

The National Bridge Inventory contains data submitted by state transportation departments to the Federal Highway Administration in coded format.  
 Form Interface Design: www.historicbridges.org. Data Conversion Assistance By www.bridgehunter.com. None of the involved parties make any guarantee of accuracy.

**Basic Information**

New York [36] Queens County [081] New York [51000] I278 OVER HELLGATE 40-47-33 = 40.792500 073-55-26 = - 73.923889

5521889 Highway agency district #Num! Owner Local Toll Authority [32] Maintenance responsibility Local Toll Authority [32]

Route 278 RTE I278 Toll Toll bridge [1] Features intersected CITY STS & BRX.KL, EAST

Design - main Steel [3] Design - approach [ ] Kilometerpoint 0 km = 0.0 mi

3 Suspension [13] 139 Mixed types [20] Year built 1936 Year reconstructed 1967

Skew angle 0 Structure Flared Yes, flared [1]

Historical significance Historical significance is not determinable at this time. [4]

Total length 3995.9 m = 13110.5 ft Length of maximum span 420.6 m = 1380.0 ft Deck width, out-to-out 29.9 m = 98.1 ft Bridge roadway width, curb-to-curb 27.6 m = 90.6 ft

Inventory Route, Total Horizontal Clearance 27.6 m = 90.6 ft Curb or sidewalk width - left 1.7 m = 5.6 ft Curb or sidewalk width - right 1.7 m = 5.6 ft

Deck structure type Other [9]

Type of wearing surface Integral Concrete (separate non-modified layer of concrete added to structural deck) [2]

Deck protection Unknown [8]

Type of membrane/wearing surface [ ]

**Weight Limits**

Bypass, detour length 1.6 km = 1.0 mi Method to determine inventory rating Allowable Stress(AS) [2] Inventory rating 24.5 metric ton = 27.0 tons

Method to determine operating rating Allowable Stress(AS) [2] Operating rating 36.3 metric ton = 39.9 tons

Bridge posting Equal to or above legal loads [5] Design Load MS 18 / HS 20 [5]

### Functional Details

Average Daily Traffic	154800	Average daily truck traffi	12	%	Year	2011	Future average daily traffic	216720	Year	2031
Road classification	Principal Arterial - Interstate (Urban) [11]		Lanes on structure	8	Approach roadway width	32.9 m = 107.9 ft				
Type of service on bridge	Highway-pedestrian [5]		Direction of traffic	2 - way traffic [2]		Bridge median	Closed median (no barriers) [2]			
Parallel structure designation	No parallel structure exists. [N]									
Type of service under bridge	Highway-waterway [6]		Lanes under structure	39	Navigation control	Navigation control on waterway (bridge permit required). [1]				
Navigation vertical clearanc	42.9 m = 140.8 ft			Navigation horizontal clearance	243.8 m = 799.9 ft					
Minimum navigation vertical clearance, vertical lift bridge					Minimum vertical clearance over bridge roadway	4.41 m = 14.5 ft				
Minimum lateral underclearance reference feature	Highway beneath structure [H]									
Minimum lateral underclearance on right	2.4 m = 7.9 ft				Minimum lateral underclearance on left	0 = N/A				
Minimum Vertical Underclearance	3.35 m = 11.0 ft			Minimum vertical underclearance reference feature	Highway beneath structure [H]					
Appraisal ratings - underclearances	Basically intolerable requiring high priority of corrective action [3]									

### Repair and Replacement Plans

Type of work to be performed	Work done by			Work to be done by contract [1]		
Widening of existing bridge with deck rehabilitation or replacement. [34]	Bridge improvement cost	492383000	Roadway improvement cost	288339000		
	Length of structure improvement	3995.9 m = 13110.5 ft		Total project cost	780722000	
	Year of improvement cost estimate	2011				
	Border bridge - state			Border bridge - percent responsibility of other state		
	Border bridge - structure number					

## Inspection and Sufficiency

Structure status	Open, no restriction [A]	Appraisal ratings - structural	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Condition ratings - superstructure	Fair [5]	Appraisal ratings - roadway alignment	Better than present minimum criteria [7]
Condition ratings - substructure	Satisfactory [6]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of replacement [2]
Condition ratings - deck	Satisfactory [6]		
Scour	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]		
Channel and channel protection	Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly. [6]		
Appraisal ratings - water adequacy	Somewhat better than minimum adequacy to tolerate being left in place as is [5]	Status evaluation	Functionally obsolete [2]
Pier or abutment protection	None present but re-evaluation suggested [5]	Sufficiency rating	40.8
Culverts	Not applicable. Used if structure is not a culvert. [N]		
Traffic safety features - railings	Inspected feature meets currently acceptable standards. [1]		
Traffic safety features - transitions	Not applicable or a safety feature is not required. [N]		
Traffic safety features - approach guardrail			
Traffic safety features - approach guardrail ends			
Inspection date	October 2010 [1010]	Designated inspection frequency	24 Months
Underwater inspection	Not needed [N]	Underwater inspection date	
Fracture critical inspection	Every two years [Y24]	Fracture critical inspection date	October 2010 [1010]
Other special inspection	Not needed [N]	Other special inspection date	

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**Basic Information**

New York [36] New York County [061] New York [51000] ON RANDALLS ISLAND 40-48-02 = 40.800556 073-55-42 = - 73.928333

5521209 Highway agency district #Num! Owner Local Toll Authority [32] Maintenance responsibility Local Toll Authority [32]

Route 0 TRIBORO-NY TO RI Toll Toll bridge [1] Features intersected CITY STS & FDR DR, FRM E

Design - main Steel [3] Design - approach 119 Mixed types [20] Kilometerpoint 32.2 km = 20.0 mi

5 Movable - Lift [15] Year built 1936 Year reconstructed 1967

Skew angle 0 Structure Flared Yes, flared [1]

Historical significance Historical significance is not determinable at this time. [4]

Total length 1400.3 m = 4594.4 ft Length of maximum span 96 m = 315.0 ft Deck width, out-to-out 22.6 m = 74.2 ft Bridge roadway width, curb-to-curb 21.2 m = 69.6 ft

Inventory Route, Total Horizontal Clearance 20.6 m = 67.6 ft Curb or sidewalk width - left 2.3 m = 7.5 ft Curb or sidewalk width - right 2.3 m = 7.5 ft

Deck structure type Not applicable [N]

Type of wearing surface Bituminous [6]

Deck protection Not applicable (applies only to structures with no deck) [N]

Type of membrane/wearing surface

**Weight Limits**

Bypass, detour length 1.6 km = 1.0 mi Method to determine inventory rating Allowable Stress(AS) [2] Inventory rating 22.7 metric ton = 25.0 tons

Method to determine operating rating Allowable Stress(AS) [2] Operating rating 44.5 metric ton = 49.0 tons

Bridge posting Equal to or above legal loads [5] Design Load

### Functional Details

Average Daily Traffic	85000	Average daily truck traffi	6	%	Year	2011	Future average daily traffic	119000	Year	2031
Road classification	Principal Arterial - Other Freeways or Exp		Lanes on structure	6	Approach roadway width	20.7 m = 67.9 ft				
Type of service on bridge	Highway-pedestrian [5]		Direction of traffic	2 - way traffic [2]		Bridge median	Closed median (no barriers) [2]			
Parallel structure designation	No parallel structure exists. [N]									
Type of service under bridge	Highway-waterway [6]		Lanes under structure	19	Navigation control	Navigation control on waterway (bridge permit required). [1]				
Navigation vertical clearanc	41.1 m = 134.8 ft			Navigation horizontal clearance	62.1 m = 203.8 ft					
Minimum navigation vertical clearance, vertical lift bridge	16.8 m = 55.1 ft				Minimum vertical clearance over bridge roadway	4.41 m = 14.5 ft				
Minimum lateral underclearance reference feature	Highway beneath structure [H]									
Minimum lateral underclearance on right	0 = N/A				Minimum lateral underclearance on left	0 = N/A				
Minimum Vertical Underclearance	4.21 m = 13.8 ft			Minimum vertical underclearance reference feature	Highway beneath structure [H]					
Appraisal ratings - underclearances	Basically intolerable requiring high priority of corrective action [3]									

### Repair and Replacement Plans

Type of work to be performed	Work done by			Work to be done by contract [1]		
Bridge deck replacement with only incidental widening. [37]	Bridge improvement cost	180948000	Roadway improvement cost	105963000		
	Length of structure improvement	1400.3 m = 4594.4 ft		Total project cost	286911000	
	Year of improvement cost estimate	2011				
	Border bridge - state		Border bridge - percent responsibility of other state			
	Border bridge - structure number					

## Inspection and Sufficiency

Structure status	Open, no restriction [A]	Appraisal ratings - structural	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - superstructure	Fair [5]	Appraisal ratings - roadway alignment	Better than present minimum criteria [7]
Condition ratings - substructure	Poor [4]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of replacement [2]
Condition ratings - deck	Poor [4]		
Scour	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]		
Channel and channel protection	Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly. [6]		
Appraisal ratings - water adequacy	Meets minimum tolerable limits to be left in place as is [4]	Status evaluation	Structurally deficient [1]
Pier or abutment protection	None present but re-evaluation suggested [5]	Sufficiency rating	22.2
Culverts	Not applicable. Used if structure is not a culvert. [N]		
Traffic safety features - railings			
Traffic safety features - transitions	Not applicable or a safety feature is not required. [N]		
Traffic safety features - approach guardrail			
Traffic safety features - approach guardrail ends			
Inspection date	November 2010 [1110]	Designated inspection frequency	12 Months
Underwater inspection	Not needed [N]	Underwater inspection date	
Fracture critical inspection	Every year [Y12]	Fracture critical inspection date	November 2010 [1110]
Other special inspection	Not needed [N]	Other special inspection date	