves to accommodate the load of the new barrier; and installing pavement markings and signs for the new bicycle path. Construction work began in September 2015.



Existing and Planned Condition.

By the end of 2015, all cast-in-place concrete barrier closure sections in Queens and Brooklyn were placed, the Brooklyn approach embedded precast concrete barriers were marked by the surveyor, reinforcement was completed for the cast-in-place concrete barrier on the turning lane to the bridge from Jackson Avenue, and the pedestrian/bicycle safety rails were fabricated off-site and delivered to the contractor. Both pre-cast and cast-in-place barriers are required because the cast-in-place sections are anchored to the bridge deck while the pre-cast sections are not. This enables the barriers to perform as a system, protecting all bridge users, by absorbing the energy if struck by a passing vehicle. The project involves nighttime and midday car lane closures, but bicycle and pedestrian access to the bridge are being maintained at all times during construction.



September 2015: Saw Cutting the Existing Concrete Bridge Deck to Excavate for the Barrier. Precast Concrete Barriers in Place on the Queens Side of the Bridge. Nighttime Placement of the Barriers. October: Precast Concrete Barriers in Place Along the Brooklyn Side of Bridge Along the Elevated Spans. Welders Preheat the Weld Plate for the Barrier. Placing Concrete at the Cast-in-Place Barrier Closure Segments. December: Cast-in-Place Barrier Concrete Barrier Placement Along the Brooklyn Side of the Bridge.

RAMP TO ED KOCH - QUEENSBORO BRIDGE FROM EAST 58TH STREET OVER EAST 59TH STREET, RAMP TO 21ST STREET FROM NY OVER 22ND STREET, 80TH ROAD BRIDGE OVER LIRR MAIN LINE, 71ST AVENUE BRIDGE OVER COOPER AVENUE, HANNAH STREET BRIDGE OVER SIRT SOUTH SHORE, FOREST AVENUE BRIDGE OVER CLOVE LAKES PARK STREAM, DOUGLASTON PARKWAY BRIDGE NORTHBOUND OVER CROSS ISLAND PARKWAY, DOUGLASTON PARKWAY BRIDGE SOUTHBOUND OVER CROSS ISLAND PARKWAY, AND ROOSEVELT AVENUE BRIDGE OVER FLUSHING MEADOW PARK ROAD

A Notice to Proceed for the component rehabilitation of these 9 bridges in Manhattan, Queens, and Staten Island was issued to the contractor with a start date of July 13, 2015.

The Ramp to the Ed Koch – Queensboro Bridge from East 58th Street over East 59th Street was built in 1929. It is a twelve span ramp and carries two reversible travel lanes of traffic to (normal daily hours) and from (weekdays morning rush hours only) the Ed Koch - Queensboro Bridge south upper roadway. The bridge has a half jersey barrier running along both sides of the roadway and approaches. The scope of rehabilitation work includes the following: removing the concrete wearing surface and replacing with a thin polymer concrete overlay; repairing the deteriorated sections of concrete deck slab; removing armored joints and replacing with armorless joint system; removing and repairing the concrete in piers, the underside of the deck and the curtain walls; repointing of the stone masonry joints; repairing traffic signs and providing new pavement striping; and applying anti-graffiti coating on the repaired concrete surfaces. Vehicular and emergency access will be maintained during the estimated 5-month rehabilitation period.



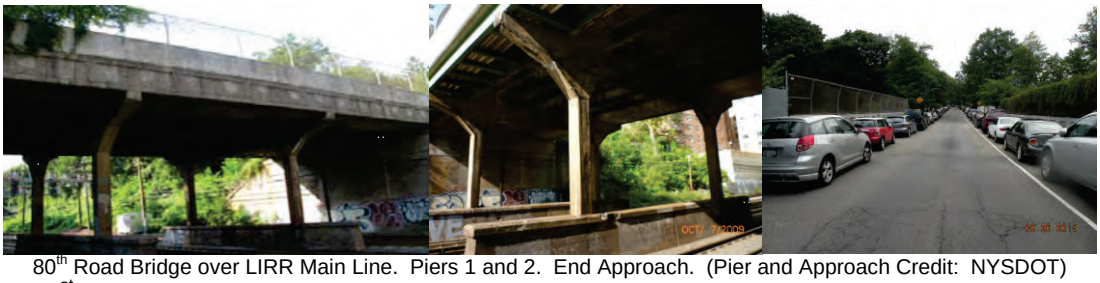
Ramp to the Ed Koch – Queensboro Bridge from East 58th Street over East 59th Street. Span 10 – Left Elevation. Span 11 – Left Side of Structure. (Spans 10 and 11 Credit: NYSDOT)

The Ramp to 21st Street from NY over 22nd Street was built in 1929. It is a 43 span bridge ramp and carries two reversible travel lanes of traffic to (weekdays morning rush hours only) and from (normal daily hours) the Ed Koch - Queensboro Bridge's south upper roadway in one direction. The width of the bridge varies throughout the spans. The bridge has a half jersey barrier running along both sides of the roadway and the approaches. The bridge superstructure consists of four different types of framing plans and the bridge deck consists of a galvanized stay in place form, concrete filled steel grating and a monolithic concrete overfill. The scope of rehabilitation work includes the following: removing and replacing the concrete wearing surface with a thin polymer concrete overlay; repairing the deteriorated concrete deck slab locations; replacing armored joints with a new armorless joints system; repairing the concrete on the abutment; retrofitting the bearings; improving drainage by cleaning the scuppers; repairing the damaged traffic signs, and providing new pavement striping. Vehicular and emergency access will be maintained during the estimated 8-month rehabilitation period.



Ramp to 21st Street From NY Over 22nd Street. Spans 16 to 21, and Spans 22 to 38 – Right Elevation. Piers 18 and 19. (Spans and Piers Credit: NYSDOT)

The 80th Road Bridge over LIRR Main Line was built in 1909. It is a three span bridge over four railroad tracks. It carries one travel lane, parking lanes on each side, and a bike lane. The bridge has a sidewalk and a concrete parapet with chain-link fence running along both sides of the roadway and approaches. The bridge superstructure mostly consists of concrete encased steel girders with two exposed steel girders at the south fascia of the bridge. The scope of rehabilitation work includes the following: removing and replacing the north sidewalk, curb, parapet, and removing the sand fill in north sidewalk bay; removing the deteriorated concrete in the girders' encasement, north fascia, and underside of the deck; removing and replacing the asphalt wearing surfaces on the bridge and at the approaches; removing and replacing the existing northeast and southeast approach sidewalks, and erecting a temporary support shield on railroad tracks. Vehicular and pedestrian access will be maintained during the estimated 7-month rehabilitation period.



80th Road Bridge over LIRR Main Line. Piers 1 and 2. End Approach. (Pier and Approach Credit: NYSDOT)

The 71st Avenue Bridge over Cooper Avenue was built in 1934. It is a single span bridge and carries one travel lane, a sidewalk and through girders (acting as a railing), running along both sides of the roadway. The scope of rehabilitation work includes the following: removing and replacing the asphalt wearing surfaces on the bridge and approaches; repairing the concrete on the abutments, wing-walls, and underside of the deck; constructing a retaining wall at the south west corner; removing and reconstructing the concrete curb, sidewalk and driveway at the east approaches, and improving the existing under deck lighting. Vehicular and pedestrian access will be maintained during the estimated 3-month rehabilitation period.



71st Avenue Bridge over Cooper Avenue. Left Concrete Parapet/Guide Rail. Span 1 Bridge Framing. (Parapet and Span Credit: NYSDOT) Stairway at Right Side of Beginning Abutment.

The Hannah Street Bridge over SIRT South Shore was built in 1935. It is a ten span bridge and carries one travel lane in each direction, a sidewalk, a railing and a steel mesh fence running along both sides of the roadway and approaches. The bridge deck has a steel bridge railing with a chain-link fence running alongside the roadway and approaches. The bridge deck consists of a reinforced concrete slab with integral wearing surface and prestressed concrete beams. The scope of rehabilitation work includes the following: removing and replacing the existing deck and

approaches' wearing surface; waterproofing; repairing the concrete on the abutments, piers and the underside of the deck; removing existing armored joints and replacing with armorless joint systems; cleaning of the curbs; repairing the embankment on the north east approach, and providing new striping. Vehicular and pedestrian access will be maintained during the estimated 3-month rehabilitation period.



Hannah Street Bridge Over SIRT South Shore. Spans 1-4 - Right Elevation. Pier 3.
(Span and Pier Credit: NYSDOT)

The Forest Avenue Bridge over Clove Lakes Park Stream was built in 1906. It is a single span concrete arch bridge and carries one travel lane in each direction, a sidewalk, and a small parapet and low railing running along the southern sidewalk. The bridge deck has an asphalt wearing surface. The scope of rehabilitation work includes the following: removing and replacing the existing nonstandard railing with a standard bridge railing; repairing the concrete on the deteriorated sections of sidewalk; cleaning and repointing of the mortared joints at the wing-walls; installing a new guide railing at the bridge approach; and providing tree and landscape protection within the park land during construction and restoration after construction. Vehicular and pedestrian access will be maintained during the estimated 3-month rehabilitation period.



Forest Avenue Bridge Over Clove Lakes Park Stream. End Right Wingwall.
(Wingwall Credit: NYSDOT)

The Douglaston Parkway Bridge northbound over Cross Island Parkway was built in 1939. It is a single span bridge over three lanes on the northbound Cross Island Parkway and carries one travel lane, sidewalk, a wide shoulder, and a median. The bridge has a steel bridge railing with a chain-link fence running alongside of the roadway and approaches. The bridge superstructure consists of reinforced concrete beams acting as a rigid frame. The deck consists of a reinforced concrete slab with a concrete fill course and asphalt wearing surface. The scope of rehabilitation work includes the following: removing and replacing the bridge and approaches' asphalt wearing surfaces, repairing of concrete on abutments and the underside of the deck; cleaning and re-pointing of the mortared joints in the masonry wing walls; removing and replacing the concrete curbs at the approaches, improving lighting on the underside of the deck; providing new pavement striping, saw cutting the bridge joints on the roadway, and sealing with a sealant. Vehicular and pedestrian access will be maintained during the estimated 3 - month rehabilitation period.



Douglaston Parkway Bridge Northbound Over Cross Island Parkway.

The Douglaston Parkway Bridge southbound over Cross Island Parkway was built in 1939. It is a single span bridge over three lanes on the southbound Cross Island Parkway and carries one travel lane, sidewalk, wide shoulder, and a median. The bridge has a steel bridge railing with a chain-link fence running alongside of the roadway and approaches. The bridge superstructure consists of reinforced concrete beams acting as a rigid frame. The deck consists of a reinforced concrete slab with a concrete fill course and an asphalt wearing surface. The scope of rehabilitation work includes the following: removing and replacing the bridge and approaches' asphalt wearing surfaces; repairing the concrete on the abutments and the underside of the deck; cleaning and re-pointing of the mortared joints in the masonry wing walls; removing and replacing the concrete curbs at the approaches; improving the lighting on the underside of the deck; providing new pavement striping, saw cutting bridge joints on roadway, and sealing with a sealant. Tree and landscape protection will be provided during the construction. Vehicular and pedestrian access will be maintained during the estimated 2-month rehabilitation period.



Douglaston Parkway Bridge Southbound Over Cross Island Parkway.

The Roosevelt Avenue Bridge over Flushing Meadow Park Road was built in 1936. It is a four span bridge and carries two travel lanes in each direction, a wide sidewalk, and a railing running along both sides of the roadway and approaches. The bridge deck has a steel bridge railing with a chain-link fence running alongside the roadway and approaches. The bridge consists of a reinforced concrete slab. The scope of rehabilitation work includes the following: removing and replacing the existing deck and approaches' asphalt overlay, waterproofing membrane, and sidewalks; repairing the concrete on the abutments and underside of the deck; improving the existing roadway lighting and drainage systems; repointing the mortared joints in the wing-walls and piers; and providing new pavement striping. Tree and landscape protection will be provided during the construction. Vehicular and pedestrian access will be maintained during the estimated 5-month rehabilitation period.



Roosevelt Avenue Bridge Over Flushing Meadow Park Road.
Left Side Span 2.

149TH STREET BRIDGE OVER LIRR

A Notice to Proceed for the structural deck replacement for this bridge was issued to the contractor with a start date of November 30, 2015.

The 149th Street Bridge over LIRR was built in 1924. It is a single-span steel stringer structure and carries one travel lane and one parking lane in each direction, a sidewalk, a railing and a steel mesh fence running along both sides of the roadway. The work to be performed under this project includes replacing the structurally deficient bridge deck constructed under Contract HBCR99B. The reconstruction of the bridge began in May 2010. In May 2012, an independent consultant determined that the deck was structurally deficient due to a shop drawing review error by the design and construction support services consultant. The City has filed a lawsuit against the consultant for this error. The scope of work includes the following: installing protective shielding over the railroad during nighttime operations; removing and storing the existing bridge railing and fence; removing and replacing the superstructure slab including the sidewalk and curbing; reconstructing the header on the south abutment and the sidewalks on the south approach to install an armorless joint; reinstalling the bridge railing and fencing along the fascia; sawcutting a groove finish on the bridge deck and applying a penetrating sealer to the top of concrete; and installing traffic striping across the bridge to match the existing striping on the approaches.



2014: Monitoring the Deck With Sensors. Taking Core Samples for Testing. Bridge is Closed to Traffic but Reopened for Pedestrians in June 2012.

Engineering Review and Support

IN-HOUSE DESIGN

In-House Design staff prepare plans, specifications, and cost estimates for bridge replacement/rehabilitation 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.

The Bryant Avenue Bridge over Amtrak and CSXT in the Bronx was designed by unit staff and is expected to remain under construction until early 2016. This is a one span structure with a span length of 90 feet. This project includes replacement of the steel superstructure, bearings, approaches, water mains, and rehabilitation of the abutments. The new superstructure consists of a reinforced concrete deck over prestressed concrete adjacent box beams. The two existing water mains will be replaced with two new pipes on top of the north sidewalk in a fenced-off area. As the designer of the bridge, In-House Design has also been involved in the construction support services for the duration of construction.

Design also continued for the rehabilitation of the Henry Hudson Parkway Viaduct from West 72nd Street to West 82nd Street and the Henry Hudson Parkway Viaduct from West 94th Street to West 98th Street. The rehabilitation work will include the repair or replacement of various deteriorated structural steel members, concrete deck, abutments, and retaining walls, as well as the complete painting of the substructure and superstructure steel. Construction work on these viaducts is expected to begin in mid-2017.

The unit also continued the preliminary design for the rehabilitation of the East 169th Street Bridge and the East 180th Street Bridge, both over Metro North Railroad in the Bronx. Construction for both bridges is scheduled to start in fiscal year 2019. Both are single span bridges built in 1889. The superstructures will be removed and replaced, and the substructures will be partially rehabilitated.



September 2015: Inspecting the Preparations for the Bridge Deck Concrete Pour at the Bryant Avenue Bridge over AMTRAK and CSXT. Assistant Civil Engineer Evgenia Campbell, Assistant Electrical Engineer Satpaul Jaswal, Director of In-House Design Ferdinand John, and Civil Engineers Kirollos Dimian, Kamran Sikandar, and Lev Gold. (Credit: Ludner Charles)

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 2015 included the emergency contract for the restoration of tunnel systems at the Battery Park and West Street Underpasses; the replacement of the Bruckner Expressway over Unionport Bridge; the reconstruction of the bridge operating system of the Madison Avenue Bridge over Harlem River; and the rehabilitation of the East 169th and East 180th Street Bridges over Metro North Railroad.

ENGINEERING SUPPORT

BRIDGE PROJECT SPECIFICATIONS

In 2015, the Specifications Unit of the Engineering Support Section prepared and/or reviewed contract proposal books and/or specifications for 20 contracts, including 17 bridge rehabilitation and new construction/reconstruction contracts and 3 component rehabilitation contracts, in addition to replying to specification requests for 10 on-going construction projects. Seven of the above contracts totaling approximately $422 million in construction costs were approved by the Law Department and advertised for bid, and 2 are awaiting approval. Nine contracts were awarded for construction in 2015 and one is waiting for award.

Notable among the construction contracts prepared and /or reviewed, advertised, sent for bid, and awarded were: the component rehabilitation of six bridges citywide, Belt Parkway Bridge over Mill Basin, the preventive maintenance of the four East River Bridges, the 8 Culverts Project in Staten Island, Emergency Contract for Battery Park Underpass and West Street Underpass, Roosevelt Avenue Bridge, Macombs Dam Bridge, the Trans-Manhattan Expressway Connector Ramp, and the Houston Street Overpass.

The unit also maintains the City and federal boiler plate received from DOT Legal and updates R-pages (revisions to NYSDOT Standard Specifications) as required by the Guidelines for Preparation of Bridge Construction Contract Proposal Book and advises Agency Divisions and consultants on the preparation of contract proposal books and construction contract related issues.

RECORD MANAGEMENT UNIT

The Records Management Unit converted 168,590 TIFF (Tag Image File Format) drawings to PDF (Portable Document Format) format and completed the indexing of 148,782 drawings. Some 200,000 TIFF drawings will be converted to PDF format.

The switch to electronic media and server-based archiving will save money on drawing submissions, 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 project costs in the long run.

The Records Management unit also reviewed and approved as-built drawings and contract drawings for 25 contracts in 2015, including Manhattan Bridge, Harlem River Drive over Ramp at East 127th Street, Belt Parkway Bridge over Mill Basin, Houston Street Bridge over DFR Drive, Bryant Avenue Bridge over Amtrak and CSX, component rehabilitation of twelve bridges citywide, St. George Ferry Terminal Ramp Project, component rehabilitation of ten Brooklyn bridges, Wards Island Pedestrian Bridge, Claremont Parkway Bridge, 149th Street Bridge, and the Roosevelt Avenue Bridge over the Van Wyck Expressway.

SURVEYING

The Surveying Unit staff monitored eight bridges and three retaining walls in 2015: Depot Place Bridge over Conrail Yard, Third Street Bridge over Gowanus Canal, Pelham Parkway Bridge, Stone Arch Bridge in Central Park, Ninth Street Bridge over Gowanus Canal, 17th Avenue Pedestrian Bridge over Belt Parkway, Footbridge over Clove Lake, City Island Bridge over Eastchester Bay, and the retaining walls at Douglas Road, along Pratt Avenue, and at the West 207th Street Bridge over the Harlem River.

ENGINEERING REVIEW

MACY'S THANKSGIVING DAY PARADE

As in past years, the staff of the Engineering Review Section actively participated in the 2015 Macy's Thanksgiving Day Parade. Months before the parade, the engineers reviewed the balloon specifications and flight analyses. 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. This project was coordinated with Macy's and various City agencies such as City Hall, NYPD, NYCDPR, NYCDOB, and NYCOEM.

Division engineers reviewed and approved the design specifications of Scrat, Ronald McDonald, Angry Bird, and Dino, four new large balloons to be introduced in the parade. Director of Engineering Review Uday Dommaraju, Construction Project Manager George Jarvis, and two consultant engineers attended the test flights of the balloons at the CitiField parking lot in Flushing on November 8, 2015, with NYPD and other agencies. A wireless anemometer station was set up to give real time wind speed, and cones were placed out simulating the street envelope. Macy's performed test flights on each new balloon according to the current wind gust, and flew the balloons to the required flying height.

On November 26, 2015, wind speeds were relatively low and all 17 large balloons flew in the parade without incident. The wind gusts varied between 9 to 15 miles per hour. Chief Bridge Officer Robert O. Collyer, Director of Engineering Review Uday Dommaraju, Civil Engineers Ashok Chintakunta and Dilip Biswas, and College Aide Ediant Martinaj, and four consultant engineers were positioned at various locations along the parade route to observe compliance with the approved procedures. Seven anemometers were mounted on top of light poles along the route between 77th Street and 34th Street to measure the wind speed during the parade. Division and consultant engineers were assigned to the anemometer locations to monitor the wind gusts.



Balloons in Flushing on November 8. Angry Bird in Level Flight. Anemometer Station and Crew.



Parade 2015: Director of Engineering Review Uday Dommaraju and Civil Engineer Ashok Chintakunta. Scrat, Ronald McDonald, Angry Bird, and Dino.

CRP/EXTELL PARCEL H PROJECT

The CRP/Extell Parcel H, LP project (Riverside Drive between 59th and 72nd Streets) includes the construction of seven new bridges, a ramp, four relieving platforms, and connector roads along Riverside Drive as a part of the residential and commercial development over the former Penn Central Rail Yard. The project also includes 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. The bridges are substantially completed and open to traffic. The construction of the tunnel sections was recently completed.

WEST SIDE DEVELOPMENT PROJECTS (MANHATTAN)

The John D. Caemmerer West Side Yard, completed in 1987, was built to store and maintain commuter rail cars, but it was designed to accommodate air rights development. The Yard is bounded by West 30th and West 33rd Streets, Tenth and Twelfth Avenues. The rail yard is owned by the Metropolitan Transportation Authority and used by the Long Island Rail Road.

AMTRAK TUNNEL BOX

Amtrak is building a tunnel box through the project areas to preserve the space for the rail right-of-way known as the Gateway Project. This is the possibility of future expansion of rail service between New Jersey and New York and supports Amtrak's efforts to improve resiliency in response to future disasters in Amtrak's Northeast Corridor. The construction of this concrete casing under the 11th Avenue Viaduct is underway. Division staff are actively involved in reviewing the design and construction of the casing to ensure that the structural integrity of the viaduct is not compromised in any way. The construction is scheduled to be completed by the end of June 2016.



Hudson Yards Concrete Casing Project Location Map (Credit: Amtrak and Federal Railroad Administration)

RELATED COMPANIES/OXFORD PROPERTIES HUDSON YARDS

The Hudson Yards Project is a mixed-use development of residential, commercial, and civic uses and open space being constructed on a platform over the Yards. Two 72-story residential buildings, 15 Hudson Yards and 35 Hudson Yards, previously known as the D and E Towers, are under construction bordering Eleventh Avenue. The platform and the buildings will connect to the 11th Avenue Viaduct by constructing an expansion joint between the bridge and the new development. Division staff are actively involved reviewing the design and construction to ensure that the structural integrity of the viaduct is not compromised in any way. The construction is expected to be completed by 2017.



Eastern Rail Yard Map. (Credit: Related Companies/Oxford Properties)

PACIFIC PARK PROJECT (BROOKLYN)

In the summer of 2014, as part of the Pacific Park Project, previously known as the Atlantic Yards, Greenland Forest City Partners began major civil engineering and track work in the LIRR train yard east of the 6th Avenue Bridge. This work will facilitate the future construction of a platform over the yard between 6th Avenue and Vanderbilt Avenue. The project also involves construction of the west portal, which is a new tunnel that will connect the rail yard to the LIRR tracks running under Atlantic Avenue, north of the 6th Avenue Bridge. The west portal will allow empty trains to go directly from the terminal to the yard, rather than backtracking and making a large loop to enter the yard from the east. As a result, track time will be freed up for trains carrying passengers. Division staff are involved in reviewing the design of the underpinning of the south abutment, the support of excavation drawings behind the north abutment, and the temporary supporting system below the north approach slabs, and the review of the monitoring reports. The work in proximity of the 6th Avenue Bridge will continue through the beginning of 2017. The project is slated to run through 2018.



Pacific Park Site Map. (Credit: Greenland Forest City Partners)

RETAINING WALLS

In May 2005, the Department started a program for the periodic inspection of City-owned retaining walls. The City currently owns 634 retaining walls. Those retaining walls were built during the interstate construction program between the 1940's and 1970's and are an important part of the city's street infrastructure. However, some of them are approaching the end of their service lives and are falling into poor condition due to various factors such as spalling/cracking of concrete, loosened mortar joints, broken stone masonry, falling coping stones, deteriorated joints, leakage through the walls due to improper drainage arrangements (clogged weep holes), bulging of walls due to hydrostatic pressure build-up on the back of the walls, and many other problems. In order to protect the infrastructure they support, the retaining walls require regular inspections and monitoring, and depending upon the condition of the walls, rehabilitation/replacement is required. Since 2005, 18 retaining walls have completed rehabilitation/replacement, and 17 retaining walls are in various stages of design and construction. The retaining walls which are in fair to poor condition will be in a capital program for future rehabilitation.



Retaining Walls: Southeast Corner of West 108th Street and Riverside Drive. Left Side of Ramp From Riverside Drive to George Washington Bridge. Irwin Avenue. Cross Island Parkway Southbound Before 100th Avenue. Cooper Avenue. Douglas Road.

OVERWEIGHT TRUCK PERMIT REVIEWS

The Overweight Truck Permit Unit receives an average of 100 permit applications per week for overweight/over-dimensional trucks, self-propelled cranes, and occasional superload moves from utility companies crossing City-owned bridges, including critical bridges such as the Manhattan and Ed Koch Queensboro Bridges. Most of the permit requests must be reviewed and approved on the same day.

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.

The expert panel formulated recommendations regarding rock motions and corresponding time histories. Subsequently, the consultant derived soil generic response spectra, based on the hard rock motions and NEHRP amplification factors. The consultant also established bridge performance criteria to be used for critical, essential or other bridges undergoing structural analyses. The recommendations are described in the report entitled "New York City, Seismic Hazard Study and its Applications, Final Report, December 1998." This report is now extensively used by NYCDOT, NYSDOT, the FHWA, their consultants, and other agencies in the New York area for bridge projects. Thus, NYCDOT's leading role and efforts to establish ground motion standards have brought uniformity in seismic design to the New York City area.

In 2002, the consultant convened a second panel of seismologists to update the 1998 Hazard Study and associated rock motions. On June 3, 2004, after the USGS national hazard maps were adopted by NEHRP, 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.

Following the adoption of the very hard rock motions, the consultant started the preparation of a new edition of the NYCDOT Seismic Design Guidelines for Bridges. Data from geotechnical bridge studies performed within the five boroughs of NYC were compiled. 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, (from the 2002 Hazard Study) and the generalized NYC subsurface profiles, was used to develop vertical and horizontal Uniform Hazard Spectra (UHS), which, in turn, served as the starting point to derive design rock and soil response spectra. The method allowed computation of soil UHS, while preserving the hazard level of the very hard rock UHS. It accounted, in a rigorous probabilistic manner, for variations and uncertainties in soil stiffness, stress-strain nonlinearity, and material damping; depth of soil to rock; and, stiffness of the rock under the soil.

Generic horizontal and vertical design spectra were derived using the calculated UHS as the starting point. Generic design V/H ratios to be used in site-specific studies to generate site specific vertical motions, were also produced. All the generic soil curves are presented as a function of three parameters: soil class; depth to rock; and, rock class under the soil.

The development of these parameters for the NYCDOT Guidelines represent a significant improvement to the previous guidelines and other codes, since it 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 fact that the new guidelines better fit the specific characteristics of the NYC region, will permit the engineers to evaluate the need for retrofitting existing bridges or strengthening new ones at the right places.

Recommendations for liquefaction evaluation are also provided in the guidelines, including recommendations for earthquake magnitude and peak ground surface accelerations, which are critical parameters for evaluating liquefaction potential and which have not been included in previous guidelines. The new document also includes recommendations for site-specific studies, providing guidelines and minimum requirements that must be satisfied. These include: procedures to establish soil horizontal and vertical design motions; recommendations to evaluate the effects of the depth to the rock surface; recommendations to account for uncertainties in the soil properties; minimum requirements to establish lower bound horizontal design motions; recommendations for time history analysis of bridges; recommendations for the incorporation of spatial variation effects in the analysis; and different requirements for critical and non-critical bridges site-specific studies.

The final draft of the new NYCDOT Seismic Design Guidelines for Bridges was submitted to NYSDOT for peer review in September 2008. The peer review was completed and the final version of the blue pages submitted to NYSDOT in December 2015 for review and approval. Upon NYSDOT approval, these guidelines will be adopted for the seismic and retrofit design of bridges in the “Downstate Zone”: the counties of Bronx, Kings, New York, Queens, Richmond, Nassau, Rockland, and Westchester. The review is expected to be complete by the end of January 2016.

ENVIRONMENTAL ENGINEERING

In 2015, the Environmental Engineering staff of the Quality Assurance section continued to provide expertise and oversight of the various environmental issues of the reconstruction of the Paerdegat Basin Bridge, Rockaway Parkway Bridge, Fresh Creek Bridge, Gerritsen Inlet Bridge,

and the Bay Ridge Avenue Bridge in the Belt Parkway Project. This includes monitoring and oversight of wetland restorations, management of storm water erosion and run off controls, asbestos and lead paint abatement, hazardous waste management, spill control/management, management of waste water, and groundwater/soil management. Additionally the unit was involved with the design review of the Mill Basin Bridge to ensure that all environmental issues are included in the project specifications and contract documents. The unit also works closely with project management and resident engineering staff through periodic meetings and site visits to ensure that environmental permits, work procedures and construction operations are in compliance with NYSDEC, US EPA and NYCDEP. The unit continues to provide environmental management on the Brooklyn Bridge, Manhattan Bridge, Greenpoint Avenue Bridge, Belt Parkway bridges, City Island Bridge, Component Rehabilitation projects, and emergency work over water projects.

Bridge Maintenance, Inspections and Operations

EAST RIVER BRIDGES ANTI-ICING PROGRAM

Traditional snow and ice control practices rely heavily on the use of salt, a material known to corrode steel and accelerate the deterioration of concrete and asphalt surfaces. A new method of snow and ice control was needed to protect the City's $2.5 billion investment in the rehabilitated East River Bridges. This method, known as anti-icing, involves the application of a chemical freezing point depressant to the roadway surface to prevent snow and ice from bonding to the roadway. Frequent plowing removes any accumulation of unbonded snow or ice before traffic is affected.

The Division's Anti-Icing Program uses the liquid chemical potassium acetate and aggregate chemical sodium acetate. The anti-icing fleet consists of twenty-two application trucks, five 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 2014-2015, a total of 79,100 gallons of potassium acetate and 285 tons of sodium acetate were applied on the roadways of all four East River Bridges.



Snow Removal on the Brooklyn Bridge in January 2015. (Credit: Russell Holcomb) Commissioner Polly Trottenberg Visiting Division Staff After the January 2015 Snowstorms: Carpenters Edward Alfano Jr. and Gregory Nolan, Supervisor Carpenter Joseph Vaccaro and Cement Mason Stephen Buckley.

INSPECTIONS

In 2015, Inspections covered 94 bridges and 502 spans. Emphasis was placed on ensuring public safety through the monitoring of potentially hazardous conditions and temporary repairs. The unit performed 1,020 monitoring inspections, including special winter monitoring inspections of cellular structures, shorings, and potential fire hazards. In addition, 147 emergency inspections were conducted in response to hot line calls, in-house requests, or citizen complaints.



2015: Inspecting East Drive (Inscope Arch) in March. Bethel Avenue Bridge and Footbridge over Brooks Lake Dam in Staten Island in April. Granite Avenue Bridge in May. Gapstow Bridge (East 62nd Pedestrian Bridge) (From a Boat) in July. Henry Hudson Parkway Northbound Ramp From West 96th Street in November. Motor Parkway Pedestrian Bridge over Hollis Court Boulevard and Battery Place Tunnel in December.



Winter Monitoring Locations: Manhattan, Williamsburg, Ed Koch – Queensboro Bridge, and West 155th Street Pedestrian Bridge.

The 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 updated version of the system was field tested by the contractor and the Bridge Management Unit in 2012 and was fully implemented in March 2013.

A future contract is anticipated 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.

Since 2002, the Division stores all bridge inspection reports in electronic format. Flag reports are now also transmitted electronically. As of September 2003, standard inspection work is funded by a federal grant. Emergency response inspections and administrative support remain city funded.

The Bridge Management Unit developed a map of truck routes and bridges under capital contracts for the purposes of the Truck Permits Unit. This unit also provided Bridge Maintenance with estimates of the life-cycle benefits of various maintenance tasks, obtained by the software package designed for that purpose.

In 2016, the New York State Department of Transportation (NYSDOT) will be transitioning their inventory and inspection system over to the new AASHTO Element Inspection System. This transition is necessary to meet the new requirements established by the Federal Government. This will be a radical transformation from the one the NYSDOT has used since the late 1970's and will require the City to make major changes to our operations. It will likely also require the re-training of existing personnel and the replacement of existing software applications.

STRUCTURAL HEALTH MONITORING

The Bridge Inspection and Management 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.

For demonstration purposes, the Manhattan Bridge was surveyed with a radar scanner. The results indicated that the stiffening of the bridge has reduced its torsional motion under subway traffic very significantly. The results matched independent measurements by Global Positioning Systems (GPS).

In November 2010, the cable research project moved to its final phase as sensors were installed on Cable "D" of the Manhattan Bridge with the help of bridge maintenance personnel. The data collection from the instruments in the cable was concluded in October 2011. The final report will recommend appropriate non-invasive technology for monitoring of suspension cables.

As part of the project, a unique magnetic flux field test was conducted on the cable. The method was developed by Japanese researchers specifically for this test. Its purpose is to estimate the amount of healthy steel in the cable without exposing the wires. The findings were presented at the Agency by the researchers in February 2011. This capability will be considered for future inspections of suspension cables.

In 2014, an existing engineering services agreement (ESA) contract was used to install a remote monitoring system on selected spans of the Manhattan approach to the Brooklyn Bridge. Under the ESA, select locations were instrumented with fiber optic sensors that allow for real time, on-line monitoring of existing flagged conditions. Crack sensors, displacement sensors, temperature sensors, and tilt meters were utilized to monitor changes of crack widths, foundation settlement, temperature fluctuation, and wall rotation, respectively. The system was also designed to send out alert messages to Division personnel should certain conditions arise during the monitoring of these flags. The sensors have demonstrated which flagged conditions are the most active and will need to be watched carefully. The sub-consultant is recently completed the migration of the web-based system from their own servers to a cloud-based storage solution under the control of the Agency's information technology department. With the delay in the upcoming rehabilitation contract, this system has taken on added importance.



The Brooklyn Bridge Manhattan Approach, Arch Block B Elevation.



June 2015: Director of Bridge Management Kevin McAnulty Utilizing a Borescope.

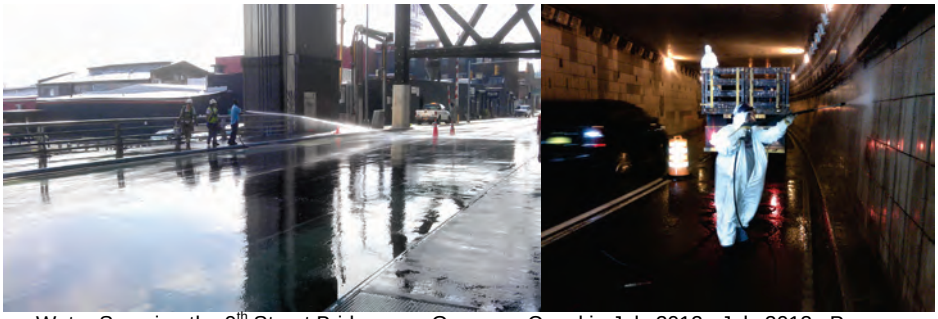


June 2015: Director of Bridge Management Kevin McAnulty Inspecting the Brooklyn-Queens Expressway Between Cadman Plaza and Atlantic Avenue With a Borescope. (Credit: Bojidar Yanev)

In 2014, the Bridge Management Unit finalized the installation of a real-time on-line system for monitoring the abutments and piers of three bridges in the Bronx identified as vulnerable to scour. Solar panels were installed at each location to supply power to the various instruments and computers installed at each bridge. The computers then send the information that was gathered from the monitoring equipment wirelessly to a remote web server where bridges personnel can monitor conditions in real time. In 2015, the server was turned over to the Agency and our IT department is now managing the hardware. Recommendations were also made to the NYC Parks and Recreation Department for the permanent repairs to the scour conditions at the Magnolia Way Bridge.

CLEANING

In 2015, 8,031 cubic yards of debris were removed from bridges and their surrounding areas, and 464 drains were cleaned.



Water Spraying the 9th Street Bridge over Gowanus Canal in July 2012. July 2013: Power Washing the Battery Park Underpass. (Credit: Earlene Powell)



October and December 2015: Highway Repairer Abibi Ocampo Guevara Removing Debris Collected by Vagrants Under the Willis Avenue Bridge.

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, Cryptococosis 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 nine 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.

We continue to use a new method on the flanges over the north sidewalk at the Brooklyn-Queens Expressway over Atlantic Avenue: a gel, whose active ingredient is capsaicin, that is applied to the spots unwanted birds would normally perch. The burning sensation caused by the capsaicin irritates the birds' feet and results in them roosting elsewhere.

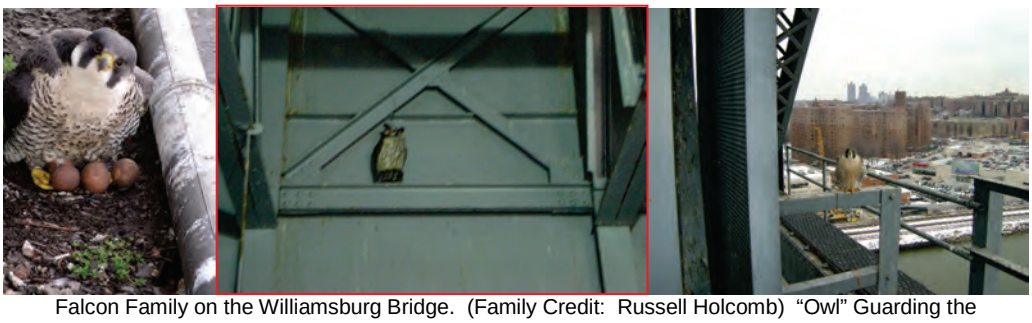
In 2015, pigeon dropping removal and/or pigeon proofing were performed at the FDR Drive at 96th Street and on the Grand Concourse at 204th Street, Bedford Park Boulevard, and Kingsbridge Road.



Installing Pigeon Netting at Old Slip (FDR Drive at the South Street Viaduct) in June 2012: Carpenters Stephen Buckley, William Sic, and Joseph Moschella, and Supervisor Carpenter Joseph Vaccaro. (Credit: Thomas Whitehouse)



Nature's Pigeon Deterrent— Falcons on the Brooklyn Bridge South Side Tower, Manhattan Tower Top, and Cables. Falcons Have Lived on the Brooklyn Bridge Since 1995. According to the New York State Department of Environmental Conservation, New York State now has the largest population of peregrines in the eastern United States. There Were 20 Active Nesting Falcon Pairs in New York City in 2013.



Falcon Family on the Williamsburg Bridge. (Family Credit: Russell Holcomb) "Owl" Guarding the Machinery Room of the Broadway Bridge. A Hawk on the Broadway Bridge. (Owl and Hawk Credit: Albert Hong)

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.



Pulaski Bridge Opening in February 2010. (Credit: Bernard Ente) Third Street Bridge Opening in June 2012. (Credit: Nikita Gupta) 145th Street Bridge Open in June 2013. (Credit: Ting Yu Huang) Ninth Street Bridge Open in September 2013. (Credit: Vera Ovetskaya) Unionport Bridge Open for Tugboat. Union Street and Greenpoint Avenue Bridges Opening in July 2015. (Credit: Litcy Barreto)

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

The reduction in planned personnel saves approximately $1,074,068 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 reconstruction of the Mill Basin Bridge (part of the second Belt Parkway Group) began in June 2015. 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 Shore Road Bridge over Hutchinson River will be replaced with a new bridge built with a higher clearance, thereby reducing the number of times the bridge must be opened. At that time, we can determine if advance notice is justified.

Summary of Vessel Openings 2001 - 2015

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Borden Avenue (Q)	28	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Broadway (B/M)	27	83	49	16	2	18	42	58	57	15	11	44	0	6	11
Bruckner Expressway (Unionport Bridge) (B)	420	332	300	309	253	250	281	323	349	308	198	143	143	218	146
Carroll Street (K)	80	124	186	49	22	28	13	38	91	146	29	95	2	12	2
Grand Street (K/Q)	50	19	10	8	5	2	5	0	0	0	3	3	0	0	0
Greenpoint Avenue (J. J. Byrne Memorial Bridge) (K/Q)	641	659	738	1093	1045	905	641	485	428	388	667	733	609	723	918
Hamilton Avenue (K)	832	946	824	757	677	1077	354	0	150	905	1060	965	651	760	1106
Hunters Point Avenue (Q)	36	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Hutchinson River Parkway (B)	120	30	5	37	10	2	51	61	170	224	169	197	275	204	339
Macombs Dam (B/M)	0	0	0	0	0	0	4	2	0	3	1	22	0	0	0
Madison Avenue (B/M)	0	0	0	7	0	9	35	8	0	3	1	6	0	0	4
Metropolitan Avenue (K)	366	339	342	153	0	104	329	245	240	254	413	468	378	360	133
Mill Basin (K)	317	142	173	164	162	174	182	190	183	197	236	277	246	210	214
Pulaski (K/Q)	208	308	599	694	734	433	489	639	611	467	591	476	484	693	643
Roosevelt Island (M/Q)	48	125	63	669	150	54	48	0	62	0	0	55	55	43	98
Shore Road (Pelham Parkway) (B)	2222	1897	1910	2011	1683	1704	1645	1446	806	1197	811	613	697	724	704
Union Street (K)	101	62	24	21	11	9	5	10	28	32	4	36	0	0	49
Ward's Island Pedestrian (M)	279	0	0	7	2	8	4	6	3	5	0	0	0	3	22
Willis Avenue (B/M)	40	0	7	25	2	41	67	17	9	1	1	0	0	0	1
3rd Avenue (B/M)	1	0	0	0	0	6	60	7	0	3	3	4	2	6	31
3rd Street (K)	117	212	152	99	43	31	39	49	89	74	27	68	0	0	125
9th Street (K)	808	733	547	457	360	480	333	287	387	475	670	585	270	427	758
145th Street (B/M)	6	0	0	9	0	0	0	0	0	0	1	6	0	0	16
West 207th Street (University Heights) (B/M)	14	4	6	10	1	12	24	2	3	7	5	23	0	0	0
TOTAL	**6761**	**6015**	**5935**	**6595**	**5163**	**5347**	**4652**	**3873**	**3666**	**4704**	**4901**	**4819**	**3812**	**4389**	**5320**

When and Where Unit

The work under these contracts includes the repair of flag conditions by performing structural rehabilitation, maintenance and replacement of components, primarily on bridges. Steel work may include: removing existing rivets and/or bolts and replacing with new high strength bolts; welding sections of steel plates to existing steel members, when necessary, as part of the rehabilitation work; reconstructing connections between steel members, when necessary, as part of the rehabilitation work; replacing or reconstructing steel members and bearings including beams, webs and flanges, column angles, channels and stiffeners; replacing deck expansion joints; replacing guard, bridge and hand railings of various types, in kind; rebuilding staircase; and replacing bridge deck gratings and support steel. Concrete work may include: removing and replacing sections of concrete retaining or abutment wall and foundation, including bearing pedestals, where required; removing spalling concrete surfaces (including shotcrete or gunite) and replacing with mortar or structural concrete; resetting masonry facing on pier walls; removing areas of deteriorated sidewalk and/or roadway deck, and replacing with new concrete sections; removing existing curbs and pouring new steel faced curbs in place; drilling weepholes in retaining walls; installing piles under water; modifying staircase; placing specialized concrete overlays on structural slabs; and replacing/rehabilitating masonry parapets. Miscellaneous work may include: providing temporary shoring of beams, stringers and columns; cleaning clogged catch basins and drainage systems; removing and replacing existing drainage systems; rebuilding areas of erosion and provide slope control (Rip-Rap); paving roadway surfaces; cleaning and removing debris on or under structures; installing and removing traffic barricades; repairing and replacing fencing; excavating and disposing of all materials encountered where required; painting existing metal surfaces and coat concrete surfaces with waterproofing material; furnishing and driving sheeting and piles, and repair of existing piles; and demolition of highway and bridge structures, whole or in part.

In 2015, the following structures were worked on under the Division's When and Where contracts:

East 179th Street Pedestrian Bridge over Metro North, West Tremont Avenue Bridge over Metro North, Boston Road Bridge over Hutchinson River; Trans Manhattan Expressway Connection (HRD Ramp to George Washington Bridge over HRD SB), Houston Street Bridge over FDR Drive, West 176th Street Pedestrian Bridge over Approach to George Washington Bridge), West 155th Street Pedestrian Bridge over Amtrak 30th Street Branch, Riverside Drive Bridge over West 158th Street – Amtrak, Henry Hudson Parkway over 79th Street, Depot Place Bridge over Metro North, East 149th Street Bridge over Metro North, East 188th Street Bridge over Metro North, Williamsburg Bridge, Hempstead Avenue Bridge over Cross Island Parkway, Pulaski Bridge over Newtown Creek, Northern Boulevard Bridge Eastbound over Flushing River; Fort Tryon Park Bridge over South Cloisters, 79th Street Ramp to Garage over 79th Street Boat Basin Garage, East 6th Street Pedestrian Bridge over FDR Drive, 204th Street Pedestrian Bridge over Metro North, East 51st Street Pedestrian Bridge over FDR Drive, Promenade over FDR Drive over FDR Drive – East 81st to East 90th Street, Transverse Road #1 Westbound over Pedestrian Path Opposite East 66th Street, Delancey Street Pedestrian Bridge over FDR Drive, Footbridge North of Route 1 over Bronx River, Southbound Henry Hudson Parkway Ramp to 79th Street over 79th Street Boat Basin Garage, East 111th Street Pedestrian Bridge over FDR Drive, West 173rd Street Pedestrian Bridge over Amtrak, Corlears Park Road Bridge over FDR Drive, West 181st Street Pedestrian Bridge over Henry Hudson Parkway Northbound, East 120th Street Pedestrian Bridge over FDR Drive, Brooklyn Promenade over Eastbound Brooklyn-Queens Expressway, Motor Parkway Pedestrian Bridge over Francis Lewis Boulevard, Crocheron Park Pedestrian Bridge over Cross Island Parkway, Motor Parkway Pedestrian Bridge over Hollis Court Boulevard, 28th Avenue Pedestrian Bridge over Cross Island Parkway, East Drive over Bridle Path Near Zoo, East Drive (East Wood Arch) over Pedestrian Path Near Center Drive, and Hill Drive (Terrace Bridge) over Prospect Park Lake.

At the 204th Street Pedestrian Bridge over Metro North, a series of existing stools that support the bridge girders at the abutments were found to be severely corroded and were labeled red flags because they were in danger of no longer being able to successfully continue their support

function. The When and Where contractor installed alternate stools close to the existing ones to guarantee the successful support of these girders.



28th Avenue Pedestrian Bridge over Cross Island Parkway in July 2015.

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 in-house staffing nor the equipment to handle this type of special work. These repairs could not be handled under the usual time and materials When and Where contract. This work is unique, in that it requires a consultant with licensed underwater capability 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.

Marine bridge repairs addressed in 2015 include Wards Island Pedestrian Bridge over Harlem River, Depot Place Bridge over Conrail, and the West 207th Street Bridge over Harlem River.

Some of these locations experience repeated damage due to heavy marine traffic and/or a narrow channel, such as the Shore Road (Pelham Parkway) Bridge over the Hutchinson River. The issuance of new flags occasionally necessitates new visits to even recently completed projects. Timber fender systems especially susceptible to recurring hits by barge traffic, and consequently require periodic restoration in relatively short time periods. In addition to damage due to impact, timber elements are also replaced because of deterioration and attack by marine borers, whose activity has vastly increased as the water quality in the New York City area has improved.

Numerous barge hits at the Shore Road Bridge occur repeatedly. As a result, a continuation and completion of previously reported work of replacing timber planking and walers took place at this location, as well as installation of a special plastic material called "UltraPoly" at the top portion of the fender planking and at selected dolphin piles. So far, this material has been shown to protect against rubbing damage.

On the heavily traveled Hutchinson River Parkway Bridge over Hutchinson River, severe deterioration of key structural steel elements supporting the steel grid deck of the southeastern quadrant of the span forced urgent measures to be taken, first, by providing immediate temporary replacements to take over part of the lost support capability, and subsequently, by installing new steel replacement "sleeper" beams and heavy local support at deteriorated stringer sections.



Hutchinson River Parkway Bridge - Installation of Sleeper Steel Beams to Directly Support the Steel Grating.

The southwest fender system of the Wards Island Pedestrian Bridge was severely battered by an impact from a large barge, leaving its timber structure dislocated, damaged and incapable of providing the designed protection from future barge hits. It was immediately necessary to temporarily provide safety measures to warn off mariners from coming too close to the debris field created as a result of that impact. Construction of a complete replacement fender system commenced in 2014 after a series of temporary measures were taken to protect the west tower of the bridge. Installation of an entirely new southwest fender replacement was completed in 2015.



2014 - Wards Island Pedestrian Bridge – Collapsed Fender. July 2015 – Work Barge. November 2015. (2015 Credit: Jitendra Patel)

The Depot Place Bridge over Conrail location had two major flag areas. The rip-rap areas stabilizing several piers supporting the end landing span were severely dissembled, rendering those piers less able to carry their intended loading. Special barriers had been in place for years to prevent vehicles from using the outer edge of the roadway to ameliorate the situation. In 2015, the entire flag area received a new fill system that provided a permanent correction. At the south end of the landing span, the existing steel sheet piling supporting the fill beneath the grade slabs was so deteriorated that it could not perform its function. In the past few years, temporary supports were installed to support this roadway, but in 2015, a new steel soldier beam and lagging retaining wall constructed to provide a permanent solution.



November 2015 - Depot Place over Conrail – Placing Piles to Build a Seawall.

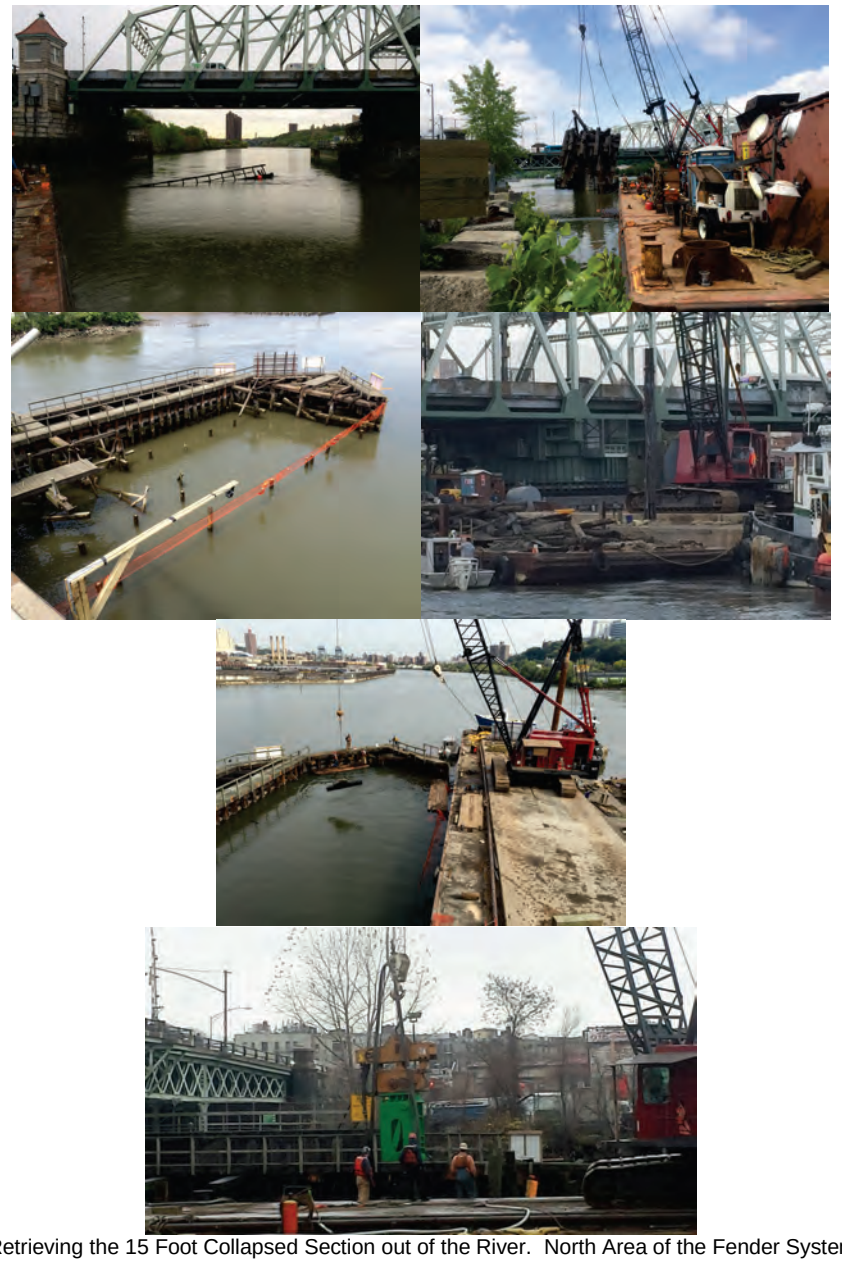
The West 207th Street (University Heights) Bridge over the Harlem River connects West 207th Street in the Inwood section of Manhattan and West Fordham Road in the University Heights section of the Bronx. It is a swing type bridge that opens to allow marine traffic to pass along the Harlem River. The fender system is required to protect the Bridge and the marine traffic when the Bridge is in the open position.

Due to severe deterioration and the impact of many years of wave action, a large portion of the fender system protecting the bridge collapsed into the east channel in May 2015. The entire eastern facing portion of the fender system at the bridge's center pier had collapsed (approximately 200 feet). The debris forced the closing of the east channel to marine traffic. In a partnership with the U.S. Coast Guard, immediate action was taken to clear the channel and temporarily restore it to marine traffic. A short time later the permanent replacement of the fender system was initiated and is presently under way.

The salvage and restoration operations commenced in October 2015, utilizing barge-mounted cranes and associated salvage equipment situated in the East Channel. To date, all dislodged piles and bracing elements have been removed from the East Channel river bed, and the contractor will receive approximately 400+ new timber piles in early 2016. The project will be completed in 2016.



May 2015 – University Heights Collapsed Fender System. Collapsed Fender System in East Channel.



May 2015 –Retrieving the 15 Foot Collapsed Section out of the River. North Area of the Fender System Made Safe With Cables and Safety Fencing Installed. Contractor Removing all of the Interior Collapsed Timber Framing Out of the River Onto a Material Barge. Contractor Removing the Timber Frame From the River. December 2015: Loosening the Existing Wooden Pile to Facilitate its Easy Removal From the River (Mud) Bed. The Vibrating Hammer is Attached to the Crane Initially to Vibrate it and Ultimately Loosen the Existing Piles.

PAINTING

In 2015 the following bridges were painted as part of the in-house maintenance program: Cross Island Parkway Bridge over Totten Avenue, Coney Island Avenue Bridge over Belt Parkway, Erskine Street Bridge over Belt Parkway, 44th Street Bridge over Grand Central Parkway, Boston Road Bridge over the Hutchinson River, Markwood Road Bridge over Jackie Robinson Parkway, Cypress Hills Street Bridge over Jackie Robinson Parkway, Highland Boulevard Bridge over Jackie Robinson Parkway, Grand Concourse over East Tremont Avenue, Miller Highway (Joe DiMaggio Highway) over Terrain, and Northern Boulevard Bridge over Alley Creek.



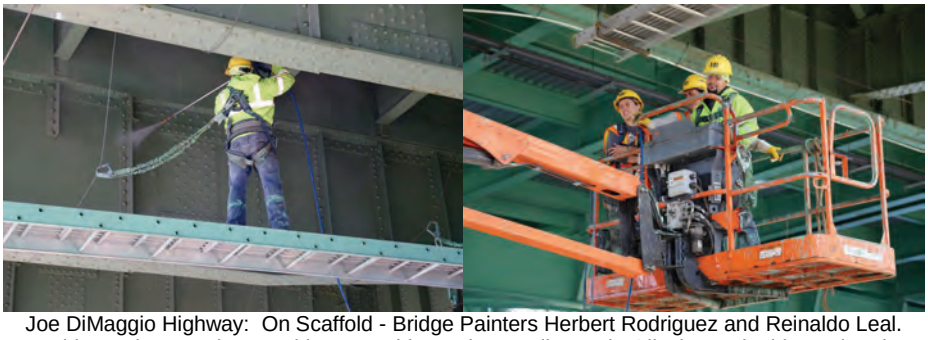
Boston Post Road in August 2015: Bridge Painter Julio Perez, Supervisor Bridge Painter Albert Pappas, and Bridge Painters Louis Masucci, Safdar Ali, Samuel Martinez, and Branko Grzancic. (Credit: Earlene Powell) Deputy Director of In-House Painting Earlene Powell and Bridge Painter Branko Grzancic. (Credit: Albert Pappas)

In 2015 Division painters tackled ongoing maintenance along the remaining portion of the Joe DiMaggio Highway. This structure extends between West 59th Street and West 72nd Street along the West Side Highway (9A), and is all that remains of the elevated highway that was built between 1929 and 1951. The structure was originally named after former Manhattan Borough President, Julius Miller but the highway's name was changed in 1999 to Joe DiMaggio Highway after the New York Yankees player.

Painting began on this one million square foot stretch in late 2013, and has continued during warm weather. In order for the paint to properly adhere to the structure, the temperature of the steel must be above 50 degrees Fahrenheit. The five person bridge painting crew power washes all of the structure steel, then spot prime, followed by spraying a full coat of epoxy paint. The finished coat is a high gloss, durable urethane that will protect the structure from rust for 12 years.



Joe DiMaggio Highway: Deputy Director of In-House Painting Earlene Powell, Supervisor Bridge Painter Vincent Babajko, and Bridge Painters Elisangela Oliveira, Reinaldo Leal, Juscelino Andrade, Herbert Rodriguez, and Arlindo Lima. On Ground - Bridge Painters Juscelino Andrade and Arlindo Lima. (Credit: Jaclyn Jablkowski)



Joe DiMaggio Highway: On Scaffold - Bridge Painters Herbert Rodriguez and Reinaldo Leal. Bridge Painter Herbert Rodriguez. Bridge Painters Elisangela Oliveira, Reinaldo Leal and Herbert Rodriguez. (Credit: Jaclyn Jablkowski)



Joe DiMaggio Highway: Bridge Painter Juscelino Andrade. (Credit: Jaclyn Jablkowski)

In 2015 the following bridges were painted as part of the capital program: Cross Bay Boulevard Bridge over Belt Parkway, Union Turnpike over Jackie Robinson Parkway, Woodside Avenue over Brooklyn-Queens Expressway, Bulova Avenue Bridge over Brooklyn-Queens Expressway West Leg; Myrtle Avenue Bridge over Jackie Robinson Parkway, 49th Street Bridge over Brooklyn-Queens Expressway West Leg, 69th Street Bridge over Brooklyn-Queens Expressway, East Tremont Avenue Bridge over Hutchinson River Parkway, West 236th Street Pedestrian Bridge over Henry Hudson Parkway, Henry Hudson Parkway over Broadway, Grand Concourse over Burnside Avenue, Grand Concourse over East 204th Street; Woodhaven Boulevard Bridge over Atlantic Avenue (in progress), South Conduit Boulevard Bridge over BSOP (in progress), and Riverside Drive Viaduct over West 125th to West 134th Streets (in progress).



Woodhaven Boulevard Bridge over Atlantic Avenue. Associate Project Manager Vadim Sokolovsky Inspecting Site Conditions. (Credit: Vadim Sokolovsky and Sergey Parayev) Woodside Avenue over Brooklyn-Queens Expressway. West 236th Street Pedestrian Bridge over Henry Hudson Parkway. Henry Hudson Parkway over Broadway. (Credit: Vadim Sokolovsky)



Cross Bay Boulevard Bridge over Belt Parkway. Riverside Drive Viaduct over West 125th to West 134th Streets. (Credit: Vadim Sokolovsky) East Tremont Avenue Bridge over Hutchinson River Parkway.

In 2015, the following structures were also painted: 181st Street at Webster Avenue Maintenance and Repair Shop, Pulaski Yard at Clay Street, Slip #4 at the Staten Island Ferry Terminal (St. George), Union Street, Pelham Bay, Broadway, and Grand Street Bridges Operator Houses, Van Cortland Park Yard (garages), Conner Street Yard (offices), and Kent Avenue Carpenter Shop (moveable bridge components).

During 2015, the following structures were also painted during the winter: Department of Environmental Protection facilities at Bowery Bay, North River, and Oakwood Beach, Harper Street Maintenance and Repair Shops (garages), and the Maspeth Sign Shops (offices and shop areas).

The following locations were also worked on in support of the DOT Iron Worker Shop: Hamilton Avenue Asphalt Plant Yard, Vernon Boulevard Yard (salt shed), Grand Street Bridge; Manhattan Bridge; Cadman Plaza at the Brooklyn-Queens Expressway, Brooklyn-Queens Expressway at Furman Street, Westchester Avenue Bridge over Hutchinson River Parkway, East Tremont Avenue Bridge over Hutchinson River Parkway, Union Street Bridge, Unionport Bridge, Cross Island Parkway over Dutch Broadway/115th Avenue, Ed Koch - Queensboro Bridge; Bay Parkway under the Belt Parkway; Mill Basin Bridge; Pulaski Bridge; and the Department of Transportation South 6th Street facility.

GRAFFITI REMOVAL

In 2015, 4,599,454 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.



August 2015: Brooklyn Bridge Line Striping. Bridge Painter Elisangela Oliveira. Bridge Painters Arlindo Lima and Carlos Mata. Bridge Painter Willie Tyler Checking the Striping. Bridge Painter Gerson Do Rosario and Supervisor Bridge Painter Cesar Pazmino. (Credit: Earlene Powell) March 2015: Supervisor Bridge Painter Goncalo Lima Removing Graffiti on the Manhattan Bridge Arch on Cherry Street. (Credit: Cesar Pazmino) July 2015: Bridge Painters Gerson Do Rosario and Carlos Mata Removing Graffiti on the FDR Drive.

During 2015, graffiti was also removed from the following structures: Throgs Neck Expressway, Cross Island Parkway, FDR Drive, Pike, Monroe, and Cherry Streets under the Manhattan Bridge, Kent Avenue between South 5th and South 6th Streets, 216th Street Pedestrian overpass, Wards Island Bridge, High Bridge, Third Avenue Bridge, Pulaski Bridge, Madison Avenue Bridge, Pelham Bay Bridge, Conduit Avenue at 230th Street, Burnside Avenue under the Grand Concourse, East 204th Street under the Grand Concourse, Whitelaw Pedestrian Bridge, Eastern Boulevard (Bruckner Expressway) bridge house, bridge at Parkwood Avenue and Wheeling Avenue in Staten Island, Linden Boulevard over South Conduit Avenue, Riverdale Avenue Pedestrian Bridge between West 236th Street and West 231st Streets, the NYC Marathon Route,

the Five Borough Bike Tour Route, the Pope's Visit Route, West 43rd Street between 10th and 11th Avenues, Flatlands Maintenance and Repair Shop, Woodhaven Boulevard over Atlantic Avenue, Hawtree Basin Pedestrian Bridge in Hamilton Beach, South Conduit Avenue, 59th Avenue at Seabury Street, 59th Street between First and Second Avenues, the Papal Visit Route, Nostrand Avenue under the Belt Parkway, 158th Street and Riverside Drive, East 14th St. over Belt Parkway, East 25th Street to 27th Street and the FDR Drive, East 35th Street to 37th Street and the FDR Drive, Mosel Avenue under the Staten Island Expressway, Havermayer Street at Williams Avenue, Borden Avenue Bridge, and Laurel Hill Boulevard at the Brooklyn-Queens Expressway.



Removing Graffiti from Wards Island in June 2015.

RESEARCH AND PRESENTATIONS

In 2015 research work and/or case histories of the Division were presented in the following proceedings:

Transportation Research Board 94th Annual Meeting, Washington D.C., 11 – 15 January 2015. Dr. Yanev chaired a workshop on the response of bridge owners to extreme events. He participated in the panel discussion on hot topics related to seismic design and performance of bridges, including performance-based seismic design, innovative seismic resisting systems, seismic aspects of accelerated bridge construction, geotechnical hazards, and tsunami threats. He chaired the meeting of the sub-committee on Bridge Security and Safety. He is a member of the Committees on Bridge Maintenance, Management, Seismic Design, and Non-Destructive Testing.

American Council of Engineering Companies of New York 2015 Winter Conference, Albany, 25 – 27 January 2015. Collyer, Robert O. *NYCDOT Response to Superstorm Sandy*.

SSPC 2015 – The Society for Protective Coating Conference, Las Vegas, 3 – 6 February, 2015. Vainblat, Guerman, and Kolchinskiy, Timur. *The Color of History: When the Brooklyn Bridge is Your Canvas.*

Yanev, Bojidar S. *Joints: the Weak Link in Bridge Structures and Lifecycles*. Smart Structures and Systems, Volume 15, No. 3, March 2015.

8th New York City Bridge Conference, New York City, 24 – 25 August, 2015. Mallick, A. A., and Valenti, J. *A Walk Above the Harlem River: The Revitalization of New York City's High Bridge*.

8th New York City Bridge Conference, New York City, 24 – 25 August, 2015. Ramakrishna, A., Mankbadi, R., and Schetelich, G. *Deep Foundations Case Histories in New York and New Jersey.*

2015 American Society of Civil Engineers Convention, New York City, 11 – 14 October, 2015. Giroux, Raymond Paul. Conference Session – History and Heritage. *Building Brooklyn Bridge*.

2015 American Society of Civil Engineers Convention, New York City, 11 – 14 October, 2015. Griggs, Francis, and Schexnayder, Clifford. Conference Session. *New York's East River Bridges and Massachusetts' Hoosac Tunnel*.

2015 American Society of Civil Engineers Convention, New York City, 11 – 14 October, 2015. Sayenga, Donald. Distinguished Lecture Series. *Some Things I Wish I Knew About the Brooklyn Bridge and the Roebling Family*.

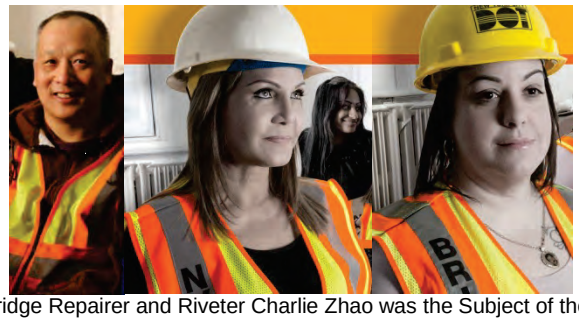
Structures Management Yesterday and Tomorrow, Toulouse, France, 14 – 15 October 2015. Dr. Yanev lectured on repairing bridge structures in the United States.

2015 National Accelerated Bridge Construction Conference, Miami, 6 – 7 December, 2015. Wang, Wei. *Reconstruction of the Willis Avenue Bridge with Implementation of ABC Technology*.

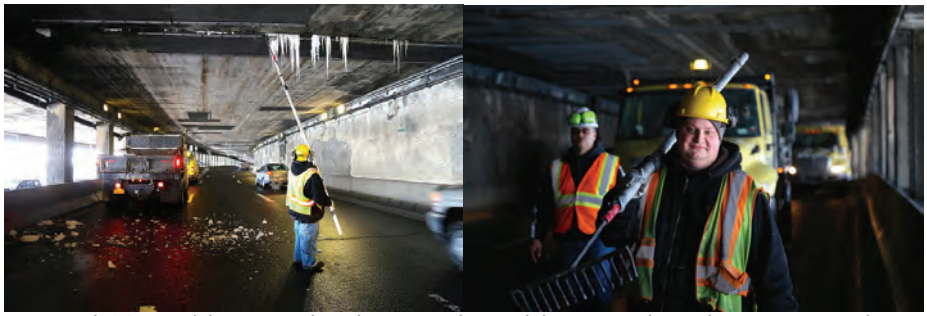
Csogi, Ralph D., *Reconstructing the Manhattan Bridge*. Civil Engineering, Volume 85, Issue 1, 2015.

In 2015 the National Science Foundation Project NCHRP 20-05/Topic 46-11 Post-Extreme Event Assessment of Infrastructure Damage to Highway Bridges proposed by Dr. Yanev advanced to review of the final report. His proposal for the analytic modeling and laboratory testing of bridge deck expansion joints was approved for funding.

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 2015 included: advanced traffic and bridge management solutions, the Kosciuszko Bridge project, real-time eddy-current crack monitoring sensor: a new tool for structural health monitoring in civil engineering, and the construction of the Hong Kong- Zhuhai-Macau Bridge.



Bridge Repairer and Riveter Charlie Zhao was the Subject of the "Staff Spotlight" Feature in the April 2015 Edition of "Byways," the Official Agency Newsletter. Mr. Zhao, along with Assistant Civil Engineer Clara Medina and Highway Repairer Anita Ramos-Colon, were Featured in the Agency's Campaign during the National Work Zone Awareness Week (March 23-27, 2015) - to Better Protect Crews Working to Improve Our Roadways.



March 2015: Icicle Removal on the FDR Drive – Highway Repairer John Tammaro and Supervisor Highway Repairer Anthony Irizarry. (Credit: Jaclyn Jablkowski)



June 2015: Summer College Intern Litcy Barreto on the Third Street Bridge During Strain Gauge Installation. (Credit: Vera Ovetskaya) July 2015: College Aide Nazariy Davydovych and Summer College Intern Kris Thomas on the Roosevelt Island Bridge. (Credit: Litcy Barreto) Bridge Operators Nestor Ortiz and Brian Brown Assisting the Engineers on the Roosevelt Island Bridge. (Credit: Vera Ovetskaya) August 2015: Summer College Intern Kris Thomas Checking the Results on the Pelham Parkway Bridge. (Credit: Vera Ovetskaya) Assistant Mechanical Engineer Vera Ovetskaya Checking the Strain Gauge Application at the 145th Street Bridge. (Credit: Litcy Barreto) In July 2015, our Bridge Repairer and Riveters Completed the Fabrication and Installation of all 16 New Suicide Gates on the Main Cables of the Manhattan Bridge.



August 2015: Preventive Maintenance Crew Installing Approximately 900 Feet of Fencing Including Glare Protection on the West Side of the Westbound Paerdegat Basin Bridge. Supervisor Highway Repairer Luis Soto, Highway Repairer Luis Baez, and Assistant City Highway Repairers Devon Cromarty, Marlon Doyle, Krishna Evans, Michael Marquez, and Anthony Connelly.



October 2015: Preparing for Hurricane Joaquin - Covering the Open Vents Over the Battery Park Underpass. The Hurricane Changed Course and Bypassed New York City. Supervisor Carpenter Joseph Vaccaro, Executive Director of Bridge Preventive Maintenance and Repair Thomas Whitehouse, and Carpenters Joseph Moschella, William Sic, Edward Alfano Jr., John Green, Gregory Nolan, and Stephen Buckley. (Credit: Thomas Whitehouse)



December 2015: Patching a Spall on the Beginning Abutment Stem of Brooklyn-Queens Expressway (Westbound) over Cadman Plaza.

Appendix A

BRIDGE CAPITAL PROGRAM

East River Bridge Rehabilitation Plans A-1

Bridges Under Construction A-2

Component Rehabilitation A-3

Bridges Under Design A-4

MANHATTAN BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• Repair floor beams. (1982)	0.70*
• Replace inspection platforms, subway stringers on approach spans. (1985)	6.30*
• Install truss supports on suspended spans. (1985)	0.50*
• Partial rehabilitation of walkway. (1989)	3.00*
• Rehabilitate truss hangers on east side of bridge. (1989)	0.70*
• Install anti-torsional fix (side spans) and rehabilitate upper roadway decks on approach spans on east side; replace drainage system on approach spans, install new lighting on entire upper roadways east side, including purchase of fabricated material for west side of bridge. (1989)	40.30*
• Eyebar rehabilitation - Manhattan anchorage Chamber "C." (1988)	12.20*
• Replacement of maintenance platform in the suspended span. (1982)	4.27*
• Reconstruct maintenance inspection platforms, including new rail and hanger systems and new electrical and mechanical systems; over 2,000 interim repairs to structural steel support system of lower roadway for future functioning of roadway as a detour during later construction contracts. (1992)	23.50*
• Install anti-torsional fix on west side (main and side spans); west upper roadway decks, replace drainage systems on west suspended and approach spans; walkway rehabilitation (install fencing, new lighting on west upper roadways and walkways); rehabilitate cables in both Brooklyn and Manhattan anchorage chambers; dehumidify Brooklyn and Manhattan anchorages. (1997)	141.82*
• Installation of test panels. (1982)	1.55****
• Removal of existing suspender ropes and sockets in the suspended spans; replacement with new suspender ropes and sockets in the suspended spans and re-tensioning of suspender ropes bearing plates; re-tensioning of cable band bolts; removal of existing main cable wrapping; cleaning of main cables; application of new protective paste on main cables; replacement of new main cable wrapping; reinforcement of truss verticals and gusset plates. Replacement of necklace lighting and multirotational bearings at truss "C" and "D," installation of access platforms at towers, rehabilitation of south upper Roadway Lighting. (2010)	159.12*
• 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)
• 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)	184.78*
• 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)	143.80*
• Seismic Retrofit. (2025)	150.00 to 200.00***
• Structural and Component Rehabilitation (2018)	50.00 to 120.00***
TOTAL:	**$ 1,050.52 to $ 1,170.52**

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

Revised 2015

ED KOCH 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). (1984)	2.80*
• Interim rehabilitation, contract D (repairs to lower deck, main bridge, and new median barrier). (1985)	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 Avenue). (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)	227.05*
• Cleaning and painting main bridge upper trusses. (2009)	168.24*
• Miscellaneous Items – Component Rehabilitation. (In Progress)	43.88*
• Eye bar investigation. (In Progress)	0.62****
Seismic Retrofit. (2025)	150.00 to 200.00***
Installation of aviation lighting (2010)	1.76*
Replacement of Upper Roadways (2017)	150.00 to 250.00
TOTAL:	**$ 1,048.05 to $ 1,198.05**

* Construction Complete
** In Construction
*** In Design
**** Research and Development

Revised 2016

WILLIAMSBURG BRIDGE

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*

WILLIAMSBURG BRIDGE

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, purchase of barrier transfer machine BTM) and contra-flow barriers, lane control signal field system. Seismic retrofit – reinforce concrete with granite cladding, bearing replacement at PP10 & 15, rehabilitation of wind tongue casting assembly at main towers, contra-flow of south inner roadway – installation of contra-flow barriers, lightning protection grounding system. Kent Avenue Yard soil erosion and deck pins at PP29 E/W rehabilitation, modular joint repairs and structural flag repairs. (In Progress)	280.00*
• Replace north approach structures (Manhattan / Brooklyn), and rehabilitate north half of bridge. (2002)	233.00*
Miscellaneous repair and painting of the bridge. (2022)	200.00 to 300.00***
TOTAL:	**$ 1,286.66 to $ 1,386.66**

* 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 2015

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. (2010)	508.61***
• Reinstall failed cladding (2017).	20.00**
• Rehabilitation of Arch Block and Towers. (2019)	250.00 to 400.00**
• Replacement of Travelers.	22.34*
• Seismic Retrofit. (2025)	250.00 to 300.00***
TOTAL:	**$ 1,296.22 to $ 1,496.22**

* Construction Complete
** In Design
*** In Construction

Revised 2016

BRIDGES UNDER CONSTRUCTION

CALENDAR YEAR 2015

CONTRACT #	BRIDGE
HBX1152	Bryant Avenue over Amtrak
HBX1164	City Island Road Bridge over Eastchester Bay
HBCMVBE	Metropolitan Avenue Bridge over English Kills (Emergency Contract)
SANDHB001	Battery Place over FDR Drive (Emergency Contract)
SANDHB001	West Street over Rector Street (Emergency Contract)
SANDHB002	Macombs Dam Bridge over Harlem River (Emergency Contract)
SANDHB002	145th Street Bridge over Harlem River (Emergency Contract)
SANDHB002	Third Avenue Bridge over Harlem River (Emergency Contract)
SANDHB002	Madison Avenue Bridge over Harlem River (Emergency Contract)
SANDHB002	Hunters Point Avenue Bridge over Dutch Kills (Emergency Contract)
SANDHB002	Carroll Street Bridge over Gowanus Canal (Emergency Contract)
SANDHB002	Ninth Street Bridge over Gowanus Canal (Emergency Contract)
SANDHB002	Third Street Bridge over Gowanus Canal (Emergency Contract)
SANDHB002	West 207th Street/West Fordham Road Bridge over Harlem River (Emergency Contract)
SANDHB002	Borden Avenue Bridge over Dutch Kills (Emergency Contract)
SANDHB002	Union Street Bridge over Gowanus Canal (Emergency Contract)
SANDHB002	Grand Street Bridge over Newtown Creek (Emergency Contract)
HBM1027	Harlem River Drive Viaduct, 127th Street (NB)
HBM1027	Harlem River Drive Viaduct, 127th Street (SB)
BRCR076 (aka HBM1124)	Willis Avenue Bridge over Harlem River
BRCR076 (aka HBM1124)	Ramp from FDR Drive over Harlem River Drive NB
BRCR076 (aka HBM1124)	To Bruckner Boulevard over Relief
BRCR076 (aka HBM1124)	Willis Avenue over Major Deegan Expressway [871 871X1M12006 (871 871X1M11006)]
BRCR076 (aka HBM1124)	Willis Avenue over Major Deegan Expressway
BRCR076 (aka HBM1124)	Willis Avenue Ramp to Major Deegan Expressway
BRX287S	Macombs Dam Bridge over Harlem River (Rehab of fender System & 155th St. Viaduct)
HBK643	Belt Parkway Bridge over Gerritsen Inlet
HBK1023	Belt Parkway Bridge over Mill Basin
HBK1089	Belt Parkway Bridge over Bay Ridge Avenue
HBK1072WM	Tidal Wetland Mitigation (4 Belt Parkway bridges)
HBM7240	Trans Manhattan Expressway Connection (HRD Ramp to GWB over HRD SB)
HBQ1203	Roosevelt Avenue over Van Wyck Expressway
BRC270C (#6)	Brooklyn Bridge (Ramps and painting)
HBCBORERS-R	FDR Drive relieving platforms-- downtown, FDR Drive relieving platforms-- midtown, FDR Drive relieving platform uptown + Carroll Street Bridge over Gowanus Canal + Ocean Avenue Pedestrian Bridge over Sheepshead Bay

BRIDGE CONSTRUCTION

PROJECTS COMPLETED IN CALENDAR YEAR 2015

CONTRACT #	BRIDGE
BRCR076 (aka HBM1124)	Willis Avenue Bridge over Harlem River
BRCR076 (aka HBM1124)	Ramp from FDR Drive over Harlem River Drive NB
BRCR076 (aka HBM1124)	To Bruckner Boulevard over Relief
BRCR076 (aka HBM1124)	Willis Avenue over Major Deegan Expressway [871 871X1M12006 (871 871X1M11006)]
BRCR076 (aka HBM1124)	Willis Avenue over Major Deegan Expressway
BRCR076 (aka HBM1124)	Willis Avenue Ramp to Major Deegan Expressway
HBK1089	Belt Parkway Bridge over Bay Ridge Avenue

Component Rehabilitation

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

	#FY 08	##FY 09	FY 10	*FY 11	###FY 12	*FY 13	**FY 14	***FY 15
Number of Bridges	10	0	13	0	10	0	11	10
Construction Cost	$14.93	$0	$12.74	$0	$6.35	0	$15.55	15.41

*No contracts were bid during the 2011, and 2013 calendar years.
One contract was bid during the 2007 calendar year, but was not registered until April 2008.
##Two contracts were bid during the 2009 calendar year, but were not registered until March and May 2010.
One contract was bid during the 2012 calendar year and was registered in June 2012.
** Two contracts were bid during the 2014 calendar year: one was registered in October 2014, and one in June 2015.
***One contract was bid during the 2015 calendar year, and was registered in October 2015.

In 2015, work was completed at the following bridges, in the indicated boroughs, at the final cost shown, in millions:

NONE

TOTAL **$0.00 M**

During calendar year 2015, work commenced at the following bridges:

Mosholu Parkway over Conrail (Abandoned) (B)
McGuiness Boulevard/Newtown Creek (Pulaski Bridge Bike Path) (KQ)

Component Rehabilitation

There are two projects "still under construction" since the 2014 *Annual Report* was issued.

149th Street over LIRR (Q)
Ocean Avenue over LIRR Bay Ridge (K)

28 component rehabilitation projects are slated to continue, commence or be completed in the 2016 calendar year. They are:

149th Street over LIRR (Q)
Ocean Avenue over LIRR Bay Ridge (K)

Mosholu Parkway over Conrail (Abandoned) (B)
Leggett Avenue over Amtrak (B)
East 162nd Street over Metro North RR HAR (B)
East 165th Street over Metro North RR HAR (B)
East 187th Street over Metro North RR HAR (B)
Southern Boulevard over East Fordham Road (B)
Grand Concourse over East 167th Street (B)
East 180th Street over Bronx River (B)
Riverside Drive over West 138th Street (M)
Riverside Drive over West 145th Street (M)
McGuiness Boulevard/Newtown Creek (Pulaski Bridge Bike Path) (KQ)

Ramp To Queensboro Bridge From East 58th Street over East 59th Street (M)
Ramp To 21st Street From NY over 22nd Street (Q)
71st Avenue over Cooper Avenue (Q)
Douglaston Parkway NB over Cross Island Parkway (Q)
Douglaston Parkway SB over Cross Island Parkway (Q)
Roosevelt Avenue over Flushing Meadow Park Road (Q)
80th Road over LIRR Main Line (Q)
Hannah Street over SIRT South Shore (R)
Forest Avenue over Clove Lakes Park Stream (R)

East 97th Street over Metro North Main Line [M]
West 57th Street over Amtrak 30th Street Branch [M]
Matthewson Road over Mac Cracken Avenue [B]
Mosholu Parkway over Equestrian Path [B]
East Fordham Road over Grand Concourse [B]
East Drive over Bridle Path Near Zoo [K]

BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2241080	HBCR02B	SOUTHERN BLVD	CSX PORT MORRIS	2017	FD	B
2241129	HBCR02B	EAST 149TH STREET	AMTRAK & CSX	2017	FD	B
2241330	HBCR02B	UNIONPORT ROAD	AMTRAK & CSX	2017	FD	B
2242071	HBCR02B	BRONX BLVD S.B.	BRONX RIVER	2017	FD	B
2242072	HBCR02B	BRONX BLVD N.B.	BRONX RIVER	2017	FD	B
2242319	HBCR03A	GRAND CONCOURSE	EAST 174TH ST	2018	FD	B
2241790	HBX180	EAST 180TH STREET	METRO NORTH RR	2020	PD	B
2075837	HBX1086	WESTCHESTER AVENUE	HRP	2016	FD	B
2066510	HBX1131	BRUCKNER EXPRESSWAY	WESTCHESTER CREEK	2017	FD	B
2241409	HBX1190	GRAND CONCOURSE	METRO NORTH RR HUD	2018	FD	B
2242220	HBX1214	SNUFF MILL ROAD (SOUTHERN BLVD)	BRONX RIVER	2025	PD	B
2241740	HBX1215	EAST 175TH ST	METRO NORTH RR	2019	PD	B
2230250	HBX1216	MOSHOLU PARKWAY	BRONX RIVER	2025	PD	B
2241670	HBX1670	EAST 169TH STREET	METRO NORTH RR	2020	PD	B
2240137	HBM1147	BROADWAY	HARLEM RIVER	2017	FD	BM
2240079	HBX644S	MADISON AVE	HARLEM RIVER	2017	PD	BM
2240027	BRC156F	MANHATTAN BRIDGE (LL)	EAST RIVER	2018	PD	KM
2240028	BRC156F	MANHATTAN BRIDGE (UL)	EAST RIVER	2018	PD	KM
2240027	BRC156S2	MANHATTAN BRIDGE (LL)	EAST RIVER	2025	PD	KM
2240028	BRC156S2	MANHATTAN BRIDGE (UL)	EAST RIVER	2025	PD	KM
2240019	BRC270S	BROOKLYN BRIDGE	2781 (B.Q.E.)	2025	FD	KM
2240019	BRC270D	BROOKLYN BRIDGE	2781 (B.Q.E.)	2019	PD	KM
2230370	HBCR02B	SACKETT STREET	B.Q.E.	2017	FD	K
2231449	HBCR03A	KNAPP STREET	BELT PARKWAY	2018	FD	K
2244440	HBCR03A	SOUTH OF TILLARY STREET	NAVY STREET	2018	FD	K
2243710	HBKC062	19TH AVE	BMT SEA BEACH	2023	FD	K
2243820	HBK548	21ST AVE	BMT SEA BEACH	2020	FD	K
2231439	HBK1090	BSHP	NOSTRAND AVE	2021	FD	K
2243569	HBK1201	ATLANTIC AVE	LIRR ATLANTIC AVE	2017	FD	K
2240270	HBK1213	UNION STREET BRIDGE	GOWANUS CANAL	2019	PD	K
2231319	HBK1202	BELT PARKWAY	BAY PARKWAY	2024	PD	K
2240048	BRC231F	ED KOCH QUEENSBORO BRIDGE (UL)	EAST RIVER	2017	PD	MQ
2240047	BRC231S	ED KOCH QUEENSBORO BRIDGE (LL)	EAST RIVER	2025	PD	MQ
2240048	BRC231S	ED KOCH QUEENSBORO BRIDGE (UL)	EAST RIVER	2025	PD	MQ
2229311	HBCR03A	HHP SB	RAMP TO 96TH STREET	2018	FD	M
2229312	HBCR03A	HHP NB	RAMP TO 96TH STREET	2018	FD	M
2246540	HBM551	EAST 34TH STREET	PARK AVENUE TUNNEL	2016	FD	M
2245010	HBM1120	11TH AVE VIADUCT [NORTH]	LIRR WEST SIDE YARD/AMTRAK	2020	FD	M
2246720	HBM1165	RIVERSIDE RIVE	WEST 158TH STREET/AMTRAK	2018	PD	M
226672A	HBM1171	W 31ST ST	AMTRAK LAYUP TRACKS	2020	FD	M
224501E	HBM1186	W 35TH ST	AMTRAK 30TH ST BRANCH	2023	FD	M
2232070	HBM1221	E 25TH STREET PEDESTRIAN BRIDGE	FDR DRIVE	2022	PD	M

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
2230890	HBCR02B	49TH STREET	GRAND CENTRAL PARKWAY	2017	FD	Q
2231950	HBCR03A	150TH STREET	CROSS ISLAND PARKWAY	2018	FD	Q
2231980	HBCR03A	147TH STREET	CROSS ISLAND PARKWAY	2018	FD	Q
2055801	HBCR03A	NORTHERN BOULEVARD WB	FLUSHING RIVER	2018	FD	Q
2055802	HBCR03A	NORTHERN BOULEVARD EB	FLUSHING RIVER	2018	FD	Q
1247560	HBQ1112	METRO AVE (FRESH POND)	LIRR MONTAUK DIV	2016	FD	Q
2231780	HBQ1114	HEMPSTEAD AVE	BCIP	2021	PD	Q
2266149	HBQ1114	HEMPSTEAD AVE	RAMP TO BCIP NB	2021	PD	Q
2231850	HBQ1115	UNION TPKE	BCIP	2021	PD	Q
2248160	HBQ1137	ELIOT AVE	QUEENS BLVD	2022	FD	Q
2248280	HBQ1206	HIGHLAND PK PED BRDG	PEDESTRIAN PATH	2016	FD	Q
2266160	HBQC064	WHITESTONE EXPRY/VAN WYCK EXPRY SB TO BCIP EB	ACCESS ROAD FROM WHITESTONE EXPRY/VAN WYCK EXPRY	2019	PD	Q
2249240	HBCR02B	ARTHUR KILL ROAD	SIRT SOUTH SHORE	2017	FD	R
2249450	HBCR03A	FREMONT AVENUE PEDESTRIAN	SIRT SOUTH SHORE	2018	FD	R
R00010	HBRC036	GALLOWAY AVE	MARIANNE ST	2016	FD	R
R00011	HBRC037	FOREST AVE	CRYSTAL AVE	2016	FD	R
R00023	HBRC039	MIDLAND AVE	HYLAN BLVD	2016	FD	R
R00034	HBRC040	ROCKLAND AVE	BRIELLE AVE	2016	FD	R
R00068	HBRC041	FOREST AVE	RANDALL AVE	2016	FD	R
R00069	HBRC042	GREGG PLACE	RANDALL AVE	2016	FD	R
R00084	HBRC043	ARTHUR KILL RD	MULDOON AVE	2016	FD	R
R00122	HBRC045	ARTHUR KILL RD	RIDGEWOOD AVE	2016	FD	R

Revised 12/4/15

PD=Preliminary Design; FD=Final Design; DB=Design Build

Appendix B

FLAG CONDITIONS

Definitions and Procedures B-1

2011 - 2015 Red, Yellow and Safety Flags B-2

Flag Reporting and Tracking Process B-3

FLAG DEFINITIONS AND PROCEDURES

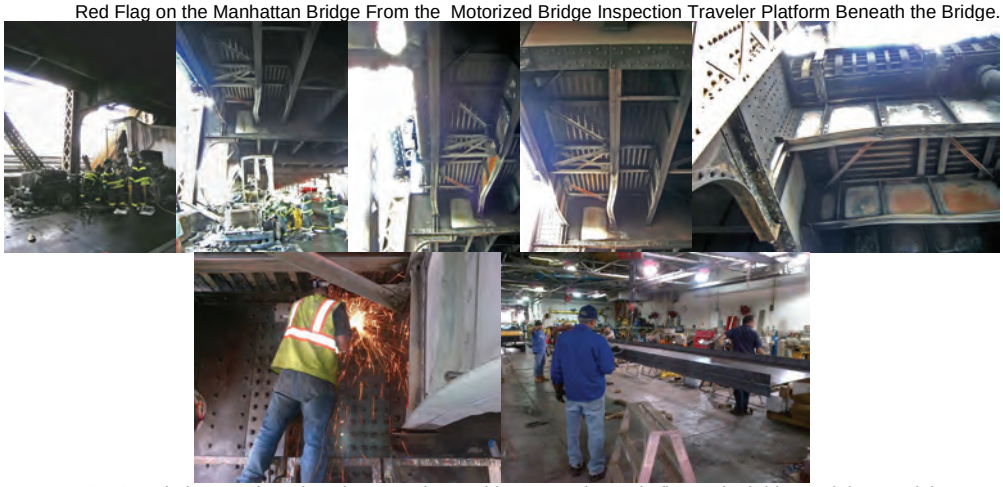
(Source: NYSDOT *Engineering Instruction 94-002*)

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.



September 2008: Advanced Corrosion of Steel Stringer and Girder. February 2011: Red Flag Stringer Repair at Riverside Drive Viaduct over West 158th Street. July 2015: Assistant Civil Engineers Andrew Hoang and Clara Medina Inspecting a Red Flag on the Manhattan Bridge From the Motorized Bridge Inspection Traveler Platform Beneath the Bridge.



August 2013 Red Flags on the Ed Koch Queensboro Bridge. A truck caught fire on the bridge and damaged three stringers that support the eastbound upper roadway. Replacement of the two damaged stringers and the repair of a third were completed in October 2013. All work was performed by in-house forces. August 2013: Firefighters Examining the Damage. Repairing the Bridge Included Custom Designing the Steel Beams, as Well as Fabrication and Installation. Division Ironworkers Fabricated Two 26-Foot-Long, 1.5-Ton Beams in Their Brooklyn Shop.



August 2013 Red Flags on the Ed Koch Queensboro Bridge. October 2013: Removing the Warped Beams. The New Beams.

FLAG DEFINITIONS AND PROCEDURES

(Source: NYSDOT *Engineering Instruction 94-002*)

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.



February 2008: Yellow Structural Flag Due to the Deteriorated Cap Beam. October 2008: Corrosion of Steel Secondary Member. November 2008: Crack in Steel Girder.

Safety Flag is used to report a condition that presents a clear and present vehicular or pedestrian traffic hazard, but there is no danger of structural failure or collapse.



August, October, and November 2008: Examples of Tripping Hazards. July 2013 Safety Flag: Ironworker and Mason Crews Repairing Missing Joint Seal Materials on the Brooklyn-Bound Williamsburg Bridge. The Joint Sealer Spaces Were Widened on Each Part of the Joint Utilizing the Shop-Made Jack Expansion Blocks, and Then Completely Cleaned With a Needle Gun to Prepare the Surface to be Rough Contacted With Epoxy Glue. After the Glue was Spread on the Sealer Space Surfaces, the Seal Strip was Installed and Tightened. (Credit: Hany Soliman)



May 2015 Safety Flag: Borden Avenue Bridge Over Dutch Kills - Wooden Planks of Sidewalk Damaged After Vehicle Accident. East 14th Street Bridge Over LIRR Bay Ridge –Ironworkers Fabricated and Installed the Bottom Cover of the Ventilation Post on the Right Sidewalk.

FLAG DEFINITIONS AND PROCEDURES

(Source: NYSDOT *Engineering Instruction 94-002*)

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.



Example of PIA Safety Flag: Broken Grating. Executive Director of Bridge Preventive Maintenance and Repair Thomas 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.



July 2013 PIA Safety Flag on the City Island Bridge. The repairs, conducted after a record-breaking heat wave, involved opening the joint plates and installing plug welds, which helped correct the plates' position and recreated the proper gap to allow the bridge to expand and contract safely. Finger Joint Before the Repair. Open Finger Joint. Division Crews Repairing the Joints. View Beneath the Finger Joint. The Joint Plates are Placed to Check for the Proper Gap. Leveling the Plate Before Welding. Close-Up of a Plug Weld. After 17 Plug Welds, the Finger Joints Sit Flush on the Roadway.



August 2014 PIA Safety Flag: Broken Joint Concrete Header And Steel Armor on the Long Island Expressway over Dutch Kills Creek. The Condition Was Made Safe By Installing Two Steel Plates. 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)

APPENDIX B-2

FLAG CONDITIONS BY CALENDAR YEAR

	2011	2012	2013	2014	2015	% increase (2011 – 2015)
Citywide						
FLAGS ROUTED	1,342	1,187	1,117	1,465	1,344	0%
RED	56	34	62	128	60	7%
YELLOW	252	208	123	245	187	-26%
SAFETY	1,034	945	932	1,092	1,097	6%
TOTAL FLAGS ELIMINATED	966	1,164	1,176	1,167	1,410	46%
RED	53	43	44	116	94	77%
YELLOW	126	243	212	173	322	156%
SAFETY	787	878	920	878	994	26%
TOTAL FLAGS OUTSTANDING	3,989	4,012	3,953	4,251	4,184	5%
RED	53	44	62	74	40	-25%
YELLOW	887	852	763	835	700	-21%
SAFETY	3,049	3,116	3,128	3,342	3,444	13%
Division of Bridges Workload						
FLAGS ROUTED*	1,160	1,001	938	1,200	1,220	5%
RED	47	32	61	124	57	21%
YELLOW	250	204	117	242	187	-25%
SAFETY	863	765	760	834	976	13%
FLAGS ELIMINATED**	877	1,057	1,091	1,081	1,315	50%
RED	46	41	43	111	90	96%
YELLOW	126	241	208	171	322	156%
SAFETY	705	775	840	799	903	28%
FLAGS OUTSTANDING***	2,355	2,309	2,166	2,300	2,220	-6%
RED	51	42	60	73	40	-22%
YELLOW	845	808	717	798	663	-22%
SAFETY	1,459	1,459	1,389	1,429	1,517	4%

*Does not include re-routed flags. **97.67% of PIA flags were remediated within 24 hours in 2015.

***Includes re-routed flags.

Revised 2/18/16

FLAG REPORTING AND TRACKING PROCESS

There are four primary sources from which flags originate:

- NYSDOT inspectors
- NYCDOT inspectors
- NYCDOT Communications Center, 311, or other Public Channels
- NYCDOT Bridge Repair Section

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 in-house or contractor forces for 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 in-house or contractor forces for 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, 311, or other Public Channels

1. DOT is alerted to a possible flag condition.
2. City engineers visit the site to review the reported condition.
3. If the deficiency warrants, a verbal flag is communicated and a 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 indicated, or
   - assign flags to in-house or contractor forces for repair, or
   - assign flags to the Construction Section for Capital contractor repair.
6. When flag conditions are eliminated, the database is updated.

City DOT Bridge Repair Section

1. Bridge Repair personnel complete a Post Flag Request Form for a condition which they have identified and already corrected.
2. Report is entered into the “City Flag” database as an eliminated flag.

Revised 12/1/14

Appendix C

2015 INVENTORY

Inventory Summary C-1

Posted, Partially Closed & Closed Bridges C-2

Bridge Identification Numbers C-3

New York State Inspection System C-4

Standard Abbreviations C-5

Information on Inventory Lists C-6

Adjustments to the Inventory C-7

Listing of Bridge Inventory and Conditions C-8

Inventory Summary

In Calendar Year 2015, the total number of bridge and tunnel structures under the jurisdiction of the New York City Department of Transportation (NYCDOT) remained at 789. NYCDOT owns, operates, and/or maintains 759 non-movable bridges, 24 movable bridges, and five 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 53) 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 five tunnels), as measured by the City's general condition rating, are as follows: No structures were rated *Poor*, 458 structures were rated *Fair*, 228 structures were rated *Good*, 102 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 Ed Koch 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 twenty-four (41.06%) of the Division's structures consist of one span (the portion of a bridge between two supports). One hundred three (13%) bridges carry only pedestrian traffic. Of the 789 structures in the City's inventory, 104 (13.18%) cross waterways; of these, 20 connect the boroughs of the Bronx, Brooklyn, Manhattan and Queens. Three hundred twenty-seven (41.4%) structures cross the City's labyrinthine system of railroad and subway tracks. Two hundred fifty (31.69%) 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, with the exception of the East 63rd Street Pedestrian Bridge over the FDR Drive, which was inspected by Rockefeller University.

The State inspected 676 (85.68%) bridge structures. The balance of 112 (14.20%) were inspected by the City, with the exception of the High Bridge over the Harlem River, which was inspected in 2002 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:

State Numerical Rating		City Condition Rating
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 2015 Structure Conditions

Rating	Number of Structures	Percent	Number of Spans	Percent	Deck Area Sq Ft	Percent
Poor	0	0.00%	0	0.00%	0	0.00%
Fair	458	58.05%	3,297	75.99%	10,421,447	71.60%
Good	228	28.90%	744	17.15%	2,732,025	18.77%
Very Good	102	12.93%	298	6.87%	1,401,480	9.63%
Not Rated	1	__	__	__	__	__
Total	789	100%	4,339	100%	14,554,952	100.00%

As of December 31, 2015, the condition of the City's bridges and tunnels indicated that 0% were rated as *Poor*; 58.05% were classified as *Fair*; 28.90% were awarded ratings of *Good*; and 12.93% as *Very Good*. Those structures given ratings of Fair encompassed 71.6% of bridge spans.

Rating	2012		2013		2014		2015	
Poor	1	0.13%	1	0.13%	0	0.00%	0	0.00%
Fair	460	58.45%	456	57.87%	456	57.87%	458	58.05%
Good	212	26.94%	217	27.54%	221	28.05%	228	28.90%
Very Good	114	14.49%	114	14.47%	111	14.09%	102	12.93%
Not Rated	1		1		1		1	
Total	788	100%	789	100%	789	100	789	100

During 2015, Manhattan had the highest percentage of bridge structures rated *fair* – 74.43% - as well as the lowest percentage of bridge structures rated *good* – 21.59%. Staten Island had the highest percentage of bridge structures classified as *good* – 41.79%, and the second highest percentage of bridge structures rated *very good* – 17.91%, for a total of 59.7%. In 2015, Brooklyn had the highest percentage of bridge structures rated as *very good* – 22.29%. The Bronx had the second highest percentage of bridge structures classified as *fair* – 63.16%. Queens had the third highest percentage of bridge structures classified as *very good* – 14.65%, and the second highest percentage of bridge structures rated as *good* – 31.82%.

Borough*	Poor	% of Boro	Fair	% of Boro	Good	% of Boro	Very Good	% of Boro	Total
Bronx	0	0.00%	96	63.16%	43	28.29%	13	8.55%	152
Brooklyn	0	0.00%	84	48.00%	52	29.71%	39	22.29%	175
Manhattan	0	0.00%	131	74.43%	38	21.59%	7	3.98%	176
Queens	0	0.00%	106	53.54%	63	31.82%	29	14.65%	198
Staten Island	0	0.00%	27	40.30%	28	41.79%	12	17.91%	67
Total	0	0.00%	444	57.81%	224	29.17%	100	13.02%	768

* Does not include borough-crossing bridges (see next table).

Summary of 2015 Structure Conditions

Seventy percent of the 20 bridge structures that service the five boroughs were rated in *fair* condition in 2015, and 30% were rated *good* or *very good*.

Boro-Crossing	Poor	% of Boro Crossing	Fair	% of Boro Crossing	Good	% of Boro Crossing	Very Good	% of Boro Crossing	Total
Bronx-Manhattan	0	0.00%	6	60.00%	2	20.00%	2	20.00%	10
Brooklyn-Manhattan	0	0.00%	4	100.00%	0	0.00%	0	0.00%	4
Queens-Manhattan	0	0.00%	2	66.67%	1	33.33%	0	0.00%	3
Brooklyn-Queens	0	0.00%	2	66.67%	1	33.33%	0	0.00%	3
Total	0	0.00%	14	70.00%	4	20.00%	2	10.00%	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 2015, the total number of closed or partially closed bridge structures was four, with one closed and three 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
2231450	BROOKLYN	BELT SHORE PARKWAY	GERRITSEN INLET		2012	5	CONDITION OF MILL BASIN BRIDGE
2231479	BROOKLYN	BELT SHORE PARKWAY	MILL BASIN CREEK		2016	5	
	MANHATTAN	FDR DRIVE (NB & SB)	23RD TO 63RD STREET			4	PASSENGER CARS ONLY
2240019	BROOKLYN & MANHATTAN	BROOKLYN BRIDGE	EAST RIVER	INCLUDING RAMPS	2016	3	NO COMMERCIAL TRAFFIC NO TRUCKS, NO BUSSES; 11'0" CLEARANCE
2240039	BROOKLYN & MANHATTAN	WILLIAMSBURG BRIDGE	EAST RIVER		2022		INNER ROADWAYS, NO TRUCKS; OUTER ROADWAYS DESIGN FOR HS20 [36 TONS] AND TRUCKS ARE PERMITTED ON OUTER ROADWAY
2240047	MANHATTAN & QUEENS	ED KOCH QUEENSBORO BRIDGE	EAST RIVER		2017	7.5	LOWER OUTER ROADWAYS POSTED AS H-7.5 [7.5 TONS] (PASSENGER CARS ONLY FOR SOUTHBOUND; PEDESTRIANS AND BICYCLES ONLY FOR NORTHBOUND); LOWER INNER ROADWAYS ARE DESIGNED FOR HS20 TRUCK LOAD [36 TONS]; UPPER ROADWAYS DESIGNED FOR H-15 [15 TONS], NO TRUCKS, ONLY BUSES
2240260	BROOKLYN	CARROLL STREET BRIDGE	GOWANUS CANAL	CARROLL STREET		10	
2240640	MANHATTAN & QUEENS	ROOSEVELT ISLAND	EAST CHANNEL OF THE EAST RIVER			36	
2240660	QUEENS	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL			36	
2246550	MANHATTAN	PARK AVENUE VIADUCT	42ND STREET			15	NO COMMERCIAL TRAFFIC
2247590	QUEENS	FOREST PARK DRIVE	LIRR			8	
2247660	QUEENS	FOREST PARK DRIVE	ABANDONED LIRR			8	
2245460	MANHATTAN	PARK AVENUE SB	EAST 45TH STREET			15	NO COMMERCIAL TRAFFIC
2245470	MANHATTAN	PARK AVENUE NB	EAST 45TH STREET			15	NO COMMERCIAL TRAFFIC
2244120	BROOKLYN	HILL DRIVE	PROSPECT PARK LAKE				NO VEHICLES
226771A**	MANHATTAN	79Th STREET RAMP to HHP	79TH STREET BOAT BASIN GARAGE			15	
226771B**	MANHATTAN	79TH STREET RAMP TO GARAGE	79TH STREET BOAT BASIN GARAGE			15	
226771C**	MANHATTAN	GARAGE RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE			15	
226771D**	MANHATTAN	SB HHP RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE			15	
2240507**	QUEENS	ROOSEVELT AVENUE BRIDGE	VAN WYCK EXPRESSWAY		2016	25	
2247120**	QUEENS	WOODSIDE AVENUE BRIDGE	LIRR MAIN LINE			8	

21 COUNT *** - CONSTRUCTION CONTRACT LETTING**



Truck on the Wrong Ed Koch-Queensboro Bridge Roadway.

12/1/15

Partially Closed Bridges

NEW YORK CITY DEPARTMENT OF TRANSPORTATION

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	FISCAL YEAR*	REMARKS
2076640	BRONX	DEPOT PLACE	CONRAIL HUDSON DIVISION			ONE LANE CLOSED TO TRAFFIC (BUT OPEN TO PEDESTRIANS AND BICYCLES), AND ONE LANE OPEN
2244120	BROOKLYN	HILL DRIVE	PROSPECT PARK LAKE		CONSTRUCTION MOVED DUE TO LACK OF FUNDING	CLOSED TO VEHICULAR TRAFFIC, OPEN TO PEDESTRIAN TRAFFIC, ALONG THE CENTER OF THE ROADWAY.
2247080	QUEENS	149TH STREET	LIRR		FY'16	CLOSED TO VEHICULAR TRAFFIC, BUT OPEN TO PEDESTRIANS AND BICYCLES.

3 COUNT *** - CONSTRUCTION CONTRACT LETTING**



Carroll Street, Gerritsen Inlet, Mill Basin, Roosevelt Avenue Bridge and 79th Street Ramp Posted Weight Restriction Signs. (Carroll Street, Gerritsen Inlet, Roosevelt Avenue and 79th Street Ramp Credit: NYSDOT) Madison Avenue Bridge Posted Weight Restriction in Effect in 1959.

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	76th ROAD	BRIDGE IS IN FLUSHING CORONA PARK, WHICH IS IN A REMOTE LOCATION AND WAS DAMAGED BY FIRE.

10/20/09, no change 2015

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:

Numerical Rating	Description
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	NB:	Northbound
AVE:	Avenue	PED BR:	Pedestrian Bridge
BLVD:	Boulevard	PKWY:	Parkway
BR:	Bridge	PL:	Place
CPK:	Central Park	RD:	Road
DR:	Drive	SB:	Southbound
EB:	Eastbound	ST:	Street
EXPWY:	Expressway	TPKE:	Turnpike
I:	Interstate	WB:	Westbound
LN:	Lane		
X:	No State accepted mileage markers exist on this route		



Assistant Civil Engineer Andrew Hoang
Inspecting the Brooklyn Bridge.
(Credit: Clara Medina)

Routes :

No.	Borough	Name
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	PED	Pedestrian
E	East River	R	Ramp
M	Movable	T	Tunnel
O	Off-System	W	Waterway

- **Rating Source:**

(C)	City Inspection	(P)	Parks Inspection
(S)	State Inspection	(U)	Rockefeller University Inspection

- **Rating** : Numerical and/or verbal rating

1.000 - 3.000:	(P)	POOR
3.001 - 4.999:	(F)	FAIR
5.000 - 6.000:	(G)	GOOD
6.001 - 7.000:	(V)	VERY GOOD

- **Deck Area:** Square feet

- **CD:**

  Community Board District

APPENDIX C-7

2015 Bridge Inventory Adjustments

There were no bridges removed from or added to the City's inventory since the *2014 Annual Report* was issued.

REV. DATE 3/2016

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
1065210	Q	WHITESTONE EXPRESSWAY NORTHBOUND	CROSS ISLAND PARKWAY		A		1	S	6/17/2014	4.656	F	2,500	$11,250,000	407		
1066510	B	BRUCKNER EXPRESSWAY SERVICE ROAD	WESTCHESTER CREEK		WMA		17	S	9/18/2015	3.565	F	35,000	$157,500,000	209		
1067150	B	NEREID AVENUE (EAST 240TH STREET)	BRONX RIVER PARKWAY	M	O		10	S	9/18/2015	4.500	F	57,750	$259,875,000	212		
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER	M	WMO		52	S	12/18/2015	3.930	F	220,000	$990,000,000	110	204	
1247010	Q	91ST PLACE (2247010)	LIRR PT WASH BR	L	O		1	S	9/30/2015	6.500	VG	2,760	$12,420,000	404		
1247200	Q	67TH AVENUE PEDESTRIAN BRIDGE (2247200)	LIRR MAIN LINE	L	O-PED		3	C	9/24/2014	4.219	F	1,300	$5,850,000	406		
1247280	Q	51ST AVENUE PEDESTRIAN BRIDGE (2247280)	LIRR MAIN LINE	L	O-PED		5	C	9/18/2014	3.018	F	700	$3,150,000	402		
1247560	Q	METROPOLITAN AVENUE	LIRR - NY&ATL	LN	O		2	S	9/23/2014	3.603	F	20,900	$94,050,000	405		
2055801	Q	NORTHERN BOULEVARD WESTBOUND	FLUSHING RIVER		WO		40	S	10/28/2014	4.338	F	71,900	$323,550,000	407		
2055802	Q	NORTHERN BOULEVARD EASTBOUND	FLUSHING RIVER		WO		40	S	10/28/2014	4.268	F	78,894	$355,023,000	407		
205580A	Q	NORTHERN BOULEVARD WESTBOUND TO 678I SOUTHBOUND	VACANT LAND		AR		16	S	6/5/2014	5.619	G	8,600	$38,700,000	407		
2065629	B	BRONX RIVER PARKWAY	BOSTON ROAD - BRONX ZOO		A		1	S	8/12/2015	5.138	G	6,300	$28,350,000	227		
2065930	Q	HAMILTON PLACE	495I (LONG ISLAND EXPRESSWAY)		A		2	S	2/20/2014	5.528	G	11,111	$49,999,500	405		
2065940	Q	GRAND AVENUE	495I (LONG ISLAND EXPRESSWAY)		A		2	S	11/11/2014	4.861	F	12,850	$57,825,000	405		
2065950	Q	69TH STREET	495I (LONG ISLAND EXPRESSWAY)		A		2	S	6/24/2015	5.056	G	10,336	$46,512,000	405		
2066002	Q	495I (2066000)	WOODHAVEN BOULEVARD		A		2	S	6/10/2015	5.479	G	25,200	$113,400,000	406	404	
2066100	K	5TH AVENUE	27 X PROSPECT EXPRESSWAY		A		1	S	4/22/2014	5.063	G	8,800	$39,600,000	307		
2066671	B	BRUCKNER EXPESSWAY SOUTHBOUND	BRONX RIVER		WA		3	S	10/7/2015	4.972	F	12,400	$55,800,000	202	209	
2066672	B	BRUCKNER EXPRESSWAY NORTHBOUND	BRONX RIVER		WA		8	S	10/9/2015	4.418	F	22,300	$100,350,000	202	209	
2066720	B	EAST 174TH STREET	SHERIDAN EXPRESWAY/AMTRAK	A	A		13	S	7/29/2014	3.986	F	35,573	$160,078,500	209	203	
206672A	B	174TH STREET-NORTH PEDESTRIAN BRIDGE	895I - SHERIDAN EXPRESSWAY		A-PED		4	C	4/20/2015	4.833	F	1,800	$8,100,000	209		
206672B	B	174TH STREET-SOUTH PEDESTRIAN BRIDGE	895I - SHERIDAN EXPRESSWAY		A-PED		4	C	4/20/2015	4.750	F	1,900	$8,550,000	209		
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER	M	WO		9	S	11/24/2014	4.493	F	128,339	$577,525,500	112	205	204
2075351	B	BRUCKNER EXPRESSWAY SOUTHBOUND	AMTRAK - CSX	AC	A		1	S	10/29/2014	5.698	G	11,600	$52,200,000	202		
2075352	B	BRUCKNER EXPRESSWAY NORTHBOUND	AMTRAK - CSX	AC	A		1	S	10/30/2014	6.190	VG	10,900	$49,050,000	202		
2075820	B	EAST TREMONT AVENUE	HUTCHINSON RIVER PARKWAY		A		2	S	10/20/2015	4.528	F	10,200	$45,900,000	210		
2075837	B	WESTCHESTER AVENUE	HUTCHINSON RIVER PARKWAY		A		2	S	2/27/2014	4.097	F	15,858	$71,361,000	210	211	
2075849	B	BRONX PELHAM PARKWAY	HUTCHINSON RIVER PARKWAY		A		2	S	5/8/2014	3.974	F	17,600	$79,200,000	210	211	
2075859	B	HUTCHINSON RIVER PARKWAY	HUTCHINSON RIVER		WMA		7	S	10/22/2015	4.578	F	60,500	$272,250,000	210	228	
2076109	B	BRUCKNER EXPRESSWAY NORTHBOUND SERVICE ROAD	HUTCHINSON RIVER PARKWAY		A		2	S	8/13/2015	4.895	F	7,800	$35,100,000	210		
2076129	B	BRUCKNER EXPRESSWAY SOUTHBOUND SERVICE ROAD	HUTCHINSON RIVER PARKWAY		A		2	S	1/16/2014	5.079	G	7,100	$31,950,000	210		
2076640	B	DEPOT PLACE	METRO NORTH RR HUD	CM	O		11	S	5/12/2015	4.319	F	26,566	$119,547,000	204		
2076929	B	BRUCKNER EXPRESSWAY	CSX - HUNTS POINT	C	A		1	S	8/24/2015	4.433	F	3,800	$17,100,000	202		
2229289	M	HENRY HUDSON PARKWAY VIADUCT	AMTRAK - WEST 72ND STREET - WEST 79TH STREET	A	A		145	S	9/17/2014	3.597	F	213,173	$959,278,500	107		
222928C	M	PEDESTRIAN BRIDGE AT WEST 73RD STREET	HHP - AMTRAK	A	A-PED	P	5	C	8/12/2013	3.812	F	3,700	$16,650,000	107		
222928D	M	WEST 72ND STREET RAMP TO HENRY HUDSON PARKWAY NORTHBOUND	RELIEF		AR		1	S	7/18/2014	6.648	VG	1,750	$7,875,000	107		
2229290	M	WEST 79TH STREET	AMTRAK	A	A		1	S	6/11/2014	4.424	F	4,500	$20,250,000	107		
2229309	M	HENRY HUDSON PARKWAY	RIVERSIDE PARK		A		1	S	1/13/2014	5.267	G	2,172	$9,774,000	107		
2229311	M	HENRY HUDSON PARKWAY SOUTHBOUND	RAMP TO WEST 96TH STREET		A		1	S	1/28/2014	4.455	F	2,000	$9,000,000	107		
2229312	M	HENRY HUDSON PARKWAY NORTHBOUND	RAMP TO WEST 96TH STREET		A		1	S	1/27/2014	4.182	F	2,000	$9,000,000	107		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2229321	M	HENRY HUDSON PARKWAY SOUTHBOUND	RAMP FROM WEST 96TH STREET		A		1	S	1/31/2014	5.133	G	2,000	$9,000,000	107		
2229322	M	HENRY HUDSON PARKWAY NORTHBOUND	RAMP FROM WEST 96TH STREET		A		1	S	1/31/2014	5.300	G	2,000	$9,000,000	107		
2229349	M	HENRY HUDSON PARKWAY	WEST 158TH STREET	A	A		44	S	10/10/2014	4.155	F	140,000	$630,000,000	109	112	
222934A	M	RAMP TO NORTHBOUND HENRY HUDSON PARKWAY	AMTRAK WEST SIDE	A	AR		26	S	10/14/2015	3.736	F	10,800	$48,600,000	112		
2229400	M	WEST 181ST STREET PEDESTRIAN BRIDGE	HENRY HUDSON PARKWAY NORTHBOUND		A-PED	P	7	C	2/26/2015	4.418	F	1,500	$6,750,000	112		
2229440	B	HENRY HUDSON PARKWAY	KAPPOCK STREET		A		1	S	7/7/2015	5.069	G	3,900	$17,550,000	208		
2229450	B	WEST 232ND STREET	HENRY HUDSON PARKWAY		A		2	S	7/8/2015	5.026	G	4,900	$22,050,000	208		
2229460	B	WEST 236TH STREET PEDESTRIAN BRIDGE	HENRY HUDSON PARKWAY		A-PED		3	C	7/27/2015	3.780	F	2,500	$11,250,000	208		
2229470	B	WEST 239TH STREET	HENRY HUDSON PARKWAY		A		2	S	6/3/2015	5.053	G	6,100	$27,450,000	208		
2229480	B	MANHATTAN COLLEGE PARKWAY	HENRY HUDSON PARKWAY		A		3	S	6/3/2015	5.053	G	6,200	$27,900,000	208		
2229490	B	WEST 246TH STREET	HENRY HUDSON PARKWAY		A		2	S	6/3/2015	4.868	F	5,600	$25,200,000	208		
2229500	B	WEST 252ND STREET	HENRY HUDSON PARKWAY		A		2	S	1/27/2014	5.372	G	4,500	$20,250,000	208		
2229510	B	RIVERDALE AVENUE	HENRY HUDSON PARKWAY		A		2	S	7/9/2015	5.079	G	5,200	$23,400,000	208		
2229520	B	FIELDSTON ROAD	HENRY HUDSON PARKWAY		A		1	S	7/10/2015	4.900	F	6,600	$29,700,000	208		
2229530	B	HENRY HUDSON PARKWAY	BROADWAY		A		1	S	7/27/2015	4.830	F	7,500	$33,750,000	208		
2229540	B	VAN CORTLANDT PARK	HENRY HUDSON PARKWAY		A-PED	P	2	C	7/28/2015	4.759	F	3,900	$17,550,000	226		
2229550	B	VAN CORTLANDT EQUESTRIAN	HENRY HUDSON PARKWAY		A-PED	P	2	C	7/31/2015	4.600	F	2,100	$9,450,000	226		
2229560	B	BRONX PELHAM PARKWAY	AMTRAK - CSX	AC	A		3	S	11/12/2014	4.486	F	24,591	$110,659,500	211		
2229579	B	BOSTON ROAD	HUTCHINSON RIVER		WO		14	S	5/26/2015	4.042	F	95,700	$430,650,000	212		
2230000	K	HIGHLAND BOULVARD EASTBOUND	JACKIE ROBINSON PARKWAY		A		1	S	3/17/2014	4.724	F	4,900	$22,050,000	305		
2230010	K	HIGHLAND BOULEVARD WESTBOUND	JACKIE ROBINSON PARKWAY		A		1	S	2/25/2014	4.767	F	3,500	$15,750,000	305		
2230020	K	HIGHLAND BOULEVARD WESTBOUND	JACKIE ROBINSON PARKWAY EASTBOUND ENTRANCE RAMP		A		2	S	3/11/2014	4.974	F	4,700	$21,150,000	305		
2230040	Q	CYPRESS HILLS STREET	JACKIE ROBINSON PARKWAY		A		1	S	3/28/2014	4.722	F	5,000	$22,500,000	405		
2230099	Q	JACKIE ROBINSON PARKWAY	CYPRESS HILLS CEMETRY		A		1	S	1/6/2014	5.444	G	4,200	$18,900,000	405		
2230120	Q	MYRTLE AVENUE	JACKIE ROBINSON PARKWAY		A		1	S	4/17/2014	5.250	G	6,400	$28,800,000	405	482	
2230179	Q	JACKIE ROBINSON PARKWAY	METROPOLITAN AVENUE		A		2	S	4/22/2014	5.286	G	8,673	$39,028,500	482		
2230180	Q	UNION TURNPIKE	JACKIE ROBINSON PARKWAY		A		1	S	1/27/2014	5.672	G	5,359	$24,115,500	482		
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PARKWAY		A		1	S	1/27/2014	5.167	G	4,400	$19,800,000	482	406	
2230209	Q	QUEENS BOULEVARD	JACKIE ROBINSON PARKWAY	T	A		5	S	6/9/2014	4.841	F	37,700	$169,650,000	409		
2230220	K	HIGHLAND BOULEVARD NORTHBOUND	VERMONT STREET		A		1	S	5/29/2015	5.762	G	3,995	$17,977,500	305		
2230250	B	MOSHOLU PARKWAY	BRONX RIVER		WA		5	S	1/8/2014	4.263	F	16,300	$73,350,000	227		
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M	A		1	S	4/30/2014	5.391	G	8,880	$39,960,000	227	207	
2230270	B	MOSHOLU PARKWAY	WEBSTER AVENUE		A		1	S	5/18/2015	5.203	G	8,480	$38,160,000	207		
2230287	B	JEROME AVENUE	MOSHOLU PARKWAY	T	A		3	S	4/30/2015	4.711	F	11,800	$53,100,000	207		
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH		A		1	S	1/13/2014	4.310	F	4,300	$19,350,000	226		
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C	A		1	S	7/31/2014	4.271	F	4,600	$20,700,000	226		
2230310	B	MOSHOLU PARKWAY	SOUTHBOUND RAMP TO HENRY HUDSON PARKWAY		A		2	S	8/28/2015	4.919	F	7,400	$33,300,000	226		
2230350	K	SUMMIT STREET PEDESTRIAN BRIDGE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A-PED		2	S	4/4/2014	4.557	F	1,400	$6,300,000	306		
2230360	K	UNION STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/19/2014	4.236	F	5,000	$22,500,000	306		
2230370	K	SACKETT STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/19/2014	4.500	F	5,000	$22,500,000	306		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2230380	K	KANE STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	5/15/2015	4.153	F	5,000	$22,500,000	306		
2230390	K	CONGRESS STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/27/2014	6.029	VG	5,000	$22,500,000	306		
2230410	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	WASHINGTON STREET		A		1	S	7/16/2014	4.500	F	2,500	$11,250,000	302		
2230420	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	WASHINGTON STREET		A		1	S	7/16/2014	5.047	G	2,500	$11,250,000	302		
2230430	K	278I (BROOKLYN-QUEENS EXPRESSWAY) RAMP TO BROOKLYN BRIDGE	PROSPECT STREET		A		1	S	1/6/2014	5.000	G	1,100	$4,950,000	302		
2230440	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	ADAMS STREET		A		1	S	1/15/2014	5.200	G	2,700	$12,150,000	302		
2230450	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	ADAMS STREET		A		1	S	1/15/2014	4.933	F	2,500	$11,250,000	302		
2230460	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	PEARL STREET		A		1	S	1/15/2014	5.467	G	4,500	$20,250,000	302		
2230470	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	JAY STREET		A		1	S	1/15/2014	4.833	F	5,100	$22,950,000	302		
2230480	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	PROSPECT STREET		A		1	S	2/21/2014	4.852	F	8,400	$37,800,000	302		
2230490	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	SANDS STREET		A		1	S	2/27/2014	5.019	G	12,600	$56,700,000	302		
2230500	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	RAMP TO BROOKLYN-QUEENS EXPRESSWAY EASTBOUND		A		1	S	2/10/2014	4.967	F	1,300	$5,850,000	302		
2230510	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	NASSAU STREET		A		6	S	7/3/2014	5.169	G	51,200	$230,400,000	302		
2230520	Q	65TH PLACE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	2/6/2014	5.889	G	11,668	$52,506,000	402		
2230530	Q	QUEENS BOULEVARD	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.306	VG	25,543	$114,943,500	402		
2230540	Q	WOODSIDE AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	1/31/2014	5.672	G	7,529	$33,880,500	402		
2230550	Q	69TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	1/31/2014	5.263	G	12,600	$56,700,000	402		
2230560	Q	70TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.556	VG	8,580	$38,610,000	402		
2230570	Q	41ST AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.735	VG	8,580	$38,610,000	402		
2230587	Q	ROOSEVELT AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	9/1/2015	5.431	G	11,022	$49,599,000	402		
2230590	Q	BROADWAY / 37TH AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	11/24/2014	5.579	G	16,000	$72,000,000	402		
2230600	Q	STEINWAY STREET	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/7/2014	6.349	VG	5,229	$23,530,500	401		
2230610	Q	STEINWAY STREET	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/8/2014	6.349	VG	5,146	$23,157,000	401		
2230620	Q	37TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/12/2014	4.681	F	5,300	$23,850,000	401		
2230630	Q	35TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		4	S	3/14/2014	4.667	F	9,000	$40,500,000	401		
2230640	Q	32ND STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	6/4/2015	4.875	F	8,100	$36,450,000	401		
2230657	Q	31ST STREET	278I (BROOKLYN-QUEENS EXPRESSWAY) - NYCTA		A		2	S	11/19/2014	4.514	F	9,500	$42,750,000	401		
2230669	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	35TH AVENUE		A		1	S	7/29/2015	6.051	VG	13,135	$59,107,500	402		
2230679	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	34TH AVENUE		A		1	S	6/1/2015	5.983	G	7,793	$35,068,500	402		
2230680	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	NORTHERN BOULEVARD		A		1	S	11/5/2014	6.016	VG	27,011	$121,549,500	402	401	
2230690	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	32ND AVENUE		A		1	S	6/2/2014	6.407	VG	4,080	$18,360,000	401		
2230700	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	32ND AVENUE (TO BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		8	S	11/5/2014	6.352	VG	31,600	$142,200,000	401	403	
2230710	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	32ND AVENUE		A		1	S	6/23/2015	6.424	VG	5,240	$23,580,000	401		
2230720	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		3	S	6/17/2015	6.152	VG	20,896	$94,032,000	401		
2230730	Q	31ST AVENUE	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		1	S	6/17/2015	5.767	G	5,875	$26,437,500	401		
2230740	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	31ST AVENUE		A		1	S	6/22/2015	5.978	G	5,246	$23,607,000	401		
2230750	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	31ST AVENUE		A		1	S	6/22/2015	6.424	VG	4,221	$18,994,500	401	403	
2230760	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	31ST AVENUE		A		1	S	7/23/2014	6.356	VG	4,161	$18,724,500	401		
2230770	Q	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	30TH AVENUE		A		1	S	5/22/2015	6.102	VG	6,199	$27,895,500	401		
2230780	Q	278I (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	30TH AVENUE		A		1	S	5/22/2015	6.206	VG	7,071	$31,819,500	403	401	

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2230790	Q	BULOVA AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		2	S	4/4/2014	5.278	G	3,300	$14,850,000	401		
2230800	Q	49TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		2	S	4/7/2014	5.278	G	4,900	$22,050,000	401		
2230810	Q	ASTORIA BOULEVARD EASTBOUND	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		4	S	5/22/2015	4.279	F	8,200	$36,900,000	401		
2230820	Q	47TH STREET	GRAND CENTRAL PARKWAY		A		2	S	4/28/2014	4.889	F	5,700	$25,650,000	401		
2230830	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	GRAND CENTRAL PARKWAY		A		2	S	4/28/2014	4.583	F	7,600	$34,200,000	401		
2230840	Q	44TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	5/13/2014	4.764	F	5,000	$22,500,000	401		
2230857	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	JORALEMON STREET		A		1	S	3/11/2014	5.000	G	2,100	$9,450,000	302		
2230858	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	JORALEMON STREET / BROOKLYN-QUEENS EXPRESSWAY WESTBOUND		A		1	S	10/20/2015	4.619	F	5,900	$26,550,000	302		
2230869	Q	QUEENS BOULEVARD	ACCESS ROAD BROOKLYN-QUEENS EXPRESSWAY SOUTHBOUND		A		1	S	9/30/2014	5.659	G	7,900	$35,550,000	402		
2230870	K	COLUMBIA HEIGHTS	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/7/2014	4.450	F	16,500	$74,250,000	302		
2230887	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	CADMAN PLAZA		A		2	S	7/25/2014	4.403	F	4,500	$20,250,000	302		
2230888	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	CADMAN PLAZA / 278I WESTBOUND		A		2	S	7/28/2014	5.263	G	4,500	$20,250,000	302		
2230890	Q	49TH STREET	GRAND CENTRAL PARKWAY		A		2	S	5/15/2014	4.444	F	6,350	$28,575,000	401		
2231249	K	BELT SHORE PARKWAY	BAY RIDGE AVENUE		A		1	S	5/22/2015	6.905	VG	4,900	$22,050,000	310		
2231250	K	81ST STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	5	C	2/23/2015	4.761	F	3,100	$13,950,000	310		
2231260	K	92ND STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	6	C	8/21/2015	3.770	F	3,000	$13,500,000	310		
2231270	K	4TH AVENUE	BELT SHORE PARKWAY		A		2	S	3/21/2014	4.763	F	6,100	$27,450,000	310		
2231290	K	BAY 8TH STREET	BELT SHORE PARKWAY		A		1	S	6/4/2015	5.730	G	4,950	$22,275,000	311		
2231300	K	17TH AVENUE PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	1	C	9/8/2015	3.702	F	2,100	$9,450,000	311		
2231319	K	BELT SHORE PARKWAY	BAY PARKWAY		A		1	S	6/19/2015	4.533	F	7,200	$32,400,000	311		
2231329	K	BELT SHORE PARKWAY	26TH AVENUE		A		1	S	4/1/2014	4.600	F	6,700	$30,150,000	313		
2231330	K	27TH AVENUE PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	1	C	3/19/2015	4.067	F	2,100	$9,450,000	313		
2231340	K	CROPSEY AVENUE	BELT SHORE PARKWAY		A		2	S	7/10/2014	4.639	F	13,100	$58,950,000	313		
2231360	K	BELT SHORE PARKWAY	OCEAN PARKWAY		A		3	S	7/16/2014	6.448	VG	29,637	$133,366,500	313		
2231370	K	GUIDER AVENUE RAMP TO BELT SHORE PARKWAY	BELT SHORE PARKWAY		A		4	S	9/23/2014	6.778	VG	10,818	$48,681,000	313		
2231380	K	CONEY ISLAND AVENUE	BELT SHORE PARKWAY		A		4	S	10/9/2015	5.542	G	19,866	$89,397,000	313		
2231390	K	EAST 12TH STREET	BELT SHORE PARKWAY		A		4	S	7/7/2014	4.542	F	17,200	$77,400,000	315		
2231409	K	BELT SHORE PARKWAY	SHEEPSHEAD BAY ROAD		A		1	S	4/1/2014	4.738	F	6,500	$29,250,000	315		
2231419	K	BELT SHORE PARKWAY	OCEAN AVENUE		A		3	S	3/25/2014	4.306	F	14,000	$63,000,000	315		
2231429	K	BELT SHORE PARKWAY	BEDFORD AVENUE		A		3	S	4/23/2014	4.278	F	12,000	$54,000,000	315		
2231439	K	BELT SHORE PARKWAY	NOSTRAND AVENUE		A		3	S	3/25/2014	4.264	F	13,000	$58,500,000	315		
2231449	K	KNAPP STREET	BELT SHORE PARKWAY		A		1	S	4/9/2014	4.313	F	9,500	$42,750,000	315		
2231450	K	BELT SHORE PARKWAY	GERRITSEN INLET		WA		11	S	8/10/2015	3.239	F	52,000	$234,000,000	356		
2231460	K	FLATBUSH AVENUE	BELT SHORE PARKWAY		A		2	S	10/14/2015	6.088	VG	14,058	$63,261,000	356		
2231479	K	BELT SHORE PARKWAY	MILL BASIN		WMA		14	S	11/9/2015	3.209	F	73,500	$330,750,000	318		
2231481	K	BELT SHORE PARKWAY WESTBOUND	PAERDEGAT BASIN		WA		3	S	11/2/2015	6.758	VG	50,052	$225,234,000	318		
2231482	K	BELT SHORE PARKWAY EASTBOUND	PAERDEGAT BASIN		WA		5	S	11/4/2014	7.000	VG	82,074	$369,333,000	318		
2231499	K	BELT SHORE PARKWAY	ROCKAWAY PARKWAY		A		1	S	11/5/2014	7.000	VG	10,370	$46,665,000	356		
2231509	K	BELT SHORE PARKWAY	FRESH CREEK		WA		3	S	11/3/2015	6.577	VG	40,095	$180,427,500	356		
2231519	K	PENNSYLVANIA AVENUE	BELT SHORE PARKWAY		A		2	S	6/8/2015	5.583	G	6,640	$29,880,000	356		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231559	Q	CROSS BAY BOULEVARD	BELT SHORE PARKWAY		A		4	S	5/30/2014	5.083	G	23,205	$104,422,500	410		
2231560	Q	SOUTH CONDUIT BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	6/16/2014	5.268	G	15,776	$70,992,000	410		
2231570	Q	COHANCY STREET	BELT SOUTHERN PARKWAY		A		2	S	4/17/2014	4.395	F	6,400	$28,800,000	410		
2231590	Q	130TH STREET	BELT SOUTHERN PARKWAY		A		2	S	1/30/2014	4.659	F	6,800	$30,600,000	410		
2231610	Q	GUY R. BREWER BOULEVARD	BELT SOUTHERN PARKWAY		A		4	S	6/3/2015	6.028	VG	12,342	$55,539,000	413		
2231620	Q	FARMERS BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	4/25/2014	4.477	F	6,400	$28,800,000	413		
2231630	Q	SPRINGFIELD BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	4/25/2014	4.591	F	8,500	$38,250,000	413		
2231640	Q	225TH STREET	BELT SOUTHERN PARKWAY		A		2	S	5/15/2014	4.614	F	7,000	$31,500,000	413		
2231650	Q	SUNRISE HIGHWAY WESTBOUND	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	3/21/2014	4.262	F	4,100	$18,450,000	413		
2231660	Q	SUNRISE HIGHWAY WESTBOUND	BELT LAURETON PARKWAY WESTBOUND		A		2	S	2/25/2014	4.565	F	5,350	$24,075,000	413		
2231670	Q	NORTH CONDUIT AVENUE WESTBOUND	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	1/13/2014	4.917	F	4,000	$18,000,000	413		
2231680	Q	NORTH CONDUIT AVENUE WESTBOUND	BELT LAURETON PARKWAY WESTBOUND		A		2	S	1/20/2014	4.932	F	6,500	$29,250,000	413		
2231690	Q	FRANCIS LEWIS BOULEVARD	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	3/17/2014	5.033	G	6,000	$27,000,000	413		
2231700	Q	FRANCIS LEWIS BOULEVARD	BELT LAURETON PARKWAY WESTBOUND		A		1	S	3/18/2014	4.700	F	6,000	$27,000,000	413		
2231710	Q	MERRICK BOULEVARD	BELT LAURETON PARKWAY NORTHBOUND		A		1	S	2/11/2014	4.467	F	6,000	$27,000,000	413		
2231720	Q	MERRICK BOULEVARD	BELT LAURELTON PARKWAY SOUTHBOUND		A		1	S	2/12/2014	4.200	F	6,000	$27,000,000	413		
2231730	Q	130TH AVENUE	BELT LAURETON PARKWAY NORTHBOUND		A		1	S	1/10/2014	5.133	G	4,400	$19,800,000	413		
2231740	Q	130TH AVENUE	BELT LAURELTON PARKWAY SOUTHBOUND		A		1	S	1/13/2014	4.700	F	4,400	$19,800,000	413		
2231750	Q	LINDEN BOULEVARD	BELT CROSS ISLAND PARKWAY		A		2	S	2/25/2014	4.432	F	6,700	$30,150,000	413		
2231760	Q	BELT CROSS ISLAND PARKWAY	DUTCH BROADWAY-115TH AVENUE		A		1	S	2/28/2014	4.233	F	7,300	$32,850,000	413		
2231770	Q	BELMONT PARK SOUTH RAMP	BELT CROSS ISLAND PARKWAY		A	P	1	S	2/26/2014	4.781	F	3,200	$14,400,000	413		
2231780	Q	HEMPSTEAD AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	2/6/2014	4.000	F	14,200	$63,900,000	413		
2231790	Q	BELMONT PARK NORTH RAMP	BELT CROSS ISLAND PARKWAY		A	P	1	S	1/12/2014	4.563	F	3,400	$15,300,000	413		
2231800	Q	SUPERIOR ROAD	BELT CROSS ISLAND PARKWAY		A		2	S	4/1/2014	4.682	F	7,000	$31,500,000	413		
2231819	Q	JAMAICA AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	3/19/2014	4.773	F	11,500	$51,750,000	413		
2231829	Q	BRADDOCK AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	5/22/2015	4.886	F	10,600	$47,700,000	413		
2231840	Q	HILLSIDE AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	3/18/2014	4.211	F	9,672	$43,524,000	413		
2231850	Q	UNION TURNPIKE	BELT CROSS ISLAND PARKWAY		A		2	S	3/19/2014	4.409	F	13,600	$61,200,000	413		
2231860	Q	WEST ALLEY ROAD	BELT CROSS ISLAND PARKWAY		A		2	S	7/8/2015	5.368	G	7,200	$32,400,000	411		
2231870	Q	NORTHERN BOULEVARD	BELT CROSS ISLAND PARKWAY		A		2	S	7/14/2014	5.764	G	9,400	$42,300,000	411		
2231880	Q	CROCHERON PARK PEDESTRIAN	BELT CROSS ISLAND PARKWAY		A-PED	P	9	C	7/28/2015	3.800	F	2,300	$10,350,000	411		
2231890	Q	28TH AVENUE PEDESTRIAN BRIDGE	BELT CROSS ISLAND PARKWAY		A-PED	P	24	C	7/6/2015	4.615	F	7,600	$34,200,000	411		
2231900	Q	BELT CROSS ISLAND PARKWAY	TOTTEN AVENUE		A		1	S	5/12/2014	4.609	F	4,900	$22,050,000	407		
2231910	Q	UTOPIA PARKWAY	BELT CROSS ISLAND PARKWAY		A		2	S	3/7/2014	5.341	G	7,200	$32,400,000	407		
2231920	Q	160TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	6/10/2015	5.694	G	5,550	$24,975,000	407		
2231930	Q	FRANCIS LEWIS BOULEVARD	BELT CROSS ISLAND PARKWAY		A		3	S	2/21/2014	4.682	F	9,100	$40,950,000	407		
2231940	Q	CLINTONVILLE STREET	BELT CROSS ISLAND PARKWAY		A		2	S	2/21/2014	4.705	F	7,400	$33,300,000	407		
2231950	Q	150TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	2/21/2014	4.591	F	5,900	$26,550,000	407		
2231960	Q	149TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.795	F	6,210	$27,945,000	407		
2231970	Q	14TH AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.523	F	8,100	$36,450,000	407		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231980	Q	147TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.705	F	6,300	$28,350,000	407		
2232000	M	BATTERY PLACE	FDR DRIVE		AT		2	S	10/16/2015	5.182	G	142,000	$639,000,000	101		
223201A	M	FDR DRIVE NORTHBOUND OFF RAMP	FDR DRIVE & SOUTH STREET		AR		17	S	7/23/2014	4.493	F	23,373	$105,178,500	101		
223201B	M	SOUTH STREET RAMP TO FDR DRIVE SOUTHBOUND	SOUTH STREET		AR		10	S	7/7/2015	3.881	F	13,388	$60,246,000	101		
223201C	M	FDR DRIVE SOUTHBOUND OFF RAMP	SOUTH STREET		AR		8	S	2/6/2014	5.209	G	36,700	$165,150,000	103		
223201D	M	RAMP TO NORTHBOUND FDR DRIVE	FDR DRIVE & SOUTH STREET		AR		22	S	2/25/2014	4.967	F	15,825	$71,212,500	101	103	
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		A	P	4	S	3/20/2014	3.813	F	4,100	$18,450,000	103		
2232030	M	DELANCEY STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	12	C	4/5/2015	4.443	F	3,390	$15,255,000	103		
2232040	M	HOUSTON STREET	FDR DRIVE		A		2	S	6/24/2015	3.750	F	11,010	$49,545,000	103		
223204A	M	FDR DRIVE NORTHBOUND RAMP TO HOUSTON STREET	RELIEF		AR		4	S	1/17/2014	4.706	F	6,150	$27,675,000	103		
223204B	M	HOUSTON STREET RAMP TO FDR DRIVE NORTHBOUND	RELIEF		AR		4	S	1/17/2014	4.792	F	7,125	$32,062,500	103		
2232050	M	EAST 6TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	19	C	4/12/2015	4.233	F	2,200	$9,900,000	103		
2232070	M	EAST 25TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED		3	C	5/3/2015	4.600	F	1,700	$7,650,000	106		
2232100	M	EAST 51ST STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	6	C	5/3/2015	4.417	F	2,800	$12,600,000	106		
2232110	M	EAST 63RD STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	11	U	11/23/2011	4.912	F	2,100	$9,450,000	108		
2232120	M	EAST 71ST STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	19	C	8/24/2015	4.761	F	3,700	$16,650,000	108		
2232140	M	EAST 78TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	13	C	5/17/2015	6.700	VG	5,226	$23,517,000	108		
2232167	M	PROMENADE OVER FDR DRIVE	FDR DRIVE - EAST 81ST STREET - EAST 90TH STREET		A-PED	P	53	S	7/31/2015	3.143	F	93,000	$418,500,000	108		
2232180	M	EAST 103RD STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED		18	C	8/24/2015	4.512	F	6,807	$30,631,500	111		
2232190	M	EAST 111TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	9	C	8/30/2015	4.319	F	4,254	$19,143,000	111		
2232200	M	EAST 120TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	18	C	9/3/2015	4.114	F	3,978	$17,901,000	111		
2233020	M	EAST 10TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	21	C	4/12/2015	4.596	F	2,754	$12,393,000	103		
2233038	M	FDR DRIVE SOUTHBOUND	FDR DRIVE NORTHBOUND / EAST 62ND STREET		AT		34	S	11/25/2014	6.563	VG	58,700	$264,150,000	106	108	
2233040	M	EAST 60TH STREET	FDR DRIVE		A	P	17	S	7/22/2015	4.972	F	24,480	$110,160,000	108		
2233059	M	HARLEM RIVER DRIVE	EAST 127TH STREET RAMP TO/FROM HARLEM RIVER DRIVE NORTHBOUND		A		11	S	6/30/2015	3.493	F	51,000	$229,500,000	111		
2233080	K	EAST 14TH STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED		14	C	8/13/2015	4.164	F	4,700	$21,150,000	315		
2240019	KM	BROOKLYN BRIDGE	EAST RIVER		WEO		75	S	12/5/2014	3.139	F	503,788	$2,267,046,000	103	302	101
224001A	M	PARK ROW TO BROOKLYN	WILLIAM STREET NORTHBOUND		OE		4	S	6/19/2015	5.086	G	10,167	$45,751,500	101		
224001B	M	TO BROOKLYN FROM FDR DRIVE	FRANKFORT & PEARL STREET		OE		31	S	8/1/2014	4.926	F	51,400	$231,300,000	101	103	
224001C	M	PEARL STREET TO BROOKLYN	LAND ADJACENT TO BRIDGE		OE		9	S	7/1/2015	3.814	F	6,365	$28,642,500	101		
224001D	M	TO FDR DRIVE NORTHBOUND	PEARL STREET		OE		30	S	6/11/2015	4.528	F	49,600	$223,200,000	101	103	
224001E	M	TO PEARL STREET	LAND ADJACENT TO BRIDGE		OE		3	S	6/3/2015	4.944	F	5,300	$23,850,000	101		
224001F	M	PEARL STREET TO FDR DRIVE	LAND ADJACENT TO BRIDGE		OE		3	S	6/4/2015	5.028	G	5,200	$23,400,000	103		
224001G	M	TO PARK ROW	ROSE STREET		OE		11	S	7/30/2015	4.549	F	16,551	$74,479,500	101		
2240027	KM	MANHATTAN BRIDGE (LL)	EAST RIVER	T	WEO		23	S	10/22/2014	4.375	F	616,390	$2,773,755,000	103	302	
2240028	KM	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	T	WEO		43	S	10/21/2014	3.757	F	587,424	$2,643,408,000	103	302	
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T	WEO		53	S	10/20/2014	4.542	F	824,000	$3,708,000,000	103	301	
2240047	MQ	ED KOCH - QUEENSBORO BRIDGE (LL)	EAST RIVER	AL	WEO		53	S	11/12/2014	4.167	F	626,900	$2,821,050,000	108	402	401
2240048	MQ	ED KOCH - QUEENSBORO BRIDGE (UL)	EAST RIVER - LL		WEO		37	S	10/13/2014	4.340	F	322,300	$1,450,350,000	108	402	401
224004A	M	TO EAST 60TH STREET FROM QUEENS	FIRST AVENUE		OE		13	S	4/21/2014	5.338	G	14,800	$66,600,000	108		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
224004B	M	TO QUEENS FROM EAST 59TH STREET	FIRST AVENUE		OE		13	S	4/22/2014	5.542	G	14,800	$66,600,000	108		
224004C	M	TO EAST 62ND STREET FROM QUEENS	EAST 60TH STREET - EAST 61ST STREET		OE		10	S	7/17/2014	4.985	F	16,720	$75,240,000	108		
224004D	M	TO QUEENS FROM EAST 58TH STREET	EAST 59TH STREET		OE		12	S	6/13/2014	4.396	F	10,858	$48,861,000	106	108	
224004E	Q	TO NEW YORK FROM THOMSON AVENUE	JACKSON AVENUE	L	OE		94	S	11/26/2014	4.679	F	104,600	$470,700,000	402		
224004F	Q	TO NEW YORK FROM 21ST STREET	21ST STREET		OE		63	S	11/7/2014	4.712	F	63,310	$284,895,000	402	401	
224004G	Q	TO NEW YORK FROM 11TH STREET	TERRAIN (CHAMBER)		OE		36	S	7/25/2014	5.268	G	8,360	$37,620,000	401	402	
224004H	Q	TO 21ST STREET FROM NEW YORK	22ND STREET		OE		43	S	10/13/2014	4.366	F	48,100	$216,450,000	402		
224004I	Q	TO THOMSON AVENUE FROM NEW YORK	JACKSON AVENUE	L	OE		39	S	11/21/2014	5.148	G	59,100	$265,950,000	402		
224004J	M	25X TO/FROM 2ND AVENUE	NYC GARAGE		OE		14	S	4/21/2014	4.829	F	22,058	$99,261,000	108		
2240059	BM	WILLIS AVENUE BRIDGE	HARLEM RIVER		WMO		15	S	11/12/2014	6.778	VG	171,105	$769,972,500	111	201	
224005A	M	RAMP FROM FDR DRIVE	HARLEM RIVER DRIVE NORTHBOUND		OR		11	S	11/7/2014	6.887	VG	28,233	$127,048,500	111		
224005B	B	TO BRUCKNER BOULVARD	RELIEF		OR		4	S	9/16/2015	6.775	VG	19,990	$89,955,000	201		
2240069	BM	THIRD AVENUE BRIDGE	HARLEM RIVER		WMO		14	S	9/4/2014	5.789	G	100,232	$451,044,000	111	201	
224006A	B	FROM BRUCKNER BOULEVARD	PARKING AREA		OR		5	S	9/1/2015	6.310	VG	14,037	$63,166,500	201		
2240079	BM	MADISON AVENUE BRIDGE	HARLEM RIVER		WMO		21	S	9/17/2014	4.861	F	80,000	$360,000,000	111	201	
224007A	M	RAMP TO MADISON AVENUE	EAST 138TH STREET		OR		7	S	2/6/2014	5.028	G	19,880	$89,460,000	111		
2240089	BM	145TH STREET BRIDGE	HARLEM RIVER		WMO		8	S	8/21/2015	6.278	VG	56,700	$255,150,000	110	204	201
2240120	BM	WEST 207TH STREET/WEST FORDHAM ROAD	HARLEM RIVER		WMO		5	S	7/31/2014	5.000	G	31,784	$143,028,000	112	207	
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	TM	WMO		3	S	12/20/2015	3.806	F	46,848	$210,816,000	112	207	208
2240138	BM	NYCTA IRT	HARLEM RIVER/BROADWAY	TM	WMO		3	S	11/24/2015	4.720	F	19,520	$87,840,000	112	207	208
2240180	B	WESTCHESTER AVENUE	BRONX RIVER		WO		1	S	8/19/2015	4.667	F	5,476	$24,642,000	202	209	
2240200	B	SHORE ROAD	HUTCHINSON RIVER		WMO		7	S	6/10/2015	4.299	F	43,576	$196,092,000	228		
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY		WO		7	S	10/16/2014	3.444	F	19,915	$89,617,500	228		
2240231	K	HAMILTON AVENUE BRIDGE	GOWANUS CANAL		WMO		3	S	9/9/2014	5.472	G	7,300	$32,850,000	307	306	
2240232	K	HAMILTON AVENUE BRIDGE	GOWANUS CANAL		WMO		3	S	8/7/2015	5.361	G	8,611	$38,749,500	306		
2240240	K	NINTH STREET BRIDGE	GOWANUS CANAL		WMO		3	S	6/17/2015	6.161	VG	5,772	$25,974,000	306		
2240250	K	THIRD STREET	GOWANUS CANAL		WMO		5	S	5/26/2015	4.722	F	4,900	$22,050,000	306		
2240260	K	CARROLL STREET	GOWANUS CANAL		WMO		2	S	9/22/2015	4.931	F	3,000	$13,500,000	306		
2240270	K	UNION STREET	GOWANUS CANAL		WMO		5	S	8/15/2014	4.111	F	4,900	$22,050,000	306		
2240290	K	METROPOLITAN AVENUE	ENGLISH KILLS		WMO		5	S	7/13/2015	5.778	G	10,550	$47,475,000	301		
2240301	K	CROPSEY AVENUE SOUTHBOUND	CONEY ISLAND CREEK		WO		3	S	6/26/2015	5.000	G	9,400	$42,300,000	313		
2240302	K	CROPSEY AVENUE NORTHBOUND	CONEY ISLAND CREEK		WO		3	S	6/26/2015	4.718	F	9,400	$42,300,000	313		
2240310	K	THIRD AVENUE BRIDGE	GOWANUS CANAL		WO		1	S	5/27/2015	6.550	VG	3,412	$15,354,000	306		
2240320	K	OCEAN AVENUE PEDESTRIAN BRIDGE	SHEEPSHEAD BAY		WO-PED		30	C	7/28/2015	5.000	G	4,450	$20,025,000	315		
2240350	R	RICHMOND AVENUE	RICHMOND CREEK		WO		3	S	6/10/2015	5.194	G	32,589	$146,650,500	502		
2240370	KQ	GREENPOINT AVENUE BRIDGE	NEWTOWN CREEK	L	WMO		12	S	7/31/2015	5.083	G	76,106	$342,477,000	301	402	
2240390	KQ	GRAND STREET BRIDGE	NEWTOWN CREEK		WMO		2	S	10/7/2015	4.014	F	5,100	$22,950,000	301	405	
2240410	Q	BORDEN AVENUE	DUTCH KILLS		WMO		2	S	6/26/2015	4.806	F	8,400	$37,800,000	402		
2240440	Q	NORTHERN BOULEVARD	ALLEY CREEK		WO		2	S	6/17/2014	4.681	F	8,300	$37,350,000	411		
2240450	Q	HUNTERS POINT AVENUE	DUTCH KILLS		WMO		4	S	5/30/2014	5.056	G	12,168	$54,756,000	402		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2240507	Q	ROOSEVELT AVENUE	678I - FLUSHING RIVER		WA		27	S	11/7/2014	3.521	F	84,424	$379,908,000	407	481	
2240540	K	STILLWELL AVENUE	CONEY ISLAND CREEK		WO		2	S	5/28/2015	6.125	VG	17,000	$76,500,000	313		
2240620	M	WARDS ISLAND PEDESTRIAN BRIDGE	HARLEM RIVER		WMO-PED		10	C	7/20/2015	5.067	G	19,500	$87,750,000	111		
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK		WMO		44	S	6/5/2014	4.437	F	205,770	$925,965,000	301	402	
2240640	MQ	ROOSEVELT ISLAND BRIDGE	EAST RIVER EAST CHANNEL		WMO		8	S	10/29/2014	5.569	G	36,500	$164,250,000	108	401	
2240650	Q	163RD AVENUE PEDESTRIAN BRIDGE	HAWTREE BASIN		WO-PED		13	C	8/31/2015	4.037	F	5,000	$22,500,000	410		
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL		WO		56	S	9/4/2015	4.324	F	183,100	$823,950,000	401	480	
2241000	B	WESTCHESTER AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	8/29/2014	4.660	F	1,740	$7,830,000	201		
2241010	B	EAST 156TH STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	5/9/2014	4.612	F	2,400	$10,800,000	201		
2241020	B	EAST 161ST STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	3/20/2014	5.800	G	12,800	$57,600,000	203		
2241030	B	EAST 163RD STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	2/27/2014	4.611	F	3,200	$14,400,000	203		
2241040	B	THIRD AVENUE BRIDGE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/3/2014	4.563	F	2,700	$12,150,000	201	203	
2241050	B	EAST 149TH STREET/JACKSON AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	5/12/2014	4.817	F	65,000	$292,500,000	201		
2241060	B	ST. MARYS & CONCORD	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/2/2014	5.370	G	4,500	$20,250,000	201		
2241070	B	WALES AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/2/2014	6.467	VG	2,535	$11,407,500	201		
2241080	B	SOUTHERN BOULEVARD	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/1/2014	4.093	F	3,900	$17,550,000	201		
2241099	B	BRUCKNER BOULEVARD	CSX TRANS - PT MORRIS	C	O		1	S	7/16/2014	6.067	VG	6,700	$30,150,000	201		
2241110	B	MELROSE AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		8	S	8/18/2015	5.500	G	37,854	$170,343,000	203		
2241129	B	EAST 149TH STREET/JACKSON AVENUE	AMTRAK - CSX	AC	O		2	S	11/17/2014	4.592	F	18,258	$82,161,000	201	202	
2241139	B	LEGGETT AVENUE	AMTRAK - CSX	AC	O		3	S	11/17/2014	4.620	F	41,551	$186,979,500	202		
2241159	B	LONGWOOD AVENUE	AMTRAK - CSX	AC	O		2	S	11/18/2014	5.236	G	10,625	$47,812,500	202		
2241169	B	LAFAYETTE AVENUE	AMTRAK - CSX	AC	O		1	S	11/18/2014	5.365	G	12,000	$54,000,000	202		
2241170	B	TIFFANY STREET	AMTRAK - CSX	AC	O		1	S	11/13/2015	5.078	G	7,267	$32,701,500	202		
2241180	B	BARRETTO STREET	AMTRAK - CSX	AC	O		1	S	11/18/2014	5.813	G	5,313	$23,908,500	202		
2241190	B	HUNTS POINT AVENUE	AMTRAK - CSX	AC	O		1	S	11/20/2014	4.813	F	10,049	$45,220,500	202		
2241200	B	FAILE STREET	AMTRAK - CSX	AC	O		1	S	11/19/2014	5.578	G	6,208	$27,936,000	202		
2241210	B	BRYANT AVENUE	AMTRAK - CSX	AC	O		1	S	11/19/2014	3.186	F	5,300	$23,850,000	202		
2241230	B	WESTCHESTER AVENUE	AMTRAK - CSX	AC	O		3	S	11/1/2014	5.778	G	15,600	$70,200,000	202	209	
2241259	B	204TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED	P	1	C	9/19/2015	3.845	F	4,700	$21,150,000	227	207	
2241269	B	EAST 177TH STREET	AMTRAK - CSX	AC	O		3	S	7/29/2014	5.278	G	16,606	$74,727,000	206		
2241270	B	EAST TREMONT AVENUE	AMTRAK - CSX	AC	O		2	S	10/31/2014	5.153	G	22,300	$100,350,000	209	211	
2241329	B	WHITE PLAINS ROAD	AMTRAK - CSX	AC	O		1	S	10/28/2014	4.781	F	6,900	$31,050,000	211		
2241330	B	UNIONPORT ROAD	AMTRAK - CSX	AC	O		1	S	10/28/2014	4.688	F	7,631	$34,339,500	211		
2241369	B	WILLIAMSBRIDGE ROAD	AMTRAK - CSX	AC	O		2	S	10/29/2014	4.985	F	6,510	$29,295,000	211		
2241380	B	PELHAM BAY PARK EQUESTRIAN	AMTRAK - CSX	AC	O-PED	P	1	C	7/24/2013	3.339	F	7,300	$32,850,000	228		
2241390	B	SHORE ROAD CIRCLE	AMTRAK - CSX	AC	O		1	S	7/21/2014	7.000	VG	8,067	$36,301,500	228		
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	MT	O		1	S	6/23/2015	3.688	F	14,300	$64,350,000	204		
2241410	B	WALTON AVENUE	METRO NORTH RR HUD	M	O		1	S	5/5/2014	4.406	F	3,600	$16,200,000	204		
2241420	B	GERARD AVENUE	METRO NORTH RR HUD	M	O		1	S	5/5/2014	5.422	G	5,063	$22,783,500	204		
2241430	B	RIVER AVENUE	METRO NORTH RR HUD	M	O		1	S	8/26/2015	6.156	VG	5,040	$22,680,000	204		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241460	B	WEST TREMONT AVENUE	METRO NORTH RR HUD	M	O		8	S	6/12/2014	3.776	F	12,900	$58,050,000	205		
2241470	B	WEST FORDHAM ROAD	METRO NORTH RR HUD	M	O		4	S	9/1/2015	5.694	G	16,052	$72,234,000	207		
2241489	B	WEST 225TH STREET	CSX TRANS - PUTNAM	C	O		2	S	8/28/2014	5.269	G	10,900	$49,050,000	207	208	
2241490	B	WEST 230TH STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.125	G	5,600	$25,200,000	208		
2241509	B	WEST 231ST STREET	CSX PUTNAM (ABANDONED)		O		1	S	7/3/2014	4.745	F	4,723	$21,253,500	208		
2241510	B	WEST 233RD STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.275	G	3,760	$16,920,000	208		
2241520	B	WEST 234TH STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.176	G	3,770	$16,965,000	208		
2241550	B	EAST 144TH STREET	METRO NORTH RR HAR	M	O		2	S	8/28/2015	5.847	G	8,290	$37,305,000	201		
2241560	B	EAST 149TH STREET/JACKSON AVENUE	METRO NORTH RR HAR	M	O		8	S	5/5/2014	4.625	F	27,900	$125,550,000	201	204	
2241590	B	CONCOURSE VILLAGE AVENUE	METRO NORTH RR HAR	M	O		1	S	4/19/2014	3.969	F	12,077	$54,346,500	204		
2241600	B	EAST 158TH STREET	METRO NORTH RR HAR	M	O		1	S	8/25/2015	5.200	G	3,400	$15,300,000	204		
2241610	B	EAST 161ST STREET	METRO NORTH RR HAR	M	O		1	S	9/2/2015	5.050	G	6,600	$29,700,000	204	203	
2241620	B	EAST 162ND STREET	METRO NORTH RR HAR	M	O		1	S	4/26/2014	4.781	F	4,700	$21,150,000	203		
2241630	B	EAST 165TH STREET	METRO NORTH RR HAR	M	O		1	S	4/26/2014	4.300	F	16,400	$73,800,000	203		
2241650	B	EAST 167TH STREET	METRO NORTH RR HAR	M	O		1	S	4/21/2014	5.510	G	3,363	$15,133,500	203		
2241660	B	EAST 168TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	4.641	F	4,800	$21,600,000	203		
2241670	B	EAST 169TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	4.188	F	3,300	$14,850,000	203		
2241680	B	EAST 170TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	6.333	VG	3,150	$14,175,000	203		
2241700	B	ST PAULS PLACE PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		2	C	9/28/2015	4.746	F	888	$3,996,000	203		
2241710	B	CLAREMONT PARKWAY	METRO NORTH RR HAR	M	O		1	S	4/17/2014	6.458	VG	5,950	$26,775,000	203		
2241720	B	EAST 173RD STREET	METRO NORTH RR HAR	M	O		1	S	4/17/2014	4.875	F	3,000	$13,500,000	203		
2241740	B	EAST 175TH STREET	METRO NORTH RR HAR	M	O		1	S	4/14/2014	3.875	F	3,600	$16,200,000	206		
2241760	B	EAST TREMONT AVENUE	METRO NORTH RR HAR	M	O		1	S	8/29/2015	6.350	VG	8,424	$37,908,000	206		
2241770	B	EAST 178TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		1	C	9/12/2015	4.921	F	731	$3,289,500	206		
2241780	B	EAST 179TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		6	C	9/12/2015	5.311	G	1,011	$4,549,500	206		
2241790	B	EAST 180TH STREET	METRO NORTH RR HAR	M	O		1	S	4/24/2014	3.844	F	5,000	$22,500,000	206		
2241800	B	EAST 183RD STREET	METRO NORTH RR HAR	M	O		1	S	4/24/2014	3.953	F	4,080	$18,360,000	206		
2241810	B	EAST 188TH STREET	METRO NORTH RR HAR	M	O		1	S	4/16/2014	4.094	F	5,300	$23,850,000	206		
2241820	B	EAST 187TH STREET	METRO NORTH RR HAR	M	O		1	S	4/23/2014	4.344	F	3,800	$17,100,000	206		
2241839	B	FORDHAM ROAD - EAST 189TH STREET	METRO NORTH RR HAR	M	O		1	S	8/27/2015	6.300	VG	43,157	$194,206,500	206	207	
2241840	B	BEDFORD PARK BOULEVARD	METRO NORTH RR HAR	M	O		1	S	4/28/2014	4.656	F	6,400	$28,800,000	227	207	
2241860	B	GUN HILL ROAD	METRO NORTH RR HAR	M	O		1	S	4/29/2014	6.531	VG	9,128	$41,076,000	212		
2241870	B	EAST 233RD STREET	METRO NORTH RR HAR	M	O		1	S	4/28/2014	4.902	F	7,664	$34,488,000	212	207	
2241890	B	EAST 241ST STREET	BRP, METRO NORTH HAR	M	WO		28	S	10/23/2015	4.639	F	49,500	$222,750,000	212		
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVENUE LN	T	O		3	S	10/28/2014	4.472	F	13,500	$60,750,000	212		
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVENUE LN	T	O		1	S	10/28/2014	5.516	G	7,500	$33,750,000	211	212	
2241930	B	BEDFORD PARK BOULEVARD	NYCTA IND YARDS	T	O		4	S	10/31/2014	5.347	G	46,300	$208,350,000	207		
2241940	B	WEST 205TH STREET	NYCTA IND YARDS	T	O		4	S	10/31/2014	5.514	G	32,508	$146,286,000	207		
2241959	B	HUTCHINSON RIVER PARKWAY	AMTRAK - CSX	AC	O		1	S	10/9/2014	5.542	G	15,444	$69,498,000	210	211	
2242010	B	EAST FORDHAM ROAD	BRONX RIVER		WO		1	S	3/26/2014	5.467	G	9,360	$42,120,000	227		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2242029	B	SOUTHERN BOULEVARD	EAST FORDHAM ROAD		O		2	S	1/29/2014	4.605	F	12,900	$58,050,000	227		
2242030	B	CROTONA AVENUE	BRONX PELHAM PARKWAY		O		2	S	1/29/2014	5.447	G	7,600	$34,200,000	206		
2242071	B	BRONX BOULEVARD SOUTHBOUND	BRONX RIVER		WO		1	S	3/27/2014	4.367	F	1,800	$8,100,000	212		
2242072	B	BRONX BOULEVARD NORTHBOUND	BRONX RIVER		WO		1	S	3/27/2014	4.867	F	1,800	$8,100,000	212		
2242081	B	BRONX BOULEVARD SOUTHBOUND	BRONX RIVER		WO		1	S	3/26/2014	4.300	F	2,800	$12,600,000	212		
2242082	B	BRONX BOULEVARD NORTHBOUND	BRONX RIVER		WO		1	S	3/26/2014	4.467	F	2,800	$12,600,000	212		
2242099	B	PARK ROAD (204TH STREET)	BRONX RIVER		WO		1	S	5/6/2014	4.655	F	4,700	$21,150,000	212		
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		WO	P	1	S	2/26/2014	4.833	F	2,200	$9,900,000	227		
2242110	B	BOSTON ROAD	BRONX RIVER		WO		1	S	2/26/2014	4.227	F	6,200	$27,900,000	227		
2242120	B	FOOTBRIDGE NORTH OF ROUTE 1 (HESTER BRIDGE)	BRONX RIVER		WO-PED	P	1	C	12/4/2015	3.655	F	1,900	$8,550,000	227		
2242149	B	EAST TREMONT AVENUE	BRONX RIVER		WO		2	S	5/6/2015	4.361	F	12,900	$58,050,000	206		
2242210	B	MAGNOLIA WAY	BRONX RIVER		WO	P	3	S	5/6/2014	4.763	F	6,200	$27,900,000	227		
2242220	B	SNUFF MILL ROAD	BRONX RIVER		WO	P	2	S	1/9/2014	4.395	F	4,800	$21,600,000	227		
2242259	B	GRAND CONCOURSE	EAST 161ST STREET		O		1	S	6/30/2014	6.333	VG	27,017	$121,576,500	204		
2242260	B	EAGLE AVE	EAST 161ST STREET		O		1	S	2/14/2014	5.117	G	2,800	$12,600,000	201	203	
2242280	B	GRAND CONCOURSE	EAST 167TH STREET		O		2	S	7/2/2014	4.754	F	42,900	$193,050,000	204		
2242299	B	GRAND CONCOURSE	EAST 138TH STREET		O		1	S	6/12/2015	4.733	F	9,500	$42,750,000	201		
2242300	B	GRAND CONCOURSE	EAST 170TH STREET		O		2	S	3/19/2014	4.754	F	39,300	$176,850,000	204		
2242319	B	GRAND CONCOURSE	EAST 174TH STREET	T	O		1	S	3/18/2014	4.067	F	14,900	$67,050,000	204		
2242329	B	GRAND CONCOURSE	EAST 175TH STREET	T	O		1	S	6/11/2014	4.833	F	11,900	$53,550,000	205		
2242330	B	GRAND CONCOURSE	EAST TREMONT AVENUE		O		1	S	9/3/2015	5.583	G	11,700	$52,650,000	205		
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE ROAD		O		2	S	6/12/2014	4.714	F	18,285	$82,282,500	207		
2242350	B	EAST FORDHAM ROAD	GRAND CONCOURSE		O		1	S	3/7/2014	4.833	F	10,300	$46,350,000	205	207	
2242360	B	GRAND CONCOURSE	EAST BURNSIDE AVENUE		O		2	S	6/30/2014	4.265	F	8,400	$37,800,000	205		
2242370	B	GRAND CONCOURSE	BEDFORD PARK BOULEVARD		O		1	S	2/21/2014	4.373	F	8,418	$37,881,000	207		
2242380	B	GRAND CONCOURSE	EAST 204TH STREET		O		1	S	9/2/2015	5.406	G	9,272	$41,724,000	207		
2242400	B	EAST 180TH STREET	BRONX RIVER		WO		1	S	9/26/2014	4.810	F	4,500	$20,250,000	206	227	
2242430	B	GUN HILL ROAD	BRONX BOULEVARD		O		4	S	2/20/2014	4.947	F	9,400	$42,300,000	212		
2242440	B	GUN HILL ROAD	BRONX RIVER		WO		1	S	1/14/2014	5.300	G	8,700	$39,150,000	212		
2242459	B	EAST 233RD STREET	BRONX RIVER		WO		1	S	2/26/2014	4.233	F	7,000	$31,500,000	212		
2242460	B	EAST 233RD STREET	ENTRANCE ROAD BRONX RIVER PARKWAY		O		1	S	1/7/2014	4.900	F	5,300	$23,850,000	212		
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T	O		1	S	5/19/2014	6.685	VG	6,243	$28,093,500	355		
2243020	K	PARKSIDE AVENUE - OCEAN AVENUE	BMT SUBWAY, BRIGHTON	T	O		6	S	6/18/2014	4.043	F	48,700	$219,150,000	314		
2243040	K	CROOKE AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	6/2/2015	4.316	F	6,000	$27,000,000	314		
2243050	K	CATON AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	8/19/2015	4.842	F	20,800	$93,600,000	314		
2243080	K	EAST 18TH STREET - CHURCH AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	8/19/2015	4.545	F	18,200	$81,900,000	314		
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T	O		3	S	6/11/2015	4.088	F	4,200	$18,900,000	314		
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T	O		3	S	8/17/2015	6.083	VG	4,810	$21,645,000	314		
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T	O		1	S	6/16/2014	5.863	G	4,825	$21,712,500	314		
2243130	K	DITMAS AVENUE	BMT SUBWAY, BRIGHTON	T	O		1	S	8/17/2015	5.723	G	5,150	$23,175,000	314		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243140	K	NEWKIRK AVENUE	BMT SUBWAY, BRIGHTON	T	O		3	S	6/17/2014	4.574	F	4,100	$18,450,000	314		
2243150	K	FOSTER AVENUE	BMT SUBWAY, BRIGHTON	T	O		1	S	6/2/2015	4.283	F	3,000	$13,500,000	314		
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T	O		1	S	7/24/2015	6.375	VG	2,300	$10,350,000	308		
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T	O		1	S	7/24/2015	6.656	VG	2,300	$10,350,000	308		
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T	O		1	S	6/26/2014	6.672	VG	2,460	$11,070,000	308		
2243200	K	UNION STREET	FRANKLIN SHUTTLE	T	O		2	S	6/25/2014	4.913	F	4,100	$18,450,000	309		
2243210	K	PRESIDENT STREET	FRANKLIN SHUTTLE	T	O		2	S	6/25/2014	5.078	G	2,500	$11,250,000	309		
2243220	K	CARROLL STREET PEDESTRIAN BRIDGE	FRANKLIN SHUTTLE	T	O-PED		3	C	4/22/2015	5.324	G	600	$2,700,000	309		
2243230	K	CROWN STREET	FRANKLIN SHUTTLE	T	O		3	S	7/29/2015	5.069	G	4,060	$18,270,000	309		
2243240	K	MONTGOMERY STREET	FRANKLIN SHUTTLE	T	O		1	S	7/29/2015	5.843	G	2,240	$10,080,000	309		
2243250	K	WASHINGTON AVENUE	FRANKLIN SHUTTLE	T	O		1	S	6/24/2014	6.000	G	3,657	$16,456,500	309	355	
2243260	K	FLATBUSH AVENUE	FRANKLIN SHUTTLE	T	O		2	S	6/23/2014	4.961	F	11,300	$50,850,000	309		
2243279	K	EASTERN PARKWAY	FRANKLIN SHUTTLE	T	O		1	S	6/27/2014	4.833	F	7,700	$34,650,000	309	308	
2243280	K	6TH AVENUE	LIRR ATLANTIC AVENUE	L	O		9	S	9/5/2014	5.431	G	12,276	$55,242,000	302		
2243290	K	CARLTON AVENUE	LIRR ATLANTIC AVENUE	L	O		4	S	7/24/2015	6.694	VG	15,400	$69,300,000	302		
2243310	K	2ND AVENUE	LIRR BAY RIDGE	N	O		2	S	10/7/2014	6.208	VG	17,751	$79,879,500	310		
2243320	K	3RD AVENUE	LIRR BAY RIDGE	N	O		4	S	9/1/2015	4.972	F	17,230	$77,535,000	310		
2243330	K	4TH AVENUE	LIRR BAY RIDGE	NT	O		4	S	8/7/2015	5.486	G	13,668	$61,506,000	310		
2243340	K	15TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	4.872	F	3,614	$16,263,000	311		
2243350	K	60TH STREET	LIRR BAY RIDGE	N	O		1	S	9/1/2015	6.000	G	3,900	$17,550,000	311		
2243360	K	16TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	5.350	G	4,345	$19,552,500	311		
2243370	K	17TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/2/2014	4.745	F	3,406	$15,327,000	312		
2243380	K	18TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/2/2014	4.625	F	6,006	$27,027,000	312		
2243390	K	52ND STREET	LIRR BAY RIDGE	N	O		1	S	10/1/2014	6.017	VG	3,293	$14,818,500	312		
2243400	K	50TH STREET	LIRR BAY RIDGE	N	O		2	S	8/5/2015	4.731	F	7,100	$31,950,000	312		
2243410	K	MCDONALD AVENUE	LIRR BAY RIDGE	N	O		1	S	10/1/2014	5.141	G	2,760	$12,420,000	312		
2243420	K	EAST 3RD STREET	LIRR BAY RIDGE	N	O		1	S	8/5/2015	6.517	VG	1,840	$8,280,000	312		
2243439	K	OCEAN PARKWAY	LIRR BAY RIDGE	N	O		1	S	9/19/2014	4.927	F	7,000	$31,500,000	312		
2243440	K	CONEY ISLAND AVENUE	LIRR BAY RIDGE	N	O		1	S	9/18/2014	5.043	G	3,231	$14,539,500	312		
2243450	K	EAST 14TH STREET	LIRR BAY RIDGE	N	O		1	S	9/17/2014	4.809	F	1,775	$7,987,500	314		
2243460	K	EAST 15TH STREET PEDESTRIAN BRIDGE	LIRR BAY RIDGE	N	O-PED		3	C	8/10/2015	5.592	G	900	$4,050,000	314		
2243480	K	OCEAN AVENUE	LIRR BAY RIDGE	N	O		2	S	9/16/2014	4.965	F	5,000	$22,500,000	314		
2243490	K	BEDFORD AVENUE	LIRR BAY RIDGE	N	O		6	S	9/15/2014	5.097	G	12,000	$54,000,000	314		
2243500	K	NOSTRAND AVENUE	LIRR BAY RIDGE	N	O		2	S	9/29/2014	4.898	F	4,320	$19,440,000	314		
2243510	K	FLATBUSH AVENUE	LIRR BAY RIDGE	N	O		2	S	8/4/2015	4.651	F	5,900	$26,550,000	318		
2243520	K	BROOKLYN AVENUE	LIRR BAY RIDGE	N	O		3	S	8/4/2015	5.727	G	4,500	$20,250,000	318		
2243530	K	ALBANY AVENUE - AVENUE H	LIRR BAY RIDGE	N	O		2	S	8/31/2015	5.956	G	35,100	$157,950,000	318		
2243569	K	ATLANTIC AVENUE	LIRR ATLANTIC AVENUE	L	O		75	S	6/18/2014	3.620	F	135,100	$607,950,000	316	305	
2243570	K	86TH STREET	BMT SEA BEACH	T	O		1	S	6/4/2014	5.797	G	12,167	$54,751,500	313		
2243580	K	5TH AVENUE	LIRR & SEA BEACH	NT	O		4	S	10/27/2014	3.882	F	12,395	$55,777,500	310		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243590	K	6TH AVENUE	LIRR & SEA BEACH	NT	O		2	S	7/9/2015	6.056	VG	14,382	$64,719,000	310		
2243600	K	7TH AVENUE	LIRR & SEA BEACH	NT	O		7	S	10/22/2014	4.806	F	18,628	$83,826,000	310		
2243610	K	8TH AVENUE	LIRR & SEA BEACH	NT	O		2	S	7/9/2015	6.097	VG	10,834	$48,753,000	310		
2243620	K	FORT HAMILTON PARKWAY	LIRR & SEA BEACH	NT	O		3	S	6/19/2014	4.729	F	14,800	$66,600,000	310		
2243630	K	11TH AVENUE	LIRR & SEA BEACH	NT	O		5	S	7/1/2014	5.985	G	9,700	$43,650,000	310		
2243640	K	13TH AVENUE	LIRR & SEA BEACH	NT	O		5	S	7/10/2015	4.972	F	16,000	$72,000,000	310		
2243650	K	14TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	6.167	VG	4,720	$21,240,000	311		
2243660	K	NEW UTRECHT AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	5.883	G	2,350	$10,575,000	311		
2243670	K	15TH AVENUE	BMT SEA BEACH	T	O		4	S	6/22/2015	6.114	VG	9,800	$44,100,000	311		
2243680	K	16TH AVENUE	BMT SEA BEACH	T	O		3	S	6/6/2014	5.481	G	6,816	$30,672,000	311		
2243690	K	17TH AVENUE	BMT SEA BEACH	T	O		4	S	5/30/2014	6.173	VG	8,946	$40,257,000	311		
2243700	K	18TH AVENUE	BMT SEA BEACH	T	O		1	S	7/1/2015	6.421	VG	5,200	$23,400,000	311		
2243710	K	19TH AVENUE	BMT SEA BEACH	T	O		4	S	5/29/2014	4.237	F	4,800	$21,600,000	311		
2243720	K	20TH AVENUE	BMT SEA BEACH	T	O		1	S	6/2/2014	6.421	VG	7,000	$31,500,000	311		
2243730	K	65TH STREET	BMT SEA BEACH	T	O		4	S	5/23/2014	5.132	G	12,000	$54,000,000	311		
2243740	K	BAY PARKWAY	BMT SEA BEACH	T	O		4	S	5/22/2014	4.658	F	16,800	$75,600,000	311		
2243750	K	AVENUE O	BMT SEA BEACH	T	O		1	S	8/10/2015	5.706	G	4,658	$20,961,000	311		
2243760	K	AVENUE P	BMT SEA BEACH	T	O		1	S	8/10/2015	6.140	VG	5,544	$24,948,000	311		
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T	O		1	S	6/22/2015	6.628	VG	5,032	$22,644,000	311		
2243780	K	HIGHLAWN AVENUE	BMT SEA BEACH	T	O		1	S	7/27/2015	6.280	VG	6,960	$31,320,000	311		
2243790	K	AVENUE S	BMT SEA BEACH	T	O		1	S	6/26/2015	5.967	G	5,360	$24,120,000	315		
2243800	K	AVENUE T	BMT SEA BEACH	T	O		1	S	6/26/2015	6.000	G	5,360	$24,120,000	311		
2243810	K	AVENUE U	BMT SEA BEACH	T	O		1	S	6/20/2014	5.294	G	5,880	$26,460,000	315		
2243820	K	21ST AVENUE	BMT SEA BEACH	T	O		4	S	7/22/2015	4.026	F	21,400	$96,300,000	311		
2243839	K	4TH AVENUE	NYCTA BMT TRACKS	T	O		1	S	7/28/2015	6.250	VG	4,440	$19,980,000	307		
2243840	K	9TH AVENUE	NYCTA BMT YARD	T	O		5	S	7/30/2015	5.736	G	12,440	$55,980,000	312		
2243850	K	LIBERTY AVENUE	LIRR BAY RIDGE	N	O		3	S	9/23/2014	6.103	VG	6,659	$29,965,500	316		
2243860	K	GLENMORE AVENUE	LIRR BAY RIDGE	N	O		2	S	9/22/2014	6.456	VG	5,616	$25,272,000	316		
2243870	K	PITKIN AVENUE	LIRR BAY RIDGE	N	O		2	S	9/24/2014	6.279	VG	5,328	$23,976,000	316		
2243890	K	SUTTER AVENUE	LIRR BAY RIDGE	N	O		3	S	9/26/2014	6.292	VG	5,497	$24,736,500	316		
2243900	K	BLAKE AVENUE	LIRR BAY RIDGE	N	O		3	S	9/26/2014	4.927	F	4,912	$22,104,000	316		
2243910	K	LIVONIA AVENUE PEDESTRIAN BRIDGE	LIRR BAY RIDGE	N	O-PED		6	C	8/18/2015	4.833	F	2,500	$11,250,000	316		
2243920	K	7TH AVENUE	NYCTA BMT YARD	T	O		2	S	6/30/2014	6.042	VG	4,700	$21,150,000	307		
2243940	K	9TH AVENUE	NYCTA IND SBWY	T	O		5	S	7/29/2015	4.667	F	6,300	$28,350,000	312		
2244010	K	EAST DRIVE (ENDALE ARCH)	PEDESTRIAN PATH NEAR GRAND ARMY PLAZA		O	P	1	C	5/26/2015	4.300	F	1,533	$6,898,500	355		
2244020	K	WEST DRIVE (MEADOWPORT ARCH)	PEDESTRIAN PATH NEAR GRAND ARMY PLAZA		O	P	1	S	4/27/2015	5.321	G	2,500	$11,250,000	355		
2244030	K	EAST DRIVE	BRIDLE PATH NEAR ZOO		O	P	1	S	4/28/2015	4.878	F	2,000	$9,000,000	355		
2244040	K	EAST DRIVE (EAST WOOD ARCH)	PEDESTRIAN PATH NEAR CENTER DRIVE		O	P	1	C	7/7/2015	4.667	F	1,066	$4,797,000	355		
2244050	K	CENTER DRIVE (NETHERMEAD ARCHES)	PEDESTRIAN PATH & STREAM		WO	P	3	S	4/30/2015	5.000	G	7,020	$31,590,000	355		
2244060	K	HILL DRIVE (CLEFT RIDGE SPAN)	PEDESTRIAN PATH SOUTH OF BOATHOUSE		O	P	1	C	5/26/2015	4.433	F	750	$3,375,000	355		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2244100	K	WEST FOOTBRIDGE (MUSIC GROVE BRIDGE)	PROSPCT PARK STREAM		WO-PED	P	1	C	4/13/2015	5.000	G	308	$1,386,000	355		
2244120	K	HILL DRIVE (TERRACE BRIDGE)	PROSPECT PARK LAKE		WO	P	3	S	9/15/2015	3.291	F	7,800	$35,100,000	355		
2244130	K	PEDESTRIAN BRIDGE NEAR BOATHOUSE (LULLWATER BRIDGE)	PROSPECT PARK LAKE		WO-PED	P	1	C	7/23/2015	4.885	F	1,000	$4,500,000	355		
2244150	K	RIDGE BOULEVARD	SHORE ROAD DRIVE		O		1	S	5/29/2015	6.333	VG	4,350	$19,575,000	310		
2244160	K	3RD AVENUE	SHORE ROAD DRIVE		O		1	S	6/1/2015	6.273	VG	4,360	$19,620,000	310		
2244170	K	ATLANTIC AVENUE SERVICE ROAD EASTBOUND	EAST NEW YORK AVENUE		O		2	S	7/28/2015	5.474	G	3,192	$14,364,000	305		
2244180	K	ATLANTIC AVENUE SERVICE ROAD WESTBOUND	EAST NEW YORK AVENUE		O		2	S	7/28/2015	5.105	G	5,600	$25,200,000	305		
2244440	K	FLEET WALK PEDESTRIAN BRIDGE	NAVY STREET		O-PED		1	C	8/6/2015	3.919	F	620	$2,790,000	302		
2244460	K	CONDUIT BOULEVARD NORTHBOUND	ATLANTIC AVENUE EASTBOUND		O		1	S	10/10/2014	4.833	F	3,800	$17,100,000	305		
2244470	K	SEELEY STREET	PROSPECT AVENUE		O		1	S	6/1/2015	4.033	F	8,496	$38,232,000	307		
2244480	K	5TH AVENUE	GREENWOOD CEMETERY ROAD		O		1	S	9/10/2015	5.333	G	3,600	$16,200,000	307		
2245010	M	11TH AVENUE VIADUCT	LIRR WEST SIDE YARD	AL	O		39	S	12/12/2014	4.056	F	149,100	$670,950,000	104		
224501B	M	WEST 33RD STREET	AMTRAK 30 ST BRANCH	A	OR		8	S	3/7/2014	4.500	F	16,500	$74,250,000	104		
224501C	M	WEST 33RD STREET	LAND ADJACENT TO AMTRAK	A	OR		2	S	4/28/2015	4.500	F	2,360	$10,620,000	104		
224501D	M	WEST 34TH STREET	AMTRAK 30 ST BRANCH	A	OR		4	S	5/11/2015	4.375	F	11,800	$53,100,000	104		
224501E	M	WEST 35TH STREET	AMTRAK 30 ST BRANCH	A	OR		3	S	7/29/2014	4.181	F	6,500	$29,250,000	104		
224501F	M	WEST 36TH STREET	AMTRAK 30 ST BRANCH	A	OR		3	S	12/4/2015	4.433	F	5,520	$24,840,000	104		
2245040	M	MARGARET CORBIN DRIVE	PEDESTRIAN PATH NEAR CAFÉ		O	P	1	C	5/6/2015	4.933	F	598	$2,691,000	112		
2245050	M	MARGARET CORBIN DRIVE	PEDESTRIAN PATH NEAR NORTH ENTRANCE		O	P	1	C	5/6/2015	4.433	F	889	$4,000,500	112		
2245060	M	WEST 37TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	12/4/2015	6.079	VG	7,505	$33,772,500	104		
2245070	M	WEST 38TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	7/8/2014	4.135	F	6,200	$27,900,000	104		
2245080	M	WEST 39TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	7/8/2014	4.173	F	6,300	$28,350,000	104		
2245090	M	WEST 43RD STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/18/2014	4.662	F	4,140	$18,630,000	104		
2245100	M	WEST 44TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/18/2014	4.559	F	4,300	$19,350,000	104		
2245110	M	WEST 45TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/29/2014	5.338	G	4,100	$18,450,000	104		
2245120	M	WEST 46TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/29/2014	4.500	F	4,100	$18,450,000	104		
2245130	M	WEST 47TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/6/2014	4.721	F	4,100	$18,450,000	104		
2245140	M	WEST 48TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/6/2014	4.618	F	4,100	$18,450,000	104		
2245150	M	WEST 49TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	5/6/2014	4.426	F	4,100	$18,450,000	104		
2245160	M	WEST 51ST STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	4.853	F	4,300	$19,350,000	104		
2245170	M	WEST 52ND STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	5.191	G	4,300	$19,350,000	104		
2245180	M	WEST 53RD STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.221	G	5,100	$22,950,000	104		
2245190	M	WEST 58TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	4.706	F	4,100	$18,450,000	104		
2245209	M	11TH AVENUE	AMTRAK 30 ST BRANCH	A	O		2	S	6/4/2014	4.426	F	15,400	$69,300,000	104		
2245210	M	WEST 42ND STREET	AMTRAK 30 ST BRANCH	A	O		4	S	11/5/2014	4.587	F	10,300	$46,350,000	104		
2245220	M	WEST 57TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	5/20/2014	4.853	F	9,100	$40,950,000	104		
2245230	M	WEST 148TH STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	5	C	8/9/2013	4.200	F	1,100	$4,950,000	109		
2245250	M	WEST 158TH STREET	AMTRAK 30 ST BRANCH	A	O		7	S	10/22/2015	5.917	G	20,219	$90,985,500	112		
2245260	M	WEST 173RD STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	2	C	8/6/2013	4.600	F	1,500	$6,750,000	112		
2245290	M	WEST 155TH STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED		3	C	7/30/2013	3.862	F	800	$3,600,000	109	112	

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2245300	M	INWOOD HILL PARK FOOTBRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	6	C	8/6/2013	4.100	F	700	$3,150,000	112		
2245319	M	EAST 97TH STREET	METRO NORTH MAIN LN	M	O		1	S	12/17/2014	4.647	F	3,200	$14,400,000	111		
2245330	M	WEST 41ST STREET	AMTRAK 30 ST BRANCH	A	O		3	S	7/24/2014	4.444	F	6,200	$27,900,000	104		
2245340	M	WEST 50TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	4.500	F	4,100	$18,450,000	104		
2245350	M	WEST 54TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.492	G	4,700	$21,150,000	104		
2245360	M	WEST 55TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.529	G	4,300	$19,350,000	104		
2245370	M	WEST 56TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.397	G	4,400	$19,800,000	104		
2245380	M	TRANSVERSE ROAD #1 WESTBOUND	PEDESTRIAN PATH OPPOSITE EAST 66TH STREET		O	P	1	S	1/12/2016	5.000	G	1,500	$6,750,000	164		
2245420	M	WEST 65TH STREET ENTRANCE EASTBOUND	BRIDLE PATH WEST END		O	P	1	S	1/12/2016	5.100	G	1,300	$5,850,000	164		
2245440	M	WEST 40TH STREET	AMTRAK 30 ST BRANCH	A	O		4	S	7/23/2014	4.103	F	9,400	$42,300,000	104		
2245460	M	PARK AVENUE SOUTHBOUND	EAST 45TH STREET		O		1	S	6/9/2015	4.514	F	2,400	$10,800,000	105		
2245470	M	PARK AVENUE NORTHBOUND	EAST 45TH STREET		O		1	S	6/9/2015	4.757	F	2,400	$10,800,000	105		
2245480	M	TO GEORGE WASHINGTON BRIDGE OPPOSITE WEST 171ST STREET	RIVERSIDE DRIVE		O		1	S	2/24/2014	4.524	F	10,773	$48,478,500	112		
2246000	M	WEST DRIVE (GREYSHOT ARCH)	PEDESTRIAN PATH BETWEEN 61ST & 62ND STREETS		O	P	1	S	1/8/2014	5.400	G	2,500	$11,250,000	164		
2246010	M	WEST 62ND STREET PEDESTRIAN BRIDGE (PINEBANK ARCH)	BRIDLE PATH		O-PED	P	1	C	7/10/2015	4.654	F	1,000	$4,500,000	164		
2246030	M	EAST 62ND STREET PEDESTRIAN BRIDGE (GAPSTOW BRIDGE)	THE POND		O-PED	P	1	C	7/8/2015	4.241	F	1,400	$6,300,000	164		
2246040	M	EAST DRIVE (INSCOPE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 62ND STREET		O	P	1	C	4/8/2015	4.367	F	1,515	$6,817,500	164		
2246050	M	CENTER DRIVE (DRIPROCK ARCH)	PEDESTRIAN PATH OPPOSITE 63RD STREET		O	P	1	S	1/14/2014	4.867	F	1,725	$7,762,500	164		
2246069	M	EAST DRIVE (GREEN GAP ARCH)	PEDESTRIAN PATH BETWEEN 63RD & 64TH STREETS		O	P	1	S	1/16/2014	4.433	F	2,075	$9,337,500	164		
2246070	M	CENTER DRIVE (PLAYMATES ARCH)	PEDESTRIAN PATH OPPOSITE 65TH STREET		O	P	1	C	6/16/2015	4.500	F	1,129	$5,080,500	164		
2246080	M	WEST DRIVE (DALEHEAD ARCH)	BRIDLE PATH OPPOSITE WEST 64TH STREET		O	P	1	S	1/14/2014	4.667	F	2,000	$9,000,000	164		
2246090	M	PEDESTRIAN BRIDGE OPPOSITE 65TH STREET	TRANSVERSE ROAD #1		O-PED	P	1	C	11/2/2015	4.583	F	2,300	$10,350,000	164		
2246100	M	CENTER DRIVE	TRANSVERSE ROAD #1		O	P	1	S	2/7/2014	4.467	F	6,000	$27,000,000	164		
2246110	M	EAST DRIVE	TRANSVERSE ROAD #1		O	P	1	S	3/19/2014	4.667	F	6,000	$27,000,000	164		
2246120	M	WEST DRIVE	TRANSVERSE ROAD #1		O	P	1	S	3/25/2014	4.700	F	7,900	$35,550,000	164		
2246130	M	EAST DRIVE (WILLOWDELL ARCH)	PEDESTRIAN PATH OPPOSITE EAST 67TH STREET		O	P	1	C	4/3/2015	3.500	F	666	$2,997,000	164		
2246140	M	WEST 72ND STREET ENTRANCE (RIFTSTONE ARCH)	BRIDLE PATH		O	P	1	S	1/8/2014	4.467	F	3,600	$16,200,000	164		
2246150	M	72ND STREET CROSS DRIVE (TERRACE BRDG)	PEDESTRIAN PATH TO FOUNTAIN		O	P	3	S	2/24/2014	5.786	G	7,300	$32,850,000	164		
2246160	M	73RD STREET PEDESTRIAN BRIDGE (BOW BRIDGE)	THE LAKE		WO-PED	P	1	C	4/8/2014	3.946	F	1,700	$7,650,000	164		
2246170	M	EAST DRIVE (TREFOIL ARCH)	PEDESTRIAN PATH OPPOSITE EAST 73RD STREET		O	P	1	S	1/24/2014	5.130	G	1,900	$8,550,000	164		
2246230	M	EAST DRIVE	TRANSVERSE ROAD #2		O	P	1	S	3/11/2014	4.600	F	5,080	$22,860,000	164		
2246240	M	WEST DRIVE	TRANSVERSE ROAD #2		O	P	1	S	3/12/2014	4.167	F	7,200	$32,400,000	164		
2246250	M	EAST DRIVE	TRANSVERSE ROAD #3		O	P	1	S	1/17/2014	4.300	F	4,500	$20,250,000	164		
2246260	M	WEST DRIVE	TRANSVERSE ROAD #3		O	P	1	S	3/18/2014	4.800	F	5,100	$22,950,000	164		
2246270	M	EAST DRIVE	TRANSVERSE ROAD #4		O	P	1	S	3/20/2014	4.100	F	7,000	$31,500,000	164		
2246280	M	WEST DRIVE	TRANSVERSE ROAD #4		O	P	1	S	3/21/2014	4.167	F	4,700	$21,150,000	164		
2246320	M	WEST 77ND STREET PEDESTRIAN (OAK BRDG)	THE LAKE		WO-PED	P	3	C	7/10/2015	5.368	G	1,100	$4,950,000	164		
2246330	M	WEST DRIVE (BALCONY BRDG)	STREAM TO THE LAKE		WO	P	1	S	1/15/2014	5.000	G	1,817	$8,176,500	164		
2246340	M	WEST 77TH STREET PEDESTRIAN (LADIES POND BRIDGE)	STREAM TO THE LAKE		WO-PED	P	3	C	10/30/2015	4.355	F	500	$2,250,000	164		
2246350	M	EAST DRIVE (GREYWACKE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 80TH STREET		O	P	1	C	6/15/2015	3.733	F	1,266	$5,697,000	164		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246360	M	WEST DRIVE (WINTERDALE ARCH)	PEDESTRIAN PATH OPPOSITE WEST 82ND STREET		O	P	1	S	1/16/2014	5.182	G	2,502	$11,259,000	164		
2246380	M	WEST 86TH STREET PEDESTRIAN (SOUTHWEST RESERVOIR BRIDGE)	BRIDLE PATH		O-PED	P	1	C	11/27/2015	4.852	F	700	$3,150,000	164		
2246390	M	EAST 86TH STREET PEDESTRIAN (SOUTHEAST RESERVOIR BRIDGE)	BRIDLE PATH		O-PED	P	3	C	11/27/2015	4.509	F	1,100	$4,950,000	164		
2246400	M	PEDESTRIAN PATH OPPOSITE EAST 79TH STREET	TRANSVERSE ROAD #2		O-PED	P	1	C	6/7/2015	4.233	F	3,700	$16,650,000	164		
2246410	M	TRANSVERSE ROAD 1 EASTBOUND (DENESMOUTH ARCH)	PEDESTRIAN PATH OPPOSITE EAST 65TH STREET		O	P	1	S	2/24/2014	4.636	F	1,739	$7,825,500	164		
2246430	M	WEST 110TH STREET ENTRANCE (MOUNTCLIFF ARCH)	PEDESTRIAN PATH OPPOSITE WEST 109TH STREET		O	P	1	S	2/24/2014	4.317	F	1,200	$5,400,000	164		
2246440	M	79TH STREET PEDESTRIAN BRIDGE	TRANSVERSE ROAD #2		O-PED	P	1	C	6/15/2015	3.926	F	5,900	$26,550,000	164		
2246450	M	EAST 77TH STREET PEDESTRIAN (GLADE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 77TH STREET		O-PED	P	1	C	1/23/2015	4.138	F	5,000	$22,500,000	164		
2246460	M	WEST 77TH STREET ENTRANCE (EAGLEVALE ARCH)	PEDESTRIAN PATH OPPOSITE WEST 77TH STREET		O	P	2	S	1/9/2014	4.263	F	3,066	$13,797,000	164		
2246470	M	EAST DRIVE (HUDDLESTONE ARCH)	THE LOCH		WO	P	1	S	1/28/2014	4.500	F	1,100	$4,950,000	164		
2246489	M	WEST 181ST STREET	RAMP TO WASHINGTON BRIDGE		O		1	S	1/30/2014	5.200	G	8,200	$36,900,000	112		
2246490	M	A.C. POWELL BOULEVARD NORTHBOUND	A.C. POWELL BOULEVARD		O		1	S	1/31/2014	4.347	F	3,000	$13,500,000	110		
2246500	M	FORT TRYON PLACE	ENTRANCE FROM RIVERSIDE DRIVE		O	P	1	S	3/25/2014	4.200	F	3,280	$14,760,000	112		
2246510	M	CORBIN PLACE OVERPASS	CORBIN PLACE		O	P	1	S	1/8/2014	5.000	G	2,223	$10,003,500	112		
2246540	M	EAST 34TH STREET	PARK AVENUE TUNNEL		OT		1	S	8/20/2014	4.117	F	36,200	$162,900,000	105	106	
2246550	M	PARK AVENUE VIADUCT	EAST 42ND STREET		O		10	S	12/7/2015	4.537	F	22,150	$99,675,000	105		
2246560	M	TUDOR CITY PLACE	EAST 42ND STREET		O		1	S	1/24/2014	5.133	G	6,600	$29,700,000	106		
2246570	M	EAST 42ND STREET - EAST 47TH STREET	FIRST AVENUE TUNNEL		OT		2	S	5/20/2014	4.922	F	95,000	$427,500,000	106		
2246580	BM	HIGH BRIDGE PEDESTRIAN OVERPASS	I87 - HARLEM RIVER	M	WA-PED	P	11	P	8/12/2002	3.759	F	34,100	$153,450,000	112	204	
2246600	M	WEST 176TH STREET PEDESTRIAN BRIDGE	APPROACH TO GEORGE WASHINGTON BRIDGE		O-PED	P	1	C	1/22/2015	4.533	F	1,200	$5,400,000	112		
2246620	M	EAST 128TH STREET PEDESTRIAN BRIDGE	3RD AVENUE BRIDGE APPROACH		O-PED		18	C	8/20/2015	3.939	F	2,300	$10,350,000	111		
2246660	M	RIVERSIDE DRIVE	WEST 125TH STREET - WEST 134TH STREET		O		27	S	7/13/2015	4.444	F	148,300	$667,350,000	109		
2246670	M	WEST 134 STREET	TERRAIN		O		4	S	6/8/2015	4.778	F	7,500	$33,750,000	109		
2246690	M	ISHAM PARK VEHICULR	HARLEM RIVER INLET		O	P	1	S	4/28/2014	6.065	VG	911	$4,099,500	112		
2246700	M	ISHAM PARK PEDESTRIAN BRIDGE	HARLEM RIVER INLET		WO-PED	P	1	C	3/12/2015	4.138	F	300	$1,350,000	112		
2246710	M	WEST 153RD STREET	A.C. POWELL BOULEVARD		O		1	S	1/31/2014	4.611	F	3,082	$13,869,000	110		
2246720	M	RIVERSIDE DRIVE	WEST 158TH STREET- AMTRAK	A	O		77	S	10/23/2015	3.528	F	185,658	$835,461,000	109	112	
2246970	M	RIVERSIDE DRIVE	WEST 96TH STREET		O		3	S	4/27/2015	5.471	G	10,600	$47,700,000	107		
2246980	M	RIVERSIDE DRIVE	WEST 138TH STREET		O		1	S	1/16/2014	4.900	F	6,700	$30,150,000	109		
2246990	M	EAST 129TH STREET PEDESTRIAN BRIDGE	3RD AVENUE BRIDGE RAMP		O-PED	P	5	C	10/15/2014	4.524	F	1,046	$4,707,000	111		
2247020	Q	94TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		5	C	9/12/2014	4.231	F	905	$4,072,500	404		
2247040	Q	UNION STREET	LIRR PORT WASH BR	L	O		1	S	9/22/2015	6.172	VG	3,313	$14,908,500	407		
2247050	Q	BOWNE STREET	LIRR PORT WASH BR	L	O		1	S	9/24/2014	5.451	G	4,974	$22,383,000	407		
2247060	Q	PARSONS BOULEVARD	LIRR PORT WASH BR	L	O		1	S	9/24/2014	4.824	F	4,200	$18,900,000	407		
2247070	Q	147TH STREET	LIRR PORT WASH BR	L	O		1	S	9/23/2015	5.392	G	2,800	$12,600,000	407		
2247080	Q	149TH STREET	LIRR PORT WASH BR	L	O		1	S	9/8/2009	4.776	F	4,100	$18,450,000	407		
2247090	Q	149TH PLACE	LIRR PORT WASH BR	L	O		2	S	9/21/2015	5.000	G	4,300	$19,350,000	407		
2247100	Q	150TH STREET	LIRR PORT WASH BR	L	O		2	S	9/21/2015	6.088	VG	5,508	$24,786,000	407		
2247110	Q	MURRAY STREET	LIRR PORT WASH BR	L	O		1	S	9/22/2015	5.185	G	4,000	$18,000,000	407		
2247120	Q	WOODSIDE AVENUE	LIRR MAIN LINE	L	O		3	S	10/7/2015	4.413	F	14,900	$67,050,000	402		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2247130	Q	CORPORAL KENNEDY STREET	LIRR PORT WASH BR	L	O		1	S	10/9/2015	6.157	VG	3,379	$15,205,500	411		
2247140	Q	BELL BOULEVARD	LIRR PORT WASH BR	L	O		1	S	10/1/2015	5.610	G	4,320	$19,440,000	411		
2247150	Q	65TH STREET	LIRR MAIN LINE	L	O		3	S	10/12/2015	6.375	VG	6,344	$28,548,000	402		
2247160	Q	65TH PLACE	LIRR MAIN LINE	L	O		3	S	10/12/2015	6.324	VG	8,381	$37,714,500	402		
2247170	Q	DOUGLASTON PARKWAY	LIRR PORT WASH BR	L	O		3	S	10/1/2014	4.542	F	6,300	$28,350,000	411		
2247180	Q	GRAND AVENUE	LIRR MAIN LINE	L	O		3	S	10/1/2014	4.396	F	7,415	$33,367,500	404		
2247190	Q	55TH AVENUE PEDESTRIAN BRIDGE	LIRR MAIN LINE	L	O-PED		3	C	9/17/2014	4.120	F	1,296	$5,832,000	404		
2247220	Q	80TH ROAD	LIRR MAIN LINE	L	O		3	S	9/28/2015	4.698	F	4,100	$18,450,000	409		
2247230	Q	82ND AVENUE	LIRR MAIN LINE	L	O		3	S	9/25/2015	5.246	G	4,100	$18,450,000	409		
2247240	Q	LEFFERTS BOULEVARD	LIRR MAIN LINE	L	O		3	S	9/25/2015	5.736	G	5,460	$24,570,000	409		
2247260	Q	JACKSON AVENUE	LIRR MONTAUK DIV	L	O		1	S	10/8/2014	5.550	G	4,517	$20,326,500	402		
2247270	Q	21ST STREET	LIRR N SHORE YARD	L	O		6	S	10/6/2015	5.153	G	17,590	$79,155,000	402		
2247290	Q	49TH AVENUE	LIRR - AMTRAK	AL	O		5	S	11/26/2014	3.819	F	20,400	$91,800,000	402		
2247300	Q	THOMPSON AVENUE	AMTRAK & LIRR YARD	AL	O		14	S	11/8/2014	5.125	G	61,280	$275,760,000	402		
2247310	Q	QUEENS BOULEVARD	AMTRAK & LIRR YARD	AL	O		19	S	11/8/2014	6.268	VG	92,400	$415,800,000	402	401	
2247320	Q	HONEYWELL STREET	SUNNYSIDE YARD	AL	O		22	S	12/16/2015	5.792	G	99,036	$445,662,000	402	401	
2247330	Q	39TH STREET (NORTH)	SUNNYSIDE YARD	A	O		14	S	12/22/2015	6.208	VG	48,200	$216,900,000	402	401	
2247370	Q	37TH AVENUE	CSX - HELLGATE	C	O		1	S	9/15/2015	5.894	G	6,868	$30,906,000	402		
2247380	Q	ROOSEVELT AVENUE	CSX - HELLGATE - NYCTA	C	O		2	S	9/15/2015	6.208	VG	7,380	$33,210,000	402	403	404
2247390	Q	41ST AVENUE	CSX - HELLGATE	C	O		2	S	9/15/2015	4.788	F	4,400	$19,800,000	402	404	
2247400	Q	WOODSIDE AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.033	G	8,200	$36,900,000	402	404	
2247410	Q	43RD AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.000	G	4,800	$21,600,000	402	404	
2247420	Q	44TH AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.267	G	5,100	$22,950,000	402	404	
2247430	Q	45TH AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.224	G	2,400	$10,800,000	402	404	
2247440	Q	GRAND AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	6.183	VG	3,280	$14,760,000	405		
2247450	Q	57TH AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	5.976	G	2,248	$10,116,000	405		
2247460	Q	CALDWELL AVENUE	CSX TRANSPORT	C	O		1	S	11/10/2014	5.889	G	2,243	$10,093,500	405		
2247470	Q	ELIOT AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	4.972	F	2,960	$13,320,000	405		
2247480	Q	JUNIPER BOULEVARD SOUTH	CSX TRANSPORT	C	O		1	S	9/22/2015	4.833	F	9,000	$40,500,000	405		
2247490	Q	69TH STREET	CSX TRANSPORT	C	O		1	S	11/10/2014	4.979	F	6,175	$27,787,500	405		
2247500	Q	METROPOLITAN AVENUE	CSX TRANSPORT	C	O		1	S	9/22/2015	4.233	F	18,650	$83,925,000	405		
2247530	Q	ANDREWS AVENUE	LIRR MONTAUK DIV	L	O		1	S	9/29/2015	6.688	VG	1,765	$7,942,500	405		
2247540	Q	60TH STREET	LIRR MONTAUK DIV	L	O		2	S	9/29/2015	5.208	G	5,340	$24,030,000	405		
2247550	Q	ELIOT AVENUE	LIRR MONTAUK DIV	L	O		2	S	9/24/2015	5.627	G	9,550	$42,975,000	405		
2247570	Q	80TH STREET	77TH AVENUE - LIRR MT	L	O		5	S	10/21/2014	4.932	F	11,725	$52,762,500	405		
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	O	P	5	S	9/22/2014	5.158	G	6,000	$27,000,000	409		
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	L	O		1	S	9/22/2014	6.983	VG	3,024	$13,608,000	409	482	
2247620	Q	MYRTLE AVENUE	ABANDONED LIRR		O		3	S	1/2/2014	5.028	G	6,725	$30,262,500	482	406	
2247630	Q	PEDESTRIAN BRIDGE NEAR UNION TURNPIKE	ABANDONED LIRR		O-PED		8	C	6/8/2015	4.522	F	1,500	$6,750,000	406		
2247640	Q	39TH STREET (SOUTH)	AMTRAK & LIRR YARD	AL	O		9	S	12/16/2015	5.667	G	34,100	$153,450,000	402		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2247650	Q	60TH ROAD PEDESTRIAN BRIDGE	LIRR MAIN LINE	L	O-PED		3	C	9/16/2014	5.000	G	1,200	$5,400,000	405	406	
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR		O	P	6	S	4/28/2015	4.302	F	10,000	$45,000,000	409		
2247680	Q	221ST STREET	LIRR PORT WASH BR	L	O		3	S	9/23/2015	5.926	G	6,050	$27,225,000	411		
2248019	Q	WOODHAVEN BOULEVARD	ATLANTIC AVENUE		O		3	S	3/26/2014	4.208	F	19,400	$87,300,000	409		
2248020	Q	WHITELAW PEDESTRIAN BRIDGE	NORTH & SOUTH CONDUIT AVENUE		O-PED		7	C	10/6/2015	4.303	F	5,500	$24,750,000	410		
2248039	Q	CROSS BAY BOULEVARD	NASSAU EXPRESSWAY - ROUTE 27		O		2	S	5/26/2015	5.958	G	16,544	$74,448,000	410		
2248040	Q	RAMP TO LINDEN BOULEVARD	SOUTH CONDUIT AVENUE		O		1	S	5/15/2014	5.200	G	3,352	$15,084,000	410		
2248059	Q	MOTOR PARKWAY (PEDESTRIAN)	FRANCIS LEWIS BOULEVARD		O-PED	P	2	C	6/11/2015	4.444	F	2,800	$12,600,000	408		
2248060	Q	MOTOR PARKWAY (PEDESTRIAN)	BELL BOULEVARD		O-PED	P	2	C	6/11/2015	4.403	F	2,650	$11,925,000	411		
2248070	Q	MOTOR PARKWAY (PEDESTRIAN)	SPRINGFIELD BOULEVARD		O-PED	P	3	C	6/8/2015	3.836	F	2,900	$13,050,000	411		
2248080	Q	MOTOR PARKWAY (PEDESTRIAN)	HOLLIS COURT BOULEVARD		O-PED	P	3	C	11/18/2014	4.672	F	2,700	$12,150,000	408		
2248090	Q	FUSHING MEADOW PARK PEDESTRIAN	COLLEGE POINT BOULEVARD		O-PED	P	3	C	1/2/2015	4.639	F	8,400	$37,800,000	407		
2248100	Q	MOTOR PARKWAY (PEDESTRIAN)	73RD AVENUE		O-PED	P	3	C	2/11/2014	4.672	F	2,600	$11,700,000	408		
2248110	Q	MOTOR PARKWAY (PEDESTRIAN)	ALLEY PARK PEDESTRIAN WALK		O-PED	P	1	C	6/4/2015	3.833	F	1,000	$4,500,000	413		
2248129	Q	UNION TURNPIKE	CREEDMOORE HOSPITAL ROAD		O		1	S	6/1/2015	4.733	F	3,500	$15,750,000	413		
2248130	Q	FUSHING MEADOW PARK PEDESTRIAN	WILLOW LAKE & 76TH ROAD		WO-PED	P	4	C	4/20/2002	1.000	C	1,891	$8,509,500	481		
2248140	Q	FLUSHING MEADW PARK ROAD	STREAM NORTH OF LONG ISLAND EXPRESSWAY		WO	P	5	S	7/31/2013	4.481	F	4,100	$18,450,000	481		
2248159	Q	WOODHAVEN BOULEVARD	QUEENS BOULEVARD		O		2	S	7/17/2014	4.078	F	11,500	$51,750,000	404		
2248160	Q	ELIOT AVENUE	QUEENS BOULEVARD		O		2	S	7/17/2014	4.804	F	13,785	$62,032,500	406		
2248200	Q	RUST STREET	FLUSHING AVENUE		O		1	S	7/2/2015	4.672	F	2,940	$13,230,000	405		
2248220	Q	SERVICE ROAD TURNAROUND	FLUSHING AVENUE		O		1	S	7/2/2015	5.078	G	2,940	$13,230,000	405		
2248230	Q	BEACH CHANNEL DRIVE WESTBOUND	BEACH CHANNEL DRIVE EASTBOUND		O		1	S	6/15/2015	4.400	F	3,600	$16,200,000	484		
2248240	Q	FLUSHING AVENUE SERVICE ROAD	FLUSHING AVENUE		O		1	S	7/2/2015	5.250	G	2,940	$13,230,000	405		
2248250	Q	102ND STREET	HAWTREE BASIN		WO		3	S	7/23/2015	6.015	VG	4,900	$22,050,000	410		
2248260	Q	MEADOW LAKE BRIDGE	MEADOW LAKE		WO	P	5	S	5/26/2015	4.458	F	4,200	$18,900,000	481		
2248280	Q	HIGHLAND ARPK PEDESTRIAN	PEDESTRIAN PATH		O-PED	P	1	C	12/16/2015	3.667	F	1,900	$8,550,000	405		
2248299	Q	JACKIE ROBINSON PARKWAY-UNION TURNPIKE	AUSTIN STREET		O		1	S	5/23/2014	4.806	F	5,900	$26,550,000	409	406	
2248300	Q	71ST AVENUE	COOPER AVENUE		O		1	S	6/24/2015	4.373	F	2,800	$12,600,000	405		
2248340	Q	FOREST PARK DRIVE	MYRTLE AVENUE		O	P	3	S	6/1/2015	4.984	F	5,100	$22,950,000	409		
2248369	Q	ROCKAWAY BOULEVARD	THURSTON BASIN		WO		2	S	7/15/2015	5.474	G	6,000	$27,000,000	483	413	
2248379	Q	BOATHOUSE BRIDGE	AQUACADE LAKE		WO	P	5	S	7/21/2015	4.296	F	6,300	$28,350,000	481		
2249040	R	TOMPKINS AVENUE	B&O RR (ABANDONED)		O		1	S	4/4/2014	5.953	G	5,096	$22,932,000	501		
2249070	R	JOHN STREET PEDESTRIAN BRIDGE	B&O RR (ABANDONED)	O	O-PED		2	C	10/23/2015	5.423	G	1,050	$4,725,000	501		
2249090	R	MORNINGSTAR ROAD	B&O RR (ABANDONED)	O	O		4	S	7/8/2015	4.627	F	7,900	$35,550,000	501		
2249100	R	GRANITE AVENUE	B&O RR (ABANDONED)	O	O		4	S	2/4/2014	5.966	G	7,300	$32,850,000	501		
2249110	R	LAKE AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	4.556	F	5,900	$26,550,000	501		
2249120	R	SIMONSON AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	5.852	G	5,819	$26,185,500	501		
2249130	R	VAN NAME AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	5.186	G	5,474	$24,633,000	501		
2249140	R	VAN PELT AVENUE	B&O RR (ABANDONED)	O	O		3	S	4/29/2015	5.576	G	5,000	$22,500,000	501		
2249160	R	DE HART AVENUE	B&O RR (ABANDONED)	O	O		4	S	4/29/2015	6.389	VG	6,700	$30,150,000	501		

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2249170	R	UNION AVENUE	B&O RR (ABANDONED)	O	O		4	S	4/29/2015	5.130	G	6,630	$29,835,000	501		
2249180	R	HARBOR ROAD	CONRAIL - EX B&O RR	C	O		4	S	9/12/2015	6.000	G	5,778	$26,001,000	501		
2249200	R	SOUTH AVENUE	ARLINGTON YARD	C	O		3	S	9/12/2015	6.527	VG	8,500	$38,250,000	501		
2249210	R	MAIN STREET PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		9	C	4/6/2015	4.263	F	400	$1,800,000	503		
2249230	R	TRACY AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		9	C	4/7/2015	3.894	F	635	$2,857,500	503		
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S	O		1	S	10/14/2014	4.796	F	3,650	$16,425,000	503		
2249250	R	BETHEL AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		12	C	4/9/2015	3.754	F	1,165	$5,242,500	503		
2249269	R	PAGE AVENUE	SIRT - TIDAL STREAM	S	WO		4	S	9/23/2015	5.806	G	30,710	$138,195,000	503		
2249270	R	RICHMOND VALLEY ROAD	SIRT SOUTH SHORE	S	O		4	S	8/26/2015	5.164	G	9,440	$42,480,000	503		
2249280	R	RICHMOND VALLEY STATION PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		7	C	4/10/2015	4.393	F	595	$2,677,500	503		
2249290	R	SEGUINE AVENUE	SIRT SOUTH SHORE	S	O		1	S	8/24/2015	6.016	VG	3,250	$14,625,000	503		
2249300	R	HUGUENOT AVENUE	SIRT SOUTH SHORE	S	O		2	S	9/23/2015	4.788	F	6,514	$29,313,000	503		
2249320	R	ALBEE AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/16/2015	4.689	F	6,500	$29,250,000	503		
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S	O		1	S	8/20/2015	6.233	VG	3,540	$15,930,000	503		
2249350	R	NELSON AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		3	C	4/13/2015	4.115	F	300	$1,350,000	503		
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S	O		1	S	10/15/2014	5.625	G	3,042	$13,689,000	503		
2249370	R	GREAVES AVENUE	SIRT SOUTH SHORE	S	O		1	S	8/19/2015	6.533	VG	2,650	$11,925,000	503		
2249380	R	GUYON AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/23/2015	4.672	F	6,900	$31,050,000	503		
2249390	R	CEDARVIEW AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		5	C	4/14/2015	3.615	F	625	$2,812,500	503		
2249400	R	BEACH AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/11/2015	5.364	G	3,700	$16,650,000	502		
2249410	R	ROSS AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/12/2015	5.182	G	3,800	$17,100,000	502		
2249420	R	ROSE AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/13/2015	5.258	G	3,800	$17,100,000	502		
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S	O		2	S	8/14/2015	4.955	F	7,600	$34,200,000	502		
2249440	R	BANCROFT AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/17/2015	5.393	G	5,900	$26,550,000	502		
2249450	R	FREMONT AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		3	C	4/15/2015	4.164	F	800	$3,600,000	502		
2249460	R	LINCOLN AVENUE	SIRT SOUTH SHORE	S	O		1	S	9/1/2015	5.172	G	4,500	$20,250,000	502		
2249470	R	MIDLAND AVENUE	SIRT SOUTH SHORE	S	O		1	S	9/18/2015	5.466	G	3,000	$13,500,000	502		
2249480	R	WEST FINGERBOARD ROAD	SIRT SOUTH SHORE	S	O		2	S	9/16/2015	6.403	VG	5,100	$22,950,000	502		
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S	O		3	S	10/16/2014	5.778	G	5,104	$22,968,000	502		
2249510	R	TOMPKINS AVENUE	WILLOW AVENUE, SIRT	S	O		2	S	10/17/2014	5.269	G	5,378	$24,201,000	501		
2249520	R	HANNAH STREET	SIRT SOUTH SHORE	S	O		10	S	10/16/2015	4.627	F	13,360	$60,120,000	501		
2249530	R	MINTHORNE STREET PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		26	C	4/16/2015	4.547	F	6,000	$27,000,000	501		
2249580	R	BELFIELD AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		5	C	4/17/2015	3.902	F	400	$1,800,000	503		
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		WO-PED	P	2	C	7/21/2015	3.857	F	900	$4,050,000	501		
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		WO-PED	P	2	C	7/21/2015	4.143	F	900	$4,050,000	501		
2249730	R	BRIDGE OVER DAM	NORTH END CLOVE LAKE		WO-PED	P	1	C	7/29/2015	3.351	F	1,000	$4,500,000	501		
2249760	R	MARTLINGS AVENUE	RICHMOND LAKE DAM		WO		2	S	6/12/2015	4.467	F	7,000	$31,500,000	501		
2249770	R	SOUTH OF BROOKS LAKE	STREAM IN PARK		WO-PED	P	3	C	11/25/2015	4.651	F	700	$3,150,000	501		
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		WO-PED	P	1	C	4/29/2015	3.867	F	800	$3,600,000	501		
2249790	R	FOOTBRIDGE SOUTH OF FOREST AVENUE	STREAM IN PARK		WO-PED	P	3	C	11/6/2015	4.651	F	700	$3,150,000	501		

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2249800	R	FOREST AVENUE	CLOVE LAKES PARK STREAM		WO	P	1	S	10/29/2015	4.300	F	1,600	$7,200,000	501		
2249810	R	HYLAN BOULEVARD	LEMON CREEK		WO		1	S	3/10/2014	6.172	VG	11,400	$51,300,000	503		
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM		WO		1	S	5/5/2015	4.102	F	1,500	$6,750,000	503		
2249840	R	TOMPKINS AVENUE	GREENFIELD AVENUE		O		1	S	3/10/2014	4.638	F	2,690	$12,105,000	501		
2249860	R	SLATER BOULEVARD	NEW CREEK		WO		1	S	5/4/2015	5.510	G	2,037	$9,166,500	502		
2249870	R	TRAVIS AVENUE	MAIN CREEK		WO		1	S	10/15/2015	5.483	G	1,700	$7,650,000	502		
2249880	R	CHELSEA ROAD	SAWMILL CREEK		WO		1	S	5/21/2015	6.633	VG	2,205	$9,922,500	502		
2257569	M	MILLER HIGHWAY - ROUTE 9A	RIVERSIDE PARK SOUTH		A		64	S	8/25/2015	4.296	F	272,475	$1,226,137,500	104	107	
2266129	Q	DOUGLASTON PARKWAY	BELT CROSS ISLAND PARKWAY SOUTHBOUND		A		1	S	3/10/2014	4.592	F	4,400	$19,800,000	411		
2266139	Q	DOUGLASTON PARKWAY	BELT CROSS ISLAND PARKWAY NORTHBOUND		A		1	S	3/12/2014	4.653	F	6,400	$28,800,000	411		
2266149	Q	HEMPSTEAD AVENUE	BELT CROSS ISLAND PARKWAY RAMP NORTHBOUND		A		2	S	3/12/2014	4.190	F	9,500	$42,750,000	413		
2266160	Q	678I SOUTHBOUND TO BELT CROSS ISLAND PARKWAY EASTBOUND	678I - BELT CROSS ISLAND PARKWAY JUNCTION		A		1	S	6/12/2015	4.156	F	2,300	$10,350,000	407		
2266229	M	HENRY HUDSON PARKWAY	PEDESTRIAN PATH AT WEST 148TH STREET		A		1	S	1/30/2014	5.000	G	1,840	$8,280,000	109		
2266230	M	HENRY HUDSON PARKWAY NORTHBOUND	PEDESTRIAN PATH INWOOD PARK		A		1	S	1/23/2014	5.000	G	800	$3,600,000	112		
2266240	M	HENRY HUDSON PARKWAY SOUTHBOUND	PEDESTRIAN PATH INWOOD PARK		A		1	S	1/23/2014	5.526	G	1,100	$4,950,000	112		
2266540	B	278I	BRUCKNER BOULEVARD		A		2	S	7/1/2015	4.435	F	32,900	$148,050,000	201		
226672A	M	WEST 31ST STREET	AMTRAK LAYUP TRACKS	A	O		9	S	11/15/2014	3.619	F	8,800	$39,600,000	104		
2266770	Q	BELT CROSS ISLAND PARKWAY	LAURELTON PARKWAY		A		1	S	3/7/2014	4.972	F	9,508	$42,786,000	413		
2267130	M	RIVERSIDE DRIVE	WEST 145TH STREET		O		1	S	4/27/2015	5.000	G	5,800	$26,100,000	109		
2267160	Q	ROOSEVELT AVENUE	SHEA ROAD		O		4	S	7/29/2015	4.651	F	7,280	$32,760,000	408		
2267199	Q	FRANCIS LEWIS BOULEVARD	CUNNINGHAM PARK ROAD		O		1	S	5/14/2015	5.300	G	7,085	$31,882,500	408		
2267240	M	HARLEM RIVER DRIVE RAMP TO GEORGE WASHINGTON BRIDGE	HARLEM RIVER DRIVE SOUTHBOUND		A		55	S	10/14/2014	3.042	F	122,900	$553,050,000	112		
2267250	M	HENRY HUDSON PARKWAY	AMTRAK - WEST 96TH STREET	A	A		55	S	11/1/2014	3.548	F	40,000	$180,000,000	107		
2267380	M	WEST STREET	RECTOR STREET - BROOKLYN-BATTERY MANHATTAN PLAZA		AT		1	S	11/20/2015	5.033	G	25,760	$115,920,000	101		
2267717	M	79TH STREET PEDESTRIAN PLAZA	79TH STREET BOAT BASIN GARAGE		A	P	10	S	5/5/2015	4.444	F	27,400	$123,300,000	107		
2267718	M	79TH SREET TRAFFIC CIRCLE	79TH STREET PEDESTRIAN PLAZA		A	P	34	S	6/3/2015	3.754	F	24,130	$108,585,000	107		
226771A	M	79TH STREET RAMP TO HENRY HUDSON PARKWAY	79TH STREET BOAT BASIN GARAGE		AR	P	4	S	5/5/2015	4.221	F	3,131	$14,089,500	107		
226771B	M	79TH STREET RAMP TO GARAGE	79TH STREET BOAT BASIN GARAGE		AR	P	21	S	5/12/2015	4.452	F	8,989	$40,450,500	107		
226771C	M	GARAGE RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE		AR	P	21	S	5/12/2015	4.435	F	9,095	$40,927,500	107		
226771D	M	SOUTHBOUND HENRY HUDSON PARKWAY RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE		AR	P	4	S	5/7/2015	4.403	F	2,601	$11,704,500	107		
2267860	K	BROOKLYN BRIDGE APPROACH	STORAGE (SANDS STREET)		O		1	S	5/23/2014	4.344	F	6,490	$29,205,000	302		
2268350	K	BROOKLYN PROMENADE	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A-PED	P	35	C	4/29/2015	3.828	F	46,184	$207,828,000	302		
2268480	M	CHAMBERS STREET PEDESTRIAN BRIDGE	ROUTE 9A - WEST STREET		O-PED		10	C	6/3/2015	5.391	G	7,481	$33,664,500	101		
2268497	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	FURMAN STREET - 278I EASTBOUND		A		45	S	9/16/2015	4.357	F	86,406	$388,827,000	302		
2268498	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY) - PROMENADE		A		69	S	11/26/2014	3.754	F	133,708	$601,686,000	302		
2268507	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	YORK STREET		A		6	S	6/29/2015	4.071	F	10,388	$46,746,000	302		
2268508	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY) - BROOKLYN BRIDGE		A		11	S	6/29/2015	4.297	F	20,529	$92,380,500	302		
2268517	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	FURMAN STREET		A		7	S	6/30/2015	4.104	F	10,988	$49,446,000	302		
2268518	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		5	S	7/1/2015	4.119	F	9,275	$41,737,500	302		
2268650	M	FDR DRIVE NORTHBOUND EAST 42ND TO EAST 49TH STREET	EAST RIVER SHORELINE		A		119	S	10/9/2015	3.836	F	30,767	$138,451,500	106		

INVENTORY SORTED BY B.I.N.

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2268760	M	PS-5 PEDESTRIAN BRIDGE	TENTH AVENUE		O-PED		5	C	11/13/2014	4.347	F	1,285	$5,782,500	112		
2268770	Q	SPRINGFIELD BOULEVARD	EQUESTRIAN PATH (ABANDONED)		O		1	S	4/29/2015	4.889	F	1,470	$6,615,000	413		
2268920	R	AMBOY ROAD	LEMON CREEK		WO		1	S	3/10/2014	6.333	VG	1,310	$5,895,000	503		
2268930	M	MORRIS STREET PEDESTRIAN BRIDGE	BROOKLYN-BATTERY TUNNEL PLAZA		A-PED		3	C	7/15/2013	3.875	F	1,842	$8,289,000	101		
2269030	B	MATTHEWSON ROAD	MACCRACKEN AVENUE		O		15	S	10/8/2014	4.175	F	14,880	$66,960,000	205		
2269190	M	WEST 70TH STREET	AMTRAK	A	O		3	S	11/7/2015	5.542	G	17,258	$77,661,000	107		
2269200	M	RIVERSIDE DRIVE SOUTH	AMTRAK	A	O		11	S	11/6/2015	5.792	G	69,040	$310,680,000	107		
2269210	M	WEST 68TH STREET	AMTRAK	A	O		3	S	11/19/2015	6.542	VG	5,382	$24,219,000	107		
2269240	M	RIVERSIDE DRIVE	WEST 155TH STREET		O		1	S	5/7/2015	4.640	F	2,780	$12,510,000	109	112	
2269600	K	ERSKINE STREET	BELT SHORE PARKWAY		A		1	S	8/20/2014	5.938	G	8,258	$37,161,000	305		
2269730	R	PARKING EXIT RAMP	SIRT	S	O	F	10	S	11/7/2014	6.097	VG	20,727	$93,271,500	501		
2269740	R	BUS STATION NORTH	SIRT - FERRY TERMINAL	S	O	F	12	S	11/2/2014	5.600	G	64,605	$290,722,500	501		
2269750	R	BUS STATION SOUTH	SIRT - PARKING LOT	S	O	F	12	S	11/2/2014	5.280	G	154,688	$696,096,000	501		
2269760	R	NORTH RAMP	SIRT	S	O	F	2	S	10/22/2014	6.431	VG	6,000	$27,000,000	501		
2269770	R	BUS STATION ENTANCE RAMP	SIRT	S	O	F	19	S	10/9/2015	5.431	G	39,333	$176,998,500	501		
2269780	R	PARKING ENTANCE RAMP	SIRT	S	O	F	3	S	11/7/2014	5.889	G	8,589	$38,650,500	501		
2269790	R	BUS STATION EXIT RAMP	SIRT	S	O	F	7	S	11/4/2014	5.167	G	28,721	$129,244,500	501		
2269820	M	EAST 81ST STREET PEDESTRIAN BRIDGE	FDR DRIVE NORTHBOUND		A-PED	P	3	C	6/8/2014	3.439	F	600	$2,700,000	108		
2270030	B	EAST 156TH STREET	ACCESS TO HOUSING		O	ED	16	S	11/13/2014	3.493	F	49,696	$223,632,000	204		
2270170	R	STATEN ISLAND FERRY PEDESTRIAN BRIDGE	PARKING LOT EXIT ROADWAY		O-PED	F	5	C	5/27/2015	5.600	G	2,917	$13,126,500	501		
2270180	R	BOROUGH PLACE - RAMP A	STATEN ISLAND RAILWAY	S	O	F	1	S	5/9/2014	6.594	VG	1,870	$8,415,000	501		
2270250	B	BROOKE AVENUE	CSX TRANS - PT MORRIS (ABANDONED)		O		1	S	7/17/2015	3.873	F	21,035	$94,657,500	201		
2300130	Q	ROCKAWAY BOULEVARD	HOOK CREEK		WO		3	S	7/2/2015	5.763	G	18,302	$82,359,000	413		
7703720	Q	216TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		6	C	9/22/2014	3.111	F	960	$4,320,000	411		
7705510	Q	167TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		3	C	9/11/2014	4.000	F	840	$3,780,000	407		
M00001	M	WEST 191ST SREEET PEDESTRIAN TUNNEL	BROADWAY - IRT #1 SUBWAY		O-PED		1	C	12/9/2014	4.364	F	2,000	$9,000,000	112		
M00003	M	HENRY HUDSON PARKWAY ON/OFF RAMP-79TH STREET SOUTH SIDE	PEDESTRIAN PATH SOUTH OF 79TH STREET		A		1	C	5/14/2015	4.500	F	846	$3,807,000	107		
M00004	M	HENRY HUDSON PARKWAY ON/OFF RAMP-79TH STREET NORTH SIDE	PEDESTRIAN PATH NORTH OF 79TH STREET		A		1	C	6/26/2015	4.667	F	846	$3,807,000	107		
Q00002	Q	BELT CROSS ISLAND PARKWAY	PATH OPPOSITE 88TH ROAD		A		1	C	5/26/2015	4.400	F	1,272	$5,724,000	413		
788 OPEN BRIDGES						OPEN SPANS 4,339				OPEN SF		14,554,952	$65,505,793,500	ALL		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAILRO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNGSR	Inspection Date	Condition Rating	VRBLRT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241129	B	EAST 149TH STREET/JACKSON AVENUE	AMTRAK - CSX	AC	O		2	S	11/17/2014	4.592	F	18,258	$82,161,000	201	202	
2241040	B	THIRD AVENUE BRIDGE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/3/2014	4.563	F	2,700	$12,150,000	201	203	
2242260	B	EAGLE AVE	EAST 161ST STREET		O		1	S	2/14/2014	5.117	G	2,800	$12,600,000	201	203	
2241560	B	EAST 149TH STREET/JACKSON AVENUE	METRO NORTH RR HAR	M	O		8	S	5/5/2014	4.625	F	27,900	$125,550,000	201	204	
224005B	B	TO BRUCKNER BOULVARD	RELIEF		OR		4	S	9/16/2015	6.775	VG	19,990	$89,955,000	201		
224006A	B	FROM BRUCKNER BOULEVARD	PARKING AREA		OR		5	S	9/1/2015	6.310	VG	14,037	$63,166,500	201		
2241000	B	WESTCHESTER AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	8/29/2014	4.660	F	1,740	$7,830,000	201		
2241010	B	EAST 156TH STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	5/9/2014	4.612	F	2,400	$10,800,000	201		
2241050	B	EAST 149TH STREET/JACKSON AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	5/12/2014	4.817	F	65,000	$292,500,000	201		
2241060	B	ST. MARYS & CONCORD	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/2/2014	5.370	G	4,500	$20,250,000	201		
2241070	B	WALES AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/2/2014	6.467	VG	2,535	$11,407,500	201		
2241080	B	SOUTHERN BOULEVARD	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/1/2014	4.093	F	3,900	$17,550,000	201		
2241099	B	BRUCKNER BOULEVARD	CSX TRANS - PT MORRIS	C	O		1	S	7/16/2014	6.067	VG	6,700	$30,150,000	201		
2241550	B	EAST 144TH STREET	METRO NORTH RR HAR	M	O		2	S	8/28/2015	5.847	G	8,290	$37,305,000	201		
2242299	B	GRAND CONCOURSE	EAST 138TH STREET		O		1	S	6/12/2015	4.733	F	9,500	$42,750,000	201		
2266540	B	278I	BRUCKNER BOULEVARD		A		2	S	7/1/2015	4.435	F	32,900	$148,050,000	201		
2270250	B	BROOKE AVENUE	CSX TRANS - PT MORRIS (ABANDONED)		O		1	S	7/17/2015	3.873	F	21,035	$94,657,500	201		
2066671	B	BRUCKNER EXPESSWAY SOUTHBOUND	BRONX RIVER		WA		3	S	10/7/2015	4.972	F	12,400	$55,800,000	202	209	
2066672	B	BRUCKNER EXPRESSWAY NORTHBOUND	BRONX RIVER		WA		8	S	10/9/2015	4.418	F	22,300	$100,350,000	202	209	
2240180	B	WESTCHESTER AVENUE	BRONX RIVER		WO		1	S	8/19/2015	4.667	F	5,476	$24,642,000	202	209	
2241230	B	WESTCHESTER AVENUE	AMTRAK - CSX	AC	O		3	S	11/1/2014	5.778	G	15,600	$70,200,000	202	209	
2075351	B	BRUCKNER EXPRESSWAY SOUTHBOUND	AMTRAK - CSX	AC	A		1	S	10/29/2014	5.698	G	11,600	$52,200,000	202		
2075352	B	BRUCKNER EXPRESSWAY NORTHBOUND	AMTRAK - CSX	AC	A		1	S	10/30/2014	6.190	VG	10,900	$49,050,000	202		
2076929	B	BRUCKNER EXPRESSWAY	CSX - HUNTS POINT	C	A		1	S	8/24/2015	4.433	F	3,800	$17,100,000	202		
2241139	B	LEGGETT AVENUE	AMTRAK - CSX	AC	O		3	S	11/17/2014	4.620	F	41,551	$186,979,500	202		
2241159	B	LONGWOOD AVENUE	AMTRAK - CSX	AC	O		2	S	11/18/2014	5.236	G	10,625	$47,812,500	202		
2241169	B	LAFAYETTE AVENUE	AMTRAK - CSX	AC	O		1	S	11/18/2014	5.365	G	12,000	$54,000,000	202		
2241170	B	TIFFANY STREET	AMTRAK - CSX	AC	O		1	S	11/13/2015	5.078	G	7,267	$32,701,500	202		
2241180	B	BARRETTO STREET	AMTRAK - CSX	AC	O		1	S	11/18/2014	5.813	G	5,313	$23,908,500	202		
2241190	B	HUNTS POINT AVENUE	AMTRAK - CSX	AC	O		1	S	11/20/2014	4.813	F	10,049	$45,220,500	202		
2241200	B	FAILE STREET	AMTRAK - CSX	AC	O		1	S	11/19/2014	5.578	G	6,208	$27,936,000	202		
2241210	B	BRYANT AVENUE	AMTRAK - CSX	AC	O		1	S	11/19/2014	3.186	F	5,300	$23,850,000	202		
2241020	B	EAST 161ST STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	3/20/2014	5.800	G	12,800	$57,600,000	203		
2241030	B	EAST 163RD STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	2/27/2014	4.611	F	3,200	$14,400,000	203		
2241110	B	MELROSE AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		8	S	8/18/2015	5.500	G	37,854	$170,343,000	203		
2241620	B	EAST 162ND STREET	METRO NORTH RR HAR	M	O		1	S	4/26/2014	4.781	F	4,700	$21,150,000	203		
2241630	B	EAST 165TH STREET	METRO NORTH RR HAR	M	O		1	S	4/26/2014	4.300	F	16,400	$73,800,000	203		
2241650	B	EAST 167TH STREET	METRO NORTH RR HAR	M	O		1	S	4/21/2014	5.510	G	3,363	$15,133,500	203		
2241660	B	EAST 168TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	4.641	F	4,800	$21,600,000	203		
2241670	B	EAST 169TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	4.188	F	3,300	$14,850,000	203		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241680	B	EAST 170TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	6.333	VG	3,150	$14,175,000	203		
2241700	B	ST PAULS PLACE PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		2	C	9/28/2015	4.746	F	888	$3,996,000	203		
2241710	B	CLAREMONT PARKWAY	METRO NORTH RR HAR	M	O		1	S	4/17/2014	6.458	VG	5,950	$26,775,000	203		
2241720	B	EAST 173RD STREET	METRO NORTH RR HAR	M	O		1	S	4/17/2014	4.875	F	3,000	$13,500,000	203		
2241610	B	EAST 161ST STREET	METRO NORTH RR HAR	M	O		1	S	9/2/2015	5.050	G	6,600	$29,700,000	204	203	
2076640	B	DEPOT PLACE	METRO NORTH RR HUD	CM	O		11	S	5/12/2015	4.319	F	26,566	$119,547,000	204		
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	MT	O		1	S	6/23/2015	3.688	F	14,300	$64,350,000	204		
2241410	B	WALTON AVENUE	METRO NORTH RR HUD	M	O		1	S	5/5/2014	4.406	F	3,600	$16,200,000	204		
2241420	B	GERARD AVENUE	METRO NORTH RR HUD	M	O		1	S	5/5/2014	5.422	G	5,063	$22,783,500	204		
2241430	B	RIVER AVENUE	METRO NORTH RR HUD	M	O		1	S	8/26/2015	6.156	VG	5,040	$22,680,000	204		
2241590	B	CONCOURSE VILLAGE AVENUE	METRO NORTH RR HAR	M	O		1	S	4/19/2014	3.969	F	12,077	$54,346,500	204		
2241600	B	EAST 158TH STREET	METRO NORTH RR HAR	M	O		1	S	8/25/2015	5.200	G	3,400	$15,300,000	204		
2242259	B	GRAND CONCOURSE	EAST 161ST STREET		O		1	S	6/30/2014	6.333	VG	27,017	$121,576,500	204		
2242280	B	GRAND CONCOURSE	EAST 167TH STREET		O		2	S	7/2/2014	4.754	F	42,900	$193,050,000	204		
2242300	B	GRAND CONCOURSE	EAST 170TH STREET		O		2	S	3/19/2014	4.754	F	39,300	$176,850,000	204		
2242319	B	GRAND CONCOURSE	EAST 174TH STREET	T	O		1	S	3/18/2014	4.067	F	14,900	$67,050,000	204		
2270030	B	EAST 156TH STREET	ACCESS TO HOUSING		O	ED	16	S	11/13/2014	3.493	F	49,696	$223,632,000	204		
2242350	B	EAST FORDHAM ROAD	GRAND CONCOURSE		O		1	S	3/7/2014	4.833	F	10,300	$46,350,000	205	207	
2241460	B	WEST TREMONT AVENUE	METRO NORTH RR HUD	M	O		8	S	6/12/2014	3.776	F	12,900	$58,050,000	205		
2242329	B	GRAND CONCOURSE	EAST 175TH STREET	T	O		1	S	6/11/2014	4.833	F	11,900	$53,550,000	205		
2242330	B	GRAND CONCOURSE	EAST TREMONT AVENUE		O		1	S	9/3/2015	5.583	G	11,700	$52,650,000	205		
2242360	B	GRAND CONCOURSE	EAST BURNSIDE AVENUE		O		2	S	6/30/2014	4.265	F	8,400	$37,800,000	205		
2269030	B	MATTHEWSON ROAD	MACCRACKEN AVENUE		O		15	S	10/8/2014	4.175	F	14,880	$66,960,000	205		
2241839	B	FORDHAM ROAD - EAST 189TH STREET	METRO NORTH RR HAR	M	O		1	S	8/27/2015	6.300	VG	43,157	$194,206,500	206	207	
2242400	B	EAST 180TH STREET	BRONX RIVER		WO		1	S	9/26/2014	4.810	F	4,500	$20,250,000	206	227	
2241269	B	EAST 177TH STREET	AMTRAK - CSX	AC	O		3	S	7/29/2014	5.278	G	16,606	$74,727,000	206		
2241740	B	EAST 175TH STREET	METRO NORTH RR HAR	M	O		1	S	4/14/2014	3.875	F	3,600	$16,200,000	206		
2241760	B	EAST TREMONT AVENUE	METRO NORTH RR HAR	M	O		1	S	8/29/2015	6.350	VG	8,424	$37,908,000	206		
2241770	B	EAST 178TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		1	C	9/12/2015	4.921	F	731	$3,289,500	206		
2241780	B	EAST 179TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		6	C	9/12/2015	5.311	G	1,011	$4,549,500	206		
2241790	B	EAST 180TH STREET	METRO NORTH RR HAR	M	O		1	S	4/24/2014	3.844	F	5,000	$22,500,000	206		
2241800	B	EAST 183RD STREET	METRO NORTH RR HAR	M	O		1	S	4/24/2014	3.953	F	4,080	$18,360,000	206		
2241810	B	EAST 188TH STREET	METRO NORTH RR HAR	M	O		1	S	4/16/2014	4.094	F	5,300	$23,850,000	206		
2241820	B	EAST 187TH STREET	METRO NORTH RR HAR	M	O		1	S	4/23/2014	4.344	F	3,800	$17,100,000	206		
2242030	B	CROTONA AVENUE	BRONX PELHAM PARKWAY		O		2	S	1/29/2014	5.447	G	7,600	$34,200,000	206		
2242149	B	EAST TREMONT AVENUE	BRONX RIVER		WO		2	S	5/6/2015	4.361	F	12,900	$58,050,000	206		
2241489	B	WEST 225TH STREET	CSX TRANS - PUTNAM	C	O		2	S	8/28/2014	5.269	G	10,900	$49,050,000	207	208	
2230270	B	MOSHOLU PARKWAY	WEBSTER AVENUE		A		1	S	5/18/2015	5.203	G	8,480	$38,160,000	207		
2230287	B	JEROME AVENUE	MOSHOLU PARKWAY	T	A		3	S	4/30/2015	4.711	F	11,800	$53,100,000	207		
2241470	B	WEST FORDHAM ROAD	METRO NORTH RR HUD	M	O		4	S	9/1/2015	5.694	G	16,052	$72,234,000	207		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241930	B	BEDFORD PARK BOULEVARD	NYCTA IND YARDS	T	O		4	S	10/31/2014	5.347	G	46,300	$208,350,000	207		
2241940	B	WEST 205TH STREET	NYCTA IND YARDS	T	O		4	S	10/31/2014	5.514	G	32,508	$146,286,000	207		
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE ROAD		O		2	S	6/12/2014	4.714	F	18,285	$82,282,500	207		
2242370	B	GRAND CONCOURSE	BEDFORD PARK BOULEVARD		O		1	S	2/21/2014	4.373	F	8,418	$37,881,000	207		
2242380	B	GRAND CONCOURSE	EAST 204TH STREET		O		1	S	9/2/2015	5.406	G	9,272	$41,724,000	207		
2229440	B	HENRY HUDSON PARKWAY	KAPPOCK STREET		A		1	S	7/7/2015	5.069	G	3,900	$17,550,000	208		
2229450	B	WEST 232ND STREET	HENRY HUDSON PARKWAY		A		2	S	7/8/2015	5.026	G	4,900	$22,050,000	208		
2229460	B	WEST 236TH STREET PEDESTRIAN BRIDGE	HENRY HUDSON PARKWAY		A-PED		3	C	7/27/2015	3.780	F	2,500	$11,250,000	208		
2229470	B	WEST 239TH STREET	HENRY HUDSON PARKWAY		A		2	S	6/3/2015	5.053	G	6,100	$27,450,000	208		
2229480	B	MANHATTAN COLLEGE PARKWAY	HENRY HUDSON PARKWAY		A		3	S	6/3/2015	5.053	G	6,200	$27,900,000	208		
2229490	B	WEST 246TH STREET	HENRY HUDSON PARKWAY		A		2	S	6/3/2015	4.868	F	5,600	$25,200,000	208		
2229500	B	WEST 252ND STREET	HENRY HUDSON PARKWAY		A		2	S	1/27/2014	5.372	G	4,500	$20,250,000	208		
2229510	B	RIVERDALE AVENUE	HENRY HUDSON PARKWAY		A		2	S	7/9/2015	5.079	G	5,200	$23,400,000	208		
2229520	B	FIELDSTON ROAD	HENRY HUDSON PARKWAY		A		1	S	7/10/2015	4.900	F	6,600	$29,700,000	208		
2229530	B	HENRY HUDSON PARKWAY	BROADWAY		A		1	S	7/27/2015	4.830	F	7,500	$33,750,000	208		
2241490	B	WEST 230TH STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.125	G	5,600	$25,200,000	208		
2241509	B	WEST 231ST STREET	CSX PUTNAM (ABANDONED)		O		1	S	7/3/2014	4.745	F	4,723	$21,253,500	208		
2241510	B	WEST 233RD STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.275	G	3,760	$16,920,000	208		
2241520	B	WEST 234TH STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.176	G	3,770	$16,965,000	208		
2066720	B	EAST 174TH STREET	SHERIDAN EXPRESWAY/AMTRAK	A	A		13	S	7/29/2014	3.986	F	35,573	$160,078,500	209	203	
2241270	B	EAST TREMONT AVENUE	AMTRAK - CSX	AC	O		2	S	10/31/2014	5.153	G	22,300	$100,350,000	209	211	
1066510	B	BRUCKNER EXPRESSWAY SERVICE ROAD	WESTCHESTER CREEK		WMA		17	S	9/18/2015	3.565	F	35,000	$157,500,000	209		
206672A	B	174TH STREET-NORTH PEDESTRIAN BRIDGE	895I - SHERIDAN EXPRESSWAY		A-PED		4	C	4/20/2015	4.833	F	1,800	$8,100,000	209		
206672B	B	174TH STREET-SOUTH PEDESTRIAN BRIDGE	895I - SHERIDAN EXPRESSWAY		A-PED		4	C	4/20/2015	4.750	F	1,900	$8,550,000	209		
2075837	B	WESTCHESTER AVENUE	HUTCHINSON RIVER PARKWAY		A		2	S	2/27/2014	4.097	F	15,858	$71,361,000	210	211	
2075849	B	BRONX PELHAM PARKWAY	HUTCHINSON RIVER PARKWAY		A		2	S	5/8/2014	3.974	F	17,600	$79,200,000	210	211	
2241959	B	HUTCHINSON RIVER PARKWAY	AMTRAK - CSX	AC	O		1	S	10/9/2014	5.542	G	15,444	$69,498,000	210	211	
2075859	B	HUTCHINSON RIVER PARKWAY	HUTCHINSON RIVER		WMA		7	S	10/22/2015	4.578	F	60,500	$272,250,000	210	228	
2075820	B	EAST TREMONT AVENUE	HUTCHINSON RIVER PARKWAY		A		2	S	10/20/2015	4.528	F	10,200	$45,900,000	210		
2076109	B	BRUCKNER EXPRESSWAY NORTHBOUND SERVICE ROAD	HUTCHINSON RIVER PARKWAY		A		2	S	8/13/2015	4.895	F	7,800	$35,100,000	210		
2076129	B	BRUCKNER EXPRESSWAY SOUTHBOUND SERVICE ROAD	HUTCHINSON RIVER PARKWAY		A		2	S	1/16/2014	5.079	G	7,100	$31,950,000	210		
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVENUE LN	T	O		1	S	10/28/2014	5.516	G	7,500	$33,750,000	211	212	
2229560	B	BRONX PELHAM PARKWAY	AMTRAK - CSX	AC	A		3	S	11/12/2014	4.486	F	24,591	$110,659,500	211		
2241329	B	WHITE PLAINS ROAD	AMTRAK - CSX	AC	O		1	S	10/28/2014	4.781	F	6,900	$31,050,000	211		
2241330	B	UNIONPORT ROAD	AMTRAK - CSX	AC	O		1	S	10/28/2014	4.688	F	7,631	$34,339,500	211		
2241369	B	WILLIAMSBRIDGE ROAD	AMTRAK - CSX	AC	O		2	S	10/29/2014	4.985	F	6,510	$29,295,000	211		
2241870	B	EAST 233RD STREET	METRO NORTH RR HAR	M	O		1	S	4/28/2014	4.902	F	7,664	$34,488,000	212	207	
1067150	B	NEREID AVENUE (EAST 240TH STREET)	BRONX RIVER PARKWAY	M	O		10	S	9/18/2015	4.500	F	57,750	$259,875,000	212		
2229579	B	BOSTON ROAD	HUTCHINSON RIVER		WO		14	S	5/26/2015	4.042	F	95,700	$430,650,000	212		
2241860	B	GUN HILL ROAD	METRO NORTH RR HAR	M	O		1	S	4/29/2014	6.531	VG	9,128	$41,076,000	212		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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2241890	B	EAST 241ST STREET	BRP, METRO NORTH HAR	M	WO		28	S	10/23/2015	4.639	F	49,500	$222,750,000	212		
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVENUE LN	T	O		3	S	10/28/2014	4.472	F	13,500	$60,750,000	212		
2242071	B	BRONX BOULEVARD SOUTHBOUND	BRONX RIVER		WO		1	S	3/27/2014	4.367	F	1,800	$8,100,000	212		
2242072	B	BRONX BOULEVARD NORTHBOUND	BRONX RIVER		WO		1	S	3/27/2014	4.867	F	1,800	$8,100,000	212		
2242081	B	BRONX BOULEVARD SOUTHBOUND	BRONX RIVER		WO		1	S	3/26/2014	4.300	F	2,800	$12,600,000	212		
2242082	B	BRONX BOULEVARD NORTHBOUND	BRONX RIVER		WO		1	S	3/26/2014	4.467	F	2,800	$12,600,000	212		
2242099	B	PARK ROAD (204TH STREET)	BRONX RIVER		WO		1	S	5/6/2014	4.655	F	4,700	$21,150,000	212		
2242430	B	GUN HILL ROAD	BRONX BOULEVARD		O		4	S	2/20/2014	4.947	F	9,400	$42,300,000	212		
2242440	B	GUN HILL ROAD	BRONX RIVER		WO		1	S	1/14/2014	5.300	G	8,700	$39,150,000	212		
2242459	B	EAST 233RD STREET	BRONX RIVER		WO		1	S	2/26/2014	4.233	F	7,000	$31,500,000	212		
2242460	B	EAST 233RD STREET	ENTRANCE ROAD BRONX RIVER PARKWAY		O		1	S	1/7/2014	4.900	F	5,300	$23,850,000	212		
2229540	B	VAN CORTLANDT PARK	HENRY HUDSON PARKWAY		A-PED	P	2	C	7/28/2015	4.759	F	3,900	$17,550,000	226		
2229550	B	VAN CORTLANDT EQUESTRIAN	HENRY HUDSON PARKWAY		A-PED	P	2	C	7/31/2015	4.600	F	2,100	$9,450,000	226		
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH		A		1	S	1/13/2014	4.310	F	4,300	$19,350,000	226		
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C	A		1	S	7/31/2014	4.271	F	4,600	$20,700,000	226		
2230310	B	MOSHOLU PARKWAY	SOUTHBOUND RAMP TO HENRY HUDSON PARKWAY		A		2	S	8/28/2015	4.919	F	7,400	$33,300,000	226		
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M	A		1	S	4/30/2014	5.391	G	8,880	$39,960,000	227	207	
2241259	B	204TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED	P	1	C	9/19/2015	3.845	F	4,700	$21,150,000	227	207	
2241840	B	BEDFORD PARK BOULEVARD	METRO NORTH RR HAR	M	O		1	S	4/28/2014	4.656	F	6,400	$28,800,000	227	207	
2065629	B	BRONX RIVER PARKWAY	BOSTON ROAD - BRONX ZOO		A		1	S	8/12/2015	5.138	G	6,300	$28,350,000	227		
2230250	B	MOSHOLU PARKWAY	BRONX RIVER		WA		5	S	1/8/2014	4.263	F	16,300	$73,350,000	227		
2242010	B	EAST FORDHAM ROAD	BRONX RIVER		WO		1	S	3/26/2014	5.467	G	9,360	$42,120,000	227		
2242029	B	SOUTHERN BOULEVARD	EAST FORDHAM ROAD		O		2	S	1/29/2014	4.605	F	12,900	$58,050,000	227		
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		WO	P	1	S	2/26/2014	4.833	F	2,200	$9,900,000	227		
2242110	B	BOSTON ROAD	BRONX RIVER		WO		1	S	2/26/2014	4.227	F	6,200	$27,900,000	227		
2242120	B	FOOTBRIDGE NORTH OF ROUTE 1 (HESTER BRIDGE)	BRONX RIVER		WO-PED	P	1	C	12/4/2015	3.655	F	1,900	$8,550,000	227		
2242210	B	MAGNOLIA WAY	BRONX RIVER		WO	P	3	S	5/6/2014	4.763	F	6,200	$27,900,000	227		
2242220	B	SNUFF MILL ROAD	BRONX RIVER		WO	P	2	S	1/9/2014	4.395	F	4,800	$21,600,000	227		
2240200	B	SHORE ROAD	HUTCHINSON RIVER		WMO		7	S	6/10/2015	4.299	F	43,576	$196,092,000	228		
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY		WO		7	S	10/16/2014	3.444	F	19,915	$89,617,500	228		
2241380	B	PELHAM BAY PARK EQUESTRIAN	AMTRAK - CSX	AC	O-PED	P	1	C	7/24/2013	3.339	F	7,300	$32,850,000	228		
2241390	B	SHORE ROAD CIRCLE	AMTRAK - CSX	AC	O		1	S	7/21/2014	7.000	VG	8,067	$36,301,500	228		
2240089	BM	145TH STREET BRIDGE	HARLEM RIVER		WMO		8	S	8/21/2015	6.278	VG	56,700	$255,150,000	110	204	201
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER	M	WMO		52	S	12/18/2015	3.930	F	220,000	$990,000,000	110	204	
2240059	BM	WILLIS AVENUE BRIDGE	HARLEM RIVER		WMO		15	S	11/12/2014	6.778	VG	171,105	$769,972,500	111	201	
2240069	BM	THIRD AVENUE BRIDGE	HARLEM RIVER		WMO		14	S	9/4/2014	5.789	G	100,232	$451,044,000	111	201	
2240079	BM	MADISON AVENUE BRIDGE	HARLEM RIVER		WMO		21	S	9/17/2014	4.861	F	80,000	$360,000,000	111	201	
2246580	BM	HIGH BRIDGE PEDESTRIAN OVERPASS	I87 - HARLEM RIVER	M	WA-PED	P	11	P	8/12/2002	3.759	F	34,100	$153,450,000	112	204	
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER	M	WO		9	S	11/24/2014	4.493	F	128,339	$577,525,500	112	205	204
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	TM	WMO		3	S	12/20/2015	3.806	F	46,848	$210,816,000	112	207	208

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2240138	BM	NYCTA IRT	HARLEM RIVER/BROADWAY	TM	WMO		3	S	11/24/2015	4.720	F	19,520	$87,840,000	112	207	208
2240120	BM	WEST 207TH STREET/WEST FORDHAM ROAD	HARLEM RIVER		WMO		5	S	7/31/2014	5.000	G	31,784	$143,028,000	112	207	
2240290	K	METROPOLITAN AVENUE	ENGLISH KILLS		WMO		5	S	7/13/2015	5.778	G	10,550	$47,475,000	301		
2230410	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	WASHINGTON STREET		A		1	S	7/16/2014	4.500	F	2,500	$11,250,000	302		
2230420	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	WASHINGTON STREET		A		1	S	7/16/2014	5.047	G	2,500	$11,250,000	302		
2230430	K	278I (BROOKLYN-QUEENS EXPRESSWAY) RAMP TO BROOKLYN BRIDGE	PROSPECT STREET		A		1	S	1/6/2014	5.000	G	1,100	$4,950,000	302		
2230440	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	ADAMS STREET		A		1	S	1/15/2014	5.200	G	2,700	$12,150,000	302		
2230450	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	ADAMS STREET		A		1	S	1/15/2014	4.933	F	2,500	$11,250,000	302		
2230460	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	PEARL STREET		A		1	S	1/15/2014	5.467	G	4,500	$20,250,000	302		
2230470	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	JAY STREET		A		1	S	1/15/2014	4.833	F	5,100	$22,950,000	302		
2230480	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	PROSPECT STREET		A		1	S	2/21/2014	4.852	F	8,400	$37,800,000	302		
2230490	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	SANDS STREET		A		1	S	2/27/2014	5.019	G	12,600	$56,700,000	302		
2230500	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	RAMP TO BROOKLYN-QUEENS EXPRESSWAY EASTBOUND		A		1	S	2/10/2014	4.967	F	1,300	$5,850,000	302		
2230510	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	NASSAU STREET		A		6	S	7/3/2014	5.169	G	51,200	$230,400,000	302		
2230857	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	JORALEMON STREET		A		1	S	3/11/2014	5.000	G	2,100	$9,450,000	302		
2230858	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	JORALEMON STREET / BROOKLYN-QUEENS EXPRESSWAY WESTBOUND		A		1	S	10/20/2015	4.619	F	5,900	$26,550,000	302		
2230870	K	COLUMBIA HEIGHTS	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/7/2014	4.450	F	16,500	$74,250,000	302		
2230887	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	CADMAN PLAZA		A		2	S	7/25/2014	4.403	F	4,500	$20,250,000	302		
2230888	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	CADMAN PLAZA / 278I WESTBOUND		A		2	S	7/28/2014	5.263	G	4,500	$20,250,000	302		
2243280	K	6TH AVENUE	LIRR ATLANTIC AVENUE	L	O		9	S	9/5/2014	5.431	G	12,276	$55,242,000	302		
2243290	K	CARLTON AVENUE	LIRR ATLANTIC AVENUE	L	O		4	S	7/24/2015	6.694	VG	15,400	$69,300,000	302		
2244440	K	FLEET WALK PEDESTRIAN BRIDGE	NAVY STREET		O-PED		1	C	8/6/2015	3.919	F	620	$2,790,000	302		
2267860	K	BROOKLYN BRIDGE APPROACH	STORAGE (SANDS STREET)		O		1	S	5/23/2014	4.344	F	6,490	$29,205,000	302		
2268350	K	BROOKLYN PROMENADE	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A-PED	P	35	C	4/29/2015	3.828	F	46,184	$207,828,000	302		
2268497	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	FURMAN STREET - 278I EASTBOUND		A		45	S	9/16/2015	4.357	F	86,406	$388,827,000	302		
2268498	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY) - PROMENADE		A		69	S	11/26/2014	3.754	F	133,708	$601,686,000	302		
2268507	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	YORK STREET		A		6	S	6/29/2015	4.071	F	10,388	$46,746,000	302		
2268508	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY) - BROOKLYN BRIDGE		A		11	S	6/29/2015	4.297	F	20,529	$92,380,500	302		
2268517	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	FURMAN STREET		A		7	S	6/30/2015	4.104	F	10,988	$49,446,000	302		
2268518	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		5	S	7/1/2015	4.119	F	9,275	$41,737,500	302		
2230000	K	HIGHLAND BOULVARD EASTBOUND	JACKIE ROBINSON PARKWAY		A		1	S	3/17/2014	4.724	F	4,900	$22,050,000	305		
2230010	K	HIGHLAND BOULEVARD WESTBOUND	JACKIE ROBINSON PARKWAY		A		1	S	2/25/2014	4.767	F	3,500	$15,750,000	305		
2230020	K	HIGHLAND BOULEVARD WESTBOUND	JACKIE ROBINSON PARKWAY EASTBOUND ENTRANCE RAMP		A		2	S	3/11/2014	4.974	F	4,700	$21,150,000	305		
2230220	K	HIGHLAND BOULEVARD NORTHBOUND	VERMONT STREET		A		1	S	5/29/2015	5.762	G	3,995	$17,977,500	305		
2244170	K	ATLANTIC AVENUE SERVICE ROAD EASTBOUND	EAST NEW YORK AVENUE		O		2	S	7/28/2015	5.474	G	3,192	$14,364,000	305		
2244180	K	ATLANTIC AVENUE SERVICE ROAD WESTBOUND	EAST NEW YORK AVENUE		O		2	S	7/28/2015	5.105	G	5,600	$25,200,000	305		
2244460	K	CONDUIT BOULEVARD NORTHBOUND	ATLANTIC AVENUE EASTBOUND		O		1	S	10/10/2014	4.833	F	3,800	$17,100,000	305		
2269600	K	ERSKINE STREET	BELT SHORE PARKWAY		A		1	S	8/20/2014	5.938	G	8,258	$37,161,000	305		
2230350	K	SUMMIT STREET PEDESTRIAN BRIDGE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A-PED		2	S	4/4/2014	4.557	F	1,400	$6,300,000	306		
2230360	K	UNION STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/19/2014	4.236	F	5,000	$22,500,000	306		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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2230370	K	SACKETT STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/19/2014	4.500	F	5,000	$22,500,000	306		
2230380	K	KANE STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	5/15/2015	4.153	F	5,000	$22,500,000	306		
2230390	K	CONGRESS STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/27/2014	6.029	VG	5,000	$22,500,000	306		
2240232	K	HAMILTON AVENUE BRIDGE	GOWANUS CANAL		WMO		3	S	8/7/2015	5.361	G	8,611	$38,749,500	306		
2240240	K	NINTH STREET BRIDGE	GOWANUS CANAL		WMO		3	S	6/17/2015	6.161	VG	5,772	$25,974,000	306		
2240250	K	THIRD STREET	GOWANUS CANAL		WMO		5	S	5/26/2015	4.722	F	4,900	$22,050,000	306		
2240260	K	CARROLL STREET	GOWANUS CANAL		WMO		2	S	9/22/2015	4.931	F	3,000	$13,500,000	306		
2240270	K	UNION STREET	GOWANUS CANAL		WMO		5	S	8/15/2014	4.111	F	4,900	$22,050,000	306		
2240310	K	THIRD AVENUE BRIDGE	GOWANUS CANAL		WO		1	S	5/27/2015	6.550	VG	3,412	$15,354,000	306		
2240231	K	HAMILTON AVENUE BRIDGE	GOWANUS CANAL		WMO		3	S	9/9/2014	5.472	G	7,300	$32,850,000	307	306	
2066100	K	5TH AVENUE	27 X PROSPECT EXPRESSWAY		A		1	S	4/22/2014	5.063	G	8,800	$39,600,000	307		
2243839	K	4TH AVENUE	NYCTA BMT TRACKS	T	O		1	S	7/28/2015	6.250	VG	4,440	$19,980,000	307		
2243920	K	7TH AVENUE	NYCTA BMT YARD	T	O		2	S	6/30/2014	6.042	VG	4,700	$21,150,000	307		
2244470	K	SEELEY STREET	PROSPECT AVENUE		O		1	S	6/1/2015	4.033	F	8,496	$38,232,000	307		
2244480	K	5TH AVENUE	GREENWOOD CEMETERY ROAD		O		1	S	9/10/2015	5.333	G	3,600	$16,200,000	307		
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T	O		1	S	7/24/2015	6.375	VG	2,300	$10,350,000	308		
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T	O		1	S	7/24/2015	6.656	VG	2,300	$10,350,000	308		
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T	O		1	S	6/26/2014	6.672	VG	2,460	$11,070,000	308		
2243279	K	EASTERN PARKWAY	FRANKLIN SHUTTLE	T	O		1	S	6/27/2014	4.833	F	7,700	$34,650,000	309	308	
2243250	K	WASHINGTON AVENUE	FRANKLIN SHUTTLE	T	O		1	S	6/24/2014	6.000	G	3,657	$16,456,500	309	355	
2243200	K	UNION STREET	FRANKLIN SHUTTLE	T	O		2	S	6/25/2014	4.913	F	4,100	$18,450,000	309		
2243210	K	PRESIDENT STREET	FRANKLIN SHUTTLE	T	O		2	S	6/25/2014	5.078	G	2,500	$11,250,000	309		
2243220	K	CARROLL STREET PEDESTRIAN BRIDGE	FRANKLIN SHUTTLE	T	O-PED		3	C	4/22/2015	5.324	G	600	$2,700,000	309		
2243230	K	CROWN STREET	FRANKLIN SHUTTLE	T	O		3	S	7/29/2015	5.069	G	4,060	$18,270,000	309		
2243240	K	MONTGOMERY STREET	FRANKLIN SHUTTLE	T	O		1	S	7/29/2015	5.843	G	2,240	$10,080,000	309		
2243260	K	FLATBUSH AVENUE	FRANKLIN SHUTTLE	T	O		2	S	6/23/2014	4.961	F	11,300	$50,850,000	309		
2231249	K	BELT SHORE PARKWAY	BAY RIDGE AVENUE		A		1	S	5/22/2015	6.905	VG	4,900	$22,050,000	310		
2231250	K	81ST STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	5	C	2/23/2015	4.761	F	3,100	$13,950,000	310		
2231260	K	92ND STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	6	C	8/21/2015	3.770	F	3,000	$13,500,000	310		
2231270	K	4TH AVENUE	BELT SHORE PARKWAY		A		2	S	3/21/2014	4.763	F	6,100	$27,450,000	310		
2243310	K	2ND AVENUE	LIRR BAY RIDGE	N	O		2	S	10/7/2014	6.208	VG	17,751	$79,879,500	310		
2243320	K	3RD AVENUE	LIRR BAY RIDGE	N	O		4	S	9/1/2015	4.972	F	17,230	$77,535,000	310		
2243330	K	4TH AVENUE	LIRR BAY RIDGE	NT	O		4	S	8/7/2015	5.486	G	13,668	$61,506,000	310		
2243580	K	5TH AVENUE	LIRR & SEA BEACH	NT	O		4	S	10/27/2014	3.882	F	12,395	$55,777,500	310		
2243590	K	6TH AVENUE	LIRR & SEA BEACH	NT	O		2	S	7/9/2015	6.056	VG	14,382	$64,719,000	310		
2243600	K	7TH AVENUE	LIRR & SEA BEACH	NT	O		7	S	10/22/2014	4.806	F	18,628	$83,826,000	310		
2243610	K	8TH AVENUE	LIRR & SEA BEACH	NT	O		2	S	7/9/2015	6.097	VG	10,834	$48,753,000	310		
2243620	K	FORT HAMILTON PARKWAY	LIRR & SEA BEACH	NT	O		3	S	6/19/2014	4.729	F	14,800	$66,600,000	310		
2243630	K	11TH AVENUE	LIRR & SEA BEACH	NT	O		5	S	7/1/2014	5.985	G	9,700	$43,650,000	310		
2243640	K	13TH AVENUE	LIRR & SEA BEACH	NT	O		5	S	7/10/2015	4.972	F	16,000	$72,000,000	310		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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2244150	K	RIDGE BOULEVARD	SHORE ROAD DRIVE		O		1	S	5/29/2015	6.333	VG	4,350	$19,575,000	310		
2244160	K	3RD AVENUE	SHORE ROAD DRIVE		O		1	S	6/1/2015	6.273	VG	4,360	$19,620,000	310		
2231290	K	BAY 8TH STREET	BELT SHORE PARKWAY		A		1	S	6/4/2015	5.730	G	4,950	$22,275,000	311		
2231300	K	17TH AVENUE PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	1	C	9/8/2015	3.702	F	2,100	$9,450,000	311		
2231319	K	BELT SHORE PARKWAY	BAY PARKWAY		A		1	S	6/19/2015	4.533	F	7,200	$32,400,000	311		
2243340	K	15TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	4.872	F	3,614	$16,263,000	311		
2243350	K	60TH STREET	LIRR BAY RIDGE	N	O		1	S	9/1/2015	6.000	G	3,900	$17,550,000	311		
2243360	K	16TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	5.350	G	4,345	$19,552,500	311		
2243650	K	14TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	6.167	VG	4,720	$21,240,000	311		
2243660	K	NEW UTRECHT AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	5.883	G	2,350	$10,575,000	311		
2243670	K	15TH AVENUE	BMT SEA BEACH	T	O		4	S	6/22/2015	6.114	VG	9,800	$44,100,000	311		
2243680	K	16TH AVENUE	BMT SEA BEACH	T	O		3	S	6/6/2014	5.481	G	6,816	$30,672,000	311		
2243690	K	17TH AVENUE	BMT SEA BEACH	T	O		4	S	5/30/2014	6.173	VG	8,946	$40,257,000	311		
2243700	K	18TH AVENUE	BMT SEA BEACH	T	O		1	S	7/1/2015	6.421	VG	5,200	$23,400,000	311		
2243710	K	19TH AVENUE	BMT SEA BEACH	T	O		4	S	5/29/2014	4.237	F	4,800	$21,600,000	311		
2243720	K	20TH AVENUE	BMT SEA BEACH	T	O		1	S	6/2/2014	6.421	VG	7,000	$31,500,000	311		
2243730	K	65TH STREET	BMT SEA BEACH	T	O		4	S	5/23/2014	5.132	G	12,000	$54,000,000	311		
2243740	K	BAY PARKWAY	BMT SEA BEACH	T	O		4	S	5/22/2014	4.658	F	16,800	$75,600,000	311		
2243750	K	AVENUE O	BMT SEA BEACH	T	O		1	S	8/10/2015	5.706	G	4,658	$20,961,000	311		
2243760	K	AVENUE P	BMT SEA BEACH	T	O		1	S	8/10/2015	6.140	VG	5,544	$24,948,000	311		
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T	O		1	S	6/22/2015	6.628	VG	5,032	$22,644,000	311		
2243780	K	HIGHLAWN AVENUE	BMT SEA BEACH	T	O		1	S	7/27/2015	6.280	VG	6,960	$31,320,000	311		
2243800	K	AVENUE T	BMT SEA BEACH	T	O		1	S	6/26/2015	6.000	G	5,360	$24,120,000	311		
2243820	K	21ST AVENUE	BMT SEA BEACH	T	O		4	S	7/22/2015	4.026	F	21,400	$96,300,000	311		
2243370	K	17TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/2/2014	4.745	F	3,406	$15,327,000	312		
2243380	K	18TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/2/2014	4.625	F	6,006	$27,027,000	312		
2243390	K	52ND STREET	LIRR BAY RIDGE	N	O		1	S	10/1/2014	6.017	VG	3,293	$14,818,500	312		
2243400	K	50TH STREET	LIRR BAY RIDGE	N	O		2	S	8/5/2015	4.731	F	7,100	$31,950,000	312		
2243410	K	MCDONALD AVENUE	LIRR BAY RIDGE	N	O		1	S	10/1/2014	5.141	G	2,760	$12,420,000	312		
2243420	K	EAST 3RD STREET	LIRR BAY RIDGE	N	O		1	S	8/5/2015	6.517	VG	1,840	$8,280,000	312		
2243439	K	OCEAN PARKWAY	LIRR BAY RIDGE	N	O		1	S	9/19/2014	4.927	F	7,000	$31,500,000	312		
2243440	K	CONEY ISLAND AVENUE	LIRR BAY RIDGE	N	O		1	S	9/18/2014	5.043	G	3,231	$14,539,500	312		
2243840	K	9TH AVENUE	NYCTA BMT YARD	T	O		5	S	7/30/2015	5.736	G	12,440	$55,980,000	312		
2243940	K	9TH AVENUE	NYCTA IND SBWY	T	O		5	S	7/29/2015	4.667	F	6,300	$28,350,000	312		
2231329	K	BELT SHORE PARKWAY	26TH AVENUE		A		1	S	4/1/2014	4.600	F	6,700	$30,150,000	313		
2231330	K	27TH AVENUE PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	1	C	3/19/2015	4.067	F	2,100	$9,450,000	313		
2231340	K	CROPSEY AVENUE	BELT SHORE PARKWAY		A		2	S	7/10/2014	4.639	F	13,100	$58,950,000	313		
2231360	K	BELT SHORE PARKWAY	OCEAN PARKWAY		A		3	S	7/16/2014	6.448	VG	29,637	$133,366,500	313		
2231370	K	GUIDER AVENUE RAMP TO BELT SHORE PARKWAY	BELT SHORE PARKWAY		A		4	S	9/23/2014	6.778	VG	10,818	$48,681,000	313		
2231380	K	CONEY ISLAND AVENUE	BELT SHORE PARKWAY		A		4	S	10/9/2015	5.542	G	19,866	$89,397,000	313		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2240301	K	CROPSEY AVENUE SOUTHBOUND	CONEY ISLAND CREEK		WO		3	S	6/26/2015	5.000	G	9,400	$42,300,000	313		
2240302	K	CROPSEY AVENUE NORTHBOUND	CONEY ISLAND CREEK		WO		3	S	6/26/2015	4.718	F	9,400	$42,300,000	313		
2240540	K	STILLWELL AVENUE	CONEY ISLAND CREEK		WO		2	S	5/28/2015	6.125	VG	17,000	$76,500,000	313		
2243570	K	86TH STREET	BMT SEA BEACH	T	O		1	S	6/4/2014	5.797	G	12,167	$54,751,500	313		
2243020	K	PARKSIDE AVENUE - OCEAN AVENUE	BMT SUBWAY, BRIGHTON	T	O		6	S	6/18/2014	4.043	F	48,700	$219,150,000	314		
2243040	K	CROOKE AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	6/2/2015	4.316	F	6,000	$27,000,000	314		
2243050	K	CATON AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	8/19/2015	4.842	F	20,800	$93,600,000	314		
2243080	K	EAST 18TH STREET - CHURCH AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	8/19/2015	4.545	F	18,200	$81,900,000	314		
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T	O		3	S	6/11/2015	4.088	F	4,200	$18,900,000	314		
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T	O		3	S	8/17/2015	6.083	VG	4,810	$21,645,000	314		
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T	O		1	S	6/16/2014	5.863	G	4,825	$21,712,500	314		
2243130	K	DITMAS AVENUE	BMT SUBWAY, BRIGHTON	T	O		1	S	8/17/2015	5.723	G	5,150	$23,175,000	314		
2243140	K	NEWKIRK AVENUE	BMT SUBWAY, BRIGHTON	T	O		3	S	6/17/2014	4.574	F	4,100	$18,450,000	314		
2243150	K	FOSTER AVENUE	BMT SUBWAY, BRIGHTON	T	O		1	S	6/2/2015	4.283	F	3,000	$13,500,000	314		
2243450	K	EAST 14TH STREET	LIRR BAY RIDGE	N	O		1	S	9/17/2014	4.809	F	1,775	$7,987,500	314		
2243460	K	EAST 15TH STREET PEDESTRIAN BRIDGE	LIRR BAY RIDGE	N	O-PED		3	C	8/10/2015	5.592	G	900	$4,050,000	314		
2243480	K	OCEAN AVENUE	LIRR BAY RIDGE	N	O		2	S	9/16/2014	4.965	F	5,000	$22,500,000	314		
2243490	K	BEDFORD AVENUE	LIRR BAY RIDGE	N	O		6	S	9/15/2014	5.097	G	12,000	$54,000,000	314		
2243500	K	NOSTRAND AVENUE	LIRR BAY RIDGE	N	O		2	S	9/29/2014	4.898	F	4,320	$19,440,000	314		
2231390	K	EAST 12TH STREET	BELT SHORE PARKWAY		A		4	S	7/7/2014	4.542	F	17,200	$77,400,000	315		
2231409	K	BELT SHORE PARKWAY	SHEEPSHEAD BAY ROAD		A		1	S	4/1/2014	4.738	F	6,500	$29,250,000	315		
2231419	K	BELT SHORE PARKWAY	OCEAN AVENUE		A		3	S	3/25/2014	4.306	F	14,000	$63,000,000	315		
2231429	K	BELT SHORE PARKWAY	BEDFORD AVENUE		A		3	S	4/23/2014	4.278	F	12,000	$54,000,000	315		
2231439	K	BELT SHORE PARKWAY	NOSTRAND AVENUE		A		3	S	3/25/2014	4.264	F	13,000	$58,500,000	315		
2231449	K	KNAPP STREET	BELT SHORE PARKWAY		A		1	S	4/9/2014	4.313	F	9,500	$42,750,000	315		
2233080	K	EAST 14TH STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED		14	C	8/13/2015	4.164	F	4,700	$21,150,000	315		
2240320	K	OCEAN AVENUE PEDESTRIAN BRIDGE	SHEEPSHEAD BAY		WO-PED		30	C	7/28/2015	5.000	G	4,450	$20,025,000	315		
2243790	K	AVENUE S	BMT SEA BEACH	T	O		1	S	6/26/2015	5.967	G	5,360	$24,120,000	315		
2243810	K	AVENUE U	BMT SEA BEACH	T	O		1	S	6/20/2014	5.294	G	5,880	$26,460,000	315		
2243569	K	ATLANTIC AVENUE	LIRR ATLANTIC AVENUE	L	O		75	S	6/18/2014	3.620	F	135,100	$607,950,000	316	305	
2243850	K	LIBERTY AVENUE	LIRR BAY RIDGE	N	O		3	S	9/23/2014	6.103	VG	6,659	$29,965,500	316		
2243860	K	GLENMORE AVENUE	LIRR BAY RIDGE	N	O		2	S	9/22/2014	6.456	VG	5,616	$25,272,000	316		
2243870	K	PITKIN AVENUE	LIRR BAY RIDGE	N	O		2	S	9/24/2014	6.279	VG	5,328	$23,976,000	316		
2243890	K	SUTTER AVENUE	LIRR BAY RIDGE	N	O		3	S	9/26/2014	6.292	VG	5,497	$24,736,500	316		
2243900	K	BLAKE AVENUE	LIRR BAY RIDGE	N	O		3	S	9/26/2014	4.927	F	4,912	$22,104,000	316		
2243910	K	LIVONIA AVENUE PEDESTRIAN BRIDGE	LIRR BAY RIDGE	N	O-PED		6	C	8/18/2015	4.833	F	2,500	$11,250,000	316		
2231479	K	BELT SHORE PARKWAY	MILL BASIN		WMA		14	S	11/9/2015	3.209	F	73,500	$330,750,000	318		
2231481	K	BELT SHORE PARKWAY WESTBOUND	PAERDEGAT BASIN		WA		3	S	11/2/2015	6.758	VG	50,052	$225,234,000	318		
2231482	K	BELT SHORE PARKWAY EASTBOUND	PAERDEGAT BASIN		WA		5	S	11/4/2014	7.000	VG	82,074	$369,333,000	318		
2243510	K	FLATBUSH AVENUE	LIRR BAY RIDGE	N	O		2	S	8/4/2015	4.651	F	5,900	$26,550,000	318		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243520	K	BROOKLYN AVENUE	LIRR BAY RIDGE	N	O		3	S	8/4/2015	5.727	G	4,500	$20,250,000	318		
2243530	K	ALBANY AVENUE - AVENUE H	LIRR BAY RIDGE	N	O		2	S	8/31/2015	5.956	G	35,100	$157,950,000	318		
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T	O		1	S	5/19/2014	6.685	VG	6,243	$28,093,500	355		
2244010	K	EAST DRIVE (ENDALE ARCH)	PEDESTRIAN PATH NEAR GRAND ARMY PLAZA		O	P	1	C	5/26/2015	4.300	F	1,533	$6,898,500	355		
2244020	K	WEST DRIVE (MEADOWPORT ARCH)	PEDESTRIAN PATH NEAR GRAND ARMY PLAZA		O	P	1	S	4/27/2015	5.321	G	2,500	$11,250,000	355		
2244030	K	EAST DRIVE	BRIDLE PATH NEAR ZOO		O	P	1	S	4/28/2015	4.878	F	2,000	$9,000,000	355		
2244040	K	EAST DRIVE (EAST WOOD ARCH)	PEDESTRIAN PATH NEAR CENTER DRIVE		O	P	1	C	7/7/2015	4.667	F	1,066	$4,797,000	355		
2244050	K	CENTER DRIVE (NETHERMEAD ARCHES)	PEDESTRIAN PATH & STREAM		WO	P	3	S	4/30/2015	5.000	G	7,020	$31,590,000	355		
2244060	K	HILL DRIVE (CLEFT RIDGE SPAN)	PEDESTRIAN PATH SOUTH OF BOATHOUSE		O	P	1	C	5/26/2015	4.433	F	750	$3,375,000	355		
2244100	K	WEST FOOTBRIDGE (MUSIC GROVE BRIDGE)	PROSPCT PARK STREAM		WO-PED	P	1	C	4/13/2015	5.000	G	308	$1,386,000	355		
2244120	K	HILL DRIVE (TERRACE BRIDGE)	PROSPECT PARK LAKE		WO	P	3	S	9/15/2015	3.291	F	7,800	$35,100,000	355		
2244130	K	PEDESTRIAN BRIDGE NEAR BOATHOUSE (LULLWATER BRIDGE)	PROSPECT PARK LAKE		WO-PED	P	1	C	7/23/2015	4.885	F	1,000	$4,500,000	355		
2231450	K	BELT SHORE PARKWAY	GERRITSEN INLET		WA		11	S	8/10/2015	3.239	F	52,000	$234,000,000	356		
2231460	K	FLATBUSH AVENUE	BELT SHORE PARKWAY		A		2	S	10/14/2015	6.088	VG	14,058	$63,261,000	356		
2231499	K	BELT SHORE PARKWAY	ROCKAWAY PARKWAY		A		1	S	11/5/2014	7.000	VG	10,370	$46,665,000	356		
2231509	K	BELT SHORE PARKWAY	FRESH CREEK		WA		3	S	11/3/2015	6.577	VG	40,095	$180,427,500	356		
2231519	K	PENNSYLVANIA AVENUE	BELT SHORE PARKWAY		A		2	S	6/8/2015	5.583	G	6,640	$29,880,000	356		
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T	WEO		53	S	10/20/2014	4.542	F	824,000	$3,708,000,000	103	301	
2240019	KM	BROOKLYN BRIDGE	EAST RIVER		WEO		75	S	12/5/2014	3.139	F	503,788	$2,267,046,000	103	302	101
2240027	KM	MANHATTAN BRIDGE (LL)	EAST RIVER	T	WEO		23	S	10/22/2014	4.375	F	616,390	$2,773,755,000	103	302	
2240028	KM	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	T	WEO		43	S	10/21/2014	3.757	F	587,424	$2,643,408,000	103	302	
2240370	KQ	GREENPOINT AVENUE BRIDGE	NEWTOWN CREEK	L	WMO		12	S	7/31/2015	5.083	G	76,106	$342,477,000	301	402	
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK		WMO		44	S	6/5/2014	4.437	F	205,770	$925,965,000	301	402	
2240390	KQ	GRAND STREET BRIDGE	NEWTOWN CREEK		WMO		2	S	10/7/2015	4.014	F	5,100	$22,950,000	301	405	
223201D	M	RAMP TO NORTHBOUND FDR DRIVE	FDR DRIVE & SOUTH STREET		AR		22	S	2/25/2014	4.967	F	15,825	$71,212,500	101	103	
224001B	M	TO BROOKLYN FROM FDR DRIVE	FRANKFORT & PEARL STREET		OE		31	S	8/1/2014	4.926	F	51,400	$231,300,000	101	103	
224001D	M	TO FDR DRIVE NORTHBOUND	PEARL STREET		OE		30	S	6/11/2015	4.528	F	49,600	$223,200,000	101	103	
2232000	M	BATTERY PLACE	FDR DRIVE		AT		2	S	10/16/2015	5.182	G	142,000	$639,000,000	101		
223201A	M	FDR DRIVE NORTHBOUND OFF RAMP	FDR DRIVE & SOUTH STREET		AR		17	S	7/23/2014	4.493	F	23,373	$105,178,500	101		
223201B	M	SOUTH STREET RAMP TO FDR DRIVE SOUTHBOUND	SOUTH STREET		AR		10	S	7/7/2015	3.881	F	13,388	$60,246,000	101		
224001A	M	PARK ROW TO BROOKLYN	WILLIAM STREET NORTHBOUND		OE		4	S	6/19/2015	5.086	G	10,167	$45,751,500	101		
224001C	M	PEARL STREET TO BROOKLYN	LAND ADJACENT TO BRIDGE		OE		9	S	7/1/2015	3.814	F	6,365	$28,642,500	101		
224001E	M	TO PEARL STREET	LAND ADJACENT TO BRIDGE		OE		3	S	6/3/2015	4.944	F	5,300	$23,850,000	101		
224001G	M	TO PARK ROW	ROSE STREET		OE		11	S	7/30/2015	4.549	F	16,551	$74,479,500	101		
2267380	M	WEST STREET	RECTOR STREET - BROOKLYN-BATTERY MANHATTAN PLAZA		AT		1	S	11/20/2015	5.033	G	25,760	$115,920,000	101		
2268480	M	CHAMBERS STREET PEDESTRIAN BRIDGE	ROUTE 9A - WEST STREET		O-PED		10	C	6/3/2015	5.391	G	7,481	$33,664,500	101		
2268930	M	MORRIS STREET PEDESTRIAN BRIDGE	BROOKLYN-BATTERY TUNNEL PLAZA		A-PED		3	C	7/15/2013	3.875	F	1,842	$8,289,000	101		
223201C	M	FDR DRIVE SOUTHBOUND OFF RAMP	SOUTH STREET		AR		8	S	2/6/2014	5.209	G	36,700	$165,150,000	103		
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		A	P	4	S	3/20/2014	3.813	F	4,100	$18,450,000	103		
2232030	M	DELANCEY STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	12	C	4/5/2015	4.443	F	3,390	$15,255,000	103		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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2232040	M	HOUSTON STREET	FDR DRIVE		A		2	S	6/24/2015	3.750	F	11,010	$49,545,000	103		
223204A	M	FDR DRIVE NORTHBOUND RAMP TO HOUSTON STREET	RELIEF		AR		4	S	1/17/2014	4.706	F	6,150	$27,675,000	103		
223204B	M	HOUSTON STREET RAMP TO FDR DRIVE NORTHBOUND	RELIEF		AR		4	S	1/17/2014	4.792	F	7,125	$32,062,500	103		
2232050	M	EAST 6TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	19	C	4/12/2015	4.233	F	2,200	$9,900,000	103		
2233020	M	EAST 10TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	21	C	4/12/2015	4.596	F	2,754	$12,393,000	103		
224001F	M	PEARL STREET TO FDR DRIVE	LAND ADJACENT TO BRIDGE		OE		3	S	6/4/2015	5.028	G	5,200	$23,400,000	103		
2257569	M	MILLER HIGHWAY - ROUTE 9A	RIVERSIDE PARK SOUTH		A		64	S	8/25/2015	4.296	F	272,475	$1,226,137,500	104	107	
2245010	M	11TH AVENUE VIADUCT	LIRR WEST SIDE YARD	AL	O		39	S	12/12/2014	4.056	F	149,100	$670,950,000	104		
224501B	M	WEST 33RD STREET	AMTRAK 30 ST BRANCH	A	OR		8	S	3/7/2014	4.500	F	16,500	$74,250,000	104		
224501C	M	WEST 33RD STREET	LAND ADJACENT TO AMTRAK	A	OR		2	S	4/28/2015	4.500	F	2,360	$10,620,000	104		
224501D	M	WEST 34TH STREET	AMTRAK 30 ST BRANCH	A	OR		4	S	5/11/2015	4.375	F	11,800	$53,100,000	104		
224501E	M	WEST 35TH STREET	AMTRAK 30 ST BRANCH	A	OR		3	S	7/29/2014	4.181	F	6,500	$29,250,000	104		
224501F	M	WEST 36TH STREET	AMTRAK 30 ST BRANCH	A	OR		3	S	12/4/2015	4.433	F	5,520	$24,840,000	104		
2245060	M	WEST 37TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	12/4/2015	6.079	VG	7,505	$33,772,500	104		
2245070	M	WEST 38TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	7/8/2014	4.135	F	6,200	$27,900,000	104		
2245080	M	WEST 39TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	7/8/2014	4.173	F	6,300	$28,350,000	104		
2245090	M	WEST 43RD STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/18/2014	4.662	F	4,140	$18,630,000	104		
2245100	M	WEST 44TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/18/2014	4.559	F	4,300	$19,350,000	104		
2245110	M	WEST 45TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/29/2014	5.338	G	4,100	$18,450,000	104		
2245120	M	WEST 46TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/29/2014	4.500	F	4,100	$18,450,000	104		
2245130	M	WEST 47TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/6/2014	4.721	F	4,100	$18,450,000	104		
2245140	M	WEST 48TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/6/2014	4.618	F	4,100	$18,450,000	104		
2245150	M	WEST 49TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	5/6/2014	4.426	F	4,100	$18,450,000	104		
2245160	M	WEST 51ST STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	4.853	F	4,300	$19,350,000	104		
2245170	M	WEST 52ND STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	5.191	G	4,300	$19,350,000	104		
2245180	M	WEST 53RD STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.221	G	5,100	$22,950,000	104		
2245190	M	WEST 58TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	4.706	F	4,100	$18,450,000	104		
2245209	M	11TH AVENUE	AMTRAK 30 ST BRANCH	A	O		2	S	6/4/2014	4.426	F	15,400	$69,300,000	104		
2245210	M	WEST 42ND STREET	AMTRAK 30 ST BRANCH	A	O		4	S	11/5/2014	4.587	F	10,300	$46,350,000	104		
2245220	M	WEST 57TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	5/20/2014	4.853	F	9,100	$40,950,000	104		
2245330	M	WEST 41ST STREET	AMTRAK 30 ST BRANCH	A	O		3	S	7/24/2014	4.444	F	6,200	$27,900,000	104		
2245340	M	WEST 50TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	4.500	F	4,100	$18,450,000	104		
2245350	M	WEST 54TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.492	G	4,700	$21,150,000	104		
2245360	M	WEST 55TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.529	G	4,300	$19,350,000	104		
2245370	M	WEST 56TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.397	G	4,400	$19,800,000	104		
2245440	M	WEST 40TH STREET	AMTRAK 30 ST BRANCH	A	O		4	S	7/23/2014	4.103	F	9,400	$42,300,000	104		
226672A	M	WEST 31ST STREET	AMTRAK LAYUP TRACKS	A	O		9	S	11/15/2014	3.619	F	8,800	$39,600,000	104		
2246540	M	EAST 34TH STREET	PARK AVENUE TUNNEL		OT		1	S	8/20/2014	4.117	F	36,200	$162,900,000	105	106	
2245460	M	PARK AVENUE SOUTHBOUND	EAST 45TH STREET		O		1	S	6/9/2015	4.514	F	2,400	$10,800,000	105		
2245470	M	PARK AVENUE NORTHBOUND	EAST 45TH STREET		O		1	S	6/9/2015	4.757	F	2,400	$10,800,000	105		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246550	M	PARK AVENUE VIADUCT	EAST 42ND STREET		O		10	S	12/7/2015	4.537	F	22,150	$99,675,000	105		
2233038	M	FDR DRIVE SOUTHBOUND	FDR DRIVE NORTHBOUND / EAST 62ND STREET		AT		34	S	11/25/2014	6.563	VG	58,700	$264,150,000	106	108	
224004D	M	TO QUEENS FROM EAST 58TH STREET	EAST 59TH STREET		OE		12	S	6/13/2014	4.396	F	10,858	$48,861,000	106	108	
2232070	M	EAST 25TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED		3	C	5/3/2015	4.600	F	1,700	$7,650,000	106		
2232100	M	EAST 51ST STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	6	C	5/3/2015	4.417	F	2,800	$12,600,000	106		
2246560	M	TUDOR CITY PLACE	EAST 42ND STREET		O		1	S	1/24/2014	5.133	G	6,600	$29,700,000	106		
2246570	M	EAST 42ND STREET - EAST 47TH STREET	FIRST AVENUE TUNNEL		OT		2	S	5/20/2014	4.922	F	95,000	$427,500,000	106		
2268650	M	FDR DRIVE NORTHBOUND EAST 42ND TO EAST 49TH STREET	EAST RIVER SHORELINE		A		119	S	10/9/2015	3.836	F	30,767	$138,451,500	106		
2229289	M	HENRY HUDSON PARKWAY VIADUCT	AMTRAK - WEST 72ND STREET - WEST 79TH STREET	A	A		145	S	9/17/2014	3.597	F	213,173	$959,278,500	107		
222928C	M	PEDESTRIAN BRIDGE AT WEST 73RD STREET	HHP - AMTRAK	A	A-PED	P	5	C	8/12/2013	3.812	F	3,700	$16,650,000	107		
222928D	M	WEST 72ND STREET RAMP TO HENRY HUDSON PARKWAY NORTHBOUND	RELIEF		AR		1	S	7/18/2014	6.648	VG	1,750	$7,875,000	107		
2229290	M	WEST 79TH STREET	AMTRAK	A	A		1	S	6/11/2014	4.424	F	4,500	$20,250,000	107		
2229309	M	HENRY HUDSON PARKWAY	RIVERSIDE PARK		A		1	S	1/13/2014	5.267	G	2,172	$9,774,000	107		
2229311	M	HENRY HUDSON PARKWAY SOUTHBOUND	RAMP TO WEST 96TH STREET		A		1	S	1/28/2014	4.455	F	2,000	$9,000,000	107		
2229312	M	HENRY HUDSON PARKWAY NORTHBOUND	RAMP TO WEST 96TH STREET		A		1	S	1/27/2014	4.182	F	2,000	$9,000,000	107		
2229321	M	HENRY HUDSON PARKWAY SOUTHBOUND	RAMP FROM WEST 96TH STREET		A		1	S	1/31/2014	5.133	G	2,000	$9,000,000	107		
2229322	M	HENRY HUDSON PARKWAY NORTHBOUND	RAMP FROM WEST 96TH STREET		A		1	S	1/31/2014	5.300	G	2,000	$9,000,000	107		
2246970	M	RIVERSIDE DRIVE	WEST 96TH STREET		O		3	S	4/27/2015	5.471	G	10,600	$47,700,000	107		
2267250	M	HENRY HUDSON PARKWAY	AMTRAK - WEST 96TH STREET	A	A		55	S	11/1/2014	3.548	F	40,000	$180,000,000	107		
2267717	M	79TH STREET PEDESTRIAN PLAZA	79TH STREET BOAT BASIN GARAGE		A	P	10	S	5/5/2015	4.444	F	27,400	$123,300,000	107		
2267718	M	79TH SREET TRAFFIC CIRCLE	79TH STREET PEDESTRIAN PLAZA		A	P	34	S	6/3/2015	3.754	F	24,130	$108,585,000	107		
226771A	M	79TH STREET RAMP TO HENRY HUDSON PARKWAY	79TH STREET BOAT BASIN GARAGE		AR	P	4	S	5/5/2015	4.221	F	3,131	$14,089,500	107		
226771B	M	79TH STREET RAMP TO GARAGE	79TH STREET BOAT BASIN GARAGE		AR	P	21	S	5/12/2015	4.452	F	8,989	$40,450,500	107		
226771C	M	GARAGE RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE		AR	P	21	S	5/12/2015	4.435	F	9,095	$40,927,500	107		
226771D	M	SOUTHBOUND HENRY HUDSON PARKWAY RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE		AR	P	4	S	5/7/2015	4.403	F	2,601	$11,704,500	107		
2269190	M	WEST 70TH STREET	AMTRAK	A	O		3	S	11/7/2015	5.542	G	17,258	$77,661,000	107		
2269200	M	RIVERSIDE DRIVE SOUTH	AMTRAK	A	O		11	S	11/6/2015	5.792	G	69,040	$310,680,000	107		
2269210	M	WEST 68TH STREET	AMTRAK	A	O		3	S	11/19/2015	6.542	VG	5,382	$24,219,000	107		
M00003	M	HENRY HUDSON PARKWAY ON/OFF RAMP-79TH STREET SOUTH SIDE	PEDESTRIAN PATH SOUTH OF 79TH STREET		A		1	C	5/14/2015	4.500	F	846	$3,807,000	107		
M00004	M	HENRY HUDSON PARKWAY ON/OFF RAMP-79TH STREET NORTH SIDE	PEDESTRIAN PATH NORTH OF 79TH STREET		A		1	C	6/26/2015	4.667	F	846	$3,807,000	107		
2232110	M	EAST 63RD STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	11	U	11/23/2011	4.912	F	2,100	$9,450,000	108		
2232120	M	EAST 71ST STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	19	C	8/24/2015	4.761	F	3,700	$16,650,000	108		
2232140	M	EAST 78TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	13	C	5/17/2015	6.700	VG	5,226	$23,517,000	108		
2232167	M	PROMENADE OVER FDR DRIVE	FDR DRIVE - EAST 81ST STREET - EAST 90TH STREET		A-PED	P	53	S	7/31/2015	3.143	F	93,000	$418,500,000	108		
2233040	M	EAST 60TH STREET	FDR DRIVE		A	P	17	S	7/22/2015	4.972	F	24,480	$110,160,000	108		
224004A	M	TO EAST 60TH STREET FROM QUEENS	FIRST AVENUE		OE		13	S	4/21/2014	5.338	G	14,800	$66,600,000	108		
224004B	M	TO QUEENS FROM EAST 59TH STREET	FIRST AVENUE		OE		13	S	4/22/2014	5.542	G	14,800	$66,600,000	108		
224004C	M	TO EAST 62ND STREET FROM QUEENS	EAST 60TH STREET - EAST 61ST STREET		OE		10	S	7/17/2014	4.985	F	16,720	$75,240,000	108		
224004J	M	25X TO/FROM 2ND AVENUE	NYC GARAGE		OE		14	S	4/21/2014	4.829	F	22,058	$99,261,000	108		
2269820	M	EAST 81ST STREET PEDESTRIAN BRIDGE	FDR DRIVE NORTHBOUND		A-PED	P	3	C	6/8/2014	3.439	F	600	$2,700,000	108		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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2229349	M	HENRY HUDSON PARKWAY	WEST 158TH STREET	A	A		44	S	10/10/2014	4.155	F	140,000	$630,000,000	109	112	
2245290	M	WEST 155TH STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED		3	C	7/30/2013	3.862	F	800	$3,600,000	109	112	
2246720	M	RIVERSIDE DRIVE	WEST 158TH STREET- AMTRAK	A	O		77	S	10/23/2015	3.528	F	185,658	$835,461,000	109	112	
2269240	M	RIVERSIDE DRIVE	WEST 155TH STREET		O		1	S	5/7/2015	4.640	F	2,780	$12,510,000	109	112	
2245230	M	WEST 148TH STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	5	C	8/9/2013	4.200	F	1,100	$4,950,000	109		
2246660	M	RIVERSIDE DRIVE	WEST 125TH STREET - WEST 134TH STREET		O		27	S	7/13/2015	4.444	F	148,300	$667,350,000	109		
2246670	M	WEST 134 STREET	TERRAIN		O		4	S	6/8/2015	4.778	F	7,500	$33,750,000	109		
2246980	M	RIVERSIDE DRIVE	WEST 138TH STREET		O		1	S	1/16/2014	4.900	F	6,700	$30,150,000	109		
2266229	M	HENRY HUDSON PARKWAY	PEDESTRIAN PATH AT WEST 148TH STREET		A		1	S	1/30/2014	5.000	G	1,840	$8,280,000	109		
2267130	M	RIVERSIDE DRIVE	WEST 145TH STREET		O		1	S	4/27/2015	5.000	G	5,800	$26,100,000	109		
2246490	M	A.C. POWELL BOULEVARD NORTHBOUND	A.C. POWELL BOULEVARD		O		1	S	1/31/2014	4.347	F	3,000	$13,500,000	110		
2246710	M	WEST 153RD STREET	A.C. POWELL BOULEVARD		O		1	S	1/31/2014	4.611	F	3,082	$13,869,000	110		
2232180	M	EAST 103RD STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED		18	C	8/24/2015	4.512	F	6,807	$30,631,500	111		
2232190	M	EAST 111TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	9	C	8/30/2015	4.319	F	4,254	$19,143,000	111		
2232200	M	EAST 120TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	18	C	9/3/2015	4.114	F	3,978	$17,901,000	111		
2233059	M	HARLEM RIVER DRIVE	EAST 127TH STREET RAMP TO/FROM HARLEM RIVER DRIVE NORTHBOUND		A		11	S	6/30/2015	3.493	F	51,000	$229,500,000	111		
224005A	M	RAMP FROM FDR DRIVE	HARLEM RIVER DRIVE NORTHBOUND		OR		11	S	11/7/2014	6.887	VG	28,233	$127,048,500	111		
224007A	M	RAMP TO MADISON AVENUE	EAST 138TH STREET		OR		7	S	2/6/2014	5.028	G	19,880	$89,460,000	111		
2240620	M	WARDS ISLAND PEDESTRIAN BRIDGE	HARLEM RIVER		WMO-PED		10	C	7/20/2015	5.067	G	19,500	$87,750,000	111		
2245319	M	EAST 97TH STREET	METRO NORTH MAIN LN	M	O		1	S	12/17/2014	4.647	F	3,200	$14,400,000	111		
2246620	M	EAST 128TH STREET PEDESTRIAN BRIDGE	3RD AVENUE BRIDGE APPROACH		O-PED		18	C	8/20/2015	3.939	F	2,300	$10,350,000	111		
2246990	M	EAST 129TH STREET PEDESTRIAN BRIDGE	3RD AVENUE BRIDGE RAMP		O-PED	P	5	C	10/15/2014	4.524	F	1,046	$4,707,000	111		
222934A	M	RAMP TO NORTHBOUND HENRY HUDSON PARKWAY	AMTRAK WEST SIDE	A	AR		26	S	10/14/2015	3.736	F	10,800	$48,600,000	112		
2229400	M	WEST 181ST STREET PEDESTRIAN BRIDGE	HENRY HUDSON PARKWAY NORTHBOUND		A-PED	P	7	C	2/26/2015	4.418	F	1,500	$6,750,000	112		
2245040	M	MARGARET CORBIN DRIVE	PEDESTRIAN PATH NEAR CAFÉ		O	P	1	C	5/6/2015	4.933	F	598	$2,691,000	112		
2245050	M	MARGARET CORBIN DRIVE	PEDESTRIAN PATH NEAR NORTH ENTRANCE		O	P	1	C	5/6/2015	4.433	F	889	$4,000,500	112		
2245250	M	WEST 158TH STREET	AMTRAK 30 ST BRANCH	A	O		7	S	10/22/2015	5.917	G	20,219	$90,985,500	112		
2245260	M	WEST 173RD STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	2	C	8/6/2013	4.600	F	1,500	$6,750,000	112		
2245300	M	INWOOD HILL PARK FOOTBRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	6	C	8/6/2013	4.100	F	700	$3,150,000	112		
2245480	M	TO GEORGE WASHINGTON BRIDGE OPPOSITE WEST 171ST STREET	RIVERSIDE DRIVE		O		1	S	2/24/2014	4.524	F	10,773	$48,478,500	112		
2246489	M	WEST 181ST STREET	RAMP TO WASHINGTON BRIDGE		O		1	S	1/30/2014	5.200	G	8,200	$36,900,000	112		
2246500	M	FORT TRYON PLACE	ENTRANCE FROM RIVERSIDE DRIVE		O	P	1	S	3/25/2014	4.200	F	3,280	$14,760,000	112		
2246510	M	CORBIN PLACE OVERPASS	CORBIN PLACE		O	P	1	S	1/8/2014	5.000	G	2,223	$10,003,500	112		
2246600	M	WEST 176TH STREET PEDESTRIAN BRIDGE	APPROACH TO GEORGE WASHINGTON BRIDGE		O-PED	P	1	C	1/22/2015	4.533	F	1,200	$5,400,000	112		
2246690	M	ISHAM PARK VEHICULR	HARLEM RIVER INLET		O	P	1	S	4/28/2014	6.065	VG	911	$4,099,500	112		
2246700	M	ISHAM PARK PEDESTRIAN BRIDGE	HARLEM RIVER INLET		WO-PED	P	1	C	3/12/2015	4.138	F	300	$1,350,000	112		
2266230	M	HENRY HUDSON PARKWAY NORTHBOUND	PEDESTRIAN PATH INWOOD PARK		A		1	S	1/23/2014	5.000	G	800	$3,600,000	112		
2266240	M	HENRY HUDSON PARKWAY SOUTHBOUND	PEDESTRIAN PATH INWOOD PARK		A		1	S	1/23/2014	5.526	G	1,100	$4,950,000	112		
2267240	M	HARLEM RIVER DRIVE RAMP TO GEORGE WASHINGTON BRIDGE	HARLEM RIVER DRIVE SOUTHBOUND		A		55	S	10/14/2014	3.042	F	122,900	$553,050,000	112		
2268760	M	PS-5 PEDESTRIAN BRIDGE	TENTH AVENUE		O-PED		5	C	11/13/2014	4.347	F	1,285	$5,782,500	112		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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M00001	M	WEST 191ST SREEET PEDESTRIAN TUNNEL	BROADWAY - IRT #1 SUBWAY		O-PED		1	C	12/9/2014	4.364	F	2,000	$9,000,000	112		
2245380	M	TRANSVERSE ROAD #1 WESTBOUND	PEDESTRIAN PATH OPPOSITE EAST 66TH STREET		O	P	1	S	1/12/2016	5.000	G	1,500	$6,750,000	164		
2245420	M	WEST 65TH STREET ENTRANCE EASTBOUND	BRIDLE PATH WEST END		O	P	1	S	1/12/2016	5.100	G	1,300	$5,850,000	164		
2246000	M	WEST DRIVE (GREYSHOT ARCH)	PEDESTRIAN PATH BETWEEN 61ST & 62ND STREETS		O	P	1	S	1/8/2014	5.400	G	2,500	$11,250,000	164		
2246010	M	WEST 62ND STREET PEDESTRIAN BRIDGE (PINEBANK ARCH)	BRIDLE PATH		O-PED	P	1	C	7/10/2015	4.654	F	1,000	$4,500,000	164		
2246030	M	EAST 62ND STREET PEDESTRIAN BRIDGE (GAPSTOW BRIDGE)	THE POND		O-PED	P	1	C	7/8/2015	4.241	F	1,400	$6,300,000	164		
2246040	M	EAST DRIVE (INSCOPE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 62ND STREET		O	P	1	C	4/8/2015	4.367	F	1,515	$6,817,500	164		
2246050	M	CENTER DRIVE (DRIPROCK ARCH)	PEDESTRIAN PATH OPPOSITE 63RD STREET		O	P	1	S	1/14/2014	4.867	F	1,725	$7,762,500	164		
2246069	M	EAST DRIVE (GREEN GAP ARCH)	PEDESTRIAN PATH BETWEEN 63RD & 64TH STREETS		O	P	1	S	1/16/2014	4.433	F	2,075	$9,337,500	164		
2246070	M	CENTER DRIVE (PLAYMATES ARCH)	PEDESTRIAN PATH OPPOSITE 65TH STREET		O	P	1	C	6/16/2015	4.500	F	1,129	$5,080,500	164		
2246080	M	WEST DRIVE (DALEHEAD ARCH)	BRIDLE PATH OPPOSITE WEST 64TH STREET		O	P	1	S	1/14/2014	4.667	F	2,000	$9,000,000	164		
2246090	M	PEDESTRIAN BRIDGE OPPOSITE 65TH STREET	TRANSVERSE ROAD #1		O-PED	P	1	C	11/2/2015	4.583	F	2,300	$10,350,000	164		
2246100	M	CENTER DRIVE	TRANSVERSE ROAD #1		O	P	1	S	2/7/2014	4.467	F	6,000	$27,000,000	164		
2246110	M	EAST DRIVE	TRANSVERSE ROAD #1		O	P	1	S	3/19/2014	4.667	F	6,000	$27,000,000	164		
2246120	M	WEST DRIVE	TRANSVERSE ROAD #1		O	P	1	S	3/25/2014	4.700	F	7,900	$35,550,000	164		
2246130	M	EAST DRIVE (WILLOWDELL ARCH)	PEDESTRIAN PATH OPPOSITE EAST 67TH STREET		O	P	1	C	4/3/2015	3.500	F	666	$2,997,000	164		
2246140	M	WEST 72ND STREET ENTRANCE (RIFTSTONE ARCH)	BRIDLE PATH		O	P	1	S	1/8/2014	4.467	F	3,600	$16,200,000	164		
2246150	M	72ND STREET CROSS DRIVE (TERRACE BRDG)	PEDESTRIAN PATH TO FOUNTAIN		O	P	3	S	2/24/2014	5.786	G	7,300	$32,850,000	164		
2246160	M	73RD STREET PEDESTRIAN BRIDGE (BOW BRIDGE)	THE LAKE		WO-PED	P	1	C	4/8/2014	3.946	F	1,700	$7,650,000	164		
2246170	M	EAST DRIVE (TREFOIL ARCH)	PEDESTRIAN PATH OPPOSITE EAST 73RD STREET		O	P	1	S	1/24/2014	5.130	G	1,900	$8,550,000	164		
2246230	M	EAST DRIVE	TRANSVERSE ROAD #2		O	P	1	S	3/11/2014	4.600	F	5,080	$22,860,000	164		
2246240	M	WEST DRIVE	TRANSVERSE ROAD #2		O	P	1	S	3/12/2014	4.167	F	7,200	$32,400,000	164		
2246250	M	EAST DRIVE	TRANSVERSE ROAD #3		O	P	1	S	1/17/2014	4.300	F	4,500	$20,250,000	164		
2246260	M	WEST DRIVE	TRANSVERSE ROAD #3		O	P	1	S	3/18/2014	4.800	F	5,100	$22,950,000	164		
2246270	M	EAST DRIVE	TRANSVERSE ROAD #4		O	P	1	S	3/20/2014	4.100	F	7,000	$31,500,000	164		
2246280	M	WEST DRIVE	TRANSVERSE ROAD #4		O	P	1	S	3/21/2014	4.167	F	4,700	$21,150,000	164		
2246320	M	WEST 77ND STREET PEDESTRIAN (OAK BRDG)	THE LAKE		WO-PED	P	3	C	7/10/2015	5.368	G	1,100	$4,950,000	164		
2246330	M	WEST DRIVE (BALCONY BRDG)	STREAM TO THE LAKE		WO	P	1	S	1/15/2014	5.000	G	1,817	$8,176,500	164		
2246340	M	WEST 77TH STREET PEDESTRIAN (LADIES POND BRIDGE)	STREAM TO THE LAKE		WO-PED	P	3	C	10/30/2015	4.355	F	500	$2,250,000	164		
2246350	M	EAST DRIVE (GREYWACKE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 80TH STREET		O	P	1	C	6/15/2015	3.733	F	1,266	$5,697,000	164		
2246360	M	WEST DRIVE (WINTERDALE ARCH)	PEDESTRIAN PATH OPPOSITE WEST 82ND STREET		O	P	1	S	1/16/2014	5.182	G	2,502	$11,259,000	164		
2246380	M	WEST 86TH STREET PEDESTRIAN (SOUTHWEST RESERVOIR BRIDGE)	BRIDLE PATH		O-PED	P	1	C	11/27/2015	4.852	F	700	$3,150,000	164		
2246390	M	EAST 86TH STREET PEDESTRIAN (SOUTHEAST RESERVOIR BRIDGE)	BRIDLE PATH		O-PED	P	3	C	11/27/2015	4.509	F	1,100	$4,950,000	164		
2246400	M	PEDESTRIAN PATH OPPOSITE EAST 79TH STREET	TRANSVERSE ROAD #2		O-PED	P	1	C	6/7/2015	4.233	F	3,700	$16,650,000	164		
2246410	M	TRANSVERSE ROAD 1 EASTBOUND (DENESMOUTH ARCH)	PEDESTRIAN PATH OPPOSITE EAST 65TH STREET		O	P	1	S	2/24/2014	4.636	F	1,739	$7,825,500	164		
2246430	M	WEST 110TH STREET ENTRANCE (MOUNTCLIFF ARCH)	PEDESTRIAN PATH OPPOSITE WEST 109TH STREET		O	P	1	S	2/24/2014	4.317	F	1,200	$5,400,000	164		
2246440	M	79TH STREET PEDESTRIAN BRIDGE	TRANSVERSE ROAD #2		O-PED	P	1	C	6/15/2015	3.926	F	5,900	$26,550,000	164		
2246450	M	EAST 77TH STREET PEDESTRIAN (GLADE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 77TH STREET		O-PED	P	1	C	1/23/2015	4.138	F	5,000	$22,500,000	164		
2246460	M	WEST 77TH STREET ENTRANCE (EAGLEVALE ARCH)	PEDESTRIAN PATH OPPOSITE WEST 77TH STREET		O	P	2	S	1/9/2014	4.263	F	3,066	$13,797,000	164		
2246470	M	EAST DRIVE (HUDDLESTONE ARCH)	THE LOCH		WO	P	1	S	1/28/2014	4.500	F	1,100	$4,950,000	164		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2240640	MQ	ROOSEVELT ISLAND BRIDGE	EAST RIVER EAST CHANNEL		WMO		8	S	10/29/2014	5.569	G	36,500	$164,250,000	108	401	
2240047	MQ	ED KOCH - QUEENSBORO BRIDGE (LL)	EAST RIVER	AL	WEO		53	S	11/12/2014	4.167	F	626,900	$2,821,050,000	108	402	401
2240048	MQ	ED KOCH - QUEENSBORO BRIDGE (UL)	EAST RIVER - LL		WEO		37	S	10/13/2014	4.340	F	322,300	$1,450,350,000	108	402	401
224004G	Q	TO NEW YORK FROM 11TH STREET	TERRAIN (CHAMBER)		OE		36	S	7/25/2014	5.268	G	8,360	$37,620,000	401	402	
2230700	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	32ND AVENUE (TO BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		8	S	11/5/2014	6.352	VG	31,600	$142,200,000	401	403	
2230750	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	31ST AVENUE		A		1	S	6/22/2015	6.424	VG	4,221	$18,994,500	401	403	
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL		WO		56	S	9/4/2015	4.324	F	183,100	$823,950,000	401	480	
2230600	Q	STEINWAY STREET	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/7/2014	6.349	VG	5,229	$23,530,500	401		
2230610	Q	STEINWAY STREET	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/8/2014	6.349	VG	5,146	$23,157,000	401		
2230620	Q	37TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/12/2014	4.681	F	5,300	$23,850,000	401		
2230630	Q	35TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		4	S	3/14/2014	4.667	F	9,000	$40,500,000	401		
2230640	Q	32ND STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	6/4/2015	4.875	F	8,100	$36,450,000	401		
2230657	Q	31ST STREET	278I (BROOKLYN-QUEENS EXPRESSWAY) - NYCTA		A		2	S	11/19/2014	4.514	F	9,500	$42,750,000	401		
2230690	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	32ND AVENUE		A		1	S	6/2/2014	6.407	VG	4,080	$18,360,000	401		
2230710	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	32ND AVENUE		A		1	S	6/23/2015	6.424	VG	5,240	$23,580,000	401		
2230720	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		3	S	6/17/2015	6.152	VG	20,896	$94,032,000	401		
2230730	Q	31ST AVENUE	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		1	S	6/17/2015	5.767	G	5,875	$26,437,500	401		
2230740	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	31ST AVENUE		A		1	S	6/22/2015	5.978	G	5,246	$23,607,000	401		
2230760	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	31ST AVENUE		A		1	S	7/23/2014	6.356	VG	4,161	$18,724,500	401		
2230770	Q	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	30TH AVENUE		A		1	S	5/22/2015	6.102	VG	6,199	$27,895,500	401		
2230790	Q	BULOVA AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		2	S	4/4/2014	5.278	G	3,300	$14,850,000	401		
2230800	Q	49TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		2	S	4/7/2014	5.278	G	4,900	$22,050,000	401		
2230810	Q	ASTORIA BOULEVARD EASTBOUND	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		4	S	5/22/2015	4.279	F	8,200	$36,900,000	401		
2230820	Q	47TH STREET	GRAND CENTRAL PARKWAY		A		2	S	4/28/2014	4.889	F	5,700	$25,650,000	401		
2230830	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	GRAND CENTRAL PARKWAY		A		2	S	4/28/2014	4.583	F	7,600	$34,200,000	401		
2230840	Q	44TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	5/13/2014	4.764	F	5,000	$22,500,000	401		
2230890	Q	49TH STREET	GRAND CENTRAL PARKWAY		A		2	S	5/15/2014	4.444	F	6,350	$28,575,000	401		
2230680	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	NORTHERN BOULEVARD		A		1	S	11/5/2014	6.016	VG	27,011	$121,549,500	402	401	
224004F	Q	TO NEW YORK FROM 21ST STREET	21ST STREET		OE		63	S	11/7/2014	4.712	F	63,310	$284,895,000	402	401	
2247310	Q	QUEENS BOULEVARD	AMTRAK & LIRR YARD	AL	O		19	S	11/8/2014	6.268	VG	92,400	$415,800,000	402	401	
2247320	Q	HONEYWELL STREET	SUNNYSIDE YARD	AL	O		22	S	12/16/2015	5.792	G	99,036	$445,662,000	402	401	
2247330	Q	39TH STREET (NORTH)	SUNNYSIDE YARD	A	O		14	S	12/22/2015	6.208	VG	48,200	$216,900,000	402	401	
2247380	Q	ROOSEVELT AVENUE	CSX - HELLGATE - NYCTA	C	O		2	S	9/15/2015	6.208	VG	7,380	$33,210,000	402	403	404
2247390	Q	41ST AVENUE	CSX - HELLGATE	C	O		2	S	9/15/2015	4.788	F	4,400	$19,800,000	402	404	
2247400	Q	WOODSIDE AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.033	G	8,200	$36,900,000	402	404	
2247410	Q	43RD AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.000	G	4,800	$21,600,000	402	404	
2247420	Q	44TH AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.267	G	5,100	$22,950,000	402	404	
2247430	Q	45TH AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.224	G	2,400	$10,800,000	402	404	
1247280	Q	51ST AVENUE PEDESTRIAN BRIDGE (2247280)	LIRR MAIN LINE	L	O-PED		5	C	9/18/2014	3.018	F	700	$3,150,000	402		
2230520	Q	65TH PLACE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	2/6/2014	5.889	G	11,668	$52,506,000	402		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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2230530	Q	QUEENS BOULEVARD	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.306	VG	25,543	$114,943,500	402		
2230540	Q	WOODSIDE AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	1/31/2014	5.672	G	7,529	$33,880,500	402		
2230550	Q	69TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	1/31/2014	5.263	G	12,600	$56,700,000	402		
2230560	Q	70TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.556	VG	8,580	$38,610,000	402		
2230570	Q	41ST AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.735	VG	8,580	$38,610,000	402		
2230587	Q	ROOSEVELT AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	9/1/2015	5.431	G	11,022	$49,599,000	402		
2230590	Q	BROADWAY / 37TH AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	11/24/2014	5.579	G	16,000	$72,000,000	402		
2230669	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	35TH AVENUE		A		1	S	7/29/2015	6.051	VG	13,135	$59,107,500	402		
2230679	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	34TH AVENUE		A		1	S	6/1/2015	5.983	G	7,793	$35,068,500	402		
2230869	Q	QUEENS BOULEVARD	ACCESS ROAD BROOKLYN-QUEENS EXPRESSWAY SOUTHBOUND		A		1	S	9/30/2014	5.659	G	7,900	$35,550,000	402		
224004E	Q	TO NEW YORK FROM THOMSON AVENUE	JACKSON AVENUE	L	OE		94	S	11/26/2014	4.679	F	104,600	$470,700,000	402		
224004H	Q	TO 21ST STREET FROM NEW YORK	22ND STREET		OE		43	S	10/13/2014	4.366	F	48,100	$216,450,000	402		
224004I	Q	TO THOMSON AVENUE FROM NEW YORK	JACKSON AVENUE	L	OE		39	S	11/21/2014	5.148	G	59,100	$265,950,000	402		
2240410	Q	BORDEN AVENUE	DUTCH KILLS		WMO		2	S	6/26/2015	4.806	F	8,400	$37,800,000	402		
2240450	Q	HUNTERS POINT AVENUE	DUTCH KILLS		WMO		4	S	5/30/2014	5.056	G	12,168	$54,756,000	402		
2247120	Q	WOODSIDE AVENUE	LIRR MAIN LINE	L	O		3	S	10/7/2015	4.413	F	14,900	$67,050,000	402		
2247150	Q	65TH STREET	LIRR MAIN LINE	L	O		3	S	10/12/2015	6.375	VG	6,344	$28,548,000	402		
2247160	Q	65TH PLACE	LIRR MAIN LINE	L	O		3	S	10/12/2015	6.324	VG	8,381	$37,714,500	402		
2247260	Q	JACKSON AVENUE	LIRR MONTAUK DIV	L	O		1	S	10/8/2014	5.550	G	4,517	$20,326,500	402		
2247270	Q	21ST STREET	LIRR N SHORE YARD	L	O		6	S	10/6/2015	5.153	G	17,590	$79,155,000	402		
2247290	Q	49TH AVENUE	LIRR - AMTRAK	AL	O		5	S	11/26/2014	3.819	F	20,400	$91,800,000	402		
2247300	Q	THOMPSON AVENUE	AMTRAK & LIRR YARD	AL	O		14	S	11/8/2014	5.125	G	61,280	$275,760,000	402		
2247370	Q	37TH AVENUE	CSX - HELLGATE	C	O		1	S	9/15/2015	5.894	G	6,868	$30,906,000	402		
2247640	Q	39TH STREET (SOUTH)	AMTRAK & LIRR YARD	AL	O		9	S	12/16/2015	5.667	G	34,100	$153,450,000	402		
2230780	Q	278I (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	30TH AVENUE		A		1	S	5/22/2015	6.206	VG	7,071	$31,819,500	403	401	
1247010	Q	91ST PLACE (2247010)	LIRR PT WASH BR	L	O		1	S	9/30/2015	6.500	VG	2,760	$12,420,000	404		
2247020	Q	94TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		5	C	9/12/2014	4.231	F	905	$4,072,500	404		
2247180	Q	GRAND AVENUE	LIRR MAIN LINE	L	O		3	S	10/1/2014	4.396	F	7,415	$33,367,500	404		
2247190	Q	55TH AVENUE PEDESTRIAN BRIDGE	LIRR MAIN LINE	L	O-PED		3	C	9/17/2014	4.120	F	1,296	$5,832,000	404		
2248159	Q	WOODHAVEN BOULEVARD	QUEENS BOULEVARD		O		2	S	7/17/2014	4.078	F	11,500	$51,750,000	404		
2247650	Q	60TH ROAD PEDESTRIAN BRIDGE	LIRR MAIN LINE	L	O-PED		3	C	9/16/2014	5.000	G	1,200	$5,400,000	405	406	
2230120	Q	MYRTLE AVENUE	JACKIE ROBINSON PARKWAY		A		1	S	4/17/2014	5.250	G	6,400	$28,800,000	405	482	
1247560	Q	METROPOLITAN AVENUE	LIRR - NY&ATL	LN	O		2	S	9/23/2014	3.603	F	20,900	$94,050,000	405		
2065930	Q	HAMILTON PLACE	495I (LONG ISLAND EXPRESSWAY)		A		2	S	2/20/2014	5.528	G	11,111	$49,999,500	405		
2065940	Q	GRAND AVENUE	495I (LONG ISLAND EXPRESSWAY)		A		2	S	11/11/2014	4.861	F	12,850	$57,825,000	405		
2065950	Q	69TH STREET	495I (LONG ISLAND EXPRESSWAY)		A		2	S	6/24/2015	5.056	G	10,336	$46,512,000	405		
2230040	Q	CYPRESS HILLS STREET	JACKIE ROBINSON PARKWAY		A		1	S	3/28/2014	4.722	F	5,000	$22,500,000	405		
2230099	Q	JACKIE ROBINSON PARKWAY	CYPRESS HILLS CEMETRY		A		1	S	1/6/2014	5.444	G	4,200	$18,900,000	405		
2247440	Q	GRAND AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	6.183	VG	3,280	$14,760,000	405		
2247450	Q	57TH AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	5.976	G	2,248	$10,116,000	405		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

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2247460	Q	CALDWELL AVENUE	CSX TRANSPORT	C	O		1	S	11/10/2014	5.889	G	2,243	$10,093,500	405		
2247470	Q	ELIOT AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	4.972	F	2,960	$13,320,000	405		
2247480	Q	JUNIPER BOULEVARD SOUTH	CSX TRANSPORT	C	O		1	S	9/22/2015	4.833	F	9,000	$40,500,000	405		
2247490	Q	69TH STREET	CSX TRANSPORT	C	O		1	S	11/10/2014	4.979	F	6,175	$27,787,500	405		
2247500	Q	METROPOLITAN AVENUE	CSX TRANSPORT	C	O		1	S	9/22/2015	4.233	F	18,650	$83,925,000	405		
2247530	Q	ANDREWS AVENUE	LIRR MONTAUK DIV	L	O		1	S	9/29/2015	6.688	VG	1,765	$7,942,500	405		
2247540	Q	60TH STREET	LIRR MONTAUK DIV	L	O		2	S	9/29/2015	5.208	G	5,340	$24,030,000	405		
2247550	Q	ELIOT AVENUE	LIRR MONTAUK DIV	L	O		2	S	9/24/2015	5.627	G	9,550	$42,975,000	405		
2247570	Q	80TH STREET	77TH AVENUE - LIRR MT	L	O		5	S	10/21/2014	4.932	F	11,725	$52,762,500	405		
2248200	Q	RUST STREET	FLUSHING AVENUE		O		1	S	7/2/2015	4.672	F	2,940	$13,230,000	405		
2248220	Q	SERVICE ROAD TURNAROUND	FLUSHING AVENUE		O		1	S	7/2/2015	5.078	G	2,940	$13,230,000	405		
2248240	Q	FLUSHING AVENUE SERVICE ROAD	FLUSHING AVENUE		O		1	S	7/2/2015	5.250	G	2,940	$13,230,000	405		
2248280	Q	HIGHLAND ARPK PEDESTRIAN	PEDESTRIAN PATH		O-PED	P	1	C	12/16/2015	3.667	F	1,900	$8,550,000	405		
2248300	Q	71ST AVENUE	COOPER AVENUE		O		1	S	6/24/2015	4.373	F	2,800	$12,600,000	405		
2066002	Q	495I (2066000)	WOODHAVEN BOULEVARD		A		2	S	6/10/2015	5.479	G	25,200	$113,400,000	406	404	
1247200	Q	67TH AVENUE PEDESTRIAN BRIDGE (2247200)	LIRR MAIN LINE	L	O-PED		3	C	9/24/2014	4.219	F	1,300	$5,850,000	406		
2247630	Q	PEDESTRIAN BRIDGE NEAR UNION TURNPIKE	ABANDONED LIRR		O-PED		8	C	6/8/2015	4.522	F	1,500	$6,750,000	406		
2248160	Q	ELIOT AVENUE	QUEENS BOULEVARD		O		2	S	7/17/2014	4.804	F	13,785	$62,032,500	406		
2240507	Q	ROOSEVELT AVENUE	678I - FLUSHING RIVER		WA		27	S	11/7/2014	3.521	F	84,424	$379,908,000	407	481	
1065210	Q	WHITESTONE EXPRESSWAY NORTHBOUND	CROSS ISLAND PARKWAY		A		1	S	6/17/2014	4.656	F	2,500	$11,250,000	407		
2055801	Q	NORTHERN BOULEVARD WESTBOUND	FLUSHING RIVER		WO		40	S	10/28/2014	4.338	F	71,900	$323,550,000	407		
2055802	Q	NORTHERN BOULEVARD EASTBOUND	FLUSHING RIVER		WO		40	S	10/28/2014	4.268	F	78,894	$355,023,000	407		
205580A	Q	NORTHERN BOULEVARD WESTBOUND TO 678I SOUTHBOUND	VACANT LAND		AR		16	S	6/5/2014	5.619	G	8,600	$38,700,000	407		
2231900	Q	BELT CROSS ISLAND PARKWAY	TOTTEN AVENUE		A		1	S	5/12/2014	4.609	F	4,900	$22,050,000	407		
2231910	Q	UTOPIA PARKWAY	BELT CROSS ISLAND PARKWAY		A		2	S	3/7/2014	5.341	G	7,200	$32,400,000	407		
2231920	Q	160TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	6/10/2015	5.694	G	5,550	$24,975,000	407		
2231930	Q	FRANCIS LEWIS BOULEVARD	BELT CROSS ISLAND PARKWAY		A		3	S	2/21/2014	4.682	F	9,100	$40,950,000	407		
2231940	Q	CLINTONVILLE STREET	BELT CROSS ISLAND PARKWAY		A		2	S	2/21/2014	4.705	F	7,400	$33,300,000	407		
2231950	Q	150TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	2/21/2014	4.591	F	5,900	$26,550,000	407		
2231960	Q	149TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.795	F	6,210	$27,945,000	407		
2231970	Q	14TH AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.523	F	8,100	$36,450,000	407		
2231980	Q	147TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.705	F	6,300	$28,350,000	407		
2247040	Q	UNION STREET	LIRR PORT WASH BR	L	O		1	S	9/22/2015	6.172	VG	3,313	$14,908,500	407		
2247050	Q	BOWNE STREET	LIRR PORT WASH BR	L	O		1	S	9/24/2014	5.451	G	4,974	$22,383,000	407		
2247060	Q	PARSONS BOULEVARD	LIRR PORT WASH BR	L	O		1	S	9/24/2014	4.824	F	4,200	$18,900,000	407		
2247070	Q	147TH STREET	LIRR PORT WASH BR	L	O		1	S	9/23/2015	5.392	G	2,800	$12,600,000	407		
2247080	Q	149TH STREET	LIRR PORT WASH BR	L	O		1	S	9/8/2009	4.776	F	4,100	$18,450,000	407		
2247090	Q	149TH PLACE	LIRR PORT WASH BR	L	O		2	S	9/21/2015	5.000	G	4,300	$19,350,000	407		
2247100	Q	150TH STREET	LIRR PORT WASH BR	L	O		2	S	9/21/2015	6.088	VG	5,508	$24,786,000	407		
2247110	Q	MURRAY STREET	LIRR PORT WASH BR	L	O		1	S	9/22/2015	5.185	G	4,000	$18,000,000	407		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2248090	Q	FUSHING MEADOW PARK PEDESTRIAN	COLLEGE POINT BOULEVARD		O-PED	P	3	C	1/2/2015	4.639	F	8,400	$37,800,000	407		
2266160	Q	678I SOUTHBOUND TO BELT CROSS ISLAND PARKWAY EASTBOUND	678I - BELT CROSS ISLAND PARKWAY JUNCTION		A		1	S	6/12/2015	4.156	F	2,300	$10,350,000	407		
7705510	Q	167TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		3	C	9/11/2014	4.000	F	840	$3,780,000	407		
2248059	Q	MOTOR PARKWAY (PEDESTRIAN)	FRANCIS LEWIS BOULEVARD		O-PED	P	2	C	6/11/2015	4.444	F	2,800	$12,600,000	408		
2248080	Q	MOTOR PARKWAY (PEDESTRIAN)	HOLLIS COURT BOULEVARD		O-PED	P	3	C	11/18/2014	4.672	F	2,700	$12,150,000	408		
2248100	Q	MOTOR PARKWAY (PEDESTRIAN)	73RD AVENUE		O-PED	P	3	C	2/11/2014	4.672	F	2,600	$11,700,000	408		
2267160	Q	ROOSEVELT AVENUE	SHEA ROAD		O		4	S	7/29/2015	4.651	F	7,280	$32,760,000	408		
2267199	Q	FRANCIS LEWIS BOULEVARD	CUNNINGHAM PARK ROAD		O		1	S	5/14/2015	5.300	G	7,085	$31,882,500	408		
2248299	Q	JACKIE ROBINSON PARKWAY-UNION TURNPIKE	AUSTIN STREET		O		1	S	5/23/2014	4.806	F	5,900	$26,550,000	409	406	
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	L	O		1	S	9/22/2014	6.983	VG	3,024	$13,608,000	409	482	
2230209	Q	QUEENS BOULEVARD	JACKIE ROBINSON PARKWAY	T	A		5	S	6/9/2014	4.841	F	37,700	$169,650,000	409		
2247220	Q	80TH ROAD	LIRR MAIN LINE	L	O		3	S	9/28/2015	4.698	F	4,100	$18,450,000	409		
2247230	Q	82ND AVENUE	LIRR MAIN LINE	L	O		3	S	9/25/2015	5.246	G	4,100	$18,450,000	409		
2247240	Q	LEFFERTS BOULEVARD	LIRR MAIN LINE	L	O		3	S	9/25/2015	5.736	G	5,460	$24,570,000	409		
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	O	P	5	S	9/22/2014	5.158	G	6,000	$27,000,000	409		
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR		O	P	6	S	4/28/2015	4.302	F	10,000	$45,000,000	409		
2248019	Q	WOODHAVEN BOULEVARD	ATLANTIC AVENUE		O		3	S	3/26/2014	4.208	F	19,400	$87,300,000	409		
2248340	Q	FOREST PARK DRIVE	MYRTLE AVENUE		O	P	3	S	6/1/2015	4.984	F	5,100	$22,950,000	409		
2231559	Q	CROSS BAY BOULEVARD	BELT SHORE PARKWAY		A		4	S	5/30/2014	5.083	G	23,205	$104,422,500	410		
2231560	Q	SOUTH CONDUIT BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	6/16/2014	5.268	G	15,776	$70,992,000	410		
2231570	Q	COHANCY STREET	BELT SOUTHERN PARKWAY		A		2	S	4/17/2014	4.395	F	6,400	$28,800,000	410		
2231590	Q	130TH STREET	BELT SOUTHERN PARKWAY		A		2	S	1/30/2014	4.659	F	6,800	$30,600,000	410		
2240650	Q	163RD AVENUE PEDESTRIAN BRIDGE	HAWTREE BASIN		WO-PED		13	C	8/31/2015	4.037	F	5,000	$22,500,000	410		
2248020	Q	WHITELAW PEDESTRIAN BRIDGE	NORTH & SOUTH CONDUIT AVENUE		O-PED		7	C	10/6/2015	4.303	F	5,500	$24,750,000	410		
2248039	Q	CROSS BAY BOULEVARD	NASSAU EXPRESSWAY - ROUTE 27		O		2	S	5/26/2015	5.958	G	16,544	$74,448,000	410		
2248040	Q	RAMP TO LINDEN BOULEVARD	SOUTH CONDUIT AVENUE		O		1	S	5/15/2014	5.200	G	3,352	$15,084,000	410		
2248250	Q	102ND STREET	HAWTREE BASIN		WO		3	S	7/23/2015	6.015	VG	4,900	$22,050,000	410		
2231860	Q	WEST ALLEY ROAD	BELT CROSS ISLAND PARKWAY		A		2	S	7/8/2015	5.368	G	7,200	$32,400,000	411		
2231870	Q	NORTHERN BOULEVARD	BELT CROSS ISLAND PARKWAY		A		2	S	7/14/2014	5.764	G	9,400	$42,300,000	411		
2231880	Q	CROCHERON PARK PEDESTRIAN	BELT CROSS ISLAND PARKWAY		A-PED	P	9	C	7/28/2015	3.800	F	2,300	$10,350,000	411		
2231890	Q	28TH AVENUE PEDESTRIAN BRIDGE	BELT CROSS ISLAND PARKWAY		A-PED	P	24	C	7/6/2015	4.615	F	7,600	$34,200,000	411		
2240440	Q	NORTHERN BOULEVARD	ALLEY CREEK		WO		2	S	6/17/2014	4.681	F	8,300	$37,350,000	411		
2247130	Q	CORPORAL KENNEDY STREET	LIRR PORT WASH BR	L	O		1	S	10/9/2015	6.157	VG	3,379	$15,205,500	411		
2247140	Q	BELL BOULEVARD	LIRR PORT WASH BR	L	O		1	S	10/1/2015	5.610	G	4,320	$19,440,000	411		
2247170	Q	DOUGLASTON PARKWAY	LIRR PORT WASH BR	L	O		3	S	10/1/2014	4.542	F	6,300	$28,350,000	411		
2247680	Q	221ST STREET	LIRR PORT WASH BR	L	O		3	S	9/23/2015	5.926	G	6,050	$27,225,000	411		
2248060	Q	MOTOR PARKWAY (PEDESTRIAN)	BELL BOULEVARD		O-PED	P	2	C	6/11/2015	4.403	F	2,650	$11,925,000	411		
2248070	Q	MOTOR PARKWAY (PEDESTRIAN)	SPRINGFIELD BOULEVARD		O-PED	P	3	C	6/8/2015	3.836	F	2,900	$13,050,000	411		
2266129	Q	DOUGLASTON PARKWAY	BELT CROSS ISLAND PARKWAY SOUTHBOUND		A		1	S	3/10/2014	4.592	F	4,400	$19,800,000	411		
2266139	Q	DOUGLASTON PARKWAY	BELT CROSS ISLAND PARKWAY NORTHBOUND		A		1	S	3/12/2014	4.653	F	6,400	$28,800,000	411		

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7703720	Q	216TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		6	C	9/22/2014	3.111	F	960	$4,320,000	411		
2231610	Q	GUY R. BREWER BOULEVARD	BELT SOUTHERN PARKWAY		A		4	S	6/3/2015	6.028	VG	12,342	$55,539,000	413		
2231620	Q	FARMERS BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	4/25/2014	4.477	F	6,400	$28,800,000	413		
2231630	Q	SPRINGFIELD BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	4/25/2014	4.591	F	8,500	$38,250,000	413		
2231640	Q	225TH STREET	BELT SOUTHERN PARKWAY		A		2	S	5/15/2014	4.614	F	7,000	$31,500,000	413		
2231650	Q	SUNRISE HIGHWAY WESTBOUND	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	3/21/2014	4.262	F	4,100	$18,450,000	413		
2231660	Q	SUNRISE HIGHWAY WESTBOUND	BELT LAURETON PARKWAY WESTBOUND		A		2	S	2/25/2014	4.565	F	5,350	$24,075,000	413		
2231670	Q	NORTH CONDUIT AVENUE WESTBOUND	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	1/13/2014	4.917	F	4,000	$18,000,000	413		
2231680	Q	NORTH CONDUIT AVENUE WESTBOUND	BELT LAURETON PARKWAY WESTBOUND		A		2	S	1/20/2014	4.932	F	6,500	$29,250,000	413		
2231690	Q	FRANCIS LEWIS BOULEVARD	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	3/17/2014	5.033	G	6,000	$27,000,000	413		
2231700	Q	FRANCIS LEWIS BOULEVARD	BELT LAURETON PARKWAY WESTBOUND		A		1	S	3/18/2014	4.700	F	6,000	$27,000,000	413		
2231710	Q	MERRICK BOULEVARD	BELT LAURETON PARKWAY NORTHBOUND		A		1	S	2/11/2014	4.467	F	6,000	$27,000,000	413		
2231720	Q	MERRICK BOULEVARD	BELT LAURELTON PARKWAY SOUTHBOUND		A		1	S	2/12/2014	4.200	F	6,000	$27,000,000	413		
2231730	Q	130TH AVENUE	BELT LAURETON PARKWAY NORTHBOUND		A		1	S	1/10/2014	5.133	G	4,400	$19,800,000	413		
2231740	Q	130TH AVENUE	BELT LAURELTON PARKWAY SOUTHBOUND		A		1	S	1/13/2014	4.700	F	4,400	$19,800,000	413		
2231750	Q	LINDEN BOULEVARD	BELT CROSS ISLAND PARKWAY		A		2	S	2/25/2014	4.432	F	6,700	$30,150,000	413		
2231760	Q	BELT CROSS ISLAND PARKWAY	DUTCH BROADWAY-115TH AVENUE		A		1	S	2/28/2014	4.233	F	7,300	$32,850,000	413		
2231770	Q	BELMONT PARK SOUTH RAMP	BELT CROSS ISLAND PARKWAY		A	P	1	S	2/26/2014	4.781	F	3,200	$14,400,000	413		
2231780	Q	HEMPSTEAD AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	2/6/2014	4.000	F	14,200	$63,900,000	413		
2231790	Q	BELMONT PARK NORTH RAMP	BELT CROSS ISLAND PARKWAY		A	P	1	S	1/12/2014	4.563	F	3,400	$15,300,000	413		
2231800	Q	SUPERIOR ROAD	BELT CROSS ISLAND PARKWAY		A		2	S	4/1/2014	4.682	F	7,000	$31,500,000	413		
2231819	Q	JAMAICA AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	3/19/2014	4.773	F	11,500	$51,750,000	413		
2231829	Q	BRADDOCK AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	5/22/2015	4.886	F	10,600	$47,700,000	413		
2231840	Q	HILLSIDE AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	3/18/2014	4.211	F	9,672	$43,524,000	413		
2231850	Q	UNION TURNPIKE	BELT CROSS ISLAND PARKWAY		A		2	S	3/19/2014	4.409	F	13,600	$61,200,000	413		
2248110	Q	MOTOR PARKWAY (PEDESTRIAN)	ALLEY PARK PEDESTRIAN WALK		O-PED	P	1	C	6/4/2015	3.833	F	1,000	$4,500,000	413		
2248129	Q	UNION TURNPIKE	CREEDMOORE HOSPITAL ROAD		O		1	S	6/1/2015	4.733	F	3,500	$15,750,000	413		
2266149	Q	HEMPSTEAD AVENUE	BELT CROSS ISLAND PARKWAY RAMP NORTHBOUND		A		2	S	3/12/2014	4.190	F	9,500	$42,750,000	413		
2266770	Q	BELT CROSS ISLAND PARKWAY	LAURELTON PARKWAY		A		1	S	3/7/2014	4.972	F	9,508	$42,786,000	413		
2268770	Q	SPRINGFIELD BOULEVARD	EQUESTRIAN PATH (ABANDONED)		O		1	S	4/29/2015	4.889	F	1,470	$6,615,000	413		
2300130	Q	ROCKAWAY BOULEVARD	HOOK CREEK		WO		3	S	7/2/2015	5.763	G	18,302	$82,359,000	413		
Q00002	Q	BELT CROSS ISLAND PARKWAY	PATH OPPOSITE 88TH ROAD		A		1	C	5/26/2015	4.400	F	1,272	$5,724,000	413		
2248130	Q	FUSHING MEADOW PARK PEDESTRIAN	WILLOW LAKE & 76TH ROAD		WO-PED	P	4	C	4/20/2002	1.000	C	1,891	$8,509,500	481		
2248140	Q	FLUSHING MEADW PARK ROAD	STREAM NORTH OF LONG ISLAND EXPRESSWAY		WO	P	5	S	7/31/2013	4.481	F	4,100	$18,450,000	481		
2248260	Q	MEADOW LAKE BRIDGE	MEADOW LAKE		WO	P	5	S	5/26/2015	4.458	F	4,200	$18,900,000	481		
2248379	Q	BOATHOUSE BRIDGE	AQUACADE LAKE		WO	P	5	S	7/21/2015	4.296	F	6,300	$28,350,000	481		
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PARKWAY		A		1	S	1/27/2014	5.167	G	4,400	$19,800,000	482	406	
2247620	Q	MYRTLE AVENUE	ABANDONED LIRR		O		3	S	1/2/2014	5.028	G	6,725	$30,262,500	482	406	
2230179	Q	JACKIE ROBINSON PARKWAY	METROPOLITAN AVENUE		A		2	S	4/22/2014	5.286	G	8,673	$39,028,500	482		
2230180	Q	UNION TURNPIKE	JACKIE ROBINSON PARKWAY		A		1	S	1/27/2014	5.672	G	5,359	$24,115,500	482		

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2248369	Q	ROCKAWAY BOULEVARD	THURSTON BASIN		WO		2	S	7/15/2015	5.474	G	6,000	$27,000,000	483	413	
2248230	Q	BEACH CHANNEL DRIVE WESTBOUND	BEACH CHANNEL DRIVE EASTBOUND		O		1	S	6/15/2015	4.400	F	3,600	$16,200,000	484		
2249040	R	TOMPKINS AVENUE	B&O RR (ABANDONED)		O		1	S	4/4/2014	5.953	G	5,096	$22,932,000	501		
2249070	R	JOHN STREET PEDESTRIAN BRIDGE	B&O RR (ABANDONED)	O	O-PED		2	C	10/23/2015	5.423	G	1,050	$4,725,000	501		
2249090	R	MORNINGSTAR ROAD	B&O RR (ABANDONED)	O	O		4	S	7/8/2015	4.627	F	7,900	$35,550,000	501		
2249100	R	GRANITE AVENUE	B&O RR (ABANDONED)	O	O		4	S	2/4/2014	5.966	G	7,300	$32,850,000	501		
2249110	R	LAKE AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	4.556	F	5,900	$26,550,000	501		
2249120	R	SIMONSON AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	5.852	G	5,819	$26,185,500	501		
2249130	R	VAN NAME AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	5.186	G	5,474	$24,633,000	501		
2249140	R	VAN PELT AVENUE	B&O RR (ABANDONED)	O	O		3	S	4/29/2015	5.576	G	5,000	$22,500,000	501		
2249160	R	DE HART AVENUE	B&O RR (ABANDONED)	O	O		4	S	4/29/2015	6.389	VG	6,700	$30,150,000	501		
2249170	R	UNION AVENUE	B&O RR (ABANDONED)	O	O		4	S	4/29/2015	5.130	G	6,630	$29,835,000	501		
2249180	R	HARBOR ROAD	CONRAIL - EX B&O RR	C	O		4	S	9/12/2015	6.000	G	5,778	$26,001,000	501		
2249200	R	SOUTH AVENUE	ARLINGTON YARD	C	O		3	S	9/12/2015	6.527	VG	8,500	$38,250,000	501		
2249510	R	TOMPKINS AVENUE	WILLOW AVENUE, SIRT	S	O		2	S	10/17/2014	5.269	G	5,378	$24,201,000	501		
2249520	R	HANNAH STREET	SIRT SOUTH SHORE	S	O		10	S	10/16/2015	4.627	F	13,360	$60,120,000	501		
2249530	R	MINTHORNE STREET PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		26	C	4/16/2015	4.547	F	6,000	$27,000,000	501		
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		WO-PED	P	2	C	7/21/2015	3.857	F	900	$4,050,000	501		
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		WO-PED	P	2	C	7/21/2015	4.143	F	900	$4,050,000	501		
2249730	R	BRIDGE OVER DAM	NORTH END CLOVE LAKE		WO-PED	P	1	C	7/29/2015	3.351	F	1,000	$4,500,000	501		
2249760	R	MARTLINGS AVENUE	RICHMOND LAKE DAM		WO		2	S	6/12/2015	4.467	F	7,000	$31,500,000	501		
2249770	R	SOUTH OF BROOKS LAKE	STREAM IN PARK		WO-PED	P	3	C	11/25/2015	4.651	F	700	$3,150,000	501		
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		WO-PED	P	1	C	4/29/2015	3.867	F	800	$3,600,000	501		
2249790	R	FOOTBRIDGE SOUTH OF FOREST AVENUE	STREAM IN PARK		WO-PED	P	3	C	11/6/2015	4.651	F	700	$3,150,000	501		
2249800	R	FOREST AVENUE	CLOVE LAKES PARK STREAM		WO	P	1	S	10/29/2015	4.300	F	1,600	$7,200,000	501		
2249840	R	TOMPKINS AVENUE	GREENFIELD AVENUE		O		1	S	3/10/2014	4.638	F	2,690	$12,105,000	501		
2269730	R	PARKING EXIT RAMP	SIRT	S	O	F	10	S	11/7/2014	6.097	VG	20,727	$93,271,500	501		
2269740	R	BUS STATION NORTH	SIRT - FERRY TERMINAL	S	O	F	12	S	11/2/2014	5.600	G	64,605	$290,722,500	501		
2269750	R	BUS STATION SOUTH	SIRT - PARKING LOT	S	O	F	12	S	11/2/2014	5.280	G	154,688	$696,096,000	501		
2269760	R	NORTH RAMP	SIRT	S	O	F	2	S	10/22/2014	6.431	VG	6,000	$27,000,000	501		
2269770	R	BUS STATION ENTANCE RAMP	SIRT	S	O	F	19	S	10/9/2015	5.431	G	39,333	$176,998,500	501		
2269780	R	PARKING ENTANCE RAMP	SIRT	S	O	F	3	S	11/7/2014	5.889	G	8,589	$38,650,500	501		
2269790	R	BUS STATION EXIT RAMP	SIRT	S	O	F	7	S	11/4/2014	5.167	G	28,721	$129,244,500	501		
2270170	R	STATEN ISLAND FERRY PEDESTRIAN BRIDGE	PARKING LOT EXIT ROADWAY		O-PED	F	5	C	5/27/2015	5.600	G	2,917	$13,126,500	501		
2270180	R	BOROUGH PLACE - RAMP A	STATEN ISLAND RAILWAY	S	O	F	1	S	5/9/2014	6.594	VG	1,870	$8,415,000	501		
2240350	R	RICHMOND AVENUE	RICHMOND CREEK		WO		3	S	6/10/2015	5.194	G	32,589	$146,650,500	502		
2249400	R	BEACH AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/11/2015	5.364	G	3,700	$16,650,000	502		
2249410	R	ROSS AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/12/2015	5.182	G	3,800	$17,100,000	502		
2249420	R	ROSE AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/13/2015	5.258	G	3,800	$17,100,000	502		
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S	O		2	S	8/14/2015	4.955	F	7,600	$34,200,000	502		

INVENTORY SORTED BY BORO AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2249440	R	BANCROFT AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/17/2015	5.393	G	5,900	$26,550,000	502		
2249450	R	FREMONT AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		3	C	4/15/2015	4.164	F	800	$3,600,000	502		
2249460	R	LINCOLN AVENUE	SIRT SOUTH SHORE	S	O		1	S	9/1/2015	5.172	G	4,500	$20,250,000	502		
2249470	R	MIDLAND AVENUE	SIRT SOUTH SHORE	S	O		1	S	9/18/2015	5.466	G	3,000	$13,500,000	502		
2249480	R	WEST FINGERBOARD ROAD	SIRT SOUTH SHORE	S	O		2	S	9/16/2015	6.403	VG	5,100	$22,950,000	502		
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S	O		3	S	10/16/2014	5.778	G	5,104	$22,968,000	502		
2249860	R	SLATER BOULEVARD	NEW CREEK		WO		1	S	5/4/2015	5.510	G	2,037	$9,166,500	502		
2249870	R	TRAVIS AVENUE	MAIN CREEK		WO		1	S	10/15/2015	5.483	G	1,700	$7,650,000	502		
2249880	R	CHELSEA ROAD	SAWMILL CREEK		WO		1	S	5/21/2015	6.633	VG	2,205	$9,922,500	502		
2249210	R	MAIN STREET PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		9	C	4/6/2015	4.263	F	400	$1,800,000	503		
2249230	R	TRACY AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		9	C	4/7/2015	3.894	F	635	$2,857,500	503		
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S	O		1	S	10/14/2014	4.796	F	3,650	$16,425,000	503		
2249250	R	BETHEL AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		12	C	4/9/2015	3.754	F	1,165	$5,242,500	503		
2249269	R	PAGE AVENUE	SIRT - TIDAL STREAM	S	WO		4	S	9/23/2015	5.806	G	30,710	$138,195,000	503		
2249270	R	RICHMOND VALLEY ROAD	SIRT SOUTH SHORE	S	O		4	S	8/26/2015	5.164	G	9,440	$42,480,000	503		
2249280	R	RICHMOND VALLEY STATION PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		7	C	4/10/2015	4.393	F	595	$2,677,500	503		
2249290	R	SEGUINE AVENUE	SIRT SOUTH SHORE	S	O		1	S	8/24/2015	6.016	VG	3,250	$14,625,000	503		
2249300	R	HUGUENOT AVENUE	SIRT SOUTH SHORE	S	O		2	S	9/23/2015	4.788	F	6,514	$29,313,000	503		
2249320	R	ALBEE AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/16/2015	4.689	F	6,500	$29,250,000	503		
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S	O		1	S	8/20/2015	6.233	VG	3,540	$15,930,000	503		
2249350	R	NELSON AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		3	C	4/13/2015	4.115	F	300	$1,350,000	503		
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S	O		1	S	10/15/2014	5.625	G	3,042	$13,689,000	503		
2249370	R	GREAVES AVENUE	SIRT SOUTH SHORE	S	O		1	S	8/19/2015	6.533	VG	2,650	$11,925,000	503		
2249380	R	GUYON AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/23/2015	4.672	F	6,900	$31,050,000	503		
2249390	R	CEDARVIEW AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		5	C	4/14/2015	3.615	F	625	$2,812,500	503		
2249580	R	BELFIELD AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		5	C	4/17/2015	3.902	F	400	$1,800,000	503		
2249810	R	HYLAN BOULEVARD	LEMON CREEK		WO		1	S	3/10/2014	6.172	VG	11,400	$51,300,000	503		
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM		WO		1	S	5/5/2015	4.102	F	1,500	$6,750,000	503		
2268920	R	AMBOY ROAD	LEMON CREEK		WO		1	S	3/10/2014	6.333	VG	1,310	$5,895,000	503		
788 OPEN BRIDGES					OPEN SPANS 4,339					OPEN SF		14,554,952	$65,505,793,500	ALL		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243310	K	2ND AVENUE	LIRR BAY RIDGE	N	O		2	S	10/7/2014	6.208	VG	17,751	$79,879,500	310		
2243320	K	3RD AVENUE	LIRR BAY RIDGE	N	O		4	S	9/1/2015	4.972	F	17,230	$77,535,000	310		
2244160	K	3RD AVENUE	SHORE ROAD DRIVE		O		1	S	6/1/2015	6.273	VG	4,360	$19,620,000	310		
2241040	B	THIRD AVENUE BRIDGE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/3/2014	4.563	F	2,700	$12,150,000	201	203	
2240310	K	THIRD AVENUE BRIDGE	GOWANUS CANAL		WO		1	S	5/27/2015	6.550	VG	3,412	$15,354,000	306		
2240069	BM	THIRD AVENUE BRIDGE	HARLEM RIVER		WMO		14	S	9/4/2014	5.789	G	100,232	$451,044,000	111	201	
2240250	K	THIRD STREET	GOWANUS CANAL		WMO		5	S	5/26/2015	4.722	F	4,900	$22,050,000	306		
2231270	K	4TH AVENUE	BELT SHORE PARKWAY		A		2	S	3/21/2014	4.763	F	6,100	$27,450,000	310		
2243330	K	4TH AVENUE	LIRR BAY RIDGE	NT	O		4	S	8/7/2015	5.486	G	13,668	$61,506,000	310		
2243839	K	4TH AVENUE	NYCTA BMT TRACKS	T	O		1	S	7/28/2015	6.250	VG	4,440	$19,980,000	307		
2066100	K	5TH AVENUE	27 X PROSPECT EXPRESSWAY		A		1	S	4/22/2014	5.063	G	8,800	$39,600,000	307		
2244480	K	5TH AVENUE	GREENWOOD CEMETERY ROAD		O		1	S	9/10/2015	5.333	G	3,600	$16,200,000	307		
2243580	K	5TH AVENUE	LIRR & SEA BEACH	NT	O		4	S	10/27/2014	3.882	F	12,395	$55,777,500	310		
2243590	K	6TH AVENUE	LIRR & SEA BEACH	NT	O		2	S	7/9/2015	6.056	VG	14,382	$64,719,000	310		
2243280	K	6TH AVENUE	LIRR ATLANTIC AVENUE	L	O		9	S	9/5/2014	5.431	G	12,276	$55,242,000	302		
2243600	K	7TH AVENUE	LIRR & SEA BEACH	NT	O		7	S	10/22/2014	4.806	F	18,628	$83,826,000	310		
2243920	K	7TH AVENUE	NYCTA BMT YARD	T	O		2	S	6/30/2014	6.042	VG	4,700	$21,150,000	307		
2243610	K	8TH AVENUE	LIRR & SEA BEACH	NT	O		2	S	7/9/2015	6.097	VG	10,834	$48,753,000	310		
2243840	K	9TH AVENUE	NYCTA BMT YARD	T	O		5	S	7/30/2015	5.736	G	12,440	$55,980,000	312		
2243940	K	9TH AVENUE	NYCTA IND SBWY	T	O		5	S	7/29/2015	4.667	F	6,300	$28,350,000	312		
2240240	K	NINTH STREET BRIDGE	GOWANUS CANAL		WMO		3	S	6/17/2015	6.161	VG	5,772	$25,974,000	306		
2245209	M	11TH AVENUE	AMTRAK 30 ST BRANCH	A	O		2	S	6/4/2014	4.426	F	15,400	$69,300,000	104		
2243630	K	11TH AVENUE	LIRR & SEA BEACH	NT	O		5	S	7/1/2014	5.985	G	9,700	$43,650,000	310		
2245010	M	11TH AVENUE VIADUCT	LIRR WEST SIDE YARD	AL	O		39	S	12/12/2014	4.056	F	149,100	$670,950,000	104		
2243640	K	13TH AVENUE	LIRR & SEA BEACH	NT	O		5	S	7/10/2015	4.972	F	16,000	$72,000,000	310		
2231970	Q	14TH AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.523	F	8,100	$36,450,000	407		
2243650	K	14TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	6.167	VG	4,720	$21,240,000	311		
2243670	K	15TH AVENUE	BMT SEA BEACH	T	O		4	S	6/22/2015	6.114	VG	9,800	$44,100,000	311		
2243340	K	15TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	4.872	F	3,614	$16,263,000	311		
2243680	K	16TH AVENUE	BMT SEA BEACH	T	O		3	S	6/6/2014	5.481	G	6,816	$30,672,000	311		
2243360	K	16TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	5.350	G	4,345	$19,552,500	311		
2243690	K	17TH AVENUE	BMT SEA BEACH	T	O		4	S	5/30/2014	6.173	VG	8,946	$40,257,000	311		
2243370	K	17TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/2/2014	4.745	F	3,406	$15,327,000	312		
2231300	K	17TH AVENUE PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	1	C	9/8/2015	3.702	F	2,100	$9,450,000	311		
2243700	K	18TH AVENUE	BMT SEA BEACH	T	O		1	S	7/1/2015	6.421	VG	5,200	$23,400,000	311		
2243380	K	18TH AVENUE	LIRR BAY RIDGE	N	O		1	S	10/2/2014	4.625	F	6,006	$27,027,000	312		
2243710	K	19TH AVENUE	BMT SEA BEACH	T	O		4	S	5/29/2014	4.237	F	4,800	$21,600,000	311		
2243720	K	20TH AVENUE	BMT SEA BEACH	T	O		1	S	6/2/2014	6.421	VG	7,000	$31,500,000	311		
2243820	K	21ST AVENUE	BMT SEA BEACH	T	O		4	S	7/22/2015	4.026	F	21,400	$96,300,000	311		
2247270	Q	21ST STREET	LIRR N SHORE YARD	L	O		6	S	10/6/2015	5.153	G	17,590	$79,155,000	402		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231330	K	27TH AVENUE PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	1	C	3/19/2015	4.067	F	2,100	$9,450,000	313		
2231890	Q	28TH AVENUE PEDESTRIAN BRIDGE	BELT CROSS ISLAND PARKWAY		A-PED	P	24	C	7/6/2015	4.615	F	7,600	$34,200,000	411		
2230730	Q	31ST AVENUE	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		1	S	6/17/2015	5.767	G	5,875	$26,437,500	401		
2230657	Q	31ST STREET	278I (BROOKLYN-QUEENS EXPRESSWAY) - NYCTA		A		2	S	11/19/2014	4.514	F	9,500	$42,750,000	401		
2230640	Q	32ND STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	6/4/2015	4.875	F	8,100	$36,450,000	401		
2230630	Q	35TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		4	S	3/14/2014	4.667	F	9,000	$40,500,000	401		
2247370	Q	37TH AVENUE	CSX - HELLGATE	C	O		1	S	9/15/2015	5.894	G	6,868	$30,906,000	402		
2230620	Q	37TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/12/2014	4.681	F	5,300	$23,850,000	401		
2247330	Q	39TH STREET (NORTH)	SUNNYSIDE YARD	A	O		14	S	12/22/2015	6.208	VG	48,200	$216,900,000	402	401	
2247640	Q	39TH STREET (SOUTH)	AMTRAK & LIRR YARD	AL	O		9	S	12/16/2015	5.667	G	34,100	$153,450,000	402		
2230570	Q	41ST AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.735	VG	8,580	$38,610,000	402		
2247390	Q	41ST AVENUE	CSX - HELLGATE	C	O		2	S	9/15/2015	4.788	F	4,400	$19,800,000	402	404	
2247410	Q	43RD AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.000	G	4,800	$21,600,000	402	404	
2247420	Q	44TH AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.267	G	5,100	$22,950,000	402	404	
2230840	Q	44TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	5/13/2014	4.764	F	5,000	$22,500,000	401		
2247430	Q	45TH AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.224	G	2,400	$10,800,000	402	404	
2230820	Q	47TH STREET	GRAND CENTRAL PARKWAY		A		2	S	4/28/2014	4.889	F	5,700	$25,650,000	401		
2247290	Q	49TH AVENUE	LIRR - AMTRAK	AL	O		5	S	11/26/2014	3.819	F	20,400	$91,800,000	402		
2230800	Q	49TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		2	S	4/7/2014	5.278	G	4,900	$22,050,000	401		
2230890	Q	49TH STREET	GRAND CENTRAL PARKWAY		A		2	S	5/15/2014	4.444	F	6,350	$28,575,000	401		
2243400	K	50TH STREET	LIRR BAY RIDGE	N	O		2	S	8/5/2015	4.731	F	7,100	$31,950,000	312		
1247280	Q	51ST AVENUE PEDESTRIAN BRIDGE (2247280)	LIRR MAIN LINE	L	O-PED		5	C	9/18/2014	3.018	F	700	$3,150,000	402		
2243390	K	52ND STREET	LIRR BAY RIDGE	N	O		1	S	10/1/2014	6.017	VG	3,293	$14,818,500	312		
2247190	Q	55TH AVENUE PEDESTRIAN BRIDGE	LIRR MAIN LINE	L	O-PED		3	C	9/17/2014	4.120	F	1,296	$5,832,000	404		
2247450	Q	57TH AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	5.976	G	2,248	$10,116,000	405		
2247650	Q	60TH ROAD PEDESTRIAN BRIDGE	LIRR MAIN LINE	L	O-PED		3	C	9/16/2014	5.000	G	1,200	$5,400,000	405	406	
2243350	K	60TH STREET	LIRR BAY RIDGE	N	O		1	S	9/1/2015	6.000	G	3,900	$17,550,000	311		
2247540	Q	60TH STREET	LIRR MONTAUK DIV	L	O		2	S	9/29/2015	5.208	G	5,340	$24,030,000	405		
2230520	Q	65TH PLACE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	2/6/2014	5.889	G	11,668	$52,506,000	402		
2247160	Q	65TH PLACE	LIRR MAIN LINE	L	O		3	S	10/12/2015	6.324	VG	8,381	$37,714,500	402		
2243730	K	65TH STREET	BMT SEA BEACH	T	O		4	S	5/23/2014	5.132	G	12,000	$54,000,000	311		
2247150	Q	65TH STREET	LIRR MAIN LINE	L	O		3	S	10/12/2015	6.375	VG	6,344	$28,548,000	402		
1247200	Q	67TH AVENUE PEDESTRIAN BRIDGE (2247200)	LIRR MAIN LINE	L	O-PED		3	C	9/24/2014	4.219	F	1,300	$5,850,000	406		
2230550	Q	69TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	1/31/2014	5.263	G	12,600	$56,700,000	402		
2065950	Q	69TH STREET	495I (LONG ISLAND EXPRESSWAY)		A		2	S	6/24/2015	5.056	G	10,336	$46,512,000	405		
2247490	Q	69TH STREET	CSX TRANSPORT	C	O		1	S	11/10/2014	4.979	F	6,175	$27,787,500	405		
2230560	Q	70TH STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.556	VG	8,580	$38,610,000	402		
2248300	Q	71ST AVENUE	COOPER AVENUE		O		1	S	6/24/2015	4.373	F	2,800	$12,600,000	405		
2246150	M	72ND STREET CROSS DRIVE (TERRACE BRDG)	PEDESTRIAN PATH TO FOUNTAIN		O	P	3	S	2/24/2014	5.786	G	7,300	$32,850,000	164		
2246160	M	73RD STREET PEDESTRIAN BRIDGE (BOW BRIDGE)	THE LAKE		WO-PED	P	1	C	4/8/2014	3.946	F	1,700	$7,650,000	164		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2267718	M	79TH SREET TRAFFIC CIRCLE	79TH STREET PEDESTRIAN PLAZA		A	P	34	S	6/3/2015	3.754	F	24,130	$108,585,000	107		
2246440	M	79TH STREET PEDESTRIAN BRIDGE	TRANSVERSE ROAD #2		O-PED	P	1	C	6/15/2015	3.926	F	5,900	$26,550,000	164		
2267717	M	79TH STREET PEDESTRIAN PLAZA	79TH STREET BOAT BASIN GARAGE		A	P	10	S	5/5/2015	4.444	F	27,400	$123,300,000	107		
226771B	M	79TH STREET RAMP TO GARAGE	79TH STREET BOAT BASIN GARAGE		AR	P	21	S	5/12/2015	4.452	F	8,989	$40,450,500	107		
226771A	M	79TH STREET RAMP TO HENRY HUDSON PARKWAY	79TH STREET BOAT BASIN GARAGE		AR	P	4	S	5/5/2015	4.221	F	3,131	$14,089,500	107		
2247220	Q	80TH ROAD	LIRR MAIN LINE	L	O		3	S	9/28/2015	4.698	F	4,100	$18,450,000	409		
2247570	Q	80TH STREET	77TH AVENUE - LIRR MT	L	O		5	S	10/21/2014	4.932	F	11,725	$52,762,500	405		
2231250	K	81ST STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	5	C	2/23/2015	4.761	F	3,100	$13,950,000	310		
2247230	Q	82ND AVENUE	LIRR MAIN LINE	L	O		3	S	9/25/2015	5.246	G	4,100	$18,450,000	409		
2243570	K	86TH STREET	BMT SEA BEACH	T	O		1	S	6/4/2014	5.797	G	12,167	$54,751,500	313		
1247010	Q	91ST PLACE (2247010)	LIRR PT WASH BR	L	O		1	S	9/30/2015	6.500	VG	2,760	$12,420,000	404		
2231260	K	92ND STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED	P	6	C	8/21/2015	3.770	F	3,000	$13,500,000	310		
2247020	Q	94TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		5	C	9/12/2014	4.231	F	905	$4,072,500	404		
2248250	Q	102ND STREET	HAWTREE BASIN		WO		3	S	7/23/2015	6.015	VG	4,900	$22,050,000	410		
2231740	Q	130TH AVENUE	BELT LAURELTON PARKWAY SOUTHBOUND		A		1	S	1/13/2014	4.700	F	4,400	$19,800,000	413		
2231730	Q	130TH AVENUE	BELT LAURETON PARKWAY NORTHBOUND		A		1	S	1/10/2014	5.133	G	4,400	$19,800,000	413		
2231590	Q	130TH STREET	BELT SOUTHERN PARKWAY		A		2	S	1/30/2014	4.659	F	6,800	$30,600,000	410		
2240089	BM	145TH STREET BRIDGE	HARLEM RIVER		WMO		8	S	8/21/2015	6.278	VG	56,700	$255,150,000	110	204	201
2231980	Q	147TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.705	F	6,300	$28,350,000	407		
2247070	Q	147TH STREET	LIRR PORT WASH BR	L	O		1	S	9/23/2015	5.392	G	2,800	$12,600,000	407		
2247090	Q	149TH PLACE	LIRR PORT WASH BR	L	O		2	S	9/21/2015	5.000	G	4,300	$19,350,000	407		
2231960	Q	149TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	1/29/2014	4.795	F	6,210	$27,945,000	407		
2247080	Q	149TH STREET	LIRR PORT WASH BR	L	O		1	S	9/8/2009	4.776	F	4,100	$18,450,000	407		
2231950	Q	150TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	2/21/2014	4.591	F	5,900	$26,550,000	407		
2247100	Q	150TH STREET	LIRR PORT WASH BR	L	O		2	S	9/21/2015	6.088	VG	5,508	$24,786,000	407		
2231920	Q	160TH STREET	BELT CROSS ISLAND PARKWAY		A		2	S	6/10/2015	5.694	G	5,550	$24,975,000	407		
2240650	Q	163RD AVENUE PEDESTRIAN BRIDGE	HAWTREE BASIN		WO-PED		13	C	8/31/2015	4.037	F	5,000	$22,500,000	410		
7705510	Q	167TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		3	C	9/11/2014	4.000	F	840	$3,780,000	407		
206672A	B	174TH STREET-NORTH PEDESTRIAN BRIDGE	895I - SHERIDAN EXPRESSWAY		A-PED		4	C	4/20/2015	4.833	F	1,800	$8,100,000	209		
206672B	B	174TH STREET-SOUTH PEDESTRIAN BRIDGE	895I - SHERIDAN EXPRESSWAY		A-PED		4	C	4/20/2015	4.750	F	1,900	$8,550,000	209		
2241259	B	204TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED	P	1	C	9/19/2015	3.845	F	4,700	$21,150,000	227	207	
7703720	Q	216TH STREET PEDESTRIAN BRIDGE	LIRR PORT WASH BR	L	O-PED		6	C	9/22/2014	3.111	F	960	$4,320,000	411		
2247680	Q	221ST STREET	LIRR PORT WASH BR	L	O		3	S	9/23/2015	5.926	G	6,050	$27,225,000	411		
2231640	Q	225TH STREET	BELT SOUTHERN PARKWAY		A		2	S	5/15/2014	4.614	F	7,000	$31,500,000	413		
224004J	M	25X TO/FROM 2ND AVENUE	NYC GARAGE		OE		14	S	4/21/2014	4.829	F	22,058	$99,261,000	108		
2266540	B	278I	BRUCKNER BOULEVARD		A		2	S	7/1/2015	4.435	F	32,900	$148,050,000	201		
2230679	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	34TH AVENUE		A		1	S	6/1/2015	5.983	G	7,793	$35,068,500	402		
2230669	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	35TH AVENUE		A		1	S	7/29/2015	6.051	VG	13,135	$59,107,500	402		
2230470	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	JAY STREET		A		1	S	1/15/2014	4.833	F	5,100	$22,950,000	302		
2230510	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	NASSAU STREET		A		6	S	7/3/2014	5.169	G	51,200	$230,400,000	302		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2230680	Q	278I (BROOKLYN-QUEENS EXPRESSWAY)	NORTHERN BOULEVARD		A		1	S	11/5/2014	6.016	VG	27,011	$121,549,500	402	401	
2230460	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	PEARL STREET		A		1	S	1/15/2014	5.467	G	4,500	$20,250,000	302		
2230480	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	PROSPECT STREET		A		1	S	2/21/2014	4.852	F	8,400	$37,800,000	302		
2230500	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	RAMP TO BROOKLYN-QUEENS EXPRESSWAY EASTBOUND		A		1	S	2/10/2014	4.967	F	1,300	$5,850,000	302		
2230490	K	278I (BROOKLYN-QUEENS EXPRESSWAY)	SANDS STREET		A		1	S	2/27/2014	5.019	G	12,600	$56,700,000	302		
2230430	K	278I (BROOKLYN-QUEENS EXPRESSWAY) RAMP TO BROOKLYN BRIDGE	PROSPECT STREET		A		1	S	1/6/2014	5.000	G	1,100	$4,950,000	302		
2230780	Q	278I (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	30TH AVENUE		A		1	S	5/22/2015	6.206	VG	7,071	$31,819,500	403	401	
2230770	Q	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	30TH AVENUE		A		1	S	5/22/2015	6.102	VG	6,199	$27,895,500	401		
2268518	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		5	S	7/1/2015	4.119	F	9,275	$41,737,500	302		
2268508	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY) - BROOKLYN BRIDGE		A		11	S	6/29/2015	4.297	F	20,529	$92,380,500	302		
2268498	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY) - PROMENADE		A		69	S	11/26/2014	3.754	F	133,708	$601,686,000	302		
2230888	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	CADMAN PLAZA / 278I WESTBOUND		A		2	S	7/28/2014	5.263	G	4,500	$20,250,000	302		
2230450	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	ADAMS STREET		A		1	S	1/15/2014	4.933	F	2,500	$11,250,000	302		
2230858	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	JORALEMON STREET / BROOKLYN-QUEENS EXPRESSWAY WESTBOUND		A		1	S	10/20/2015	4.619	F	5,900	$26,550,000	302		
2230410	K	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	WASHINGTON STREET		A		1	S	7/16/2014	4.500	F	2,500	$11,250,000	302		
2230760	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	31ST AVENUE		A		1	S	7/23/2014	6.356	VG	4,161	$18,724,500	401		
2230700	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	32ND AVENUE (TO BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		8	S	11/5/2014	6.352	VG	31,600	$142,200,000	401	403	
2230690	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	32ND AVENUE		A		1	S	6/2/2014	6.407	VG	4,080	$18,360,000	401		
2230830	Q	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	GRAND CENTRAL PARKWAY		A		2	S	4/28/2014	4.583	F	7,600	$34,200,000	401		
2230720	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	278I NORTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		3	S	6/17/2015	6.152	VG	20,896	$94,032,000	401		
2230710	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	32ND AVENUE		A		1	S	6/23/2015	6.424	VG	5,240	$23,580,000	401		
2230750	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY EAST LEG)	31ST AVENUE		A		1	S	6/22/2015	6.424	VG	4,221	$18,994,500	401	403	
2230740	Q	278I SOUTHBOUND (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)	31ST AVENUE		A		1	S	6/22/2015	5.978	G	5,246	$23,607,000	401		
2230887	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	CADMAN PLAZA		A		2	S	7/25/2014	4.403	F	4,500	$20,250,000	302		
2268517	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	FURMAN STREET		A		7	S	6/30/2015	4.104	F	10,988	$49,446,000	302		
2268497	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	FURMAN STREET - 278I EASTBOUND		A		45	S	9/16/2015	4.357	F	86,406	$388,827,000	302		
2268507	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	YORK STREET		A		6	S	6/29/2015	4.071	F	10,388	$46,746,000	302		
2230440	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	ADAMS STREET		A		1	S	1/15/2014	5.200	G	2,700	$12,150,000	302		
2230857	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	JORALEMON STREET		A		1	S	3/11/2014	5.000	G	2,100	$9,450,000	302		
2230420	K	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)	WASHINGTON STREET		A		1	S	7/16/2014	5.047	G	2,500	$11,250,000	302		
2066002	Q	495I (2066000)	WOODHAVEN BOULEVARD		A		2	S	6/10/2015	5.479	G	25,200	$113,400,000	406	404	
2266160	Q	678I SOUTHBOUND TO BELT CROSS ISLAND PARKWAY EASTBOUND	678I - BELT CROSS ISLAND PARKWAY JUNCTION		A		1	S	6/12/2015	4.156	F	2,300	$10,350,000	407		
2246490	M	A.C. POWELL BOULEVARD NORTHBOUND	A.C. POWELL BOULEVARD		O		1	S	1/31/2014	4.347	F	3,000	$13,500,000	110		
2243530	K	ALBANY AVENUE - AVENUE H	LIRR BAY RIDGE	N	O		2	S	8/31/2015	5.956	G	35,100	$157,950,000	318		
2249320	R	ALBEE AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/16/2015	4.689	F	6,500	$29,250,000	503		
2268920	R	AMBOY ROAD	LEMON CREEK		WO		1	S	3/10/2014	6.333	VG	1,310	$5,895,000	503		
2247530	Q	ANDREWS AVENUE	LIRR MONTAUK DIV	L	O		1	S	9/29/2015	6.688	VG	1,765	$7,942,500	405		
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S	O		1	S	8/20/2015	6.233	VG	3,540	$15,930,000	503		
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM		WO		1	S	5/5/2015	4.102	F	1,500	$6,750,000	503		
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S	O		1	S	10/14/2014	4.796	F	3,650	$16,425,000	503		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2230810	Q	ASTORIA BOULEVARD EASTBOUND	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		4	S	5/22/2015	4.279	F	8,200	$36,900,000	401		
2244170	K	ATLANTIC AVENUE SERVICE ROAD EASTBOUND	EAST NEW YORK AVENUE		O		2	S	7/28/2015	5.474	G	3,192	$14,364,000	305		
2244180	K	ATLANTIC AVENUE SERVICE ROAD WESTBOUND	EAST NEW YORK AVENUE		O		2	S	7/28/2015	5.105	G	5,600	$25,200,000	305		
2243569	K	ATLANTIC AVENUE	LIRR ATLANTIC AVENUE	L	O		75	S	6/18/2014	3.620	F	135,100	$607,950,000	316	305	
2243750	K	AVENUE O	BMT SEA BEACH	T	O		1	S	8/10/2015	5.706	G	4,658	$20,961,000	311		
2243760	K	AVENUE P	BMT SEA BEACH	T	O		1	S	8/10/2015	6.140	VG	5,544	$24,948,000	311		
2243790	K	AVENUE S	BMT SEA BEACH	T	O		1	S	6/26/2015	5.967	G	5,360	$24,120,000	315		
2243800	K	AVENUE T	BMT SEA BEACH	T	O		1	S	6/26/2015	6.000	G	5,360	$24,120,000	311		
2243810	K	AVENUE U	BMT SEA BEACH	T	O		1	S	6/20/2014	5.294	G	5,880	$26,460,000	315		
2249440	R	BANCROFT AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/17/2015	5.393	G	5,900	$26,550,000	502		
2241180	B	BARRETTO STREET	AMTRAK - CSX	AC	O		1	S	11/18/2014	5.813	G	5,313	$23,908,500	202		
2232000	M	BATTERY PLACE	FDR DRIVE		AT		2	S	10/16/2015	5.182	G	142,000	$639,000,000	101		
2231290	K	BAY 8TH STREET	BELT SHORE PARKWAY		A		1	S	6/4/2015	5.730	G	4,950	$22,275,000	311		
2243740	K	BAY PARKWAY	BMT SEA BEACH	T	O		4	S	5/22/2014	4.658	F	16,800	$75,600,000	311		
2249400	R	BEACH AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/11/2015	5.364	G	3,700	$16,650,000	502		
2248230	Q	BEACH CHANNEL DRIVE WESTBOUND	BEACH CHANNEL DRIVE EASTBOUND		O		1	S	6/15/2015	4.400	F	3,600	$16,200,000	484		
2243490	K	BEDFORD AVENUE	LIRR BAY RIDGE	N	O		6	S	9/15/2014	5.097	G	12,000	$54,000,000	314		
2241840	B	BEDFORD PARK BOULEVARD	METRO NORTH RR HAR	M	O		1	S	4/28/2014	4.656	F	6,400	$28,800,000	227	207	
2241930	B	BEDFORD PARK BOULEVARD	NYCTA IND YARDS	T	O		4	S	10/31/2014	5.347	G	46,300	$208,350,000	207		
2249580	R	BELFIELD AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		5	C	4/17/2015	3.902	F	400	$1,800,000	503		
2247140	Q	BELL BOULEVARD	LIRR PORT WASH BR	L	O		1	S	10/1/2015	5.610	G	4,320	$19,440,000	411		
2231790	Q	BELMONT PARK NORTH RAMP	BELT CROSS ISLAND PARKWAY		A	P	1	S	1/12/2014	4.563	F	3,400	$15,300,000	413		
2231770	Q	BELMONT PARK SOUTH RAMP	BELT CROSS ISLAND PARKWAY		A	P	1	S	2/26/2014	4.781	F	3,200	$14,400,000	413		
2231760	Q	BELT CROSS ISLAND PARKWAY	DUTCH BROADWAY-115TH AVENUE		A		1	S	2/28/2014	4.233	F	7,300	$32,850,000	413		
2266770	Q	BELT CROSS ISLAND PARKWAY	LAURELTON PARKWAY		A		1	S	3/7/2014	4.972	F	9,508	$42,786,000	413		
2231900	Q	BELT CROSS ISLAND PARKWAY	TOTTEN AVENUE		A		1	S	5/12/2014	4.609	F	4,900	$22,050,000	407		
Q00002	Q	BELT CROSS ISLAND PARKWAY	PATH OPPOSITE 88TH ROAD		A		1	C	5/26/2015	4.400	F	1,272	$5,724,000	413		
2231329	K	BELT SHORE PARKWAY	26TH AVENUE		A		1	S	4/1/2014	4.600	F	6,700	$30,150,000	313		
2231319	K	BELT SHORE PARKWAY	BAY PARKWAY		A		1	S	6/19/2015	4.533	F	7,200	$32,400,000	311		
2231249	K	BELT SHORE PARKWAY	BAY RIDGE AVENUE		A		1	S	5/22/2015	6.905	VG	4,900	$22,050,000	310		
2231429	K	BELT SHORE PARKWAY	BEDFORD AVENUE		A		3	S	4/23/2014	4.278	F	12,000	$54,000,000	315		
2231509	K	BELT SHORE PARKWAY	FRESH CREEK		WA		3	S	11/3/2015	6.577	VG	40,095	$180,427,500	356		
2231450	K	BELT SHORE PARKWAY	GERRITSEN INLET		WA		11	S	8/10/2015	3.239	F	52,000	$234,000,000	356		
2231479	K	BELT SHORE PARKWAY	MILL BASIN		WMA		14	S	11/9/2015	3.209	F	73,500	$330,750,000	318		
2231439	K	BELT SHORE PARKWAY	NOSTRAND AVENUE		A		3	S	3/25/2014	4.264	F	13,000	$58,500,000	315		
2231419	K	BELT SHORE PARKWAY	OCEAN AVENUE		A		3	S	3/25/2014	4.306	F	14,000	$63,000,000	315		
2231360	K	BELT SHORE PARKWAY	OCEAN PARKWAY		A		3	S	7/16/2014	6.448	VG	29,637	$133,366,500	313		
2231499	K	BELT SHORE PARKWAY	ROCKAWAY PARKWAY		A		1	S	11/5/2014	7.000	VG	10,370	$46,665,000	356		
2231409	K	BELT SHORE PARKWAY	SHEEPSHEAD BAY ROAD		A		1	S	4/1/2014	4.738	F	6,500	$29,250,000	315		
2231482	K	BELT SHORE PARKWAY EASTBOUND	PAERDEGAT BASIN		WA		5	S	11/4/2014	7.000	VG	82,074	$369,333,000	318		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231481	K	BELT SHORE PARKWAY WESTBOUND	PAERDEGAT BASIN		WA		3	S	11/2/2015	6.758	VG	50,052	$225,234,000	318		
2249250	R	BETHEL AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		12	C	4/9/2015	3.754	F	1,165	$5,242,500	503		
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T	O		3	S	6/11/2015	4.088	F	4,200	$18,900,000	314		
2243900	K	BLAKE AVENUE	LIRR BAY RIDGE	N	O		3	S	9/26/2014	4.927	F	4,912	$22,104,000	316		
2248379	Q	BOATHOUSE BRIDGE	AQUACADE LAKE		WO	P	5	S	7/21/2015	4.296	F	6,300	$28,350,000	481		
2240410	Q	BORDEN AVENUE	DUTCH KILLS		WMO		2	S	6/26/2015	4.806	F	8,400	$37,800,000	402		
2270180	R	BOROUGH PLACE - RAMP A	STATEN ISLAND RAILWAY	S	O	F	1	S	5/9/2014	6.594	VG	1,870	$8,415,000	501		
2242110	B	BOSTON ROAD	BRONX RIVER		WO		1	S	2/26/2014	4.227	F	6,200	$27,900,000	227		
2229579	B	BOSTON ROAD	HUTCHINSON RIVER		WO		14	S	5/26/2015	4.042	F	95,700	$430,650,000	212		
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		WO	P	1	S	2/26/2014	4.833	F	2,200	$9,900,000	227		
2247050	Q	BOWNE STREET	LIRR PORT WASH BR	L	O		1	S	9/24/2014	5.451	G	4,974	$22,383,000	407		
2231829	Q	BRADDOCK AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	5/22/2015	4.886	F	10,600	$47,700,000	413		
2249730	R	BRIDGE OVER DAM	NORTH END CLOVE LAKE		WO-PED	P	1	C	7/29/2015	3.351	F	1,000	$4,500,000	501		
2230590	Q	BROADWAY / 37TH AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	11/24/2014	5.579	G	16,000	$72,000,000	402		
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	TM	WMO		3	S	12/20/2015	3.806	F	46,848	$210,816,000	112	207	208
2242072	B	BRONX BOULEVARD NORTHBOUND	BRONX RIVER		WO		1	S	3/27/2014	4.867	F	1,800	$8,100,000	212		
2242082	B	BRONX BOULEVARD NORTHBOUND	BRONX RIVER		WO		1	S	3/26/2014	4.467	F	2,800	$12,600,000	212		
2242071	B	BRONX BOULEVARD SOUTHBOUND	BRONX RIVER		WO		1	S	3/27/2014	4.367	F	1,800	$8,100,000	212		
2242081	B	BRONX BOULEVARD SOUTHBOUND	BRONX RIVER		WO		1	S	3/26/2014	4.300	F	2,800	$12,600,000	212		
2229560	B	BRONX PELHAM PARKWAY	AMTRAK - CSX	AC	A		3	S	11/12/2014	4.486	F	24,591	$110,659,500	211		
2075849	B	BRONX PELHAM PARKWAY	HUTCHINSON RIVER PARKWAY		A		2	S	5/8/2014	3.974	F	17,600	$79,200,000	210	211	
2065629	B	BRONX RIVER PARKWAY	BOSTON ROAD - BRONX ZOO		A		1	S	8/12/2015	5.138	G	6,300	$28,350,000	227		
2270250	B	BROOKE AVENUE	CSX TRANS - PT MORRIS (ABANDONED)		O		1	S	7/17/2015	3.873	F	21,035	$94,657,500	201		
2243520	K	BROOKLYN AVENUE	LIRR BAY RIDGE	N	O		3	S	8/4/2015	5.727	G	4,500	$20,250,000	318		
2240019	KM	BROOKLYN BRIDGE	EAST RIVER		WEO		75	S	12/5/2014	3.139	F	503,788	$2,267,046,000	103	302	101
2267860	K	BROOKLYN BRIDGE APPROACH	STORAGE (SANDS STREET)		O		1	S	5/23/2014	4.344	F	6,490	$29,205,000	302		
2268350	K	BROOKLYN PROMENADE	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A-PED	P	35	C	4/29/2015	3.828	F	46,184	$207,828,000	302		
2241099	B	BRUCKNER BOULEVARD	CSX TRANS - PT MORRIS	C	O		1	S	7/16/2014	6.067	VG	6,700	$30,150,000	201		
2066671	B	BRUCKNER EXPESSWAY SOUTHBOUND	BRONX RIVER		WA		3	S	10/7/2015	4.972	F	12,400	$55,800,000	202	209	
2076929	B	BRUCKNER EXPRESSWAY	CSX - HUNTS POINT	C	A		1	S	8/24/2015	4.433	F	3,800	$17,100,000	202		
2075352	B	BRUCKNER EXPRESSWAY NORTHBOUND	AMTRAK - CSX	AC	A		1	S	10/30/2014	6.190	VG	10,900	$49,050,000	202		
2066672	B	BRUCKNER EXPRESSWAY NORTHBOUND	BRONX RIVER		WA		8	S	10/9/2015	4.418	F	22,300	$100,350,000	202	209	
2076109	B	BRUCKNER EXPRESSWAY NORTHBOUND SERVICE ROAD	HUTCHINSON RIVER PARKWAY		A		2	S	8/13/2015	4.895	F	7,800	$35,100,000	210		
1066510	B	BRUCKNER EXPRESSWAY SERVICE ROAD	WESTCHESTER CREEK		WMA		17	S	9/18/2015	3.565	F	35,000	$157,500,000	209		
2075351	B	BRUCKNER EXPRESSWAY SOUTHBOUND	AMTRAK - CSX	AC	A		1	S	10/29/2014	5.698	G	11,600	$52,200,000	202		
2076129	B	BRUCKNER EXPRESSWAY SOUTHBOUND SERVICE ROAD	HUTCHINSON RIVER PARKWAY		A		2	S	1/16/2014	5.079	G	7,100	$31,950,000	210		
2241210	B	BRYANT AVENUE	AMTRAK - CSX	AC	O		1	S	11/19/2014	3.186	F	5,300	$23,850,000	202		
2230790	Q	BULOVA AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY WEST LEG)		A		2	S	4/4/2014	5.278	G	3,300	$14,850,000	401		
2269770	R	BUS STATION ENTANCE RAMP	SIRT	S	O	F	19	S	10/9/2015	5.431	G	39,333	$176,998,500	501		
2269790	R	BUS STATION EXIT RAMP	SIRT	S	O	F	7	S	11/4/2014	5.167	G	28,721	$129,244,500	501		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2269740	R	BUS STATION NORTH	SIRT - FERRY TERMINAL	S	O	F	12	S	11/2/2014	5.600	G	64,605	$290,722,500	501		
2269750	R	BUS STATION SOUTH	SIRT - PARKING LOT	S	O	F	12	S	11/2/2014	5.280	G	154,688	$696,096,000	501		
2247460	Q	CALDWELL AVENUE	CSX TRANSPORT	C	O		1	S	11/10/2014	5.889	G	2,243	$10,093,500	405		
2243290	K	CARLTON AVENUE	LIRR ATLANTIC AVENUE	L	O		4	S	7/24/2015	6.694	VG	15,400	$69,300,000	302		
2240260	K	CARROLL STREET	GOWANUS CANAL		WMO		2	S	9/22/2015	4.931	F	3,000	$13,500,000	306		
2243220	K	CARROLL STREET PEDESTRIAN BRIDGE	FRANKLIN SHUTTLE	T	O-PED		3	C	4/22/2015	5.324	G	600	$2,700,000	309		
2243050	K	CATON AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	8/19/2015	4.842	F	20,800	$93,600,000	314		
2249390	R	CEDARVIEW AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		5	C	4/14/2015	3.615	F	625	$2,812,500	503		
2246100	M	CENTER DRIVE	TRANSVERSE ROAD #1		O	P	1	S	2/7/2014	4.467	F	6,000	$27,000,000	164		
2246050	M	CENTER DRIVE (DRIPROCK ARCH)	PEDESTRIAN PATH OPPOSITE 63RD STREET		O	P	1	S	1/14/2014	4.867	F	1,725	$7,762,500	164		
2244050	K	CENTER DRIVE (NETHERMEAD ARCHES)	PEDESTRIAN PATH & STREAM		WO	P	3	S	4/30/2015	5.000	G	7,020	$31,590,000	355		
2246070	M	CENTER DRIVE (PLAYMATES ARCH)	PEDESTRIAN PATH OPPOSITE 65TH STREET		O	P	1	C	6/16/2015	4.500	F	1,129	$5,080,500	164		
2268480	M	CHAMBERS STREET PEDESTRIAN BRIDGE	ROUTE 9A - WEST STREET		O-PED		10	C	6/3/2015	5.391	G	7,481	$33,664,500	101		
2249880	R	CHELSEA ROAD	SAWMILL CREEK		WO		1	S	5/21/2015	6.633	VG	2,205	$9,922,500	502		
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY		WO		7	S	10/16/2014	3.444	F	19,915	$89,617,500	228		
2241710	B	CLAREMONT PARKWAY	METRO NORTH RR HAR	M	O		1	S	4/17/2014	6.458	VG	5,950	$26,775,000	203		
2231940	Q	CLINTONVILLE STREET	BELT CROSS ISLAND PARKWAY		A		2	S	2/21/2014	4.705	F	7,400	$33,300,000	407		
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S	O		3	S	10/16/2014	5.778	G	5,104	$22,968,000	502		
2231570	Q	COHANCY STREET	BELT SOUTHERN PARKWAY		A		2	S	4/17/2014	4.395	F	6,400	$28,800,000	410		
2230870	K	COLUMBIA HEIGHTS	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/7/2014	4.450	F	16,500	$74,250,000	302		
2241590	B	CONCOURSE VILLAGE AVENUE	METRO NORTH RR HAR	M	O		1	S	4/19/2014	3.969	F	12,077	$54,346,500	204		
2244460	K	CONDUIT BOULEVARD NORTHBOUND	ATLANTIC AVENUE EASTBOUND		O		1	S	10/10/2014	4.833	F	3,800	$17,100,000	305		
2231380	K	CONEY ISLAND AVENUE	BELT SHORE PARKWAY		A		4	S	10/9/2015	5.542	G	19,866	$89,397,000	313		
2243440	K	CONEY ISLAND AVENUE	LIRR BAY RIDGE	N	O		1	S	9/18/2014	5.043	G	3,231	$14,539,500	312		
2230390	K	CONGRESS STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/27/2014	6.029	VG	5,000	$22,500,000	306		
2246510	M	CORBIN PLACE OVERPASS	CORBIN PLACE		O	P	1	S	1/8/2014	5.000	G	2,223	$10,003,500	112		
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		A	P	4	S	3/20/2014	3.813	F	4,100	$18,450,000	103		
2247130	Q	CORPORAL KENNEDY STREET	LIRR PORT WASH BR	L	O		1	S	10/9/2015	6.157	VG	3,379	$15,205,500	411		
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T	O		3	S	8/17/2015	6.083	VG	4,810	$21,645,000	314		
2231880	Q	CROCHERON PARK PEDESTRIAN	BELT CROSS ISLAND PARKWAY		A-PED	P	9	C	7/28/2015	3.800	F	2,300	$10,350,000	411		
2243040	K	CROOKE AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	6/2/2015	4.316	F	6,000	$27,000,000	314		
2231340	K	CROPSEY AVENUE	BELT SHORE PARKWAY		A		2	S	7/10/2014	4.639	F	13,100	$58,950,000	313		
2240302	K	CROPSEY AVENUE NORTHBOUND	CONEY ISLAND CREEK		WO		3	S	6/26/2015	4.718	F	9,400	$42,300,000	313		
2240301	K	CROPSEY AVENUE SOUTHBOUND	CONEY ISLAND CREEK		WO		3	S	6/26/2015	5.000	G	9,400	$42,300,000	313		
2231559	Q	CROSS BAY BOULEVARD	BELT SHORE PARKWAY		A		4	S	5/30/2014	5.083	G	23,205	$104,422,500	410		
2248039	Q	CROSS BAY BOULEVARD	NASSAU EXPRESSWAY - ROUTE 27		O		2	S	5/26/2015	5.958	G	16,544	$74,448,000	410		
2242030	B	CROTONA AVENUE	BRONX PELHAM PARKWAY		O		2	S	1/29/2014	5.447	G	7,600	$34,200,000	206		
2243230	K	CROWN STREET	FRANKLIN SHUTTLE	T	O		3	S	7/29/2015	5.069	G	4,060	$18,270,000	309		
2230040	Q	CYPRESS HILLS STREET	JACKIE ROBINSON PARKWAY		A		1	S	3/28/2014	4.722	F	5,000	$22,500,000	405		
2249160	R	DE HART AVENUE	B&O RR (ABANDONED)	O	O		4	S	4/29/2015	6.389	VG	6,700	$30,150,000	501		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2232030	M	DELANCEY STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	12	C	4/5/2015	4.443	F	3,390	$15,255,000	103		
2076640	B	DEPOT PLACE	METRO NORTH RR HUD	CM	O		11	S	5/12/2015	4.319	F	26,566	$119,547,000	204		
2243130	K	DITMAS AVENUE	BMT SUBWAY, BRIGHTON	T	O		1	S	8/17/2015	5.723	G	5,150	$23,175,000	314		
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T	O		1	S	6/16/2014	5.863	G	4,825	$21,712,500	314		
2266139	Q	DOUGLASTON PARKWAY	BELT CROSS ISLAND PARKWAY NORTHBOUND		A		1	S	3/12/2014	4.653	F	6,400	$28,800,000	411		
2266129	Q	DOUGLASTON PARKWAY	BELT CROSS ISLAND PARKWAY SOUTHBOUND		A		1	S	3/10/2014	4.592	F	4,400	$19,800,000	411		
2247170	Q	DOUGLASTON PARKWAY	LIRR PORT WASH BR	L	O		3	S	10/1/2014	4.542	F	6,300	$28,350,000	411		
2242260	B	EAGLE AVE	EAST 161ST STREET		O		1	S	2/14/2014	5.117	G	2,800	$12,600,000	201	203	
2243420	K	EAST 3RD STREET	LIRR BAY RIDGE	N	O		1	S	8/5/2015	6.517	VG	1,840	$8,280,000	312		
2232050	M	EAST 6TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	19	C	4/12/2015	4.233	F	2,200	$9,900,000	103		
2231390	K	EAST 12TH STREET	BELT SHORE PARKWAY		A		4	S	7/7/2014	4.542	F	17,200	$77,400,000	315		
2243450	K	EAST 14TH STREET	LIRR BAY RIDGE	N	O		1	S	9/17/2014	4.809	F	1,775	$7,987,500	314		
2233080	K	EAST 14TH STREET PEDESTRIAN BRIDGE	BELT SHORE PARKWAY		A-PED		14	C	8/13/2015	4.164	F	4,700	$21,150,000	315		
2243460	K	EAST 15TH STREET PEDESTRIAN BRIDGE	LIRR BAY RIDGE	N	O-PED		3	C	8/10/2015	5.592	G	900	$4,050,000	314		
2243080	K	EAST 18TH STREET - CHURCH AVENUE	BMT SUBWAY, BRIGHTON	T	O		4	S	8/19/2015	4.545	F	18,200	$81,900,000	314		
2232070	M	EAST 25TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED		3	C	5/3/2015	4.600	F	1,700	$7,650,000	106		
2246540	M	EAST 34TH STREET	PARK AVENUE TUNNEL		OT		1	S	8/20/2014	4.117	F	36,200	$162,900,000	105	106	
2246570	M	EAST 42ND STREET - EAST 47TH STREET	FIRST AVENUE TUNNEL		OT		2	S	5/20/2014	4.922	F	95,000	$427,500,000	106		
2232100	M	EAST 51ST STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	6	C	5/3/2015	4.417	F	2,800	$12,600,000	106		
2233040	M	EAST 60TH STREET	FDR DRIVE		A	P	17	S	7/22/2015	4.972	F	24,480	$110,160,000	108		
2246030	M	EAST 62ND STREET PEDESTRIAN BRIDGE (GAPSTOW BRIDGE)	THE POND		O-PED	P	1	C	7/8/2015	4.241	F	1,400	$6,300,000	164		
2232110	M	EAST 63RD STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	11	U	11/23/2011	4.912	F	2,100	$9,450,000	108		
2232120	M	EAST 71ST STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	19	C	8/24/2015	4.761	F	3,700	$16,650,000	108		
2246450	M	EAST 77TH STREET PEDESTRIAN (GLADE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 77TH STREET		O-PED	P	1	C	1/23/2015	4.138	F	5,000	$22,500,000	164		
2232140	M	EAST 78TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	13	C	5/17/2015	6.700	VG	5,226	$23,517,000	108		
2269820	M	EAST 81ST STREET PEDESTRIAN BRIDGE	FDR DRIVE NORTHBOUND		A-PED	P	3	C	6/8/2014	3.439	F	600	$2,700,000	108		
2246390	M	EAST 86TH STREET PEDESTRIAN (SOUTHEAST RESERVOIR BRIDGE)	BRIDLE PATH		O-PED	P	3	C	11/27/2015	4.509	F	1,100	$4,950,000	164		
2245319	M	EAST 97TH STREET	METRO NORTH MAIN LN	M	O		1	S	12/17/2014	4.647	F	3,200	$14,400,000	111		
2232180	M	EAST 103RD STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED		18	C	8/24/2015	4.512	F	6,807	$30,631,500	111		
2233020	M	EAST 10TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	21	C	4/12/2015	4.596	F	2,754	$12,393,000	103		
2232190	M	EAST 111TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	9	C	8/30/2015	4.319	F	4,254	$19,143,000	111		
2232200	M	EAST 120TH STREET PEDESTRIAN BRIDGE	FDR DRIVE		A-PED	P	18	C	9/3/2015	4.114	F	3,978	$17,901,000	111		
2246620	M	EAST 128TH STREET PEDESTRIAN BRIDGE	3RD AVENUE BRIDGE APPROACH		O-PED		18	C	8/20/2015	3.939	F	2,300	$10,350,000	111		
2246990	M	EAST 129TH STREET PEDESTRIAN BRIDGE	3RD AVENUE BRIDGE RAMP		O-PED	P	5	C	10/15/2014	4.524	F	1,046	$4,707,000	111		
2241550	B	EAST 144TH STREET	METRO NORTH RR HAR	M	O		2	S	8/28/2015	5.847	G	8,290	$37,305,000	201		
2241129	B	EAST 149TH STREET/JACKSON AVENUE	AMTRAK - CSX	AC	O		2	S	11/17/2014	4.592	F	18,258	$82,161,000	201	202	
2241050	B	EAST 149TH STREET/JACKSON AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	5/12/2014	4.817	F	65,000	$292,500,000	201		
2241560	B	EAST 149TH STREET/JACKSON AVENUE	METRO NORTH RR HAR	M	O		8	S	5/5/2014	4.625	F	27,900	$125,550,000	201	204	
2270030	B	EAST 156TH STREET	ACCESS TO HOUSING		O	ED	16	S	11/13/2014	3.493	F	49,696	$223,632,000	204		
2241010	B	EAST 156TH STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	5/9/2014	4.612	F	2,400	$10,800,000	201		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241600	B	EAST 158TH STREET	METRO NORTH RR HAR	M	O		1	S	8/25/2015	5.200	G	3,400	$15,300,000	204		
2241020	B	EAST 161ST STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	3/20/2014	5.800	G	12,800	$57,600,000	203		
2241610	B	EAST 161ST STREET	METRO NORTH RR HAR	M	O		1	S	9/2/2015	5.050	G	6,600	$29,700,000	204	203	
2241620	B	EAST 162ND STREET	METRO NORTH RR HAR	M	O		1	S	4/26/2014	4.781	F	4,700	$21,150,000	203		
2241030	B	EAST 163RD STREET	CSX PT MORRIS - (ABANDONED)	C	O		1	S	2/27/2014	4.611	F	3,200	$14,400,000	203		
2241630	B	EAST 165TH STREET	METRO NORTH RR HAR	M	O		1	S	4/26/2014	4.300	F	16,400	$73,800,000	203		
2241650	B	EAST 167TH STREET	METRO NORTH RR HAR	M	O		1	S	4/21/2014	5.510	G	3,363	$15,133,500	203		
2241660	B	EAST 168TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	4.641	F	4,800	$21,600,000	203		
2241670	B	EAST 169TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	4.188	F	3,300	$14,850,000	203		
2241680	B	EAST 170TH STREET	METRO NORTH RR HAR	M	O		1	S	4/22/2014	6.333	VG	3,150	$14,175,000	203		
2241720	B	EAST 173RD STREET	METRO NORTH RR HAR	M	O		1	S	4/17/2014	4.875	F	3,000	$13,500,000	203		
2241740	B	EAST 175TH STREET	METRO NORTH RR HAR	M	O		1	S	4/14/2014	3.875	F	3,600	$16,200,000	206		
2066720	B	EAST 174TH STREET	SHERIDAN EXPRESWAY/AMTRAK	A	A		13	S	7/29/2014	3.986	F	35,573	$160,078,500	209	203	
2241269	B	EAST 177TH STREET	AMTRAK - CSX	AC	O		3	S	7/29/2014	5.278	G	16,606	$74,727,000	206		
2241770	B	EAST 178TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		1	C	9/12/2015	4.921	F	731	$3,289,500	206		
2241780	B	EAST 179TH STREET PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		6	C	9/12/2015	5.311	G	1,011	$4,549,500	206		
2242400	B	EAST 180TH STREET	BRONX RIVER		WO		1	S	9/26/2014	4.810	F	4,500	$20,250,000	206	227	
2241790	B	EAST 180TH STREET	METRO NORTH RR HAR	M	O		1	S	4/24/2014	3.844	F	5,000	$22,500,000	206		
2241800	B	EAST 183RD STREET	METRO NORTH RR HAR	M	O		1	S	4/24/2014	3.953	F	4,080	$18,360,000	206		
2241820	B	EAST 187TH STREET	METRO NORTH RR HAR	M	O		1	S	4/23/2014	4.344	F	3,800	$17,100,000	206		
2241810	B	EAST 188TH STREET	METRO NORTH RR HAR	M	O		1	S	4/16/2014	4.094	F	5,300	$23,850,000	206		
2242459	B	EAST 233RD STREET	BRONX RIVER		WO		1	S	2/26/2014	4.233	F	7,000	$31,500,000	212		
2242460	B	EAST 233RD STREET	ENTRANCE ROAD BRONX RIVER PARKWAY		O		1	S	1/7/2014	4.900	F	5,300	$23,850,000	212		
2241870	B	EAST 233RD STREET	METRO NORTH RR HAR	M	O		1	S	4/28/2014	4.902	F	7,664	$34,488,000	212	207	
2241890	B	EAST 241ST STREET	BRP, METRO NORTH HAR	M	WO		28	S	10/23/2015	4.639	F	49,500	$222,750,000	212		
2244030	K	EAST DRIVE	BRIDLE PATH NEAR ZOO		O	P	1	S	4/28/2015	4.878	F	2,000	$9,000,000	355		
2246110	M	EAST DRIVE	TRANSVERSE ROAD #1		O	P	1	S	3/19/2014	4.667	F	6,000	$27,000,000	164		
2246230	M	EAST DRIVE	TRANSVERSE ROAD #2		O	P	1	S	3/11/2014	4.600	F	5,080	$22,860,000	164		
2246250	M	EAST DRIVE	TRANSVERSE ROAD #3		O	P	1	S	1/17/2014	4.300	F	4,500	$20,250,000	164		
2246270	M	EAST DRIVE	TRANSVERSE ROAD #4		O	P	1	S	3/20/2014	4.100	F	7,000	$31,500,000	164		
2244040	K	EAST DRIVE (EAST WOOD ARCH)	PEDESTRIAN PATH NEAR CENTER DRIVE		O	P	1	C	7/7/2015	4.667	F	1,066	$4,797,000	355		
2244010	K	EAST DRIVE (ENDALE ARCH)	PEDESTRIAN PATH NEAR GRAND ARMY PLAZA		O	P	1	C	5/26/2015	4.300	F	1,533	$6,898,500	355		
2246069	M	EAST DRIVE (GREEN GAP ARCH)	PEDESTRIAN PATH BETWEEN 63RD & 64TH STREETS		O	P	1	S	1/16/2014	4.433	F	2,075	$9,337,500	164		
2246350	M	EAST DRIVE (GREYWACKE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 80TH STREET		O	P	1	C	6/15/2015	3.733	F	1,266	$5,697,000	164		
2246470	M	EAST DRIVE (HUDDLESTONE ARCH)	THE LOCH		WO	P	1	S	1/28/2014	4.500	F	1,100	$4,950,000	164		
2246040	M	EAST DRIVE (INSCOPE ARCH)	PEDESTRIAN PATH OPPOSITE EAST 62ND STREET		O	P	1	C	4/8/2015	4.367	F	1,515	$6,817,500	164		
2246170	M	EAST DRIVE (TREFOIL ARCH)	PEDESTRIAN PATH OPPOSITE EAST 73RD STREET		O	P	1	S	1/24/2014	5.130	G	1,900	$8,550,000	164		
2246130	M	EAST DRIVE (WILLOWDELL ARCH)	PEDESTRIAN PATH OPPOSITE EAST 67TH STREET		O	P	1	C	4/3/2015	3.500	F	666	$2,997,000	164		
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE		WO-PED	P	2	C	7/21/2015	4.143	F	900	$4,050,000	501		
2242010	B	EAST FORDHAM ROAD	BRONX RIVER		WO		1	S	3/26/2014	5.467	G	9,360	$42,120,000	227		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2242350	B	EAST FORDHAM ROAD	GRAND CONCOURSE		O		1	S	3/7/2014	4.833	F	10,300	$46,350,000	205	207	
2241270	B	EAST TREMONT AVENUE	AMTRAK - CSX	AC	O		2	S	10/31/2014	5.153	G	22,300	$100,350,000	209	211	
2242149	B	EAST TREMONT AVENUE	BRONX RIVER		WO		2	S	5/6/2015	4.361	F	12,900	$58,050,000	206		
2075820	B	EAST TREMONT AVENUE	HUTCHINSON RIVER PARKWAY		A		2	S	10/20/2015	4.528	F	10,200	$45,900,000	210		
2241760	B	EAST TREMONT AVENUE	METRO NORTH RR HAR	M	O		1	S	8/29/2015	6.350	VG	8,424	$37,908,000	206		
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVENUE LN	T	O		3	S	10/28/2014	4.472	F	13,500	$60,750,000	212		
2243279	K	EASTERN PARKWAY	FRANKLIN SHUTTLE	T	O		1	S	6/27/2014	4.833	F	7,700	$34,650,000	309	308	
2240047	MQ	ED KOCH - QUEENSBORO BRIDGE (LL)	EAST RIVER	AL	WEO		53	S	11/12/2014	4.167	F	626,900	$2,821,050,000	108	402	401
2240048	MQ	ED KOCH - QUEENSBORO BRIDGE (UL)	EAST RIVER - LL		WEO		37	S	10/13/2014	4.340	F	322,300	$1,450,350,000	108	402	401
2247470	Q	ELIOT AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	4.972	F	2,960	$13,320,000	405		
2247550	Q	ELIOT AVENUE	LIRR MONTAUK DIV	L	O		2	S	9/24/2015	5.627	G	9,550	$42,975,000	405		
2248160	Q	ELIOT AVENUE	QUEENS BOULEVARD		O		2	S	7/17/2014	4.804	F	13,785	$62,032,500	406		
2269600	K	ERSKINE STREET	BELT SHORE PARKWAY		A		1	S	8/20/2014	5.938	G	8,258	$37,161,000	305		
2241200	B	FAILE STREET	AMTRAK - CSX	AC	O		1	S	11/19/2014	5.578	G	6,208	$27,936,000	202		
2231620	Q	FARMERS BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	4/25/2014	4.477	F	6,400	$28,800,000	413		
2268650	M	FDR DRIVE NORTHBOUND EAST 42ND TO EAST 49TH STREET	EAST RIVER SHORELINE		A		119	S	10/9/2015	3.836	F	30,767	$138,451,500	106		
223201A	M	FDR DRIVE NORTHBOUND OFF RAMP	FDR DRIVE & SOUTH STREET		AR		17	S	7/23/2014	4.493	F	23,373	$105,178,500	101		
223204A	M	FDR DRIVE NORTHBOUND RAMP TO HOUSTON STREET	RELIEF		AR		4	S	1/17/2014	4.706	F	6,150	$27,675,000	103		
2233038	M	FDR DRIVE SOUTHBOUND	FDR DRIVE NORTHBOUND / EAST 62ND STREET		AT		34	S	11/25/2014	6.563	VG	58,700	$264,150,000	106	108	
223201C	M	FDR DRIVE SOUTHBOUND OFF RAMP	SOUTH STREET		AR		8	S	2/6/2014	5.209	G	36,700	$165,150,000	103		
2229520	B	FIELDSTON ROAD	HENRY HUDSON PARKWAY		A		1	S	7/10/2015	4.900	F	6,600	$29,700,000	208		
2231460	K	FLATBUSH AVENUE	BELT SHORE PARKWAY		A		2	S	10/14/2015	6.088	VG	14,058	$63,261,000	356		
2243260	K	FLATBUSH AVENUE	FRANKLIN SHUTTLE	T	O		2	S	6/23/2014	4.961	F	11,300	$50,850,000	309		
2243510	K	FLATBUSH AVENUE	LIRR BAY RIDGE	N	O		2	S	8/4/2015	4.651	F	5,900	$26,550,000	318		
2244440	K	FLEET WALK PEDESTRIAN BRIDGE	NAVY STREET		O-PED		1	C	8/6/2015	3.919	F	620	$2,790,000	302		
2248240	Q	FLUSHING AVENUE SERVICE ROAD	FLUSHING AVENUE		O		1	S	7/2/2015	5.250	G	2,940	$13,230,000	405		
2248140	Q	FLUSHING MEADW PARK ROAD	STREAM NORTH OF LONG ISLAND EXPRESSWAY		WO	P	5	S	7/31/2013	4.481	F	4,100	$18,450,000	481		
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM		WO-PED	P	1	C	4/29/2015	3.867	F	800	$3,600,000	501		
2242120	B	FOOTBRIDGE NORTH OF ROUTE 1 (HESTER BRIDGE)	BRONX RIVER		WO-PED	P	1	C	12/4/2015	3.655	F	1,900	$8,550,000	227		
2249790	R	FOOTBRIDGE SOUTH OF FOREST AVENUE	STREAM IN PARK		WO-PED	P	3	C	11/6/2015	4.651	F	700	$3,150,000	501		
2241839	B	FORDHAM ROAD - EAST 189TH STREET	METRO NORTH RR HAR	M	O		1	S	8/27/2015	6.300	VG	43,157	$194,206,500	206	207	
2249800	R	FOREST AVENUE	CLOVE LAKES PARK STREAM		WO	P	1	S	10/29/2015	4.300	F	1,600	$7,200,000	501		
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR		O	P	6	S	4/28/2015	4.302	F	10,000	$45,000,000	409		
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	O	P	5	S	9/22/2014	5.158	G	6,000	$27,000,000	409		
2248340	Q	FOREST PARK DRIVE	MYRTLE AVENUE		O	P	3	S	6/1/2015	4.984	F	5,100	$22,950,000	409		
2243620	K	FORT HAMILTON PARKWAY	LIRR & SEA BEACH	NT	O		3	S	6/19/2014	4.729	F	14,800	$66,600,000	310		
2246500	M	FORT TRYON PLACE	ENTRANCE FROM RIVERSIDE DRIVE		O	P	1	S	3/25/2014	4.200	F	3,280	$14,760,000	112		
2243150	K	FOSTER AVENUE	BMT SUBWAY, BRIGHTON	T	O		1	S	6/2/2015	4.283	F	3,000	$13,500,000	314		
2231930	Q	FRANCIS LEWIS BOULEVARD	BELT CROSS ISLAND PARKWAY		A		3	S	2/21/2014	4.682	F	9,100	$40,950,000	407		
2231690	Q	FRANCIS LEWIS BOULEVARD	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	3/17/2014	5.033	G	6,000	$27,000,000	413		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231700	Q	FRANCIS LEWIS BOULEVARD	BELT LAURETON PARKWAY WESTBOUND		A		1	S	3/18/2014	4.700	F	6,000	$27,000,000	413		
2267199	Q	FRANCIS LEWIS BOULEVARD	CUNNINGHAM PARK ROAD		O		1	S	5/14/2015	5.300	G	7,085	$31,882,500	408		
2249450	R	FREMONT AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		3	C	4/15/2015	4.164	F	800	$3,600,000	502		
224006A	B	FROM BRUCKNER BOULEVARD	PARKING AREA		OR		5	S	9/1/2015	6.310	VG	14,037	$63,166,500	201		
2248090	Q	FUSHING MEADOW PARK PEDESTRIAN	COLLEGE POINT BOULEVARD		O-PED	P	3	C	1/2/2015	4.639	F	8,400	$37,800,000	407		
2248130	Q	FUSHING MEADOW PARK PEDESTRIAN	WILLOW LAKE & 76TH ROAD		WO-PED	P	4	C	4/20/2002	1.000	C	1,891	$8,509,500	481		
226771C	M	GARAGE RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE		AR	P	21	S	5/12/2015	4.435	F	9,095	$40,927,500	107		
2241420	B	GERARD AVENUE	METRO NORTH RR HUD	M	O		1	S	5/5/2014	5.422	G	5,063	$22,783,500	204		
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S	O		1	S	10/15/2014	5.625	G	3,042	$13,689,000	503		
2243860	K	GLENMORE AVENUE	LIRR BAY RIDGE	N	O		2	S	9/22/2014	6.456	VG	5,616	$25,272,000	316		
2065940	Q	GRAND AVENUE	495I (LONG ISLAND EXPRESSWAY)		A		2	S	11/11/2014	4.861	F	12,850	$57,825,000	405		
2247440	Q	GRAND AVENUE	CSX TRANSPORT	C	O		1	S	9/21/2015	6.183	VG	3,280	$14,760,000	405		
2247180	Q	GRAND AVENUE	LIRR MAIN LINE	L	O		3	S	10/1/2014	4.396	F	7,415	$33,367,500	404		
2242370	B	GRAND CONCOURSE	BEDFORD PARK BOULEVARD		O		1	S	2/21/2014	4.373	F	8,418	$37,881,000	207		
2242299	B	GRAND CONCOURSE	EAST 138TH STREET		O		1	S	6/12/2015	4.733	F	9,500	$42,750,000	201		
2242259	B	GRAND CONCOURSE	EAST 161ST STREET		O		1	S	6/30/2014	6.333	VG	27,017	$121,576,500	204		
2242280	B	GRAND CONCOURSE	EAST 167TH STREET		O		2	S	7/2/2014	4.754	F	42,900	$193,050,000	204		
2242300	B	GRAND CONCOURSE	EAST 170TH STREET		O		2	S	3/19/2014	4.754	F	39,300	$176,850,000	204		
2242319	B	GRAND CONCOURSE	EAST 174TH STREET	T	O		1	S	3/18/2014	4.067	F	14,900	$67,050,000	204		
2242329	B	GRAND CONCOURSE	EAST 175TH STREET	T	O		1	S	6/11/2014	4.833	F	11,900	$53,550,000	205		
2242380	B	GRAND CONCOURSE	EAST 204TH STREET		O		1	S	9/2/2015	5.406	G	9,272	$41,724,000	207		
2242360	B	GRAND CONCOURSE	EAST BURNSIDE AVENUE		O		2	S	6/30/2014	4.265	F	8,400	$37,800,000	205		
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE ROAD		O		2	S	6/12/2014	4.714	F	18,285	$82,282,500	207		
2242330	B	GRAND CONCOURSE	EAST TREMONT AVENUE		O		1	S	9/3/2015	5.583	G	11,700	$52,650,000	205		
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	MT	O		1	S	6/23/2015	3.688	F	14,300	$64,350,000	204		
2240390	KQ	GRAND STREET BRIDGE	NEWTOWN CREEK		WMO		2	S	10/7/2015	4.014	F	5,100	$22,950,000	301	405	
2249100	R	GRANITE AVENUE	B&O RR (ABANDONED)	O	O		4	S	2/4/2014	5.966	G	7,300	$32,850,000	501		
2249370	R	GREAVES AVENUE	SIRT SOUTH SHORE	S	O		1	S	8/19/2015	6.533	VG	2,650	$11,925,000	503		
2240370	KQ	GREENPOINT AVENUE BRIDGE	NEWTOWN CREEK	L	WMO		12	S	7/31/2015	5.083	G	76,106	$342,477,000	301	402	
2231370	K	GUIDER AVENUE RAMP TO BELT SHORE PARKWAY	BELT SHORE PARKWAY		A		4	S	9/23/2014	6.778	VG	10,818	$48,681,000	313		
2242430	B	GUN HILL ROAD	BRONX BOULEVARD		O		4	S	2/20/2014	4.947	F	9,400	$42,300,000	212		
2242440	B	GUN HILL ROAD	BRONX RIVER		WO		1	S	1/14/2014	5.300	G	8,700	$39,150,000	212		
2241860	B	GUN HILL ROAD	METRO NORTH RR HAR	M	O		1	S	4/29/2014	6.531	VG	9,128	$41,076,000	212		
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVENUE LN	T	O		1	S	10/28/2014	5.516	G	7,500	$33,750,000	211	212	
2231610	Q	GUY R. BREWER BOULEVARD	BELT SOUTHERN PARKWAY		A		4	S	6/3/2015	6.028	VG	12,342	$55,539,000	413		
2249380	R	GUYON AVENUE	SIRT SOUTH SHORE	S	O		3	S	9/23/2015	4.672	F	6,900	$31,050,000	503		
2240231	K	HAMILTON AVENUE BRIDGE	GOWANUS CANAL		WMO		3	S	9/9/2014	5.472	G	7,300	$32,850,000	307	306	
2240232	K	HAMILTON AVENUE BRIDGE	GOWANUS CANAL		WMO		3	S	8/7/2015	5.361	G	8,611	$38,749,500	306		
2065930	Q	HAMILTON PLACE	495I (LONG ISLAND EXPRESSWAY)		A		2	S	2/20/2014	5.528	G	11,111	$49,999,500	405		
2249520	R	HANNAH STREET	SIRT SOUTH SHORE	S	O		10	S	10/16/2015	4.627	F	13,360	$60,120,000	501		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2249180	R	HARBOR ROAD	CONRAIL - EX B&O RR	C	O		4	S	9/12/2015	6.000	G	5,778	$26,001,000	501		
2233059	M	HARLEM RIVER DRIVE	EAST 127TH STREET RAMP TO/FROM HARLEM RIVER DRIVE NORTHBOUND		A		11	S	6/30/2015	3.493	F	51,000	$229,500,000	111		
2267240	M	HARLEM RIVER DRIVE RAMP TO GEORGE WASHINGTON BRIDGE	HARLEM RIVER DRIVE SOUTHBOUND		A		55	S	10/14/2014	3.042	F	122,900	$553,050,000	112		
2231780	Q	HEMPSTEAD AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	2/6/2014	4.000	F	14,200	$63,900,000	413		
2266149	Q	HEMPSTEAD AVENUE	BELT CROSS ISLAND PARKWAY RAMP NORTHBOUND		A		2	S	3/12/2014	4.190	F	9,500	$42,750,000	413		
2267250	M	HENRY HUDSON PARKWAY	AMTRAK - WEST 96TH STREET	A	A		55	S	11/1/2014	3.548	F	40,000	$180,000,000	107		
2229530	B	HENRY HUDSON PARKWAY	BROADWAY		A		1	S	7/27/2015	4.830	F	7,500	$33,750,000	208		
2229440	B	HENRY HUDSON PARKWAY	KAPPOCK STREET		A		1	S	7/7/2015	5.069	G	3,900	$17,550,000	208		
2266229	M	HENRY HUDSON PARKWAY	PEDESTRIAN PATH AT WEST 148TH STREET		A		1	S	1/30/2014	5.000	G	1,840	$8,280,000	109		
2229309	M	HENRY HUDSON PARKWAY	RIVERSIDE PARK		A		1	S	1/13/2014	5.267	G	2,172	$9,774,000	107		
2229349	M	HENRY HUDSON PARKWAY	WEST 158TH STREET	A	A		44	S	10/10/2014	4.155	F	140,000	$630,000,000	109	112	
2266230	M	HENRY HUDSON PARKWAY NORTHBOUND	PEDESTRIAN PATH INWOOD PARK		A		1	S	1/23/2014	5.000	G	800	$3,600,000	112		
2229322	M	HENRY HUDSON PARKWAY NORTHBOUND	RAMP FROM WEST 96TH STREET		A		1	S	1/31/2014	5.300	G	2,000	$9,000,000	107		
2229312	M	HENRY HUDSON PARKWAY NORTHBOUND	RAMP TO WEST 96TH STREET		A		1	S	1/27/2014	4.182	F	2,000	$9,000,000	107		
M00004	M	HENRY HUDSON PARKWAY ON/OFF RAMP-79TH STREET NORTH SIDE	PEDESTRIAN PATH NORTH OF 79TH STREET		A		1	C	6/26/2015	4.667	F	846	$3,807,000	107		
M00003	M	HENRY HUDSON PARKWAY ON/OFF RAMP-79TH STREET SOUTH SIDE	PEDESTRIAN PATH SOUTH OF 79TH STREET		A		1	C	5/14/2015	4.500	F	846	$3,807,000	107		
2266240	M	HENRY HUDSON PARKWAY SOUTHBOUND	PEDESTRIAN PATH INWOOD PARK		A		1	S	1/23/2014	5.526	G	1,100	$4,950,000	112		
2229321	M	HENRY HUDSON PARKWAY SOUTHBOUND	RAMP FROM WEST 96TH STREET		A		1	S	1/31/2014	5.133	G	2,000	$9,000,000	107		
2229311	M	HENRY HUDSON PARKWAY SOUTHBOUND	RAMP TO WEST 96TH STREET		A		1	S	1/28/2014	4.455	F	2,000	$9,000,000	107		
2229289	M	HENRY HUDSON PARKWAY VIADUCT	AMTRAK - WEST 72ND STREET - WEST 79TH STREET	A	A		145	S	9/17/2014	3.597	F	213,173	$959,278,500	107		
2246580	BM	HIGH BRIDGE PEDESTRIAN OVERPASS	I87 - HARLEM RIVER	M	WA-PED	P	11	P	8/12/2002	3.759	F	34,100	$153,450,000	112	204	
2248280	Q	HIGHLAND ARPK PEDESTRIAN	PEDESTRIAN PATH		O-PED	P	1	C	12/16/2015	3.667	F	1,900	$8,550,000	405		
2230220	K	HIGHLAND BOULEVARD NORTHBOUND	VERMONT STREET		A		1	S	5/29/2015	5.762	G	3,995	$17,977,500	305		
2230010	K	HIGHLAND BOULEVARD WESTBOUND	JACKIE ROBINSON PARKWAY		A		1	S	2/25/2014	4.767	F	3,500	$15,750,000	305		
2230020	K	HIGHLAND BOULEVARD WESTBOUND	JACKIE ROBINSON PARKWAY EASTBOUND ENTRANCE RAMP		A		2	S	3/11/2014	4.974	F	4,700	$21,150,000	305		
2230000	K	HIGHLAND BOULVARD EASTBOUND	JACKIE ROBINSON PARKWAY		A		1	S	3/17/2014	4.724	F	4,900	$22,050,000	305		
2243780	K	HIGHLAWN AVENUE	BMT SEA BEACH	T	O		1	S	7/27/2015	6.280	VG	6,960	$31,320,000	311		
2244060	K	HILL DRIVE (CLEFT RIDGE SPAN)	PEDESTRIAN PATH SOUTH OF BOATHOUSE		O	P	1	C	5/26/2015	4.433	F	750	$3,375,000	355		
2244120	K	HILL DRIVE (TERRACE BRIDGE)	PROSPECT PARK LAKE		WO	P	3	S	9/15/2015	3.291	F	7,800	$35,100,000	355		
2231840	Q	HILLSIDE AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	3/18/2014	4.211	F	9,672	$43,524,000	413		
2247320	Q	HONEYWELL STREET	SUNNYSIDE YARD	AL	O		22	S	12/16/2015	5.792	G	99,036	$445,662,000	402	401	
2232040	M	HOUSTON STREET	FDR DRIVE		A		2	S	6/24/2015	3.750	F	11,010	$49,545,000	103		
223204B	M	HOUSTON STREET RAMP TO FDR DRIVE NORTHBOUND	RELIEF		AR		4	S	1/17/2014	4.792	F	7,125	$32,062,500	103		
2249300	R	HUGUENOT AVENUE	SIRT SOUTH SHORE	S	O		2	S	9/23/2015	4.788	F	6,514	$29,313,000	503		
2240450	Q	HUNTERS POINT AVENUE	DUTCH KILLS		WMO		4	S	5/30/2014	5.056	G	12,168	$54,756,000	402		
2241190	B	HUNTS POINT AVENUE	AMTRAK - CSX	AC	O		1	S	11/20/2014	4.813	F	10,049	$45,220,500	202		
2241959	B	HUTCHINSON RIVER PARKWAY	AMTRAK - CSX	AC	O		1	S	10/9/2014	5.542	G	15,444	$69,498,000	210	211	
2075859	B	HUTCHINSON RIVER PARKWAY	HUTCHINSON RIVER		WMA		7	S	10/22/2015	4.578	F	60,500	$272,250,000	210	228	
2249810	R	HYLAN BOULEVARD	LEMON CREEK		WO		1	S	3/10/2014	6.172	VG	11,400	$51,300,000	503		
2245300	M	INWOOD HILL PARK FOOTBRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	6	C	8/6/2013	4.100	F	700	$3,150,000	112		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246700	M	ISHAM PARK PEDESTRIAN BRIDGE	HARLEM RIVER INLET		WO-PED	P	1	C	3/12/2015	4.138	F	300	$1,350,000	112		
2246690	M	ISHAM PARK VEHICULR	HARLEM RIVER INLET		O	P	1	S	4/28/2014	6.065	VG	911	$4,099,500	112		
2230099	Q	JACKIE ROBINSON PARKWAY	CYPRESS HILLS CEMETRY		A		1	S	1/6/2014	5.444	G	4,200	$18,900,000	405		
2230179	Q	JACKIE ROBINSON PARKWAY	METROPOLITAN AVENUE		A		2	S	4/22/2014	5.286	G	8,673	$39,028,500	482		
2248299	Q	JACKIE ROBINSON PARKWAY-UNION TURNPIKE	AUSTIN STREET		O		1	S	5/23/2014	4.806	F	5,900	$26,550,000	409	406	
2247260	Q	JACKSON AVENUE	LIRR MONTAUK DIV	L	O		1	S	10/8/2014	5.550	G	4,517	$20,326,500	402		
2231819	Q	JAMAICA AVENUE	BELT CROSS ISLAND PARKWAY		A		2	S	3/19/2014	4.773	F	11,500	$51,750,000	413		
2230287	B	JEROME AVENUE	MOSHOLU PARKWAY	T	A		3	S	4/30/2015	4.711	F	11,800	$53,100,000	207		
2249070	R	JOHN STREET PEDESTRIAN BRIDGE	B&O RR (ABANDONED)	O	O-PED		2	C	10/23/2015	5.423	G	1,050	$4,725,000	501		
2247480	Q	JUNIPER BOULEVARD SOUTH	CSX TRANSPORT	C	O		1	S	9/22/2015	4.833	F	9,000	$40,500,000	405		
2230380	K	KANE STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	5/15/2015	4.153	F	5,000	$22,500,000	306		
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T	O		1	S	6/22/2015	6.628	VG	5,032	$22,644,000	311		
2231449	K	KNAPP STREET	BELT SHORE PARKWAY		A		1	S	4/9/2014	4.313	F	9,500	$42,750,000	315		
2241169	B	LAFAYETTE AVENUE	AMTRAK - CSX	AC	O		1	S	11/18/2014	5.365	G	12,000	$54,000,000	202		
2249110	R	LAKE AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	4.556	F	5,900	$26,550,000	501		
2247240	Q	LEFFERTS BOULEVARD	LIRR MAIN LINE	L	O		3	S	9/25/2015	5.736	G	5,460	$24,570,000	409		
2241139	B	LEGGETT AVENUE	AMTRAK - CSX	AC	O		3	S	11/17/2014	4.620	F	41,551	$186,979,500	202		
2243850	K	LIBERTY AVENUE	LIRR BAY RIDGE	N	O		3	S	9/23/2014	6.103	VG	6,659	$29,965,500	316		
2249460	R	LINCOLN AVENUE	SIRT SOUTH SHORE	S	O		1	S	9/1/2015	5.172	G	4,500	$20,250,000	502		
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T	O		1	S	6/26/2014	6.672	VG	2,460	$11,070,000	308		
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T	O		1	S	5/19/2014	6.685	VG	6,243	$28,093,500	355		
2231750	Q	LINDEN BOULEVARD	BELT CROSS ISLAND PARKWAY		A		2	S	2/25/2014	4.432	F	6,700	$30,150,000	413		
2243910	K	LIVONIA AVENUE PEDESTRIAN BRIDGE	LIRR BAY RIDGE	N	O-PED		6	C	8/18/2015	4.833	F	2,500	$11,250,000	316		
2241159	B	LONGWOOD AVENUE	AMTRAK - CSX	AC	O		2	S	11/18/2014	5.236	G	10,625	$47,812,500	202		
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER	M	WMO		52	S	12/18/2015	3.930	F	220,000	$990,000,000	110	204	
2240079	BM	MADISON AVENUE BRIDGE	HARLEM RIVER		WMO		21	S	9/17/2014	4.861	F	80,000	$360,000,000	111	201	
2242210	B	MAGNOLIA WAY	BRONX RIVER		WO	P	3	S	5/6/2014	4.763	F	6,200	$27,900,000	227		
2249210	R	MAIN STREET PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		9	C	4/6/2015	4.263	F	400	$1,800,000	503		
2240027	KM	MANHATTAN BRIDGE (LL)	EAST RIVER	T	WEO		23	S	10/22/2014	4.375	F	616,390	$2,773,755,000	103	302	
2240028	KM	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	T	WEO		43	S	10/21/2014	3.757	F	587,424	$2,643,408,000	103	302	
2229480	B	MANHATTAN COLLEGE PARKWAY	HENRY HUDSON PARKWAY		A		3	S	6/3/2015	5.053	G	6,200	$27,900,000	208		
2245040	M	MARGARET CORBIN DRIVE	PEDESTRIAN PATH NEAR CAFÉ		O	P	1	C	5/6/2015	4.933	F	598	$2,691,000	112		
2245050	M	MARGARET CORBIN DRIVE	PEDESTRIAN PATH NEAR NORTH ENTRANCE		O	P	1	C	5/6/2015	4.433	F	889	$4,000,500	112		
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PARKWAY		A		1	S	1/27/2014	5.167	G	4,400	$19,800,000	482	406	
2249760	R	MARTLINGS AVENUE	RICHMOND LAKE DAM		WO		2	S	6/12/2015	4.467	F	7,000	$31,500,000	501		
2269030	B	MATTHEWSON ROAD	MACCRACKEN AVENUE		O		15	S	10/8/2014	4.175	F	14,880	$66,960,000	205		
2243410	K	MCDONALD AVENUE	LIRR BAY RIDGE	N	O		1	S	10/1/2014	5.141	G	2,760	$12,420,000	312		
2248260	Q	MEADOW LAKE BRIDGE	MEADOW LAKE		WO	P	5	S	5/26/2015	4.458	F	4,200	$18,900,000	481		
2241110	B	MELROSE AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		8	S	8/18/2015	5.500	G	37,854	$170,343,000	203		
2231720	Q	MERRICK BOULEVARD	BELT LAURELTON PARKWAY SOUTHBOUND		A		1	S	2/12/2014	4.200	F	6,000	$27,000,000	413		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2231710	Q	MERRICK BOULEVARD	BELT LAURETON PARKWAY NORTHBOUND		A		1	S	2/11/2014	4.467	F	6,000	$27,000,000	413		
2247500	Q	METROPOLITAN AVENUE	CSX TRANSPORT	C	O		1	S	9/22/2015	4.233	F	18,650	$83,925,000	405		
2240290	K	METROPOLITAN AVENUE	ENGLISH KILLS		WMO		5	S	7/13/2015	5.778	G	10,550	$47,475,000	301		
1247560	Q	METROPOLITAN AVENUE	LIRR - NY&ATL	LN	O		2	S	9/23/2014	3.603	F	20,900	$94,050,000	405		
2249470	R	MIDLAND AVENUE	SIRT SOUTH SHORE	S	O		1	S	9/18/2015	5.466	G	3,000	$13,500,000	502		
2257569	M	MILLER HIGHWAY - ROUTE 9A	RIVERSIDE PARK SOUTH		A		64	S	8/25/2015	4.296	F	272,475	$1,226,137,500	104	107	
2249530	R	MINTHORNE STREET PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		26	C	4/16/2015	4.547	F	6,000	$27,000,000	501		
2243240	K	MONTGOMERY STREET	FRANKLIN SHUTTLE	T	O		1	S	7/29/2015	5.843	G	2,240	$10,080,000	309		
2249090	R	MORNINGSTAR ROAD	B&O RR (ABANDONED)	O	O		4	S	7/8/2015	4.627	F	7,900	$35,550,000	501		
2268930	M	MORRIS STREET PEDESTRIAN BRIDGE	BROOKLYN-BATTERY TUNNEL PLAZA		A-PED		3	C	7/15/2013	3.875	F	1,842	$8,289,000	101		
2230250	B	MOSHOLU PARKWAY	BRONX RIVER		WA		5	S	1/8/2014	4.263	F	16,300	$73,350,000	227		
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C	A		1	S	7/31/2014	4.271	F	4,600	$20,700,000	226		
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH		A		1	S	1/13/2014	4.310	F	4,300	$19,350,000	226		
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M	A		1	S	4/30/2014	5.391	G	8,880	$39,960,000	227	207	
2230310	B	MOSHOLU PARKWAY	SOUTHBOUND RAMP TO HENRY HUDSON PARKWAY		A		2	S	8/28/2015	4.919	F	7,400	$33,300,000	226		
2230270	B	MOSHOLU PARKWAY	WEBSTER AVENUE		A		1	S	5/18/2015	5.203	G	8,480	$38,160,000	207		
2248100	Q	MOTOR PARKWAY (PEDESTRIAN)	73RD AVENUE		O-PED	P	3	C	2/11/2014	4.672	F	2,600	$11,700,000	408		
2248110	Q	MOTOR PARKWAY (PEDESTRIAN)	ALLEY PARK PEDESTRIAN WALK		O-PED	P	1	C	6/4/2015	3.833	F	1,000	$4,500,000	413		
2248060	Q	MOTOR PARKWAY (PEDESTRIAN)	BELL BOULEVARD		O-PED	P	2	C	6/11/2015	4.403	F	2,650	$11,925,000	411		
2248059	Q	MOTOR PARKWAY (PEDESTRIAN)	FRANCIS LEWIS BOULEVARD		O-PED	P	2	C	6/11/2015	4.444	F	2,800	$12,600,000	408		
2248080	Q	MOTOR PARKWAY (PEDESTRIAN)	HOLLIS COURT BOULEVARD		O-PED	P	3	C	11/18/2014	4.672	F	2,700	$12,150,000	408		
2248070	Q	MOTOR PARKWAY (PEDESTRIAN)	SPRINGFIELD BOULEVARD		O-PED	P	3	C	6/8/2015	3.836	F	2,900	$13,050,000	411		
2247110	Q	MURRAY STREET	LIRR PORT WASH BR	L	O		1	S	9/22/2015	5.185	G	4,000	$18,000,000	407		
2247620	Q	MYRTLE AVENUE	ABANDONED LIRR		O		3	S	1/2/2014	5.028	G	6,725	$30,262,500	482	406	
2230120	Q	MYRTLE AVENUE	JACKIE ROBINSON PARKWAY		A		1	S	4/17/2014	5.250	G	6,400	$28,800,000	405	482	
2249350	R	NELSON AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		3	C	4/13/2015	4.115	F	300	$1,350,000	503		
1067150	B	NEREID AVENUE (EAST 240TH STREET)	BRONX RIVER PARKWAY	M	O		10	S	9/18/2015	4.500	F	57,750	$259,875,000	212		
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S	O		2	S	8/14/2015	4.955	F	7,600	$34,200,000	502		
2243660	K	NEW UTRECHT AVENUE	LIRR BAY RIDGE	N	O		1	S	10/3/2014	5.883	G	2,350	$10,575,000	311		
2243140	K	NEWKIRK AVENUE	BMT SUBWAY, BRIGHTON	T	O		3	S	6/17/2014	4.574	F	4,100	$18,450,000	314		
2231670	Q	NORTH CONDUIT AVENUE WESTBOUND	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	1/13/2014	4.917	F	4,000	$18,000,000	413		
2231680	Q	NORTH CONDUIT AVENUE WESTBOUND	BELT LAURETON PARKWAY WESTBOUND		A		2	S	1/20/2014	4.932	F	6,500	$29,250,000	413		
2269760	R	NORTH RAMP	SIRT	S	O	F	2	S	10/22/2014	6.431	VG	6,000	$27,000,000	501		
2240440	Q	NORTHERN BOULEVARD	ALLEY CREEK		WO		2	S	6/17/2014	4.681	F	8,300	$37,350,000	411		
2231870	Q	NORTHERN BOULEVARD	BELT CROSS ISLAND PARKWAY		A		2	S	7/14/2014	5.764	G	9,400	$42,300,000	411		
2055802	Q	NORTHERN BOULEVARD EASTBOUND	FLUSHING RIVER		WO		40	S	10/28/2014	4.268	F	78,894	$355,023,000	407		
2055801	Q	NORTHERN BOULEVARD WESTBOUND	FLUSHING RIVER		WO		40	S	10/28/2014	4.338	F	71,900	$323,550,000	407		
205580A	Q	NORTHERN BOULEVARD WESTBOUND TO 678I SOUTHBOUND	VACANT LAND		AR		16	S	6/5/2014	5.619	G	8,600	$38,700,000	407		
2243500	K	NOSTRAND AVENUE	LIRR BAY RIDGE	N	O		2	S	9/29/2014	4.898	F	4,320	$19,440,000	314		
2240138	BM	NYCTA IRT	HARLEM RIVER/BROADWAY	TM	WMO		3	S	11/24/2015	4.720	F	19,520	$87,840,000	112	207	208

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2243480	K	OCEAN AVENUE	LIRR BAY RIDGE	N	O		2	S	9/16/2014	4.965	F	5,000	$22,500,000	314		
2240320	K	OCEAN AVENUE PEDESTRIAN BRIDGE	SHEEPSHEAD BAY		WO-PED		30	C	7/28/2015	5.000	G	4,450	$20,025,000	315		
2243439	K	OCEAN PARKWAY	LIRR BAY RIDGE	N	O		1	S	9/19/2014	4.927	F	7,000	$31,500,000	312		
2249269	R	PAGE AVENUE	SIRT - TIDAL STREAM	S	WO		4	S	9/23/2015	5.806	G	30,710	$138,195,000	503		
2245470	M	PARK AVENUE NORTHBOUND	EAST 45TH STREET		O		1	S	6/9/2015	4.757	F	2,400	$10,800,000	105		
2245460	M	PARK AVENUE SOUTHBOUND	EAST 45TH STREET		O		1	S	6/9/2015	4.514	F	2,400	$10,800,000	105		
2246550	M	PARK AVENUE VIADUCT	EAST 42ND STREET		O		10	S	12/7/2015	4.537	F	22,150	$99,675,000	105		
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	L	O		1	S	9/22/2014	6.983	VG	3,024	$13,608,000	409	482	
2242099	B	PARK ROAD (204TH STREET)	BRONX RIVER		WO		1	S	5/6/2014	4.655	F	4,700	$21,150,000	212		
224001A	M	PARK ROW TO BROOKLYN	WILLIAM STREET NORTHBOUND		OE		4	S	6/19/2015	5.086	G	10,167	$45,751,500	101		
2269780	R	PARKING ENTANCE RAMP	SIRT	S	O	F	3	S	11/7/2014	5.889	G	8,589	$38,650,500	501		
2269730	R	PARKING EXIT RAMP	SIRT	S	O	F	10	S	11/7/2014	6.097	VG	20,727	$93,271,500	501		
2243020	K	PARKSIDE AVENUE - OCEAN AVENUE	BMT SUBWAY, BRIGHTON	T	O		6	S	6/18/2014	4.043	F	48,700	$219,150,000	314		
2247060	Q	PARSONS BOULEVARD	LIRR PORT WASH BR	L	O		1	S	9/24/2014	4.824	F	4,200	$18,900,000	407		
224001C	M	PEARL STREET TO BROOKLYN	LAND ADJACENT TO BRIDGE		OE		9	S	7/1/2015	3.814	F	6,365	$28,642,500	101		
224001F	M	PEARL STREET TO FDR DRIVE	LAND ADJACENT TO BRIDGE		OE		3	S	6/4/2015	5.028	G	5,200	$23,400,000	103		
222928C	M	PEDESTRIAN BRIDGE AT WEST 73RD STREET	HHP - AMTRAK	A	A-PED	P	5	C	8/12/2013	3.812	F	3,700	$16,650,000	107		
2244130	K	PEDESTRIAN BRIDGE NEAR BOATHOUSE (LULLWATER BRIDGE)	PROSPECT PARK LAKE		WO-PED	P	1	C	7/23/2015	4.885	F	1,000	$4,500,000	355		
2247630	Q	PEDESTRIAN BRIDGE NEAR UNION TURNPIKE	ABANDONED LIRR		O-PED		8	C	6/8/2015	4.522	F	1,500	$6,750,000	406		
2246090	M	PEDESTRIAN BRIDGE OPPOSITE 65TH STREET	TRANSVERSE ROAD #1		O-PED	P	1	C	11/2/2015	4.583	F	2,300	$10,350,000	164		
2246400	M	PEDESTRIAN PATH OPPOSITE EAST 79TH STREET	TRANSVERSE ROAD #2		O-PED	P	1	C	6/7/2015	4.233	F	3,700	$16,650,000	164		
2241380	B	PELHAM BAY PARK EQUESTRIAN	AMTRAK - CSX	AC	O-PED	P	1	C	7/24/2013	3.339	F	7,300	$32,850,000	228		
2231519	K	PENNSYLVANIA AVENUE	BELT SHORE PARKWAY		A		2	S	6/8/2015	5.583	G	6,640	$29,880,000	356		
2243870	K	PITKIN AVENUE	LIRR BAY RIDGE	N	O		2	S	9/24/2014	6.279	VG	5,328	$23,976,000	316		
2243210	K	PRESIDENT STREET	FRANKLIN SHUTTLE	T	O		2	S	6/25/2014	5.078	G	2,500	$11,250,000	309		
2232167	M	PROMENADE OVER FDR DRIVE	FDR DRIVE - EAST 81ST STREET - EAST 90TH STREET		A-PED	P	53	S	7/31/2015	3.143	F	93,000	$418,500,000	108		
2268760	M	PS-5 PEDESTRIAN BRIDGE	TENTH AVENUE		O-PED		5	C	11/13/2014	4.347	F	1,285	$5,782,500	112		
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK		WMO		44	S	6/5/2014	4.437	F	205,770	$925,965,000	301	402	
2230530	Q	QUEENS BOULEVARD	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	10/22/2014	6.306	VG	25,543	$114,943,500	402		
2230869	Q	QUEENS BOULEVARD	ACCESS ROAD BROOKLYN-QUEENS EXPRESSWAY SOUTHBOUND		A		1	S	9/30/2014	5.659	G	7,900	$35,550,000	402		
2247310	Q	QUEENS BOULEVARD	AMTRAK & LIRR YARD	AL	O		19	S	11/8/2014	6.268	VG	92,400	$415,800,000	402	401	
2230209	Q	QUEENS BOULEVARD	JACKIE ROBINSON PARKWAY	T	A		5	S	6/9/2014	4.841	F	37,700	$169,650,000	409		
224005A	M	RAMP FROM FDR DRIVE	HARLEM RIVER DRIVE NORTHBOUND		OR		11	S	11/7/2014	6.887	VG	28,233	$127,048,500	111		
2248040	Q	RAMP TO LINDEN BOULEVARD	SOUTH CONDUIT AVENUE		O		1	S	5/15/2014	5.200	G	3,352	$15,084,000	410		
224007A	M	RAMP TO MADISON AVENUE	EAST 138TH STREET		OR		7	S	2/6/2014	5.028	G	19,880	$89,460,000	111		
223201D	M	RAMP TO NORTHBOUND FDR DRIVE	FDR DRIVE & SOUTH STREET		AR		22	S	2/25/2014	4.967	F	15,825	$71,212,500	101	103	
222934A	M	RAMP TO NORTHBOUND HENRY HUDSON PARKWAY	AMTRAK WEST SIDE	A	AR		26	S	10/14/2015	3.736	F	10,800	$48,600,000	112		
2240350	R	RICHMOND AVENUE	RICHMOND CREEK		WO		3	S	6/10/2015	5.194	G	32,589	$146,650,500	502		
2249270	R	RICHMOND VALLEY ROAD	SIRT SOUTH SHORE	S	O		4	S	8/26/2015	5.164	G	9,440	$42,480,000	503		
2249280	R	RICHMOND VALLEY STATION PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		7	C	4/10/2015	4.393	F	595	$2,677,500	503		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2244150	K	RIDGE BOULEVARD	SHORE ROAD DRIVE		O		1	S	5/29/2015	6.333	VG	4,350	$19,575,000	310		
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL		WO		56	S	9/4/2015	4.324	F	183,100	$823,950,000	401	480	
2241430	B	RIVER AVENUE	METRO NORTH RR HUD	M	O		1	S	8/26/2015	6.156	VG	5,040	$22,680,000	204		
2229510	B	RIVERDALE AVENUE	HENRY HUDSON PARKWAY		A		2	S	7/9/2015	5.079	G	5,200	$23,400,000	208		
2246660	M	RIVERSIDE DRIVE	WEST 125TH STREET - WEST 134TH STREET		O		27	S	7/13/2015	4.444	F	148,300	$667,350,000	109		
2246980	M	RIVERSIDE DRIVE	WEST 138TH STREET		O		1	S	1/16/2014	4.900	F	6,700	$30,150,000	109		
2267130	M	RIVERSIDE DRIVE	WEST 145TH STREET		O		1	S	4/27/2015	5.000	G	5,800	$26,100,000	109		
2269240	M	RIVERSIDE DRIVE	WEST 155TH STREET		O		1	S	5/7/2015	4.640	F	2,780	$12,510,000	109	112	
2246720	M	RIVERSIDE DRIVE	WEST 158TH STREET- AMTRAK	A	O		77	S	10/23/2015	3.528	F	185,658	$835,461,000	109	112	
2246970	M	RIVERSIDE DRIVE	WEST 96TH STREET		O		3	S	4/27/2015	5.471	G	10,600	$47,700,000	107		
2269200	M	RIVERSIDE DRIVE SOUTH	AMTRAK	A	O		11	S	11/6/2015	5.792	G	69,040	$310,680,000	107		
2300130	Q	ROCKAWAY BOULEVARD	HOOK CREEK		WO		3	S	7/2/2015	5.763	G	18,302	$82,359,000	413		
2248369	Q	ROCKAWAY BOULEVARD	THURSTON BASIN		WO		2	S	7/15/2015	5.474	G	6,000	$27,000,000	483	413	
2230587	Q	ROOSEVELT AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	9/1/2015	5.431	G	11,022	$49,599,000	402		
2240507	Q	ROOSEVELT AVENUE	678I - FLUSHING RIVER		WA		27	S	11/7/2014	3.521	F	84,424	$379,908,000	407	481	
2247380	Q	ROOSEVELT AVENUE	CSX - HELLGATE - NYCTA	C	O		2	S	9/15/2015	6.208	VG	7,380	$33,210,000	402	403	404
2267160	Q	ROOSEVELT AVENUE	SHEA ROAD		O		4	S	7/29/2015	4.651	F	7,280	$32,760,000	408		
2240640	MQ	ROOSEVELT ISLAND BRIDGE	EAST RIVER EAST CHANNEL		WMO		8	S	10/29/2014	5.569	G	36,500	$164,250,000	108	401	
2249420	R	ROSE AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/13/2015	5.258	G	3,800	$17,100,000	502		
2249410	R	ROSS AVENUE	SIRT SOUTH SHORE	S	O		2	S	8/12/2015	5.182	G	3,800	$17,100,000	502		
2248200	Q	RUST STREET	FLUSHING AVENUE		O		1	S	7/2/2015	4.672	F	2,940	$13,230,000	405		
2230370	K	SACKETT STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/19/2014	4.500	F	5,000	$22,500,000	306		
2244470	K	SEELEY STREET	PROSPECT AVENUE		O		1	S	6/1/2015	4.033	F	8,496	$38,232,000	307		
2249290	R	SEGUINE AVENUE	SIRT SOUTH SHORE	S	O		1	S	8/24/2015	6.016	VG	3,250	$14,625,000	503		
2248220	Q	SERVICE ROAD TURNAROUND	FLUSHING AVENUE		O		1	S	7/2/2015	5.078	G	2,940	$13,230,000	405		
2240200	B	SHORE ROAD	HUTCHINSON RIVER		WMO		7	S	6/10/2015	4.299	F	43,576	$196,092,000	228		
2241390	B	SHORE ROAD CIRCLE	AMTRAK - CSX	AC	O		1	S	7/21/2014	7.000	VG	8,067	$36,301,500	228		
2249120	R	SIMONSON AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	5.852	G	5,819	$26,185,500	501		
2249860	R	SLATER BOULEVARD	NEW CREEK		WO		1	S	5/4/2015	5.510	G	2,037	$9,166,500	502		
2242220	B	SNUFF MILL ROAD	BRONX RIVER		WO	P	2	S	1/9/2014	4.395	F	4,800	$21,600,000	227		
2249200	R	SOUTH AVENUE	ARLINGTON YARD	C	O		3	S	9/12/2015	6.527	VG	8,500	$38,250,000	501		
2231560	Q	SOUTH CONDUIT BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	6/16/2014	5.268	G	15,776	$70,992,000	410		
2249770	R	SOUTH OF BROOKS LAKE	STREAM IN PARK		WO-PED	P	3	C	11/25/2015	4.651	F	700	$3,150,000	501		
223201B	M	SOUTH STREET RAMP TO FDR DRIVE SOUTHBOUND	SOUTH STREET		AR		10	S	7/7/2015	3.881	F	13,388	$60,246,000	101		
226771D	M	SOUTHBOUND HENRY HUDSON PARKWAY RAMP TO 79TH STREET	79TH STREET BOAT BASIN GARAGE		AR	P	4	S	5/7/2015	4.403	F	2,601	$11,704,500	107		
2241080	B	SOUTHERN BOULEVARD	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/1/2014	4.093	F	3,900	$17,550,000	201		
2242029	B	SOUTHERN BOULEVARD	EAST FORDHAM ROAD		O		2	S	1/29/2014	4.605	F	12,900	$58,050,000	227		
2231630	Q	SPRINGFIELD BOULEVARD	BELT SOUTHERN PARKWAY		A		2	S	4/25/2014	4.591	F	8,500	$38,250,000	413		
2268770	Q	SPRINGFIELD BOULEVARD	EQUESTRIAN PATH (ABANDONED)		O		1	S	4/29/2015	4.889	F	1,470	$6,615,000	413		
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T	O		1	S	7/24/2015	6.656	VG	2,300	$10,350,000	308		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2241700	B	ST PAULS PLACE PEDESTRIAN BRIDGE	METRO NORTH RR HAR	M	O-PED		2	C	9/28/2015	4.746	F	888	$3,996,000	203		
2241060	B	ST. MARYS & CONCORD	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/2/2014	5.370	G	4,500	$20,250,000	201		
2270170	R	STATEN ISLAND FERRY PEDESTRIAN BRIDGE	PARKING LOT EXIT ROADWAY		O-PED	F	5	C	5/27/2015	5.600	G	2,917	$13,126,500	501		
2230610	Q	STEINWAY STREET	278I EASTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/8/2014	6.349	VG	5,146	$23,157,000	401		
2230600	Q	STEINWAY STREET	278I WESTBOUND (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	8/7/2014	6.349	VG	5,229	$23,530,500	401		
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T	O		1	S	7/24/2015	6.375	VG	2,300	$10,350,000	308		
2240540	K	STILLWELL AVENUE	CONEY ISLAND CREEK		WO		2	S	5/28/2015	6.125	VG	17,000	$76,500,000	313		
2230350	K	SUMMIT STREET PEDESTRIAN BRIDGE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A-PED		2	S	4/4/2014	4.557	F	1,400	$6,300,000	306		
2231650	Q	SUNRISE HIGHWAY WESTBOUND	BELT LAURELTON PARKWAY EASTBOUND		A		1	S	3/21/2014	4.262	F	4,100	$18,450,000	413		
2231660	Q	SUNRISE HIGHWAY WESTBOUND	BELT LAURETON PARKWAY WESTBOUND		A		2	S	2/25/2014	4.565	F	5,350	$24,075,000	413		
2231800	Q	SUPERIOR ROAD	BELT CROSS ISLAND PARKWAY		A		2	S	4/1/2014	4.682	F	7,000	$31,500,000	413		
2243890	K	SUTTER AVENUE	LIRR BAY RIDGE	N	O		3	S	9/26/2014	6.292	VG	5,497	$24,736,500	316		
2247300	Q	THOMPSON AVENUE	AMTRAK & LIRR YARD	AL	O		14	S	11/8/2014	5.125	G	61,280	$275,760,000	402		
2241170	B	TIFFANY STREET	AMTRAK - CSX	AC	O		1	S	11/13/2015	5.078	G	7,267	$32,701,500	202		
224004H	Q	TO 21ST STREET FROM NEW YORK	22ND STREET		OE		43	S	10/13/2014	4.366	F	48,100	$216,450,000	402		
224004A	M	TO EAST 60TH STREET FROM QUEENS	FIRST AVENUE		OE		13	S	4/21/2014	5.338	G	14,800	$66,600,000	108		
224004C	M	TO EAST 62ND STREET FROM QUEENS	EAST 60TH STREET - EAST 61ST STREET		OE		10	S	7/17/2014	4.985	F	16,720	$75,240,000	108		
224001B	M	TO BROOKLYN FROM FDR DRIVE	FRANKFORT & PEARL STREET		OE		31	S	8/1/2014	4.926	F	51,400	$231,300,000	101	103	
224005B	B	TO BRUCKNER BOULVARD	RELIEF		OR		4	S	9/16/2015	6.775	VG	19,990	$89,955,000	201		
224001D	M	TO FDR DRIVE NORTHBOUND	PEARL STREET		OE		30	S	6/11/2015	4.528	F	49,600	$223,200,000	101	103	
2245480	M	TO GEORGE WASHINGTON BRIDGE OPPOSITE WEST 171ST STREET	RIVERSIDE DRIVE		O		1	S	2/24/2014	4.524	F	10,773	$48,478,500	112		
224004G	Q	TO NEW YORK FROM 11TH STREET	TERRAIN (CHAMBER)		OE		36	S	7/25/2014	5.268	G	8,360	$37,620,000	401	402	
224004F	Q	TO NEW YORK FROM 21ST STREET	21ST STREET		OE		63	S	11/7/2014	4.712	F	63,310	$284,895,000	402	401	
224004E	Q	TO NEW YORK FROM THOMSON AVENUE	JACKSON AVENUE	L	OE		94	S	11/26/2014	4.679	F	104,600	$470,700,000	402		
224001G	M	TO PARK ROW	ROSE STREET		OE		11	S	7/30/2015	4.549	F	16,551	$74,479,500	101		
224001E	M	TO PEARL STREET	LAND ADJACENT TO BRIDGE		OE		3	S	6/3/2015	4.944	F	5,300	$23,850,000	101		
224004D	M	TO QUEENS FROM EAST 58TH STREET	EAST 59TH STREET		OE		12	S	6/13/2014	4.396	F	10,858	$48,861,000	106	108	
224004B	M	TO QUEENS FROM EAST 59TH STREET	FIRST AVENUE		OE		13	S	4/22/2014	5.542	G	14,800	$66,600,000	108		
224004I	Q	TO THOMSON AVENUE FROM NEW YORK	JACKSON AVENUE	L	OE		39	S	11/21/2014	5.148	G	59,100	$265,950,000	402		
2249040	R	TOMPKINS AVENUE	B&O RR (ABANDONED)		O		1	S	4/4/2014	5.953	G	5,096	$22,932,000	501		
2249840	R	TOMPKINS AVENUE	GREENFIELD AVENUE		O		1	S	3/10/2014	4.638	F	2,690	$12,105,000	501		
2249510	R	TOMPKINS AVENUE	WILLOW AVENUE, SIRT	S	O		2	S	10/17/2014	5.269	G	5,378	$24,201,000	501		
2249230	R	TRACY AVENUE PEDESTRIAN BRIDGE	SIRT SOUTH SHORE	S	O-PED		9	C	4/7/2015	3.894	F	635	$2,857,500	503		
2245380	M	TRANSVERSE ROAD #1 WESTBOUND	PEDESTRIAN PATH OPPOSITE EAST 66TH STREET		O	P	1	S	1/12/2016	5.000	G	1,500	$6,750,000	164		
2246410	M	TRANSVERSE ROAD 1 EASTBOUND (DENESMOUTH ARCH)	PEDESTRIAN PATH OPPOSITE EAST 65TH STREET		O	P	1	S	2/24/2014	4.636	F	1,739	$7,825,500	164		
2249870	R	TRAVIS AVENUE	MAIN CREEK		WO		1	S	10/15/2015	5.483	G	1,700	$7,650,000	502		
2246560	M	TUDOR CITY PLACE	EAST 42ND STREET		O		1	S	1/24/2014	5.133	G	6,600	$29,700,000	106		
2249170	R	UNION AVENUE	B&O RR (ABANDONED)	O	O		4	S	4/29/2015	5.130	G	6,630	$29,835,000	501		
2230360	K	UNION STREET	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		2	S	3/19/2014	4.236	F	5,000	$22,500,000	306		
2243200	K	UNION STREET	FRANKLIN SHUTTLE	T	O		2	S	6/25/2014	4.913	F	4,100	$18,450,000	309		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2240270	K	UNION STREET	GOWANUS CANAL		WMO		5	S	8/15/2014	4.111	F	4,900	$22,050,000	306		
2247040	Q	UNION STREET	LIRR PORT WASH BR	L	O		1	S	9/22/2015	6.172	VG	3,313	$14,908,500	407		
2231850	Q	UNION TURNPIKE	BELT CROSS ISLAND PARKWAY		A		2	S	3/19/2014	4.409	F	13,600	$61,200,000	413		
2248129	Q	UNION TURNPIKE	CREEDMOORE HOSPITAL ROAD		O		1	S	6/1/2015	4.733	F	3,500	$15,750,000	413		
2230180	Q	UNION TURNPIKE	JACKIE ROBINSON PARKWAY		A		1	S	1/27/2014	5.672	G	5,359	$24,115,500	482		
2241330	B	UNIONPORT ROAD	AMTRAK - CSX	AC	O		1	S	10/28/2014	4.688	F	7,631	$34,339,500	211		
2231910	Q	UTOPIA PARKWAY	BELT CROSS ISLAND PARKWAY		A		2	S	3/7/2014	5.341	G	7,200	$32,400,000	407		
2229550	B	VAN CORTLANDT EQUESTRIAN	HENRY HUDSON PARKWAY		A-PED	P	2	C	7/31/2015	4.600	F	2,100	$9,450,000	226		
2229540	B	VAN CORTLANDT PARK	HENRY HUDSON PARKWAY		A-PED	P	2	C	7/28/2015	4.759	F	3,900	$17,550,000	226		
2249130	R	VAN NAME AVENUE	B&O RR (ABANDONED)	O	O		3	S	5/1/2015	5.186	G	5,474	$24,633,000	501		
2249140	R	VAN PELT AVENUE	B&O RR (ABANDONED)	O	O		3	S	4/29/2015	5.576	G	5,000	$22,500,000	501		
2241070	B	WALES AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	7/2/2014	6.467	VG	2,535	$11,407,500	201		
2241410	B	WALTON AVENUE	METRO NORTH RR HUD	M	O		1	S	5/5/2014	4.406	F	3,600	$16,200,000	204		
2240620	M	WARDS ISLAND PEDESTRIAN BRIDGE	HARLEM RIVER		WMO-PED		10	C	7/20/2015	5.067	G	19,500	$87,750,000	111		
2243250	K	WASHINGTON AVENUE	FRANKLIN SHUTTLE	T	O		1	S	6/24/2014	6.000	G	3,657	$16,456,500	309	355	
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER	M	WO		9	S	11/24/2014	4.493	F	128,339	$577,525,500	112	205	204
226672A	M	WEST 31ST STREET	AMTRAK LAYUP TRACKS	A	O		9	S	11/15/2014	3.619	F	8,800	$39,600,000	104		
224501B	M	WEST 33RD STREET	AMTRAK 30 ST BRANCH	A	OR		8	S	3/7/2014	4.500	F	16,500	$74,250,000	104		
224501C	M	WEST 33RD STREET	LAND ADJACENT TO AMTRAK	A	OR		2	S	4/28/2015	4.500	F	2,360	$10,620,000	104		
224501D	M	WEST 34TH STREET	AMTRAK 30 ST BRANCH	A	OR		4	S	5/11/2015	4.375	F	11,800	$53,100,000	104		
224501E	M	WEST 35TH STREET	AMTRAK 30 ST BRANCH	A	OR		3	S	7/29/2014	4.181	F	6,500	$29,250,000	104		
224501F	M	WEST 36TH STREET	AMTRAK 30 ST BRANCH	A	OR		3	S	12/4/2015	4.433	F	5,520	$24,840,000	104		
2245060	M	WEST 37TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	12/4/2015	6.079	VG	7,505	$33,772,500	104		
2245070	M	WEST 38TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	7/8/2014	4.135	F	6,200	$27,900,000	104		
2245080	M	WEST 39TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	7/8/2014	4.173	F	6,300	$28,350,000	104		
2245440	M	WEST 40TH STREET	AMTRAK 30 ST BRANCH	A	O		4	S	7/23/2014	4.103	F	9,400	$42,300,000	104		
2245330	M	WEST 41ST STREET	AMTRAK 30 ST BRANCH	A	O		3	S	7/24/2014	4.444	F	6,200	$27,900,000	104		
2245210	M	WEST 42ND STREET	AMTRAK 30 ST BRANCH	A	O		4	S	11/5/2014	4.587	F	10,300	$46,350,000	104		
2245090	M	WEST 43RD STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/18/2014	4.662	F	4,140	$18,630,000	104		
2245100	M	WEST 44TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/18/2014	4.559	F	4,300	$19,350,000	104		
2245110	M	WEST 45TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/29/2014	5.338	G	4,100	$18,450,000	104		
2245120	M	WEST 46TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	4/29/2014	4.500	F	4,100	$18,450,000	104		
2245130	M	WEST 47TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/6/2014	4.721	F	4,100	$18,450,000	104		
2245140	M	WEST 48TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/6/2014	4.618	F	4,100	$18,450,000	104		
2245150	M	WEST 49TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	5/6/2014	4.426	F	4,100	$18,450,000	104		
2245340	M	WEST 50TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	4.500	F	4,100	$18,450,000	104		
2245160	M	WEST 51ST STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	4.853	F	4,300	$19,350,000	104		
2245170	M	WEST 52ND STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/13/2014	5.191	G	4,300	$19,350,000	104		
2245180	M	WEST 53RD STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.221	G	5,100	$22,950,000	104		
2245350	M	WEST 54TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.492	G	4,700	$21,150,000	104		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2245360	M	WEST 55TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.529	G	4,300	$19,350,000	104		
2245370	M	WEST 56TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	5.397	G	4,400	$19,800,000	104		
2245220	M	WEST 57TH STREET	AMTRAK 30 ST BRANCH	A	O		3	S	5/20/2014	4.853	F	9,100	$40,950,000	104		
2245190	M	WEST 58TH STREET	AMTRAK 30 ST BRANCH	A	O		2	S	5/20/2014	4.706	F	4,100	$18,450,000	104		
2246010	M	WEST 62ND STREET PEDESTRIAN BRIDGE (PINEBANK ARCH)	BRIDLE PATH		O-PED	P	1	C	7/10/2015	4.654	F	1,000	$4,500,000	164		
2245420	M	WEST 65TH STREET ENTRANCE EASTBOUND	BRIDLE PATH WEST END		O	P	1	S	1/12/2016	5.100	G	1,300	$5,850,000	164		
2269210	M	WEST 68TH STREET	AMTRAK	A	O		3	S	11/19/2015	6.542	VG	5,382	$24,219,000	107		
2269190	M	WEST 70TH STREET	AMTRAK	A	O		3	S	11/7/2015	5.542	G	17,258	$77,661,000	107		
2246140	M	WEST 72ND STREET ENTRANCE (RIFTSTONE ARCH)	BRIDLE PATH		O	P	1	S	1/8/2014	4.467	F	3,600	$16,200,000	164		
222928D	M	WEST 72ND STREET RAMP TO HENRY HUDSON PARKWAY NORTHBOUND	RELIEF		AR		1	S	7/18/2014	6.648	VG	1,750	$7,875,000	107		
2246320	M	WEST 77ND STREET PEDESTRIAN (OAK BRDG)	THE LAKE		WO-PED	P	3	C	7/10/2015	5.368	G	1,100	$4,950,000	164		
2246460	M	WEST 77TH STREET ENTRANCE (EAGLEVALE ARCH)	PEDESTRIAN PATH OPPOSITE WEST 77TH STREET		O	P	2	S	1/9/2014	4.263	F	3,066	$13,797,000	164		
2246340	M	WEST 77TH STREET PEDESTRIAN (LADIES POND BRIDGE)	STREAM TO THE LAKE		WO-PED	P	3	C	10/30/2015	4.355	F	500	$2,250,000	164		
2229290	M	WEST 79TH STREET	AMTRAK	A	A		1	S	6/11/2014	4.424	F	4,500	$20,250,000	107		
2246380	M	WEST 86TH STREET PEDESTRIAN (SOUTHWEST RESERVOIR BRIDGE)	BRIDLE PATH		O-PED	P	1	C	11/27/2015	4.852	F	700	$3,150,000	164		
2246430	M	WEST 110TH STREET ENTRANCE (MOUNTCLIFF ARCH)	PEDESTRIAN PATH OPPOSITE WEST 109TH STREET		O	P	1	S	2/24/2014	4.317	F	1,200	$5,400,000	164		
2246670	M	WEST 134 STREET	TERRAIN		O		4	S	6/8/2015	4.778	F	7,500	$33,750,000	109		
2245230	M	WEST 148TH STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	5	C	8/9/2013	4.200	F	1,100	$4,950,000	109		
2246710	M	WEST 153RD STREET	A.C. POWELL BOULEVARD		O		1	S	1/31/2014	4.611	F	3,082	$13,869,000	110		
2245290	M	WEST 155TH STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED		3	C	7/30/2013	3.862	F	800	$3,600,000	109	112	
2245250	M	WEST 158TH STREET	AMTRAK 30 ST BRANCH	A	O		7	S	10/22/2015	5.917	G	20,219	$90,985,500	112		
2245260	M	WEST 173RD STREET PEDESTRIAN BRIDGE	AMTRAK 30 ST BRANCH	A	O-PED	P	2	C	8/6/2013	4.600	F	1,500	$6,750,000	112		
2246600	M	WEST 176TH STREET PEDESTRIAN BRIDGE	APPROACH TO GEORGE WASHINGTON BRIDGE		O-PED	P	1	C	1/22/2015	4.533	F	1,200	$5,400,000	112		
2246489	M	WEST 181ST STREET	RAMP TO WASHINGTON BRIDGE		O		1	S	1/30/2014	5.200	G	8,200	$36,900,000	112		
2229400	M	WEST 181ST STREET PEDESTRIAN BRIDGE	HENRY HUDSON PARKWAY NORTHBOUND		A-PED	P	7	C	2/26/2015	4.418	F	1,500	$6,750,000	112		
M00001	M	WEST 191ST SREEET PEDESTRIAN TUNNEL	BROADWAY - IRT #1 SUBWAY		O-PED		1	C	12/9/2014	4.364	F	2,000	$9,000,000	112		
2241940	B	WEST 205TH STREET	NYCTA IND YARDS	T	O		4	S	10/31/2014	5.514	G	32,508	$146,286,000	207		
2240120	BM	WEST 207TH STREET/WEST FORDHAM ROAD	HARLEM RIVER		WMO		5	S	7/31/2014	5.000	G	31,784	$143,028,000	112	207	
2241489	B	WEST 225TH STREET	CSX TRANS - PUTNAM	C	O		2	S	8/28/2014	5.269	G	10,900	$49,050,000	207	208	
2241490	B	WEST 230TH STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.125	G	5,600	$25,200,000	208		
2241509	B	WEST 231ST STREET	CSX PUTNAM (ABANDONED)		O		1	S	7/3/2014	4.745	F	4,723	$21,253,500	208		
2229450	B	WEST 232ND STREET	HENRY HUDSON PARKWAY		A		2	S	7/8/2015	5.026	G	4,900	$22,050,000	208		
2241510	B	WEST 233RD STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.275	G	3,760	$16,920,000	208		
2241520	B	WEST 234TH STREET	CSX PUTNAM (ABANDONED)		O		1	S	4/27/2015	5.176	G	3,770	$16,965,000	208		
2229460	B	WEST 236TH STREET PEDESTRIAN BRIDGE	HENRY HUDSON PARKWAY		A-PED		3	C	7/27/2015	3.780	F	2,500	$11,250,000	208		
2229470	B	WEST 239TH STREET	HENRY HUDSON PARKWAY		A		2	S	6/3/2015	5.053	G	6,100	$27,450,000	208		
2229490	B	WEST 246TH STREET	HENRY HUDSON PARKWAY		A		2	S	6/3/2015	4.868	F	5,600	$25,200,000	208		
2229500	B	WEST 252ND STREET	HENRY HUDSON PARKWAY		A		2	S	1/27/2014	5.372	G	4,500	$20,250,000	208		
2231860	Q	WEST ALLEY ROAD	BELT CROSS ISLAND PARKWAY		A		2	S	7/8/2015	5.368	G	7,200	$32,400,000	411		
2246120	M	WEST DRIVE	TRANSVERSE ROAD #1		O	P	1	S	3/25/2014	4.700	F	7,900	$35,550,000	164		

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL RO	BRIDGE TYPE	OTHER OWNER	SPANS	RTNG SR	Inspection Date	Condition Rating	VRBL RT	DECK AREA	REPLACEMENT COST	CD	CD2	CD3
2246240	M	WEST DRIVE	TRANSVERSE ROAD #2		O	P	1	S	3/12/2014	4.167	F	7,200	$32,400,000	164		
2246260	M	WEST DRIVE	TRANSVERSE ROAD #3		O	P	1	S	3/18/2014	4.800	F	5,100	$22,950,000	164		
2246280	M	WEST DRIVE	TRANSVERSE ROAD #4		O	P	1	S	3/21/2014	4.167	F	4,700	$21,150,000	164		
2246330	M	WEST DRIVE (BALCONY BRDG)	STREAM TO THE LAKE		WO	P	1	S	1/15/2014	5.000	G	1,817	$8,176,500	164		
2246080	M	WEST DRIVE (DALEHEAD ARCH)	BRIDLE PATH OPPOSITE WEST 64TH STREET		O	P	1	S	1/14/2014	4.667	F	2,000	$9,000,000	164		
2246000	M	WEST DRIVE (GREYSHOT ARCH)	PEDESTRIAN PATH BETWEEN 61ST & 62ND STREETS		O	P	1	S	1/8/2014	5.400	G	2,500	$11,250,000	164		
2244020	K	WEST DRIVE (MEADOWPORT ARCH)	PEDESTRIAN PATH NEAR GRAND ARMY PLAZA		O	P	1	S	4/27/2015	5.321	G	2,500	$11,250,000	355		
2246360	M	WEST DRIVE (WINTERDALE ARCH)	PEDESTRIAN PATH OPPOSITE WEST 82ND STREET		O	P	1	S	1/16/2014	5.182	G	2,502	$11,259,000	164		
2249480	R	WEST FINGERBOARD ROAD	SIRT SOUTH SHORE	S	O		2	S	9/16/2015	6.403	VG	5,100	$22,950,000	502		
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE		WO-PED	P	2	C	7/21/2015	3.857	F	900	$4,050,000	501		
2244100	K	WEST FOOTBRIDGE (MUSIC GROVE BRIDGE)	PROSPCT PARK STREAM		WO-PED	P	1	C	4/13/2015	5.000	G	308	$1,386,000	355		
2241470	B	WEST FORDHAM ROAD	METRO NORTH RR HUD	M	O		4	S	9/1/2015	5.694	G	16,052	$72,234,000	207		
2267380	M	WEST STREET	RECTOR STREET - BROOKLYN-BATTERY MANHATTAN PLAZA		AT		1	S	11/20/2015	5.033	G	25,760	$115,920,000	101		
2241460	B	WEST TREMONT AVENUE	METRO NORTH RR HUD	M	O		8	S	6/12/2014	3.776	F	12,900	$58,050,000	205		
2241230	B	WESTCHESTER AVENUE	AMTRAK - CSX	AC	O		3	S	11/1/2014	5.778	G	15,600	$70,200,000	202	209	
2240180	B	WESTCHESTER AVENUE	BRONX RIVER		WO		1	S	8/19/2015	4.667	F	5,476	$24,642,000	202	209	
2241000	B	WESTCHESTER AVENUE	CSX PT MORRIS - (ABANDONED)	C	O		1	S	8/29/2014	4.660	F	1,740	$7,830,000	201		
2075837	B	WESTCHESTER AVENUE	HUTCHINSON RIVER PARKWAY		A		2	S	2/27/2014	4.097	F	15,858	$71,361,000	210	211	
2241329	B	WHITE PLAINS ROAD	AMTRAK - CSX	AC	O		1	S	10/28/2014	4.781	F	6,900	$31,050,000	211		
2248020	Q	WHITELAW PEDESTRIAN BRIDGE	NORTH & SOUTH CONDUIT AVENUE		O-PED		7	C	10/6/2015	4.303	F	5,500	$24,750,000	410		
1065210	Q	WHITESTONE EXPRESSWAY NORTHBOUND	CROSS ISLAND PARKWAY		A		1	S	6/17/2014	4.656	F	2,500	$11,250,000	407		
2241369	B	WILLIAMSBRIDGE ROAD	AMTRAK - CSX	AC	O		2	S	10/29/2014	4.985	F	6,510	$29,295,000	211		
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T	WEO		53	S	10/20/2014	4.542	F	824,000	$3,708,000,000	103	301	
2240059	BM	WILLIS AVENUE BRIDGE	HARLEM RIVER		WMO		15	S	11/12/2014	6.778	VG	171,105	$769,972,500	111	201	
2248019	Q	WOODHAVEN BOULEVARD	ATLANTIC AVENUE		O		3	S	3/26/2014	4.208	F	19,400	$87,300,000	409		
2248159	Q	WOODHAVEN BOULEVARD	QUEENS BOULEVARD		O		2	S	7/17/2014	4.078	F	11,500	$51,750,000	404		
2230540	Q	WOODSIDE AVENUE	278I (BROOKLYN-QUEENS EXPRESSWAY)		A		1	S	1/31/2014	5.672	G	7,529	$33,880,500	402		
2247400	Q	WOODSIDE AVENUE	CSX TRANSPORT	C	O		1	S	9/15/2015	5.033	G	8,200	$36,900,000	402	404	
2247120	Q	WOODSIDE AVENUE	LIRR MAIN LINE	L	O		3	S	10/7/2015	4.413	F	14,900	$67,050,000	402		
788 OPEN BRIDGES				OPEN SPANS 4,339						OPEN SF		14,554,952	$65,505,793,500	ALL		

STATEN ISLAND CULVERTS

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED		BRIDGE TYPE	SPANS	SOURCE
R00004	R	DICKIE AVE	NEAR COLUMBUS PLACE		O	1	CITY
R00005	R	BIDWELL AVE	COLUMBUS PLACE		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	IDLEASE PLACE		O	1	CITY
R00022	R	IDLEASE 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
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
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
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
R00105	R	ARTHUR KILL ROAD	CLARKE AVENUE		O	1	CITY
R00106	R	ARTHUR KILL ROAD	RICHMONDTOWN ROAD		O	1	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



R00013 Naughton Avenue over Patterson Avenue. R00032 Seguine Avenue over Purdy Place. R00115 Victory Boulevard over Cloves Lake Park. R00114 Sweet Brook Road over Ridgewood Road. R00103 Aultman Avenue over St. George Road. R00139 De Pew Place over Maguire Avenue. R00105 Arthur Kill Road over Clarke Avenue. R00101 St. Andrews Road over Lighthouse Avenue. R00040 113 Maguire Avenue over Depew Place.

Revised 2/26/13

A 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.

AASHTO (AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS) - A nonprofit, nonpartisan association representing highway and transportation departments in the fifty states, the District of Columbia, and Puerto Rico, representing all five transportation modes air — highways, public transportation, rail, and water.

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.

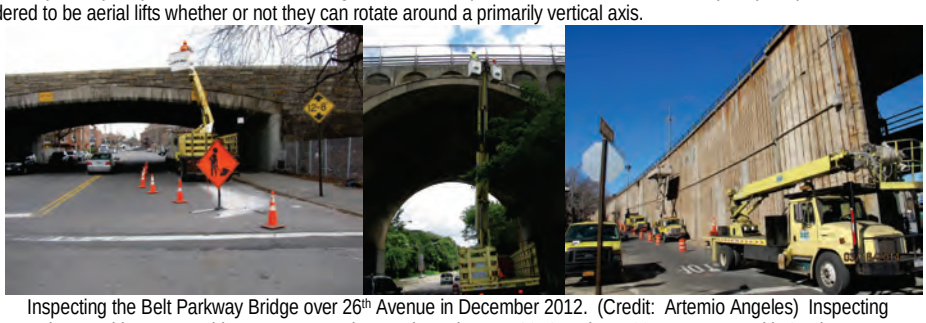


Riverside Drive Viaduct Abutment End. Battery Place Underpass Abutments. City Island Bridge Beginning and Ending Abutment. (Credit: NYSDOT)

ADA (AMERICANS WITH DISABILITIES ACT) - The Americans with Disabilities Act gives civil rights protections to individuals with disabilities, similar to those rights provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications.

ADMIXTURE - Material, other than water, AGGREGATE, and hydraulic cement, used as an ingredient of concrete, mortar, grout, or plaster and added to the batch immediately before or during mixing.

AERIAL LIFT - Any vehicle-mounted device used to elevate personnel, including: extendable boom platforms, aerial ladders, articulating (jointed) boom platforms, vertical towers, or any combination of these. Aerial lifts have replaced ladders and scaffolding on many job sites due to their mobility and flexibility. They may be made of metal, fiberglass-reinforced plastic, or other materials. They may be powered or manually operated, and are considered to be aerial lifts whether or not they can rotate around a primarily vertical axis.



Inspecting the Belt Parkway Bridge over 26th Avenue in December 2012. (Credit: Artemio Angeles) Inspecting the Nereid Avenue Bridge over Bronx River Parkway in June 2012, Using a 60 Foot Boom With Outriggers. (Credit: Bojidar Yanev) Inspecting the Brooklyn-Queens Expressway (Eastbound) over Cadman Plaza/Brooklyn-Queens Expressway (Westbound).

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.

ALLISION - The violent impact of a movable object (vessel) striking a stationary object (bridge or/and bridge protective system).

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.



Inspecting the Exterior of the Manhattan Bridge Anchorage. (Credit: NYSDOT)

APPROACH - Roadway at each end of a bridge, beyond the ABUTMENT, providing access to the bridge.



End Approach to Bridge Over Dam at Clove Lake. Metropolitan Avenue Bridge Approach. (Metropolitan Credit: NYSDOT) Belt Parkway Bridge over 26th Avenue Approach. (Credit: Artemio Angeles)

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.



Hamilton Avenue Asphalt Plant Silo. (Credit: Sheena Diaz)

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***, Metropolitan Avenue, Hunters Point Avenue, and ***Greenpoint Avenue*** Bridges.



Unionport and Hamilton Avenue Bridge. (Credit: NYSDOT) Union Street Bridge. Greenpoint Avenue Bridge. (Greenpoint Credit: Michele N. Vulcan) Shore Road Bridge in July 2011. (Credit: Sergey Parayev)

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. Bearings that do not allow for horizontal movement of the superstructure are referred to as fixed bearings. Bearings that allow for horizontal movement of the superstructure are known as expansion bearings. Both fixed and expansion bearings permit rotation.



Truss Bearing on Manhattan Bridge.
(Credit: NYSDOT)

BICYCLE LANE - A portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicycles. (New York State Vehicle and Traffic Law, Title 1, Article 1, §102–a)

BICYCLE PATH - A path physically separated from motorized vehicle traffic by an open space or barrier and either within the highway right–of–way or within an independent right–of–way and which is intended for the use of bicycles. (New York State Vehicle and Traffic Law, Title 1, Article 1, § 102–b)



Fresh Creek Bicycle/Pedestrian Path in 2013. Brooklyn Bridge and Williamsburg Bridge Bicycle/Pedestrian Paths in 2010. (Williamsburg Credit: Russell Holcomb) Manhattan Bridge Bicycle Path in 2013. Ed Koch – Queensboro Bicycle/Pedestrian Path in 2016.

BID - A contractor's formal proposal, including prices, to perform the work set out in the project SPECIFICATIONS.

BMP (BEST MANAGEMENT PRACTICES) - Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage, or leaks, sludge or waste disposal, or drainage from raw material storage.

BORING - A soil exploration technique of drilling into the ground at various locations in an attempt to construct an accurate subsurface profile.



Conducting Soil Borings in 2008 as Part of the Seismic Retrofit Design of the Manhattan Bridge.
Drilling to a Depth of Approximately 210 Feet to Obtain an 8-foot Long Hard Rock Sample. A 2 1/2 – Foot Long Hard Rock Sample Taken From a Depth of Between 202 and 204 ½ Feet.

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.

BRIDGE STRIKE - An incident in which a vehicle, its load or equipment collides with a bridge. A majority of these strikes occur on low-vertical clearance bridges over parkways or other local roadways prohibited to truck traffic.



Douglaston Parkway Bridge Strike in 2015: Police Observing the Truck Damage. Underside of Bridge Concrete Beams Only Exhibited Scratches. (Credit: Artemio Angeles) 17th Avenue Pedestrian Bridge Strike in 2015.

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. Cable B.
(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.



East 64th Street Pedestrian Bridge over FDR Drive.

CAISSON - A rectangular or cylindrical chamber for keeping water or soft ground from flowing into an excavation.

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 *Ed Koch Queensboro Bridge* is a notable example of this type of structure.



Ed Koch 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, typically running parallel to the girders under the superstructure.



Ed Koch Queensboro Bridge Lower Level Flooring System Catwalk under Lower Level Queens Approach. Manhattan Bridge Brooklyn Tower Catwalk. (Credit: NYSDOT) Fresh Creek Catwalk Under Deck. Brooklyn Bridge Manhattan Side Catwalk.
(Brooklyn Credit: NYSDOT)

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.

CLADDING - Non-load-bearing stone or brick veneer used as the facing material in exterior bridge wall construction.



Abutment Wingwall Cladding on the West 173rd Street Bridge. Hutchinson River Parkway Bridge. Brooklyn-Queens Expressway Over Ramp to Brooklyn-Queens Expressway (Eastbound). Right Side Fascia on the Bronx Pelham Parkway Bridge. Inspecting the Cladding Stones of the Fascia of Span 1 on West 252nd Street Bridge Over Henry Hudson Parkway.

CLEARANCE - The unobstructed vertical and horizontal space provided between two objects.



United Nations – 1st Avenue Tunnel Vertical Clearance Posting. Grand Street Vertical Clearance Posting. (Credit: NYSDOT) Retro-reflective Material Improves Visibility of These Low Vertical Clearance Bridges: East 60th Street Bridge Over FDR Drive and Westchester Avenue Bridge over Hutchinson River Parkway.

COFFERDAM - A temporary dam-like structure constructed around an excavation to exclude water.



April 2010: Cofferdam With Filter Fabric and Gravel Placed Prior to Pile Driving During the Emergency Repair Project on the Borden Avenue Bridge over Dutch Kills. February 2011: Fresh Creek Cofferdam Pad.

COLONNADE - A series of regularly spaced columns.



Manhattan Bridge Colonnade. (Credit: Peter Basich) Arch and Part of the Colonnades in March 2011. (Credit: Bojidar Yanev)

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.



Removing a Core From 252nd Street Bridge over Henry Hudson Parkway in January 2009. (Credit: Masroor Mahmood)

CORROSION - The general disintegration of surface metal through oxidation.

COUPON - A sample of steel taken from an element in order to test material properties.

COUNTERWEIGHT - A weight which is used to balance the weight of a movable member; in bridge applications counterweights are used to balance a movable span so that it rotates or lifts with minimum resistance.

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. A culvert is primarily a hydraulic structure, and its main purpose is to allow free flow of water under roadways.



Idlease Place Culvert. Sweet Brook Road Culvert. Richmond Terrace over Snug Harbor Culvert.

CURING - Process of maintaining freshly placed concrete mortar, grout, or plaster moist and at a favorable temperature for a suitable period of time during its early stages so that the desired properties of the material can develop. Curing assures satisfactory hydration and hardening of the cementitious materials.

DAMAGE INSPECTION - An unscheduled inspection to assess structural damage resulting from environmental factors or human actions.

DEAD LOAD - The weight of the bridge itself without any traffic or external loads.

DECK - The supporting slab and wearing surface of a bridge. Since the deck is directly affected by traffic loads, it's most susceptible to traffic-related problems such as: traffic abrasion, corrosion effects of deicing chemicals, live load deflections and cracking, and impact loads that materially increase as the deck surface deteriorates.



Hamilton Avenue Bridge, East 81st to East 90th Street Promenade over FDR Drive, Chambers Street Pedestrian, and Roosevelt Island Bridge Decks. (Hamilton and FDR Drive Credit: NYSDOT)

DELAMINATION - The subsurface separation of concrete or steel into layers. Delaminated areas give off a hollow "clacking" sound when tapped with a hammer or chain drag. Hammer-sounding of large areas generally proves to be extremely time consuming. More productive sounding methods are available when working with horizontal flat surfaces. Chain dragging accomplishes the same result as hammer-sounding. As the chain is dragged across a concrete surface, a distinctly different sound is heard when it crosses over a delaminated area. When a delaminated area completely separates from the member, the resulting depression is called a SPALL.

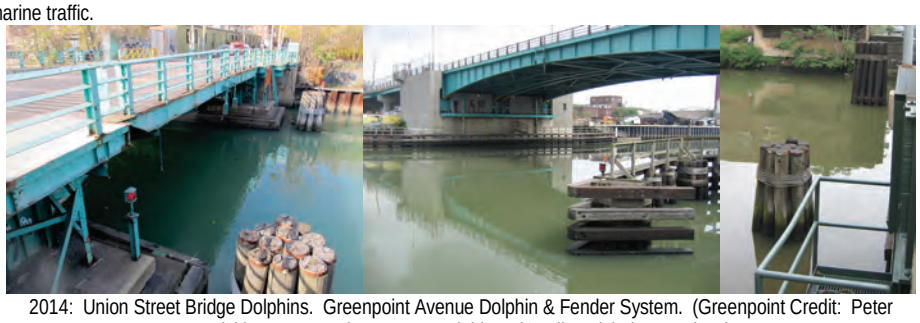


Hollow Sounding And Delaminated Concrete Areas With Exposed Rebars on the Sunrise Highway Bridge Westbound over Laurelton Parkway in 2014.

DESIGN-BUILD CONTRACTS - A delivery procedure where one company is retained to perform both design and construction, thus expediting the capital bridge rehabilitation program.

DIAPHRAGMS - Structural members used to tie adjoining girders together to improve the lateral stability of the girder and to distribute forces among adjacent longitudinal elements.

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.

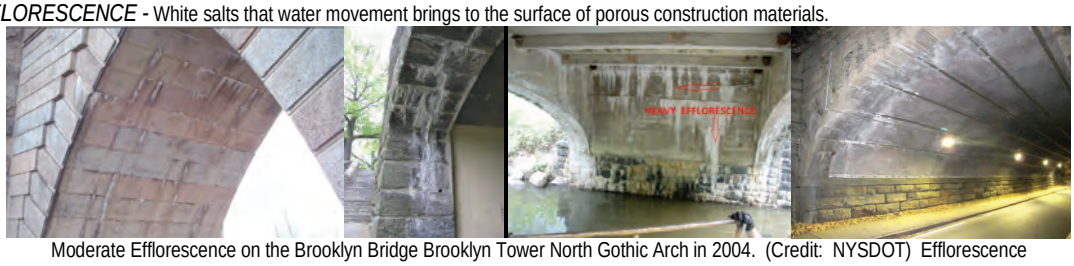


2014: Union Street Bridge Dolphins. Greenpoint Avenue Dolphin & Fender System. (Greenpoint Credit: Peter Basich) Hunters Point Avenue Dolphins. (Credit: Michele N. Vulcan)

DRAINAGE SYSTEM - A collection of surface and/or subsurface drains and pumps that are used to remove surface or ground water.

DRILLED SHAFT - A cylindrical structural column transmitting loads to soil and/or rock. The drilled shaft is constructed in a hole with a circular cross section. The hole is filled with concrete and may be reinforced with a steel REBAR CAGE.

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) Efflorescence on the Underside of the Masonry Stones on the End Abutment of the Margaret Corbin Drive Bridge over Pedestrian Path Near Café. Heavy Efflorescence on End Abutment Stem Wall of Bridge Over Dam at Clove Lake in 2014. Efflorescent Stains on the Shielding of Span #1of the East Drive Bridge over Transverse Road #3 in 2015.

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).

ELEVATION VIEW - A photograph or drawing of the side view of a structure.



Elevation View of Roosevelt Island Bridge.
(Credit: NYSDOT)

(EIS) ENVIRONMENTAL IMPACT STATEMENT - A comprehensive study of potential social, economic and environmental impacts related to a federally-assisted project. Projects for which an EIS is required are defined in the National Environmental Policy Act of 1969, as amended.

EXPANSION JOINTS - Located between bridge spans, 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.



Constructing an Expansion Joint on the
Riverside Drive Viaduct in 1918.

EXTREME EVENT - A rare occurrence, such as an earthquake, flood, hurricane or collision, presenting higher than usual demands to infrastructure networks.

EYEBARS - Steel bars with each end shaped like the eyes of giant needles. They provide total anchorage of the cable and are buried deep within the ANCHORAGE structure. They also are configured with an eye on each end and are tension structural members connected by pins on truss structures.

FACE - The outer, exposed surface of a MASONRY unit.

FALSEWORK - Any temporary structure that facilitates the construction, modification, or removal of a bridge. Types of falsework include: work platforms, temporary bents, erection towers, and COFFERDAMS.

FATIGUE - Cause of structural deficiencies (such as metal fracture) due to repetitive (or cyclic) 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.



Metropolitan Avenue Bridge Fender. Rikers Island Dolphin & Fender System. (Credit: NYSDOT) Installing the Fresh Creek Bridge Fender System in 2013. North Fender Pier of 145th Street Bridge in 2015. (Credit: Litcy Barreto)

FINGER DAM - EXPANSION JOINT in which the opening is spanned by meshing steel fingers or teeth. Finger plate joints are made up of two loosely interlocking pieces of steel plates that cantilever out into the deck joint opening. The cantilevered portion of each plate is made up of rows of finger shaped protrusions that fit into the row of grooves in the opposing plate. The finger plates are anchored into the deck slab or directly attached to the underlying superstructure steel. Whenever the bridge spans undergo a movement, the finger plates move back and forth into the opposing grooves and accommodate this movement.



Manhattan Bridge Finger Dam.
(Credit: Jagtar Khinda)

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. Ed Koch Queensboro Bridge North Outer Roadway Floorbeam. (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.



West 252nd Street Bridge Formwork at the Pier and West Abutment in 2007. Formwork for the Westbound Roadway of the Rockaway Parkway Bridge in 2010. (Rockaway Bridge Credit: Eric Callender) Gerittsen Inlet Bridge in March 2014: Putting up Insulated Forms in Preparation for the Placement of Concrete at the West Abutment Wingwall. The Insulation Helps Protect the Concrete From the Elements and Fluctuating Temperatures During the Curing Period.

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.

GEOMETRIC IMPROVEMENT - Roadway improvements other than a surface treatment, such as shoulder and lane widening, curb and gutter, or roadway alignment.

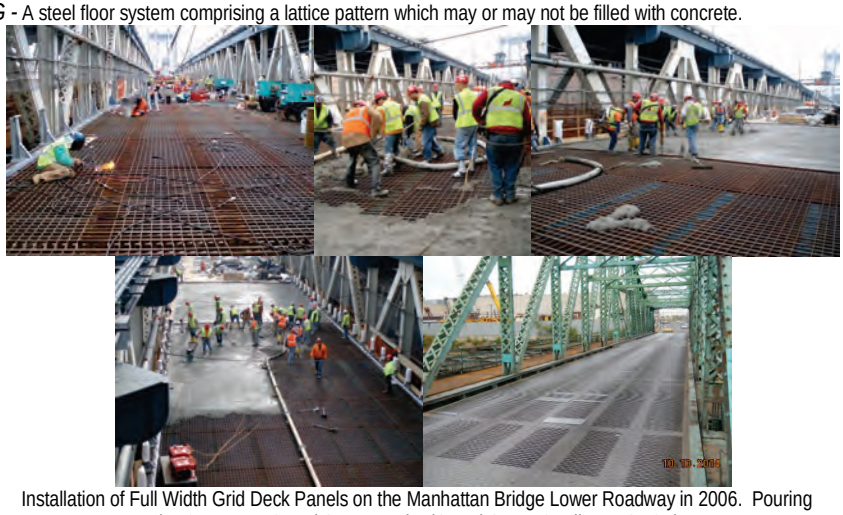
GIRDER SPAN BRIDGES - are primarily employed in bridging short distances, and may be classified as either simple or continuous. The steel girders carry the roadway and roadway load to end supports. The Midtown Highway, ***Hook Creek***, Little Neck and ***Brooklyn Third Avenue Bridges*** are of this 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.



Installation of Full Width Grid Deck Panels on the Manhattan Bridge Lower Roadway in 2006. Pouring the Concrete. Grand Street Deck. (Grand Street Credit: NYSDOT)

GRIZZLY - A coarse screen used to remove oversize pieces from ASPHALT or earth.



New Grizzly Under Fabrication for the Agency Hamilton Asphalt Plant. (Credit: Russell Holcomb)

GUSSET PLATE - A metal plate connecting truss members.



Grand Street Bridge Span 1 Truss Diagonal Member Gusset Plate.

GUTTER - A paved drain commonly constructed in conjunction with the curbs of the roadway.

HISTORIC PROPERTIES - Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

(I/D) INCENTIVE/DISINCENTIVE - Predetermined adjustment to the total contract amount for each day or portion thereof that the work is completed ahead of or behind a specific milestone, phase or contract completion date.

JACKING - The mechanical lifting or sliding of an element.



Ed Koch Queensboro Bridge Bent Column Ready for Jacking in 2005.

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.

LEAF - The movable portion of a BASCULE bridge that forms the SPAN of the structure.



Leaves of the Hamilton Avenue Bridge.

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. This is determined by analytic and experimental procedures specified by ASSHTO, using design documents and information gathered from field inspection and testing.

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.

MANUAL FOR UNIFORM RECORD KEEPING ON CONSTRUCTION CONTRACTS (MURK - Manual(s) containing uniform contract record keeping forms and procedures to be followed by the engineer, current on the date of contract award. MURK Part 1A is the Contract Administration Manual (CAM), Part 1B is the Construction Inspection Manual (CIM), Part 1C is the Safety and Health Program Manual, and Part 2A is the Materials Inspection Manual (MIM). The MURK manuals are guidance documents, and are not a part of the contract documents.

MAP CRACKING (CRAZE CRACKING) - Large pattern cracking can be caused by alkali-silica reaction within the concrete. Environmental conditions such as low humidity, high outside temperatures, direct sunlight, and wind can create high rates of evaporation from the surface layer of concrete. Resistance to shrinkage from the underlying concrete causes stress that is relieved by map cracking.



Union Street Bridge over Brooklyn-Queens Expressway in 2012 – Extensive Map Cracking With Efflorescence on the Underside of the Deck. (Credit: NYSDOT)

MARINE BORERS - Mollusks and crustaceans which live in water and destroy wood by digesting it.

MARINE NAVIGATIONAL LIGHTING - The lights maintained on a bridge for the protection of marine navigation.



Northern Boulevard Bridge - Bridge and Pier Marine Navigational Lighting. Grand Street – Left Side Channel Light. Pulaski Bridge - Center Lights at Span #26.

MASONRY - Construction materials made of concrete, brick, tile, or stone.



Brooklyn Bridge Cliff Street Arch Masonry. 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 Ed Koch Queensboro Bridge. Masonry of the East Drive Bridge Over Eastwood Arch.

MORTAR - Mixture of cementitious materials, fine AGGREGATE, and water, which may contain ADMIXTURES, and is usually used to bond MASONRY units.

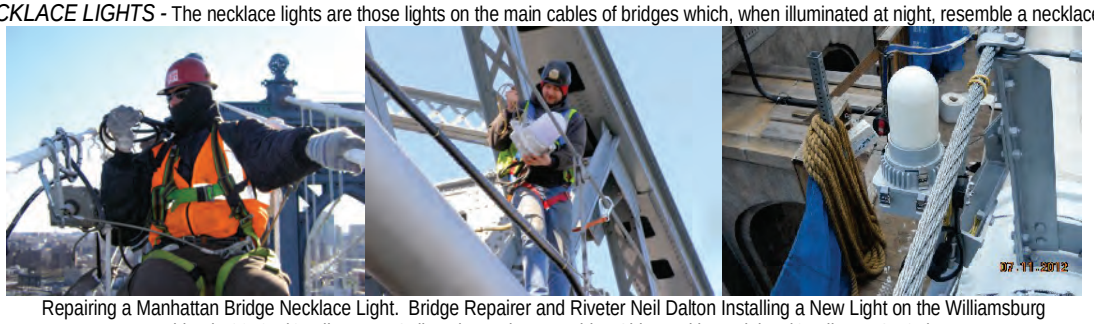
MOVABLE BRIDGE - A type of bridge which carries vehicular or pedestrian traffic over a navigable waterway, and which opens to permit the passage of a ship, barge or boat. The 24 movable bridges currently under the jurisdiction of the New York City Department of Transportation include the Harlem River group (Broadway, West 207th/West Fordham Road, Macombs Dam, 145th Street, Madison Avenue, Third Avenue, Willis Avenue, and *Wards Island*); the Bronx group (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.)



Roosevelt Island Bridge in 2013. (Credit: Stephen Mallon). Shore Road Bridge in 2009. (Shore Road Credit: George Kern) Wards Island Pedestrian Bridge in 2009. (Credit: Duane Bailey-Castro) Pulaski Bridge in 2010. (Credit: Sergey Parayev) Carroll Street Bridge in 2012. (Credit: NYSDOT)

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 bridges which, when illuminated at night, resemble a necklace.



Repairing a Manhattan Bridge Necklace Light. Bridge Repairer and Riveter Neil Dalton Installing a New Light on the Williamsburg Bridge in 2012. (Credit: Hany Soliman) Manhattan Bridge Side Necklace Light. (Credit: NYSDOT)

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 and Grand Street Bridge Operator Houses.

ORTHOTROPIC DECK - A lightweight decking system that uses closely spaced open or closed steel ribs and a horizontal steel deck plate.

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.



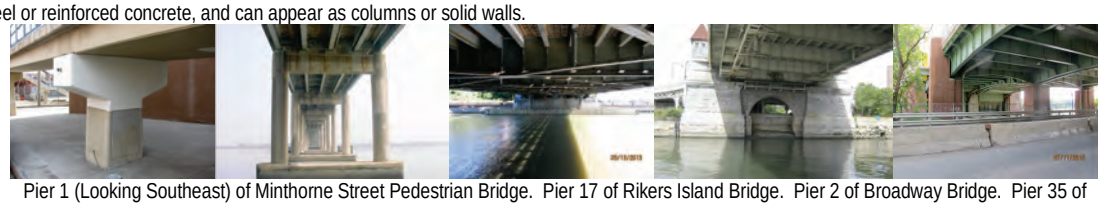
East 81st to East 90th Street Promenade over FDR Drive – Right Parapet at Span 45. West 65th Street Entrance Eastbound over Bridle Path West End – View From End of Left Side Parapet. Belt Parkway Bridge over Rockaway Parkway – Right Side Parapet. (Promenade and Rockaway Parkway Credit: NYSDOT)

PEDESTRIAN BRIDGES - Bridges designed and constructed to provide means of crossing for pedestrian traffic only.



West 181st Street, PS-5, Carroll Street over Franklin Shuttle, and Chambers Street 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.



Pier 1 (Looking Southeast) of Minthorne Street Pedestrian Bridge. Pier 17 of Rikers Island Bridge. Pier 2 of Broadway Bridge. Pier 35 of Macombs Dam Bridge. (Credit: NYSDOT) Pier 1 (Looking East) of Hutchinson River Parkway Bridge over Hutchinson River.

PILES - A concrete, steel or timber column located beneath the FOOTINGS of a bridge and embedded in the soil. Piles are employed in bridges only if the soil directly below the footing is not firm enough to support the bridge loads. Piles are also used to found a structure below the depth of potential scour.

PLAZA - An area designated for use by pedestrians, which may vary in size and shape; which may abut a sidewalk and is located fully within the bed of a roadway; may be at the same level as the roadway or raised above the level of the roadway; may be physically separated from the roadway by curbing, bollards, or other separators; may be treated with special markings and materials; and may contain benches, tables, or other facilities for pedestrian use.



Manhattan Bridge Brooklyn Plaza. Evening View of the Plaza Looking Southeast With Benches, Lights, and Granite Pavers in Foreground. Aerial View of the Plaza. Looking South From the Pedestrian Entrance. Delancey Street Plaza Near the Williamsburg Bridge.

PLUMB BOB - A weight hanging on a string (plumb line), used by bridge inspectors to show the direction of the vertical distance.

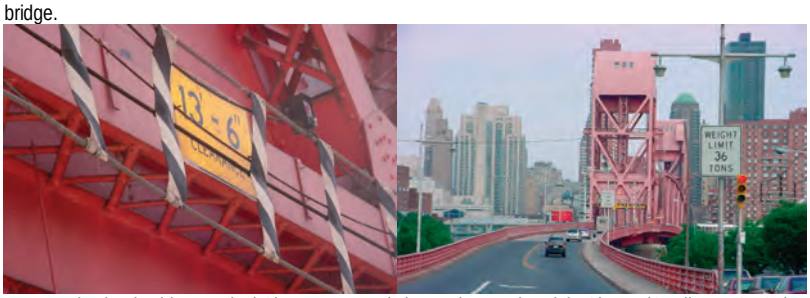
POINTING - The compacting of the mortar in the outermost portion of a joint and the troweling of its exposed surface to secure water tightness or desired architectural effect.



Pointing Joints on the East Face of the Brooklyn Anchorage of the Manhattan Bridge. Pointing the Masonry on the East Drive Bridge (East Wood Arch).

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. Portland cement is made with the following raw materials: limestone - provides lime, quartz or cement rock - provides silica, claystone - provides aluminum oxide, and iron ore - provides iron oxide.

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.



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) Performing Wear and Tear Resurfacing Work on the Roosevelt Avenue Bridges in April 2010: Assistant City Highway Repairer Victor Magagna, Supervisor Highway Repairer Joseph Palemine, Assistant City Highway Repairer Jonathan Adorno (Obscured), Assistant City Highway Repairer Anthony Montalbano, and Area Supervisor Highway Maintenance Edward Pedersen. Assistant City Highway Repairers Jonathan Adorno and Victor Magagna. (Credit: Joseph Flood)

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.



University Heights Bridge Railing. (Credit: NYSDOT) Manhattan Bridge Railing. (Credit: Russell Holcomb) Greywacke Arch Railing. 37th Street Bridge over Brooklyn-Queens Expressway Railing.

RAILROAD FORCE ACCOUNTS - Railroad force accounts are contracts between the Agency and railroads by which the railroads supply flag personnel so the Division can perform repair work on bridges that cross over railroad tracks.

REBAR CAGES - Rebar cages are placed in large cast-in-place concrete columns (DRILLED SHAFTS), and are fabricated from steel reinforcing bars. The reinforcement will typically include concentric hoops (or spirals) along the length of the cage, which are tied to longitudinal bars perpendicular to the hoops.



City Island and Gerittsen Inlet Bridge Rebar Cages.

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.

REPLACEMENT - That type of work where an existing bridge is removed and is fully replaced at the same site, or at an adjacent location, by a substitute bridge, as part of the same project.

RETAINING WALL - A structure designed to restrain and hold back a mass of earth.



Kappock Street Retaining Wall in Riverdale, Before and After Repairs. The Existing 300-Foot Long Parallel Concrete Roadway Retaining Walls on Both Sides of Kappock Street Were Deteriorated and Leaning, and Were Replaced with New Modular Retaining Walls in the Summer of 2009. Inspecting a Bulge in a Retaining Wall Along Douglas Road in Staten Island in 2014.

RETARDING AGENT - A chemical added to mortar to slow down the set.

RETRACTILE BRIDGES - Retractile 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. (1st and 2nd Credit: Peter Basich, 3rd: Vadim Sokolovsky Carroll Street Bridge. (1st Credit: NYSDOT, 2nd: Russell Holcomb)

RETROFIT - Upgrading parts of an existing structure to meet current standards.

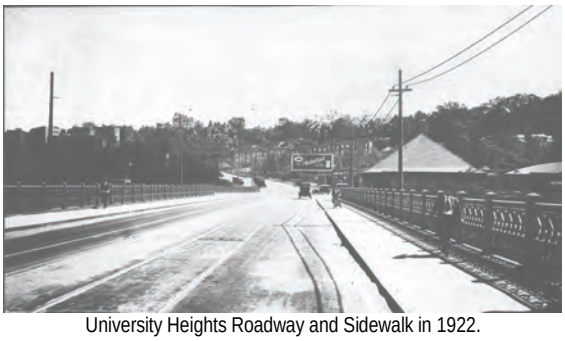
RIGHT-OF-WAY - A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

RIPRAP - Irregularly broken, random-sized pieces of rock used for a foundation or to prevent soil erosion.



Eroded Riprap Pier Protection at Pier 11 of Old Willis Avenue Bridge in 2008. (Credit: NYSDOT) Riprap Installed in 2013 on South Side of Belt Parkway Bridge over Fresh Creek, Facing East.

ROADWAY - The portion of the road intended for the use of vehicular traffic.



University Heights Roadway and Sidewalk in 1922.

ROCKER BEARING - A bridge support that accommodates expansion and contraction of the superstructure through a rocking action.

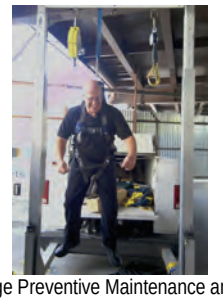
ROUTINE INSPECTION - Regularly scheduled inspection or condition assessment that consists of observations and/or measurements needed to determine the physical and functional condition of the bridge, to identify any changes from initial or previously recorded conditions, and to ensure that the structure continues to satisfy present service requirements.

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.



Manhattan Bridge Saddle.
(Credit: Jagtar Khinda)

SAFETY HARNESS - Harness with shoulder, leg, and waist straps of approved OSHA design used as personal fall protection in conjunction with appropriate lanyards and tie off devices.



Executive Director of Bridge Preventive Maintenance and Repair Thomas Whitehouse Hoisted in the Air While Wearing a Full Body Harness - Demonstrating How to Deploy and Use the Foot Stand to Prevent Orthostatic Intolerance (Commonly Referred to as Suspension Trauma), Which Can be Fatal if Not Prevented. (Credit: Gean Pilipiak)

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.

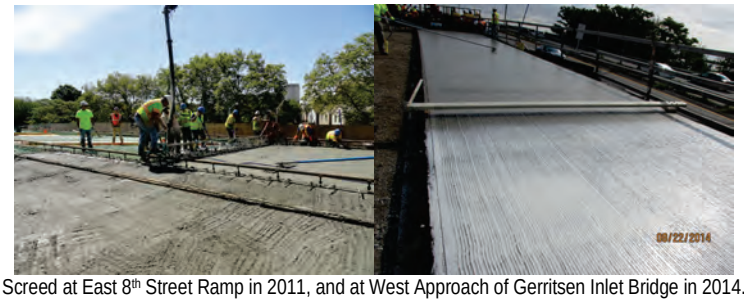
SCALING - Also known as surface breakdown, scaling is the gradual and continuing loss of concrete's surface mortar and aggregate over an area due to the chemical breakdown of the cement bond. Scaling is accelerated when the member is exposed to a harsh environment.

SCOUR - The washing away of stream bed material around or underneath the bridge abutments or piers that is caused by water channel flow.



Scour on Pier 2 End Face of Mosholu Parkway Bridge Over Bronx River in 2008. (Credit: NYSDOT)

SCREED - A long section of metal or wood which is dragged across freshly placed concrete to both smooth the surface and consolidate the concrete.



Screed at East 8th Street Ramp in 2011, and at West Approach of Gerritsen Inlet Bridge in 2014.

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.

SHOP DRAWINGS - detailed drawings developed from the more general design drawings used in the manufacture or fabrication of bridge components.

SHORING - Temporary bracing to support a structure.



2014: Timber Shoring at Spans 7 and 8 of the Harlem River Drive over Ramp to and From Northbound Harlem River Drive. Steel Shoring of the Damaged Column at Pier 4 of the Crocheron Park Pedestrian Bridge. Timber Shoring at Piers 5 and 6.

SHOTCRETE - MORTAR or small-AGGREGATE concrete that is conveyed by compressed air through a hose and applied at high velocity to a surface. Also known as gunite and sprayed concrete.

SOFFIT - The underside of a structural component, such as a beam or arch.

SOUNDING - A method of checking for voids or DELAMINATIONS in concrete by striking a hammer against the structure and listening for a hollow sound.

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.



Spalled Section of Curb on the East 8th Street Bridge in 2006. (Credit: NYSDOT) Spalling With Exposed Rebar on the Beginning Abutment Joint Header of the Westchester Avenue Bridge over the Bronx River in 2011.

SPAN – Portions of the bridge SUPERSTRUCTURE between consecutive supports or joints.

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 181st Street. This bridge opened to traffic in December 1888 and, with its approaches, is 2,375 feet long.



Washington Bridge. (Credit: NYSDOT) Washington Bridge in 2008. (Credit: Duane Bailey-Castro) 2010.

STEM - The vertical part of a retaining wall, usually made of concrete or masonry.



East Face of Brooklyn Bridge North Stem Wall. (Credit: NYSDOT) West 176th Street Pedestrian Bridge Beginning Abutment Stem Wall.

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 is 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.



June 2012 - Metropolitan Avenue Bridge. Summer College Intern Nikita Gupta Unsealing the Wire for Strain Gauge Testing. July 2012 – Unionport Bridge. Summer College Intern Kevin Hillery Setting up Inclinometer Calibration. August 2012 – Hunters Point Avenue Bridge. Kevin Hillery Checking Strain Gauge Connections With a Millimeter. (Credit: Vera Ovetskaya) August 2015: Assistant Mechanical Engineer Vera Ovetskaya Reviewing the Roosevelt Island Test Results.

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 and 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.

STRUCTURAL HEALTH MONITORING - The continuous or regular monitoring of the condition of a structure or system using built-in or autonomous sensory systems, and any resultant intervention to preserve structural integrity.

Borescope Investigations: The borescope is a high-tech device combining fiber-optic technology with digitized computer memory. It allows scanning and photographing of otherwise inaccessible locations.

Corrosion Sensors: Corrosion sensors were developed for the first time under a FHWA contract specifically for New York City's suspension bridges.

Fiber Optic Sensors: Fiber optic sensors can measure very small displacements as well as strain gauges, but are more resilient and insensitive to temperature changes. The information is readily transmitted online and lends itself to real-time monitoring.

Ground Penetrating Radar: Ground penetrating radar uses the propagation and retraction of high frequency waves through materials such as concrete to detect the presence of voids.



Director of Bridge Management Kevin McAnulty Inspecting the Bridge Carrying the Belt Parkway over Ocean Parkway, Utilizing the Unit's Borescope. Experimental Corrosion Sensors Installed for a Test on Cable D of the Manhattan Bridge in 2011 (Left Corner). A Fiber Optic Sensor Monitoring a Crack in the Masonry of the Brooklyn Bridge's Manhattan Approach. A Ground Penetrating Radar Inspection of the Belt Parkway Bridge over Ocean Parkway. (Credit: Bojidar Yanev)

SUBSTRUCTURE - The name given to those elements below a bridge's road deck system, namely the ABUTMENTS, ANCHORAGES, BEARINGS, and PIERS.

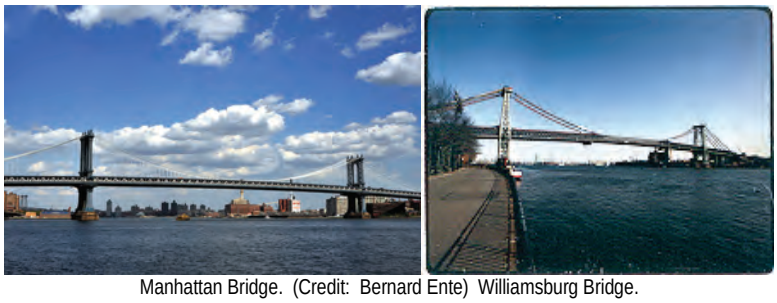
SUPERSTRUCTURE - The superstructure is all that part of a structure above the bearings of simple and continuous spans, skewbacks of arches and top of footings of rigid frames; excluding backwalls, WINGWALLS and wing protection railings.

SUSPENDER - A wire rope or a short vertical rod that transmits forces from the roadway of a SUSPENSION BRIDGE to the supporting CABLES. The suspenders assist in supporting the bridge floor system and its superimposed loads by transferring loads to the main suspension members of the structure. They support other members against sagging, twisting, or other deformation due to its own weight.



Manhattan Bridge Suspenders. (Credit: NYSDOT and Jagtar Khinda)

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.



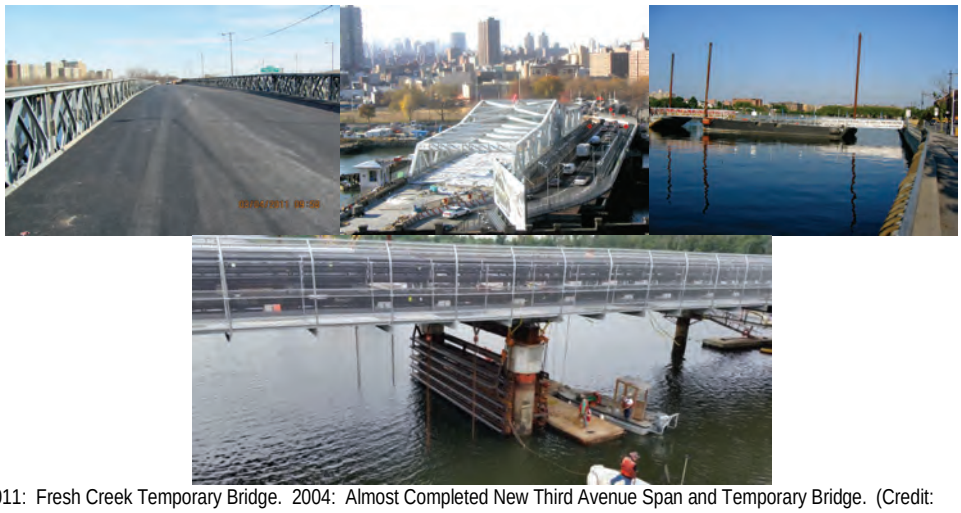
Manhattan Bridge. (Credit: Bernard Ente) Williamsburg Bridge.
(Credit: Peter Basich)

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*, *145th Street*, *University Heights*, *Grand Street* and *Macombs Dam* Bridges.



Third Avenue and University Heights Bridges. (Credit: Michele N. Vulcan) Grand Street Bridge.
(Credit: NYSDOT) Macombs Dam Bridge. (Credit: Michele N. Vulcan)

TEMPORARY BRIDGE - A pedestrian and/or vehicular bridge built to carry traffic around an active construction site in lieu of STAGE CONSTRUCTION. The structure is removed after the new bridge is open to traffic.



2011: Fresh Creek Temporary Bridge. 2004: Almost Completed New Third Avenue Span and Temporary Bridge. (Credit: Daniel Hom) 2005: Pontoon Bridge Used During the Emergency Reconstruction of the Ocean Avenue Pedestrian Bridge over Sheepshead Bay. (Credit: Russell Holcomb) 2015: City Island Temporary Bridge.

THERMAL EXPANSION - Temperature-induced changes in the lengths of steel and other materials used to construct bridges. Thermal expansion governs the design of joints and can, in extreme cases, impact the operation of movable bridges.

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.



Inspectors on Manhattan Bridge Tower. (Inspector Credit: NYSDOT) Manhattan Bridge Tower. (Credit: Michele N. Vulcan) Manhattan Bridge Tower Detail. (Credit: Russell Holcomb) Brooklyn Bridge Tower. (Credit: Earlene Powell) Brooklyn Bridge Brooklyn Side Tower Detail. (Credit: Jagtar Khinda)

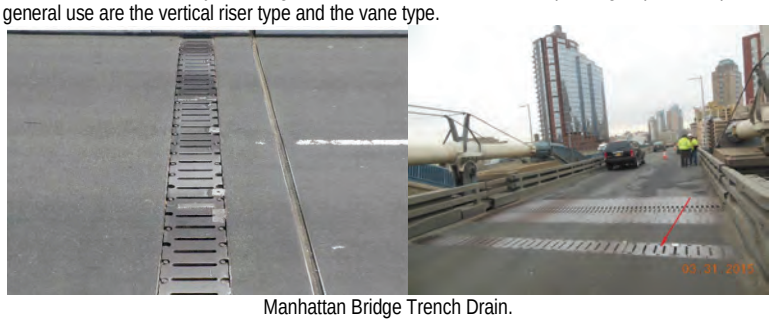
TRAVELER MAINTENANCE - The maintenance of a traveler (movable underdeck platform) that runs under the East River Bridges so maintenance, inspections and repairs can be performed to the underside of the bridge. A traveler platform is typically perpendicular to the girders and the platform runs on a rail system between substructure elements.



Manhattan Bridge Traveler. (Credit: NYSDOT)

TREMIE SEAL - concrete placed under water through the use of a tremie placement tube. As the concrete is placed, water is displaced and the tube is gradually raised keeping the outlet below the level of the placed concrete. Tremie seals are usually used where piers need to be constructed in fairly deep water and it is difficult to dewater the excavation.

TRENCH DRAIN - These drainage structures consist of a slotted opening with bars perpendicular to the opening. Trench drains (also known as slotted drains) function as weirs with flow entering from the side. They can be used to intercept sheet flow, collect gutter flow with or without curbs, modify existing systems to accommodate roadway widening or increased runoff, and reduce ponding depth and spread at grate inlets. The two types of trench drains in general use are the vertical riser type and the vane type.



Manhattan Bridge Trench Drain.

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). General view of Manhattan Bridge Trusses B and C From the Lower Roadway on the Main Span. (Credit: NYSDOT) Chambers Street Pedestrian Bridge Truss. Madison Avenue Bridge Truss Swinging. (Credit: NYSDOT)

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 174th Street Truss Bridge over Sheridan Expressway. (Credit: NYSDOT)

TURBIDITY CURTAIN - A flexible, impermeable barrier used to trap sediment in water bodies. This curtain is generally weighted at the bottom to ensure that sediment does not travel under the curtain, which is supported at the top through a flotation system. Turbidity curtains prevent the migration of sediment from a work site in a water environment into the larger body of water. Also known as a turbidity barrier or silt curtain.



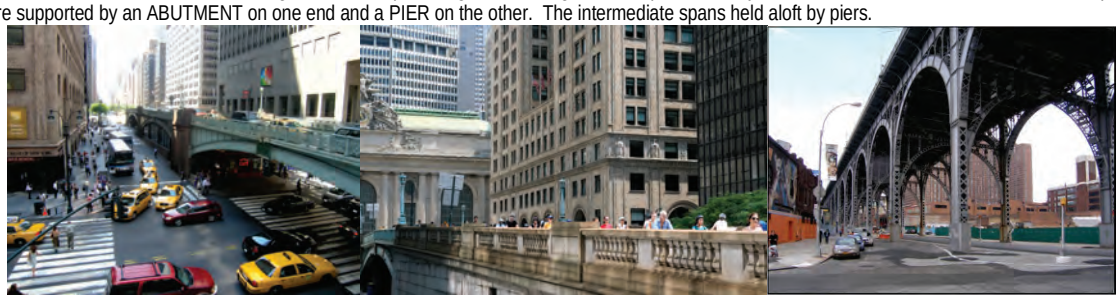
Installation of a Turbidity Curtain to Protect the Shore During Construction of the Temporary City Island Bridge in 2014.

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 *Roosevelt Island Bridge*, *103rd Street - Wards Island Pedestrian Bridge*, *Ninth Street Bridge*, and *Broadway Bridge* are examples of this type of bridge.



Lifted Roosevelt Island Bridge. (Credit: NYSDOT). Wards Island Pedestrian Bridge. Ninth Street Bridge. (9th Street Credit: Bojidar Yanev) Broadway Bridge. (Credit: Bernard Ente)

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. Experiencing the Viaduct in a Whole New Way During Summer Streets 2012. Riverside Drive Viaduct.

WARNING GATE - Warning gates are installed at movable bridges to decrease the likelihood of vehicles and pedestrians passing the stop line and entering an area where potential hazards exist because of bridge operations. The gates are striped with 16-inch alternate vertical, fully reflectorized red and white stripes. Flashing red lights are included on the gate arm and they are only operated if the gate is closed or in the process of being opened or closed.



Metropolitan Avenue Bridge over English Kills Warning Gates. (Credit: NYSDOT) West 207th Street//West Fordham Road Bridge Warning Gate. Greenpoint Avenue Bridge over Newtown Creek Southwest Warning Gate.

WATERPROOFING MEMBRANE - A protective sheet placed between a WEARING SURFACE and concrete DECK to shield the concrete deck from water and corrosive chemicals which could cause DELAMINATION and SPALLING.

WEARING SURFACE - The topmost layer of material applied on the DECK or roadway that receives the traffic loads; also known as wearing course. Wearing surfaces perform two functions in protecting the deck: they provide a seal and prevent water and deicing chemicals from penetrating into the deck slab, and they provide a smooth, skid-resistant surface for vehicular traffic, minimizing impact forces to the structure.



Brooklyn Bridge Wearing Surface. Manhattan Bridge Wearing Surface and Safety-Shaped Barriers. (Credit: NYSDOT) West 86th Street Pedestrian Bridge (Southwest Reservoir Bridge) Wooden Wearing Surface. Ocean Avenue Pedestrian Bridge over Sheepshead Bay.

WELD - To fasten together metals by bonding with molten metal.



Welding Steel Packs for the Southbound Bruckner Expressway Bridge.

WETLAND - Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

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. Wingwalls may extend over longer distances into retaining walls. Wingwalls are extensions of ABUTMENT STEMS, not supporting direct loads from the SUPERSTRUCTURE.



Broadway Bridge, Bay Ridge Avenue Bridge, Ed Koch Queensboro Bridge, Belt Parkway over Rockaway Parkway, Grand Street, and Center Drive (Playmates Arch) Wingwalls. (First Five 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)

11/10/15

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.

Pier Top Cleaning of Bridges Over Water (including Pigeon Waste Removal)

This work consists of removing all debris, including pigeon waste, from bridge abutments and pier tops. Workers pull the material from the edges into the center of the pier with a broom or shovel while supervisors monitor the work to ensure that, to the maximum extent practicable, material is not pushed from the pier during the cleaning process. Using hand tools, debris is collected and removed for disposal. When removing pigeon waste, a 3.5 gallon manual spray canister is used to apply a bleach/water solution to the waste and to the area to be cleaned. The solution is sprayed at a low height to limit aeration and prevent material from falling into the waterway. Once the waste has been sufficiently treated, it is removed for proper disposal.

Cleaning and Lubrication of Bearings of Bridges Over Water

This work consists of cleaning bearings, as well as removing old and applying new lubricant where required. For bearings on flat, solid surfaces, located 12 inches or more from the edge of the structure, no containment/bulkhead will be used. A containment/bulkhead will be used when cleaning or lubrication bearings located less than 12 inches from the edge of the structure. Dirt and old lubricant are collected and disposed of properly.

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.



Assistant City Highway Repairer Lashawn Elam and Highway Repairer Anita Ramos Removing Vegetation and Other Debris. Assistant City Highway Repairer E'boni Brown Removing Debris under the Henry Hudson Parkway at 58th Street. (HHP Credit: Edward Pedersen)

Cleaning of Drainage System Removal of debris, dirt and vegetation from drainage systems, including gutter gratings, gutters and leaders, scuppers, down spouts, clean-outs, and scupper piping systems. The cleaning of surface gratings and gutters requires hand tools, brooms and brushes. In some cases, a vacuum truck is used to clear the drain lines. Cleaning the scuppers and scupper piping systems requires specialized equipment.



Drain Truck on Brooklyn Bridge Ramp. (Credit: Peter Basich) Drain Cleaning on the Williamsburg Bridge in September 2011. (Credit: Shaikh Islam) Cleaning Catch Basins on the Manhattan Bridge.



Preventive Maintenance Contractors on Traveler #3 South on the Ed Koch – Queensboro Bridge Conducting Drainage Cleaning.



Drain Crew: Highway Repairer Anthony Irizarry, Supervisor Highway Repairer Michael Parise, and Assistant City Highway Repairer Giavonni Caballero. (Crew Credit: James Campbell)

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.



Manhattan Bridge Expansion Joint Cleaning in 2008: Supervisor Highway Repairer Thomas Cruz, Assistant City Highway Repairer Antonio Asaro, Highway Repairer Louie Dumeng, and Oiler Stanley Karolewicz. Assistant City Highway Repairers Jonathan Adorno and Antonio Asaro, Oilers Stanley Karolewicz and Ronald Grady. (Credit: Thomas Whitehouse)



Expansion Joint Cleaning on the Williamsburg and Ed Koch - Queensboro Bridges in September 2011. (Credit: Shaikh Islam)

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.



Mechanical Sweeper – Side and Rear Views. (Credit: Peter Basich)

Washing of Decks and Salt Splash Zones Washing of decks, under-decks, substructures, and salt splash zones to remove remnants of de-icing salts; use of water jets to clean tight corners.



Washing the Williamsburg Bridge in July 2011 and May 2015.



Washing the Ed Koch Queensboro Bridge in August 2011.

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.

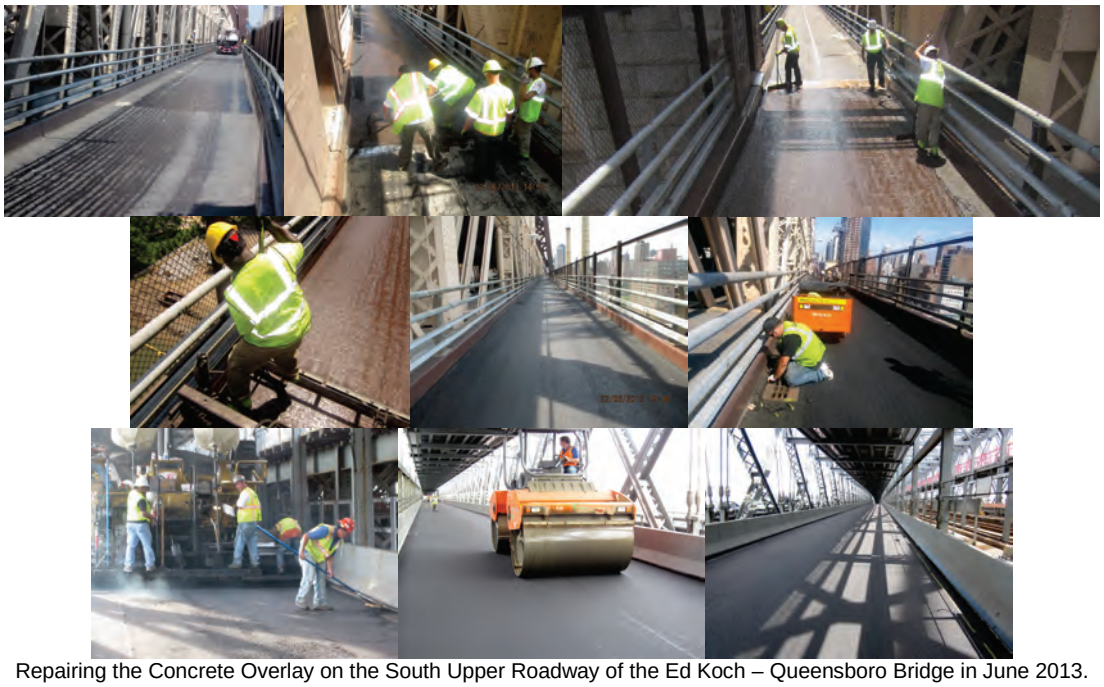


Sidewalk Repairs in August 2010 at Houston Street Bridge over the FDR Drive: Tractor Operator Robert Noordzy (in Tractor), Bricklayer Vincent Sciulla, Cement Masons Frank Finizio and Victor Porowski, and Bricklayer Luigi Cuffari. Bridge Repairer and Riveter Brook Budd and Bricklayer Luigi Cuffari. Tractor Operator Noordzy (in Tractor), Cement Masons Frank Finizio (Foreground) and Victor Porowski (Background), and Bricklayer Vincent Sciulla. Bricklayer Vincent Sciulla, Bridge Repairer and Riveters James Philip and Brook Budd, Bricklayer Luigi Cuffari, Tractor Operator Robert Noordzy, Supervisor Bricklayer Edward Alfano, and Cement Masons Frank Finizio and Victor Porowski. (Credit: Russell Holcomb)

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 minimum two-inch course of bituminous concrete. Also includes minor deck repair, cleaning and waterproofing of deck.



November 2014: Wearing Surface Repairs at 149th Street over the Cross Island Parkway. Applying the Waterproofing Membrane. The Finished Patch. (Credit: Steve Mezzacappa) Resurfacing the Deck of the Queens-Bound Upper Roadway of the Ed Koch - Queensboro Bridge in June 2014. (Credit: Sunil Desai)



Repairing the Concrete Overlay on the South Upper Roadway of the Ed Koch – Queensboro Bridge in June 2013. (Credit: Sunil Desai) Repaving the Williamsburg Bridge in 2011.

Electrical and Mechanical Component Maintenance of the 4 East River Bridges and 24 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.



Construction Project Manager Gholamali Mozaffari, and Electricians Nelson Crooks and Gary Emmanuel Fixing Machinery in the Ninth Street Bridge Operator House in April 2008. (Credit: Vera Ovetskaya) Repairing the Navigation Lighting on the Hunterspoint Bridge. On the Bridge: Oilers Carl Wharton, Richard Morreale, and Paul Califano, Mozaffari Ali, Electrician Naum Golburt, and Highway Repairers Manny Nardiello and Kevin Donahue. In the Snooper Bucket: Harry Parmaman and Supervisor Electrician Jose Done. (Credit: Samuel Teaw)

Maintenance of Mechanical Components Cleaning and lubrication of all movable parts for the four East River Bridges and the twenty-four movable bridges. In addition, specialized maintenance is performed on the bridge cables and eye-bars inside the anchorages, and on the solid rods on the suspended spans of the East River bridges, cleaning and lubrication of the travelers' mechanical components; cleaning of truss, sliding-surface, stringer, and roller 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.



Cleaning and Lubricating the Solid Rods' Suspender Bearings on the Brooklyn Bridge.



Repairing the Brooklyn Bridge Standpipe System, 130 Feet Below the Roadway. Maintenance Crew Conducting the Annual Cleaning and Lubrication of the Solid Rod Suspenders and Spherical Bearings on the Brooklyn Bridge. 2nd Photo - Oilers Steven Marxhausen, Rene Francis, Richard Morreale, Thomas McAuliffe, and Andrew Sorrentino. (Credit: Anatoly Orlov) Oiler T. McAuliffe at the 9th Street Bridge



Assistant Mechanical Engineer Vera Ovetskaya Climbing to the Brooklyn Bridge Tower in 2008. (Credit: Gennadiy Kaplun)Oiler Tom Strommen Maintaining the Hydraulic Power Unit at the Hamilton Avenue Bridge in February 2010. (Credit: Vera Ovetskaya) Cleaning and Lubricating the Broadway Bridge. (Credit: Reza Taheri) Executive Director of Bridge Preventive Maintenance and Repair Thomas Whitehouse (Wearing Yellow Jacket) Inspecting the Broadway Bridge Machinery Room and Instructing the Contractor. (Credit: Albert Hong)

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.



Assembly of Containment System at Franklin Square – in July and September 2010. Brooklyn Bridge Side Span Containment System – in November 2010.



Movable Bridge Preventive Maintenance Contractor Removing Paint and Repainting on the Borden Avenue Bridge.

For over 100 years, lead was used in industrial paints applied to steel structures. Lead paints were chosen because they were the best anti-corrosion agents available to preserve steel structures. The application of lead-based paints to steel structures and facilities continued through the 1970's until health hazards associated with lead became known, and less toxic coatings were developed. Presently, the lead paint coatings (and the steel surface beneath) on many steel bridges in NYC are weathered and corroded and no longer provide adequate protection from the elements. The lead paint and underlying rust must now be removed and non-lead paint applied.

NYCDOT takes into consideration several factors before deciding the method of paint removal for a particular bridge. The primary factors are the type of bridge structure, its paint coating conditions and its surrounding environment. Based on these and other factors, NYCDOT will select a method that is most appropriate for the recoating needs, yet will be least intrusive on the surrounding community and protective of workers, motorists and the public.

The available methods range from abrasive blasting, and water blasting, to power tool cleaning and chemical stripping. Generally, faster methods such as abrasive blasting mean less disruption on the community, but they also have a greater potential for lead paint dust emission. The slower methods have a lower potential for dust emission but can be more disruptive to the public as they require a longer work period. While removal operations are taking place, appropriate containment procedures must be implemented to protect health and safety.

The Division treats all lead paint waste as hazardous waste, and stores and disposes of it according to the Resource Conservation and Recovery Act (RCRA). Waste is stored in approved leak-proof drums and containers which are, in turn stored temporarily in a fenced, secured area on-site until they are transferred to a disposal/recycling facility.

Full-Steel (Overcoating) Overcoating of the entire bridge. Solvent cleaning and cleaning of steel surfaces in areas with deteriorated paint is conducted using approved environmentally safe paint removal techniques, and either power tools, hand tools or combination hand/power tools. Power tool cleaning is performed in a Class 3P containment, and hand tool cleaning in a Class 4 containment. Combination hand/power tool cleaning is performed in a Class 3P

containment. A localized primer coat and a single finish coat are then applied by brush, roller, or spray over the entire bridge.

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.



Williamsburg Bridge in June 2010: Application of Finish Coat at North Truss Diagonal. Salt Splash Painting on the Williamsburg Bridge. (Salt Splash Credit: Fouad Althaibani). Inspection of Blasting Surfaces Inside the Franklin Square Arch Containment in September 2010. Brooklyn Bridge Main Span Painting in December 2010.

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) Bridge Repairer and Riveter James Philip Using a Track-Mounted Torch to Bevel the Edge of a Steel Plate in September 2012. (Credit: Thomas Whitehouse) Checking the Navigation Lights at Pier #5 of the Third Avenue Bridge.

*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.

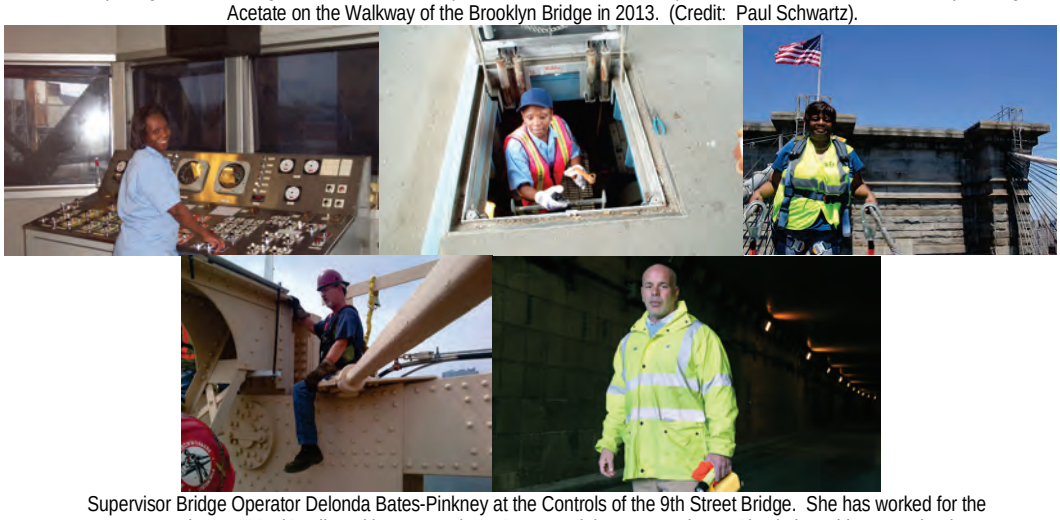
MAINTENANCE PERSONNEL RESOURCES IN 2015

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	1	4
BRIDGE OPERATORS	20	64
BRIDGE PAINTERS	5	29
BRIDGE REPAIRERS/RIVETERS	4	38
CARPENTERS	2	15
CEMENT MASONS	-	11
ELECTRICIANS (INCLUDES HELPERS)	4	22
HIGHWAY REPAIRERS (INCLUDES ASSISTANTS & SEASONAL WORKERS)	24	76
MACHINISTS	-	1
MOTOR GRADER OPERATORS	-	1
OILERS	-	12
TRACTOR OPERATORS	-	1
TOTALS	60 SUPERVISORS	274 MECHANICS



Bridge Repairer Riveter Damian Venezia Squeezing Between the Girders to Access a Floor Beam That Needed to be Reinforced on the Ed Koch Queensboro Bridge – August 2010. (Credit: Hany Soliman) Carpenters John Horgan and Ruben Urena, and Assistant Civil Engineer Fouad Althaibani Repairing the PS-5 Bridge in November 2011. (Credit: Thomas Whitehouse) Cement Mason Victor Porowski Spreading Sodium Acetate on the Walkway of the Brooklyn Bridge in 2013. (Credit: Paul Schwartz).

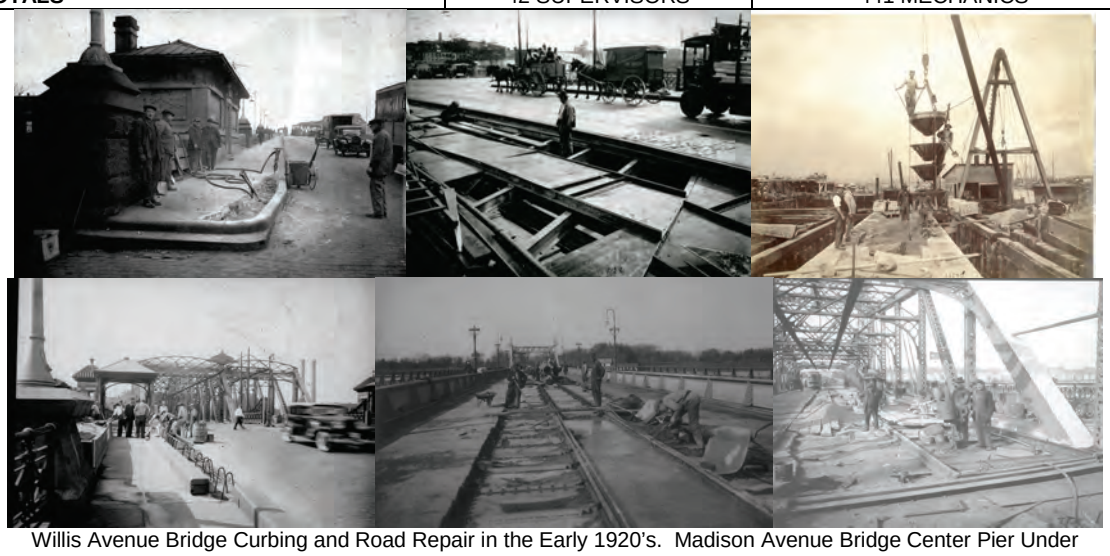


Supervisor Bridge Operator Delonda Bates-Pinkney at the Controls of the 9th Street Bridge. She has worked for the Department since 1989. (Credit: Keith Burrowes) SBO Bates-Pinkney Preparing to Check the Bridge's Mechanisms. (Credit: Vera Ovetskaya) Deputy Director of In-House Painting Earlene Powell on the Brooklyn Bridge. Bridge Repairer and Riveter Kevin Clarkson Installing Anemometers on the Ed Koch-Queensboro Bridge in July 2013. (Credit: Paul Schwartz). Administrative Superintendent of Bridge Operations George Kern inspecting the Battery Park Underpass after Hurricane Sandy. (Credit: Alexander Engel)

Revised 9/25/15

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
TOTALS	42 SUPERVISORS	441 MECHANICS

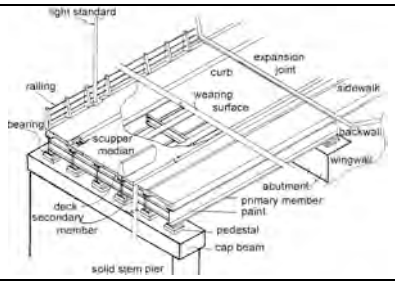


Willis Avenue Bridge Curbing and Road Repair in the Early 1920's. Madison Avenue Bridge Center Pier Under Construction in September 1909, and Constructing New Guardrail in September 1934. City Island Bridge Concreting in 1912. University Heights Bridge Roadway Repair in 1923.

BRIDGE INSPECTION EQUIPMENT LIST

Inspector Equipment	Inspection Team Equipment	Inspection Van Equipment
Boots-Knee High	5 Boro Map	Tool Chest
Dust Masks (Disposable)	Binoculars, Broom	Clip Boards
Safety Goggles	Digital Camera, Camera Card Reader	Flashlight (3 "D" Cell)
Hard Hat With Liner	Hand Compass	Fire Extinguisher & First Aid Kit
Rain Hat & Jacket	Screwdriver Set (Regular & Phillips)	3 Safety Flags
Work Gloves Long Cuff	Dye Penetrant Kit	Step Ladder 6' or 8'
Work Gloves Unlined & Unlined	Rotational Distance Meter	Traffic Regulation Barrels
Spring/Winter Jackets	Lantern D-Meter With Test block	10 Traffic Cones
Work Boots & Overalls	Marking Paint Spray	**Special Equipment for Inspection of Bridges Over Railroads**
Chipping Hammer	Retract Survey Rod 25	Third Rail Insulating Mat
Clip Boards	Portable Laser Distance Meter, Handheld Computer	**Put In Trucks By Highway Repairers When Needed**
Deceleration Lanyards	Thermometer, Spray Penetrating Oil	Generator
Flashlight (2 "D" Cell)	Cell Phone/Radio, Vernier Calipers	Oil For Generator
Safety Vest	Wrenches 12", Tool Pouch	Extension Ladder 32'
Level 9" (Magnetic)	Lumber Crayons, Spray Paint	Extension Ladder 24'
Tool Bags (24")	Awl, Calipers, Hacksaw	Extension Ladder 16'
Class III Body Harness	Hacksaw Blades (Extra), Paint Scraper	Shovel
Lanyards	Inspection Mirror, Level 24"	Push Broom
Bridge Inspection Manual (New York State)	Pliers 8", Vinyl Coated	Dust Pan & Sweep Broom
Technical Advisories For Inspection Manual	Plumb Bob, Pocket Knife	Bottled Water
Emergency Procedure Instructions	Ruler 25' or 30' (Metal)	Bolt Cutter
OSHA Approved Respirator & Filters	Digital Ultrasonic Thickness Gage, Scraper Blades (Extra)	Flood Lights
Belt With Two Drop Forged D-Rings	Wire Brush, Folding Ruler 8'	Approved Safety Gasoline Can
Hard Hat Flashlight	Rope 5/8" With 100' Coil	Sledge Hammer (8 lbs.)
	Digital Angle Gauge	Extension Cord Winder









Typical Simple Span With Superstructure, Abutment and Pier Elements. (Credit: Bojidar Yanev)



Team Leader Thirugnanam Mohan Inspecting City Island Bridge. (Credit: Bojidar Yanev). Diver Checking Steel Sheeting at the Fresh Creek Cofferdam Pier 2 in June 2012.



Using Hand Mirror to Inspect Brooklyn Bridge Cables in October 2014. (Credit: NYSDOT)

Ed Koch - Queensboro Bridge Biennial Inspection in October 2012 – Tower 1, Looking West. (Credit: NYSDOT). Inspecting Bridge Over Dam at Clove Lake in May 2014 Using Small Boats and Scaffolding.

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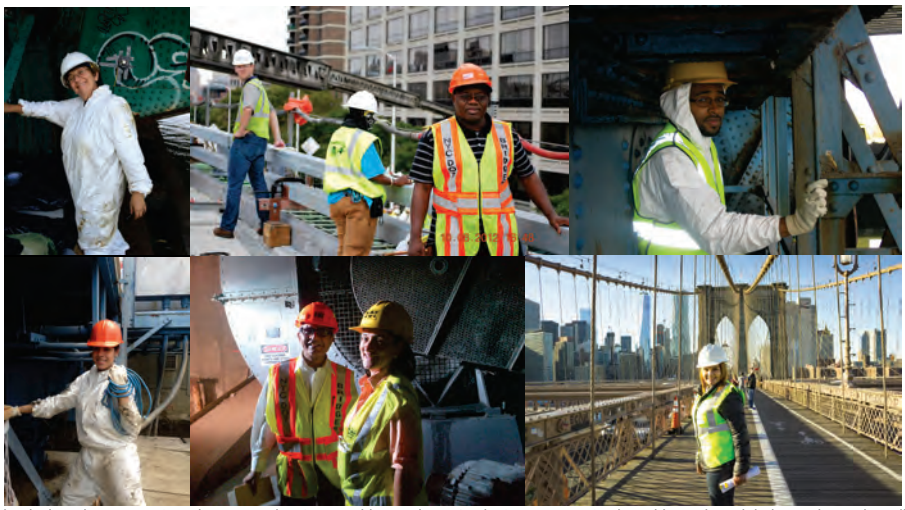
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Assistant Mechanical Engineer Vera Ovetskaya on Union Street Bridge During a Strain Gauge Test. On the Bridge to her Right is an Electronic Inclinometer That Records the Angle of the Bridge Opening. Brooklyn Bridge Engineer-in-Charge Ohene Duodu. Engineering Technician Christopher Brathwaite Assisting in Strain Gauge Balance Testing on Unionport Bridge in October 2010. Summer College Intern Litcy Barreto on the Third Street Bridge During Strain Gauge Installation in June 2015. (Credit: Vera Ovetskaya) Construction Project Manager Beatriz Duran and Administrative Engineer Bhaskar Gusani in the Battery Park Underpass. (Credit: Tamara Berlyavsky). Assistant Civil Engineer Clara Medina on the Brooklyn Bridge.



Associate Project Manager Richard Solomon. Component Rehabilitation Engineer Malgorzata Banka. Assistant Civil Engineer Andrew Hoang. (Credit: Peter Basich) Civil Engineer Tiffany Wong on the Brooklyn Bridge Traveler. (Credit: Andrew Hoang)

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Bridge Painter Elisangela Oliveira (Credit: Jaclyn Jablkowski) Civil Engineers Maria Mikolajczyk, Aldona Ulanecka, and Simona Finkelstein, Staff Analyst Keisha Atkins, Civil Engineer Malgorzata Banka. (Credit: Jagtar Khinda) Executive Director of Management and Support Services Dorothy Roses. Assistant Highway Transportation Specialist Ajda Ozyurt. Associate Staff Analyst Vera Ribakove and Community Assistant Shahnaz Begum. Administrative Managers Leslie Pipes, Lourdes Acevedo, and Kathy Barker, and Community Assistant Joyce McClain. Civil Engineer Tiffany Wong.



Associate Staff Analyst Susan Garcia. (Credit: Vera Ovetskaya. Project Manager Tamara Berlyavsky, Construction Project Manager Beatriz Duran. (Credit: Kamran Sikandar). Computer Associate (Software) Laurie Oberson. (Credit: Michele N. Vulcan) Associate Staff Analyst Barbara Pedersen. Assistant Civil

Engineer Olga Goranova-Rouyne, Civil Engineer Svetlana Kaganovskaya, and Assistant Civil Engineers Evgenia Campbell and Elena Marresova. (Credit: Paul Schwartz) Assistant Mechanical Engineer Nancy Guernsey and Staff Analyst Dr. Tehrani Ghodsieh. (Credit: Samuel Teaw) Deputy Director of In-House Painting Earlene Powell and Commissioner Polly Trottenberg. First Deputy Commissioner Lori A. Ardito and Associate Staff Analyst Darlene Lucchese. Highway Repairers Claudia Exeter and Michelle Hemmings-Harrin. Administrative Engineer Hui Yang.

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Manhattan Bridge Plaque Detail. (Credit: Peter Basich)

Revised 2/17/16

Personnel Years of Service Milestones

Labor-Management Employee Recognition Award Ceremony

Division personnel were honored in a Labor-Management employee recognition ceremony on April 17, 2015 for their years of service to the City.

45 Years of Service
Civil Engineer Saul Basri.

35 Years of Service
Associate Staff Analyst William Donley, Associate Staff Analyst Darlene Lucchese, and Area Supervisor Highway Maintenance Charles Remi.

30 Years of Service
Administrative Staff Analyst Patricia Briggs, Carpenter Stephen Buckley, Administrative Manager Paula Friend, Oiler Stanley Karolewicz, City Planner Paul-Michael Kazas, Administrative Community Relations Specialist Anne Koenig, Associate Staff Analyst Bryan Leys, Administrative Staff Analyst Earlene Powell, Civil Engineer Ahmed Shakir, and Administrative Staff Analyst Linda Urbanski.

25 Years of Service
Bridge Painter Safdar Ali, Supervisor Bridge Painter Vincent Babajko, Supervisor Highway Repairer Thomas Bartkowski, Supervisor Bridge Operator Delonda Bates-Pinkney, Bridge Operator Shirley Bennett, Clerical Associate Pamela Bozeman, Civil Engineer Jin Chang, Assistant Civil Engineer Yousef Demis, Supervisor Highway Repairer Edward Esposito, Bridge Painter Branko Grzancic, Civil Engineer Albert Hong, Administrative Engineer Ferdinand John, Construction Project Manager Thomas Leung, Civil Engineer Wen Liao, Associate Staff Analyst Kevin Lobat, Area Supervisor Highway Maintenance John Lucchese, Associate Project Manager Ramakumar Magge, Cement Mason Paul Maguire, Bridge Painter Samuel Martinez, Bridge Painter Louis Masucci, Administrative Engineer Kevin McAnulty, Civil Engineer Seyed Mirhosseini, Oiler Richard Morreale, Carpenter Andrew Myjer, Administrative Manager Cedrick Niles, Administrative Manager Jose Oliveras, Cement Mason John Padovano, Civil Engineer Sudhakar Pallaki, Carpenter Mark Pavia, Area Supervisor Highway Maintenance Edward Pedersen, Bridge Repairer and Riveter Peter Sciandra, City Planner Ristina Sekulla-Nessel, Associate Project Manager Richard Solomon, Supervisor Highway Repairer Luis Soto, Procurement Analyst Jennie Too, Research Assistant Nelly Tselnik, and Administrative Engineer Bojidar Yanev.



Agency Staff With Commissioner Polly Trottenberg and First Deputy Commissioner Lori A. Ardito.

In Memoriam

The 2015 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 Avellino, Supervisor Bridge Painter
November 12, 1954 - July 1, 2015 27 years, 5 months City service

Mr. Robert “Bobby” Avellino was known for his sense of humor and his willingness to lend a hand and help others. In addition to serving as a supervisor bridge painter working on various bridges and projects during his over a quarter century of service to New York City, Bobby also served as past president and spokesman of the NYC Bridge Painters Benevolent Association, promoting fraternity and helping those in need.


Robert Avellino.

2015 INVENTORY LOCATION MAPS

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:

Bronx	26=Van Cortlandt Park	**Brooklyn**	55=Prospect Park
	27=Bronx Park		56=Gateway Nat'l Rec. Area/Floyd Bennett Field
	28=Pelham Bay Park	**Queens**	80=La Guardia Airport
Manhattan	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 176.

Some structures fall on Community Board dividing lines: their additional Community Boards are identified in the inventory in columns CD2 and CD3.

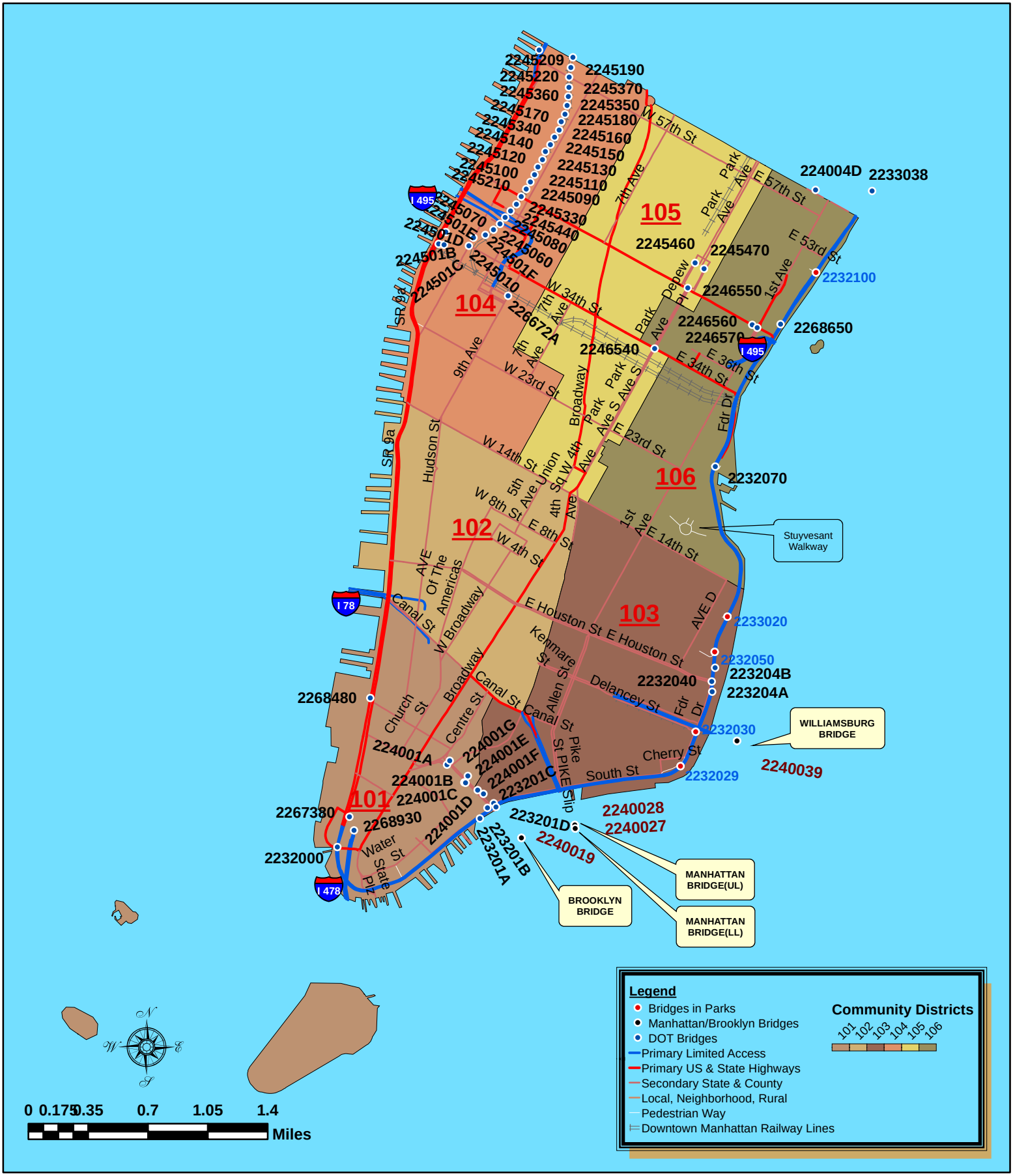


DUMBO Cove and Brooklyn Bridge in July 2013. (Credit: Russell Holcomb) Manhattan and Williamsburg Bridges. FDNY Boat Test Near the Brooklyn Bridge in March 2012. (Credit: Michele N. Vulcan) Duck Family Crossing the East 64th Street Pedestrian Bridge over the FDR Drive in June 2013. (Credit: Paul Schwartz) View From Agency Headquarters of the Sunrise over the Brooklyn and Manhattan Bridges in January 2014. (Credit: Olympia Beatty)

ALL BOROUGHS



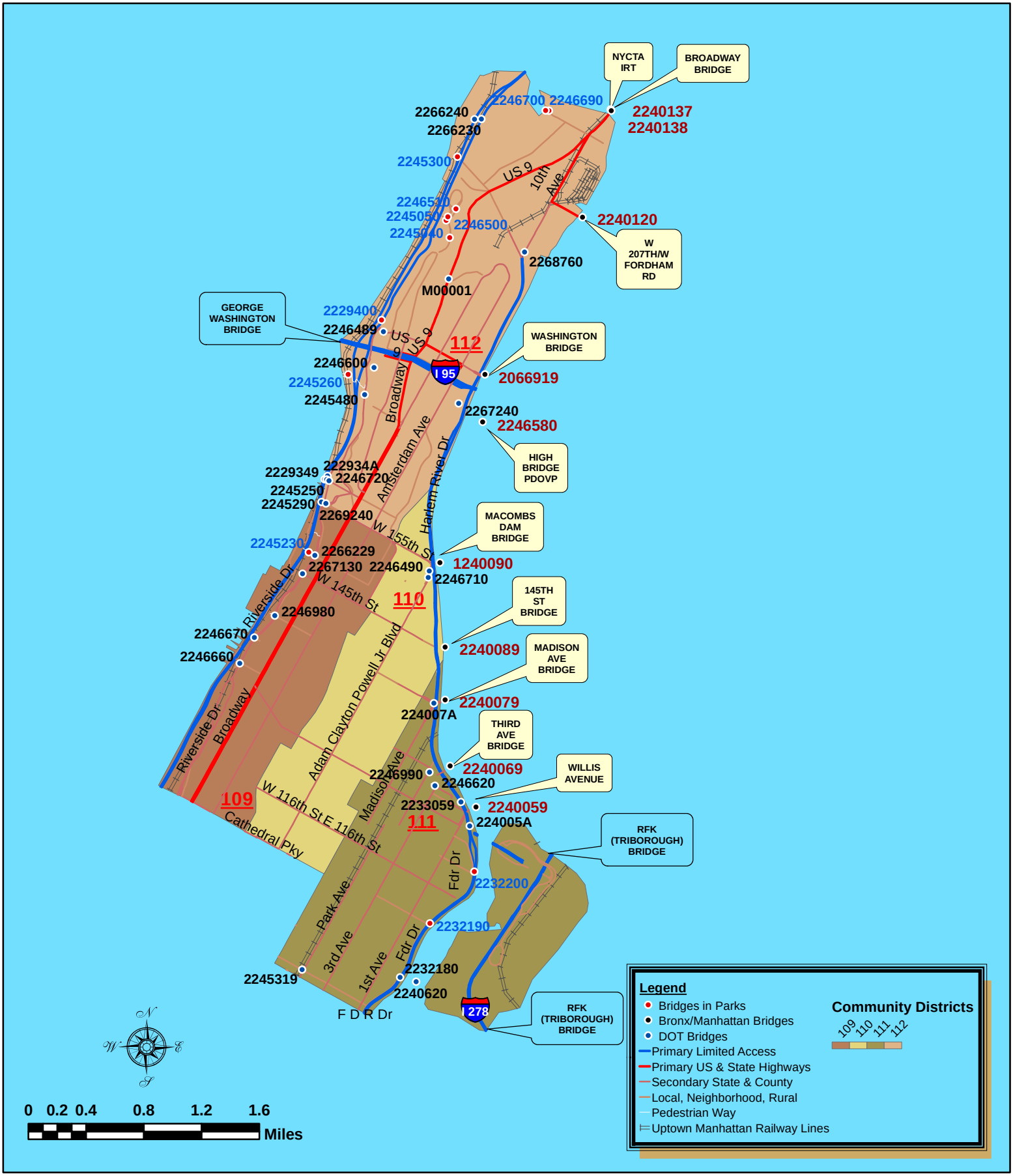
DOWNTOWN MANHATTAN



MIDTOWN MANHATTAN



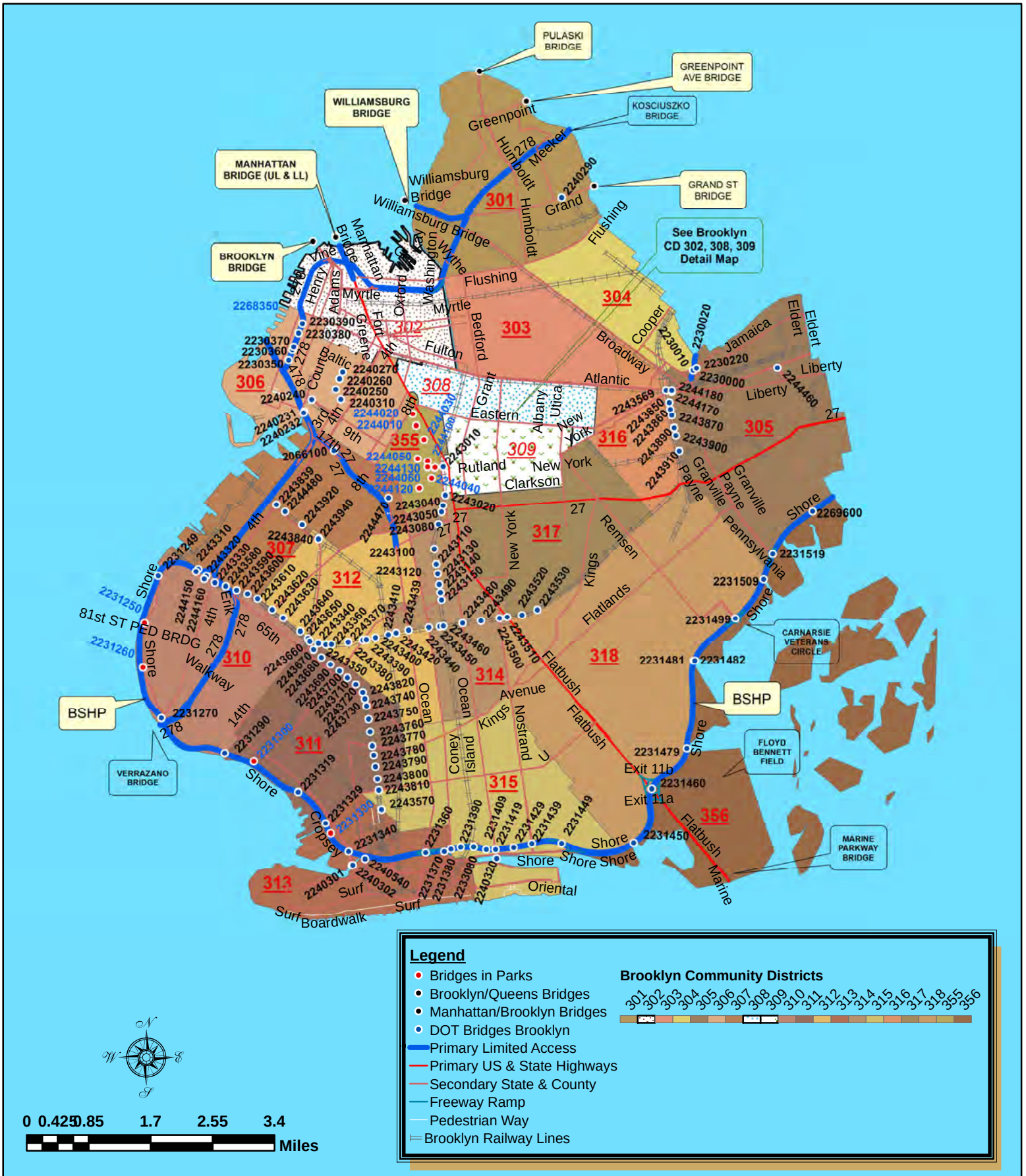
UPTOWN MANHATTAN



BRONX


Legend
Bronx Bridges In Parks
Department of Education
DOT Bridges Bronx
Primary Limited Access
Primary US & State Highways
Secondary State & County
Freeway Ramp
Other Ramp
Local, Neighborhood, Rural
Cul-de-sac, Traffic Circle
Other minor access roads
4WD
Pedestrian Way
Ferry
Bronx Railway Lines
Community Districts
201 202 203 204 205 206 207 208 209 210 211 212 226 227 228 401
0 0.3 0.6 1.2 1.8 2.4
Miles
208
226
212
228
207
205
206
227
211
204
203
209
210
201
202
Independence Ave
Riverdale Yacht Club
225th Pky
River Rd
Palisade Ave
Edsall Ave
W 231st St
Sedgwick Ave
Jerome Ave
E 233rd St
Bronx River Pky
Baychester Ave
Boston Rd
New England Trwy Co
I 95
Park Ln
Hutchinson River Pky
Shore Rd
Walkway
Orchard Beach Rd
Park Dr
City Island Rd
Terrace St
Rodmans Neck
Hart Island Rd
E 222nd St
Broadway Webster Ave
E Gun Hill Rd
US 1
New England Trwy
Bartow Ave
Elliot Rd
Bronx And Pelham Pky
Pelham Pky N
Eastchester Rd
Stadium Ave
Centre St
City Island Ave
W 188th St
W 183rd St
E Burnside Ave
I 87
I 95
W 169th St
Morris Ave
Bronx Park S
White Plains Rd
E Tremont Ave
Country Club Rd
Westchester Ave
Unionport Ave
Bruckner Blvd
Westchester Rd
Grand Concourse
E 169th St
278
I 895
I 295
I 695
E 177th St
3rd Ave
Cross Bronx Expy
Castle Hill Ave
Hutchinsonriver Pkwy
Soundview Ave
Randall Ave
River Ave
Legget Ave
Hunts Point Ave
Willis Ave
I 278
I 678
Rikers Island
Rikers Island Bridge
BROADWAY BRIDGE
NYCTA IRT
W 207TH/W FORDHAM RD
WASHINGTON BRIDGE
HIGH BRIDGE PDOVP
MACOMBS DAM BRIDGE
145TH ST BRIDGE
MADISON AVE BRIDGE
THIRD AVE BRIDGE
WILLIS AVENUE
2240137
2240138
2240120
2066919
2246580
1240090
2240089
2240079
2240069
2240059

BROOKLYN



Legend

- Bridges in Parks
- Brooklyn/Queens Bridges
- Manhattan/Brooklyn Bridges
- DOT Bridges Brooklyn
- Primary Limited Access
- Primary US & State Highways
- Secondary State & County
- Freeway Ramp
- Pedestrian Way
- Brooklyn Railway Lines

Brooklyn Community Districts

301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 355 356

N W E S

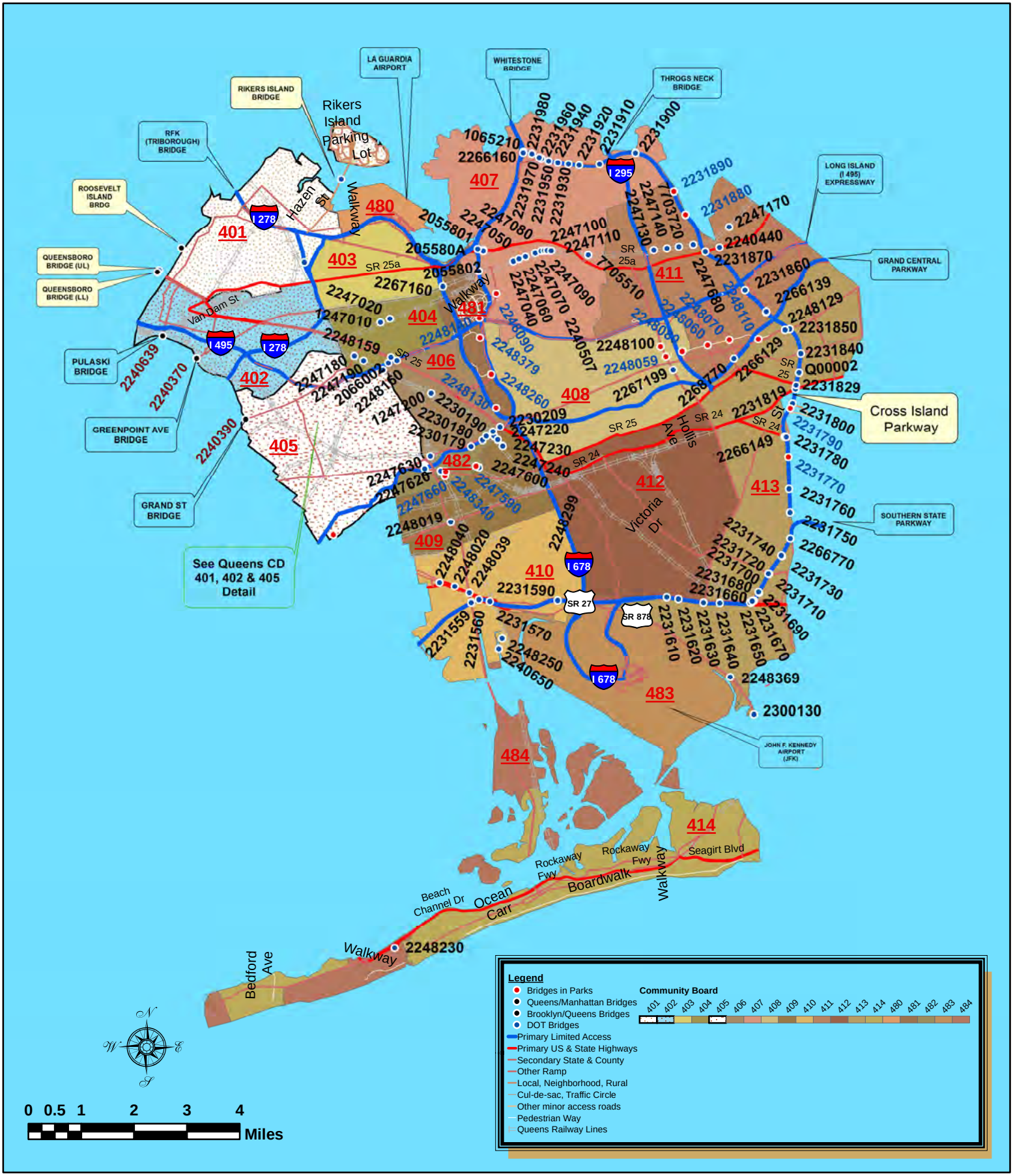
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Miles

BROOKLYN
CD 302, 208, 209 DETAIL



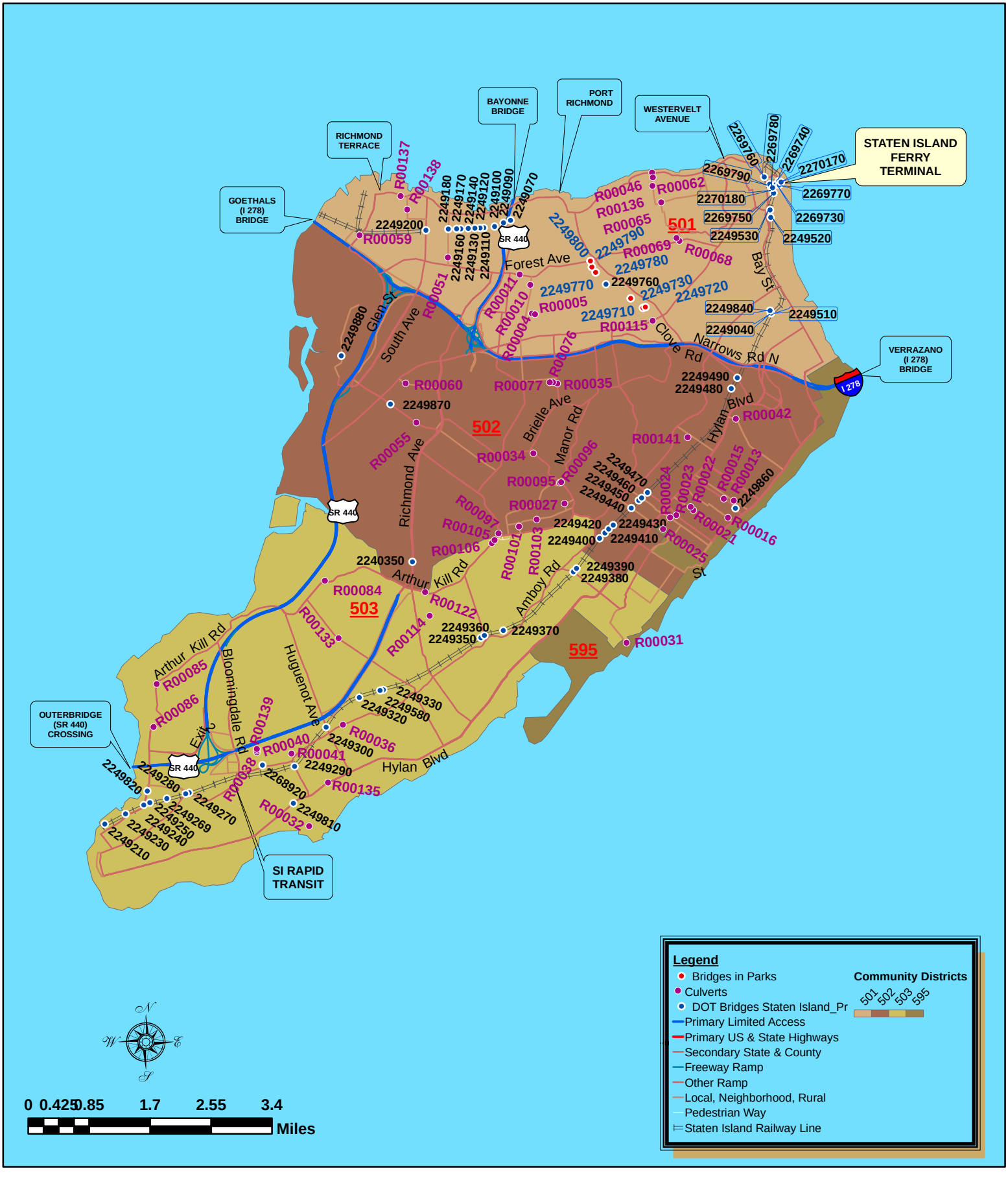
QUEENS


LA GUARDIA AIRPORT
WHITESTONE BRIDGE
THROGS NECK BRIDGE
RIKERS ISLAND BRIDGE
Rikers Island Parking Lot
RFK (TRIBOROUGH) BRIDGE
ROOSEVELT ISLAND BRDG
LONG ISLAND (I 495) EXPRESSWAY
GRAND CENTRAL PARKWAY
QUEENSBORO BRIDGE (UL)
QUEENSBORO BRIDGE (LL)
PULASKI BRIDGE
GREENPOINT AVE BRIDGE
GRAND ST BRIDGE
Cross Island Parkway
SOUTHERN STATE PARKWAY
JOHN F. KENNEDY AIRPORT (JFK)
See Queens CD 401, 402 & 405 Detail
Hazen St
Walkway
Van Dam St
SR 25a
SR 25
SR 24
Hollis Ave
Victoria Dr
Rockaway Fwy
Boardwalk
Seagirt Blvd
Beach Channel Dr
Ocean Carr
Bedford Ave
401
402
403
404
405
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408
409
410
411
412
413
414
480
481
482
483
484
I 278
I 495
I 295
I 678
SR 27
SR 878
Legend
Bridges in Parks
Queens/Manhattan Bridges
Brooklyn/Queens Bridges
DOT Bridges
Primary Limited Access
Primary US & State Highways
Secondary State & County
Other Ramp
Local, Neighborhood, Rural
Cul-de-sac, Traffic Circle
Other minor access roads
Pedestrian Way
Queens Railway Lines
Community Board
401 402 403 404 405 406 407 408 409 410 411 412 413 414 480 481 482 483 484
N
W
E
S
0 0.5 1 2 3 4
Miles

QUEENS
CD 401, 402, 405 DETAIL



STATEN ISLAND





Bill de Blasio
Mayor



Polly Trottenberg
Commissioner