NEW YORK CITY'S
HARLEM RIVER BRIDGES

THE REAUTHORIZATION OF THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY

MICHAEL R. BLOOMBERG, MAYOR
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Dear Friend:

As Congress continues to debate the transportation programs and projects that will become part of the reauthorization of the Transportation Equity Act for the 21st Century (TEA-21), I urge you to support the inclusion of New York City's Harlem River Bridges as a High Priority Earmark project.

The Harlem River Bridges serve as the main arteries for traffic between Manhattan and all of New England. The eight vehicular bridges combined carry over 420,000 vehicles a day. The Willis Avenue Bridge, opened in 1901, alone carries 73,500 vehicles a day, a majority of the traffic being commuters from Westchester and Connecticut and freight for Manhattan businesses.

The estimated cost for rehabilitation for the City's Harlem River Bridges is $911.9 million, nearly half of which the City has already secured. These projects -- all of which have recently begun or are scheduled to begin within the next decade -- not only represent a significant program to improve the City's infrastructure, but also provide much needed construction jobs immediately. Based on accepted formulas this means that as many as 31,000 jobs at a time the City needs them most. Given the regional significance of this project, we are seeking an 80% Federal share for the remaining cost of the Harlem River Bridge project.

The City's work on the Harlem River Bridges follows a ten-year, $3 billion rehabilitation of the East River Bridges. The Federal government contributed approximately $1 billion to this effort and ISTEA contained a $74 million earmark for this essential work. The City now needs your support again as it takes on the task of rehabilitating, and in the case of the Willis Avenue Bridge, replacing this essential aging infrastructure.

This document describes the Harlem River Bridges in detail, including bridge facts and a description of the individual bridge projects. It is only with the help of Congress that the City will be able to move forward to rehabilitate this much needed aged infrastructure.

I thank you for your consideration.

Sincerely,

Iris Weinshall

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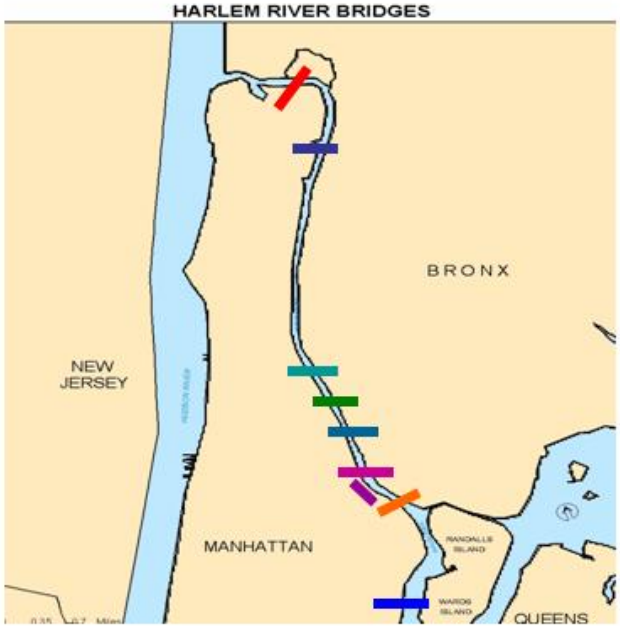
BRIDGE STATISTICS

Bridge	Vehicles per Day (v/d)	Expected Completion Date	Total Estimated Completion Cost
Willis Avenue	73,500 v/d	2012	$278.4 million
Macombs Dam	39,615 v/d	2004*	$181 million
Third Avenue	72,756 v/d	2005	$119 million
Madison Avenue	43,331 v/d	2005*	$90.5 million
145th Street	26,552 v/d	2007	$85 million
127th Street Viaduct	79,000 v/d	2013	$76 million
University Heights (207th Street)	46,381 v/d	Completed	$35 million
Broadway	41,175 v/d	2013	$32.8 million
Wards Island	NA	2012	$14.2 million
TOTAL	**422,310 v/d**		**$911.9 million**

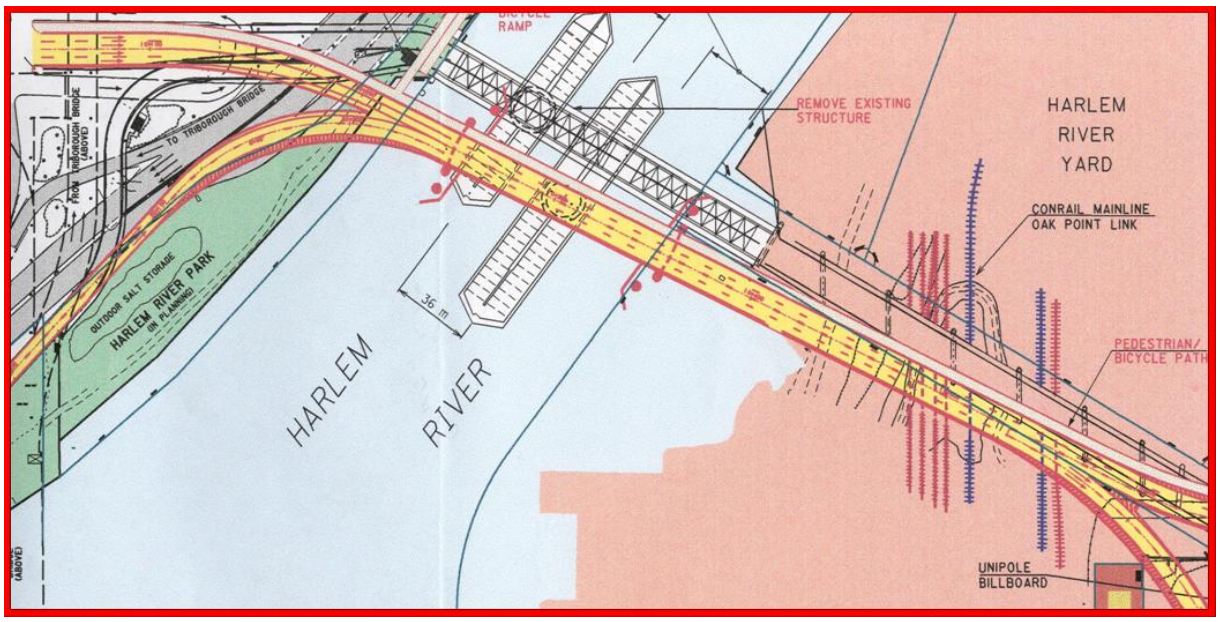
* Seismic retrofit project will be completed later.

Harlem River Bridge Map



- Broadway
- University Heights (207th St.)
- Macombs Dam
- 145th Street
- Madison Avenue
- Third Avenue
- 127th Street Viaduct
- Willis Avenue
- Wards Island

WILLIS AVENUE BRIDGE



WILLIS AVENUE BRIDGE

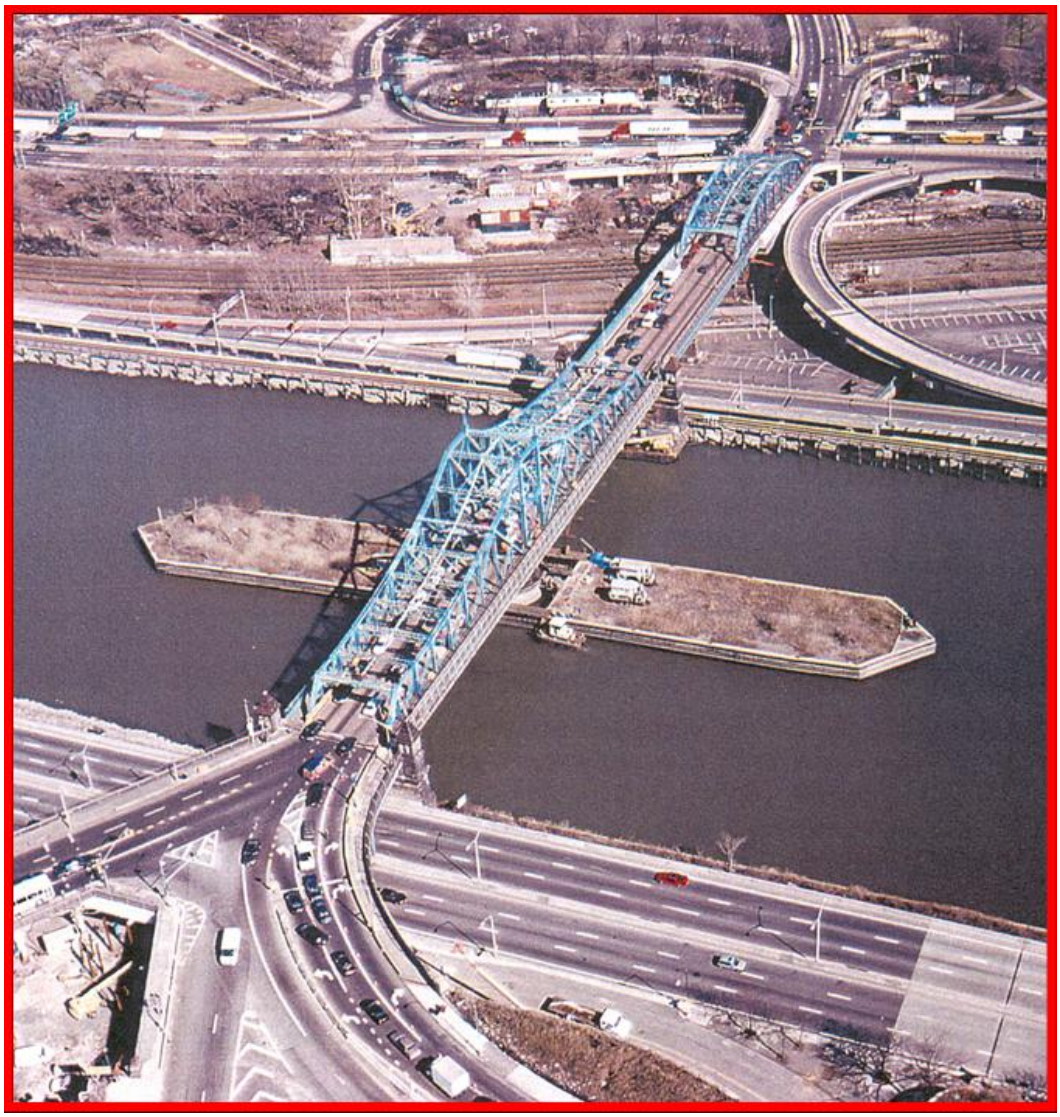
Location	East 125th Street/1st Avenue & East 132nd Street
Type of Bridge	Swing
Date Opened	August 22, 1901
Borough	Manhattan/Bronx
Length	3212 feet
Maximum Span	304 feet
Number of Traffic Lanes	4
Total Estimated Completion Cost	$278.4 million

The main span of the Willis Avenue Bridge carries four 3.1 meter lanes of one-way traffic over the Harlem River and extends from First Avenue and East 124th Street in Manhattan to Willis Avenue and East 134th Street in the Bronx. The bridge crosses the Harlem River Drive, a concrete plant, the Harlem River, the Oak Point Link Railroad, the Harlem River Rail Yard and Bruckner Boulevard. Oriented north-south, this bridge is a northbound route that serves 73,500 vehicles per day and acts as a couplet with the Third Avenue Bridge, which carries southbound traffic.

The Willis Avenue Bridge is located about 550 meters southeast of the Third Avenue Bridge and is a swing span bridge with a single flanking through-truss main span. The bridge is easily reached from the local Manhattan street network, via First Avenue and East 125th Street, as well as from the FDR Drive. The curb-to-curb width of the swing span is about 12.8 meters, and is flanked by two 2.74 meter sidewalks. The northern sidewalk runs from the First Avenue approach to East 135th Street in the Bronx, where the bridge meets existing grade. The two Willis Avenue approach lanes measure 3.7 meters and the three Bruckner Boulevard approach lanes are 3.6 meters wide.

A protective coating project was recently completed in June 2003 at an approximate cost of $3.4 million. The construction of a new Willis Avenue Bridge is scheduled to start in March 2007 and is anticipated to be completed in March 2012 at an estimated cost of $275 million. A new off-line bridge, including a new swing span, will be constructed nearly parallel to the south side of the existing bridge and the existing bridge will be maintained in service until the new bridge is opened to traffic. All the approach ramps on both the Manhattan and the Bronx sides will be reconfigured to match the new alignment. Once constructed, the new Willis Avenue Bridge will meet current seismic code and specifications.

MACOMBS DAM BRIDGE



MACOMBS DAM BRIDGE

Location	West 155th Street/St. Nicholas Place & Jerome Avenue/East 161st Street
Type of Bridge	Swing
Date Opened	May 1, 1895
Borough	Manhattan/Bronx
Length	2540 feet
Maximum Span	408 feet
Number of Traffic Lanes	4
Total Estimated Completion Cost	$181 million

The Macombs Dam Bridge connects West 155th Street in Manhattan with Jerome Avenue in the Bronx and was designated an official New York City landmark in January 1992. It serves 39,615 vehicles per day and is a major route from Manhattan to Yankee Stadium, crossing over Adam Clayton Powell Jr. Boulevard (Seventh Avenue), the Harlem River Drive, the Harlem River, Metro North Railroad, the Oak Point Link Railroad and the Major Deegan Expressway. This structure is the oldest extant swing-type bridge in its original form in New York City and is the City's third-oldest major bridge. The mainline structure is a through-truss swing span. The bridge carries two sidewalks and two lanes of traffic in each direction. The roadway (curb to curb) width on the swing span is about 12.19 meters and the pedestrian sidewalk width varies from 1.83 meters to 2.90 meters.

A major reconstruction project is underway to rehabilitate this landmark structure. The scope of work for this project includes the complete replacement of the roadway deck and major rehabilitation of the superstructure and substructure elements on the mainline structure and all four ramps connecting to the Major Deegan Expressway. The construction work started in spring 1999 and is anticipated to be completed by fall 2004. The construction cost for this major reconstruction is estimated at $145 million.

This bridge is also being assessed for seismic vulnerabilities. A seismic retrofit of this bridge will include strengthening the existing foundations and superstructure steel members. Retrofitting work will be completed throughout the length of the structure from the 155th Street Viaduct to the Jerome Avenue Approach. This will include installation of mini-piles in the existing piers that support the swing span, strengthening of the steel columns and floor beams of the 155th Street Viaduct and installation of lock-up devices to disseminate loads during a seismic event. The seismic retrofit project is currently scheduled to start in July 2010 and end in January 2013 at an estimated cost of $36 million.

THIRD AVENUE BRIDGE

THIRD AVENUE BRIDGE

Location	East 129th Street/3rd Avenue & Bruckner Boulevard
Type of Bridge	Swing
Date Opened	August 1, 1898
Borough	Manhattan/Bronx
Length	2800 feet
Maximum Span	300 feet
Number of Traffic Lanes	4
Total Estimated Completion Cost	$119 million

Third Avenue is a local city street, running north from the Bowery and Fourth Street in Manhattan to Webster Avenue in the Bronx. The Third Avenue Bridge is a one-way road carrying traffic south from Third Avenue, East 135th Street, Bruckner Boulevard and Lincoln Avenue in the Bronx to East 128th Street, East 129th Street, Lexington Avenue and the Harlem River Drive in Manhattan. The main span over the Harlem River is a swing-type bridge. The existing bridge is a 31-span structure carrying four lanes of vehicular traffic into Manhattan over the Oak Point Link Railroad, the Harlem River and Harlem River Drive. Each roadway on the swing span is 7.9 meters and consists of two lanes of traffic. The widths of the sidewalks vary from 2.2 meters over the main span to 2.4 meters in all other sections. The bridge serves 72,756 vehicles per day and is located about 750 meters south of the Madison Avenue Bridge and 600 meters northwest of the Willis Avenue Bridge.

The bridge is currently undergoing a major reconstruction project that started in July 2001 and is anticipated to be completed by November 2005. The entire bridge including the approach ramps will be replaced on the same alignment as that of the existing bridge. In addition, a new swing span, including a state of the art electrical and mechanical control system will also be installed. Once reconstructed, this bridge will meet current seismic code and specifications. The construction cost for this project is estimated at $119 million.

MADISON AVENUE BRIDGE

MADISON AVENUE BRIDGE

Location	Madison Avenue and East 138th Street
Type of Bridge	Swing
Date Opened	July 18, 1910
Borough	Manhattan/Bronx
Length	1892 feet
Maximum Span	300 feet
Number of Traffic Lanes	4
Total Estimated Completion Cost	$90.5 million

Madison Avenue is a local street, located between Fifth and Park Avenues on the east side of Manhattan, and extends from 23rd Street in Manhattan to East 138th Street in the Bronx. The Madison Avenue Bridge is a four-lane, four-span swing bridge carrying traffic between Madison and Fifth Avenues and East 138th Street in Manhattan to East 138th Street and the Grand Concourse in the Bronx. The Madison Avenue Bridge serves 43,331 vehicles per day and is located approximately 650 meters south of the 145th Street Bridge and about 750 meters north of the Third Avenue Bridge. The bridge has two roadways, each 8.23 meters wide and two 2.743 meter sidewalks.

A $45 million emergency reconstruction project, which started in May 1994, is substantially complete. In January 2004 an $8.5 million painting project is scheduled to start and is anticipated to be completed by May 2005. In addition, a project for seismic retrofit, electrical, mechanical, masonry and miscellaneous work is scheduled to be performed between March 2010 and September 2011 at an estimated cost of $37 million. A preliminary seismic assessment indicates that a new center pivot pier may need to be constructed to support the swing span to meet seismic demands. If this is indeed the case, the construction duration will be longer since it will require construction of new foundations for the swing span located in the Harlem River.

145TH STREET BRIDGE

145TH STREET BRIDGE

Location	Lenox Avenue/145th Street & East 149th Street
Type of Bridge	Swing
Date Opened	August 24, 1905
Borough	Manhattan/Bronx
Length	1603 feet
Maximum Span	300 feet
Number of Traffic Lanes	4
Total Estimated Completion Cost	$85 million

The 145th Street Bridge is a four-lane local city street connecting West 145th Street and Lenox Avenue in Manhattan to East 149th Street and River Avenue in the Bronx. The bridge carries four 3.6 meter lanes, two in each direction, plus a 2.7 meter sidewalk on each side of the bridge. The west and east approach roadways are 17 meters and 41 meters wide, respectively. The bridge serves 26,552 vehicles per day and is located approximately 1,250 meters south of the Macombs Dam Bridge and 650 meters north of the Madison Avenue Bridge.

The existing 145th Street Bridge is a swing type bridge with three through-trusses. An eight-span structure, it carries four lanes of vehicular traffic over the Harlem River Drive, the Harlem River and Oak Point Link Railroad. Spans one and two were constructed in 1957 when the bridge was extended to span the Harlem River Drive. Spans six, seven and eight were reconstructed in 1990 in place of the original Bronx flanking span to provide a right-of-way for the Oak Point Link.

The 145th Street Bridge is scheduled for reconstruction between July 2004 and September 2007 at an estimated cost of $85 million. This project will include the complete replacement of the swing span and six approach spans, seismic retrofitting, partial reconstruction of substructures and the reconstruction of the approach roadways. In addition, the center median and swing span center truss will be eliminated and standard lane widths will be provided in each direction. These upgrades will restore structural integrity and extend the useful life of the bridge.

127th STREET VIADUCT

Existing Viaduct.

Rendering of new Viaduct.

127th STREET VIADUCT

Location	The Harlem River Drive between the Triborough Bridge, Third Avenue and the Willis Avenue Bridge
Type of Bridge	Arterial
Date Opened	1957
Borough	Manhattan
Number of Spans	7 steel string spans plus 4 reinforced concrete cellular type spans
Total Length (7 steel stringers + 4 reinforced concrete cellular type spans)	672 feet (357 + 315 feet)
Maximum Span	63.5 feet (steel stringer) 124.5 (reinforced concrete cellular type spans)
Number of Traffic Lanes	5 lanes
Total Estimated Completion Cost	$76 million

The 127th Street Viaduct spans over the entrance ramp to the northbound Harlem River Drive from East 127th Street and the Exit Ramp to East 125th Street. The viaduct currently carries two northbound and three southbound traffic lanes and serves approximately 79,000 vehicles per day.

The 127th Street Viaduct is currently scheduled for reconstruction between July 2010 and December 2013. The existing 11 span viaduct was built in 1957 and is in poor condition. The viaduct needs significant reconstruction at an estimated cost of $76 million. The section of the Harlem River Drive has poor roadway geometry, a severe weaving condition and substandard features, which have resulted in speed restrictions of 25 mph. The reconstruction will require the demolition of the existing superstructure and substructure including the footings.

The proposed reconstruction provides an at-grade access to desirable waterfront property. It will also unite and enlarge park property that is currently divided by the Third Avenue Bridge Entrance Ramp to the southbound Harlem River Drive and will provide direct at-grade access to the northern sections of the park, as well as eliminate pedestrian bridges over the active roadways. The new alignment will provide for a total of up to four lanes northbound and five lanes southbound. The southbound exit ramp will remain at its present location with the addition of a fly-over and dedicated lane for the southbound exit ramp to the Triborough Bridge. In both directions, the roadway slopes will be constructed to provide greater distances for stopping.

UNIVERSITY HEIGHTS BRIDGE (207TH STREET)

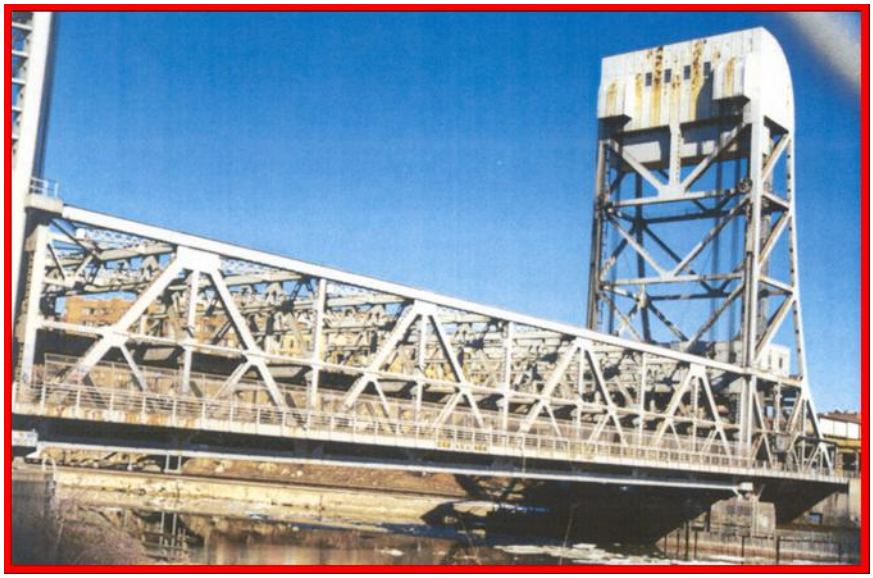
UNIVERSITY HEIGHTS BRIDGE (207TH STREET)

Location	West 207th Street and 9th Avenue and Cedar Avenue
Type of Bridge	Swing
Date Opened	January 8, 1908
Borough	Manhattan/Bronx
Length	1566 feet
Maximum Span	264 feet
Number of Traffic Lanes	4
Total Estimated Completion Cost	$35 million

The University Heights Bridge connects West 207th Street in the Inwood section of Manhattan to West Fordham Road in the University Heights section of the Bronx. This swing type bridge is located approximately one mile south of the Broadway Bridge and approximately two miles north of the Washington and Alexander Hamilton Bridges. It serves 46,381 vehicles per day and carries two lanes of traffic in each direction and one sidewalk.

A new swing span along with a new electrical and mechanical control system was installed on the bridge during a $35 million reconstruction project, which was led by the New York State Department of Transportation. This construction work started in February 1989 and was completed in October 1992.

BROADWAY BRIDGE



BROADWAY BRIDGE

Location	220th Street and Broadway and 225th Street and Broadway
Type of Bridge	Vertical Lift
Date Opened	July 1, 1962
Borough	Manhattan
Length	558 feet
Maximum Span	304 feet
Number of Traffic Lanes	6
Number of Subway Tracks	3
Total Estimated Completion Cost	$32.8 million

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. It serves 41,175 vehicles per day, and three tracks of the IRT subway are carried on its upper deck and a six-lane two-way roadway with sidewalks on either side is carried on its lower deck. The two roadways each measure 10.36 meters and the sidewalks are 1.83 meters wide.

The bridge recently 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.

A major reconstruction project is scheduled to begin in August 2010 and is slated for completion in June 2013, at an estimated cost of $22 million. In the interim, the bridge has undergone 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 $2.1 million.

This major reconstruction project is in the preliminary design phase. A Bridge Reconstruction Project Report is being prepared, which will recommend a preferred plan for reconstruction. This project will include 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.

WARDS ISLAND BRIDGE

WARDS ISLAND BRIDGE

Location	FDR Drive at 103rd Street
Type of Bridge	Vertical Lift
Date Opened	May 18, 1951
Borough	Manhattan
Length	1247 feet
Maximum Span	312 feet
Number of Traffic Lanes	Pedestrian bridge
Total Estimated Completion Cost	$14.2 million

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

A protective coating project was recently completed in May 2003 at an approximate cost of $1.2 million. A reconstruction project is scheduled to take place between April 2010 and April 2012, at an approximate cost of $13 million. This project will include the replacement of the entire electrical and mechanical components along with a new control system, the replacement of the walkway deck and the rehabilitation of the steel superstructure members.