



HISTORIC RESOURCE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
 P.O. BOX 189, WATERFORD, NY 12188
 (518) 237-8643

OFFICE USE ONLY
USN:

IDENTIFICATION

Property name(if any) Kosciuszko Bridge
 Address or Street Location Brooklyn-Queens Expressway / Interstate I-278
 County Kings / Queens Town/City Brooklyn / Queens Village/Hamlet: Greenpoint / Maspeth
 Owner NYSDOT Address Hunters Point Plaza, 47-40 21st Street; Long Island City, NY 11101
 Original use Pedestrian/Vehicular Bridge Current use State Highway Bridge
 Architect/Builder, if known City of New York Department of Plant and Structures / Department of Public Works
 Date of construction, if known 1939

DESCRIPTION

Materials -- please check those materials that are visible

Exterior Walls:	<input type="checkbox"/> wood clapboard	<input type="checkbox"/> wood shingle	<input type="checkbox"/> vertical boards	<input type="checkbox"/> plywood
	<input type="checkbox"/> stone	<input checked="" type="checkbox"/> brick	<input checked="" type="checkbox"/> poured concrete	<input type="checkbox"/> concrete block
	<input type="checkbox"/> vinyl siding	<input type="checkbox"/> aluminum siding	<input type="checkbox"/> cement-asbestos	<input checked="" type="checkbox"/> other: <u>Steel</u>
Roof:	<input type="checkbox"/> asphalt, shingle	<input type="checkbox"/> asphalt, roll	<input type="checkbox"/> wood shingle	<input type="checkbox"/> metal <input type="checkbox"/> slate
Foundation:	<input type="checkbox"/> stone	<input type="checkbox"/> brick	<input checked="" type="checkbox"/> poured concrete	<input type="checkbox"/> concrete block

Other materials and their location: _____

Alterations, if known: Repared road surface, Replaced concrete decking and sidewalks removed to provide additional lanes of traffic, approaches to bridge widened on the Brooklyn side. Date: 1958, 1966, 1967, 1971

Condition: excellent good fair deteriorated

Photos

Provide several clear, original photographs of the property proposed for nomination. Submitted views should represent the property as a whole. For buildings or structures, this includes exterior and interior views, general setting, outbuildings and landscape features. Color prints are acceptable for initial submissions. Please staple one photograph providing a complete view of the structure or property to the front of this sheet. Additional views should be submitted in a separate envelope or stapled to a continuation sheet.



Prepared by: EHT Traceries, Inc. address 1121 5th Street, N.W.; Washington, D.C. 20001

Telephone: (202) 393-1199 email eht@traceries.com Date 6/2/2006

PLEASE PROVIDE THE FOLLOWING INFORMATION**IF YOU ARE PREPARING A NATIONAL REGISTER NOMINATION. PLEASE REFER TO THE ATTACHED INSTRUCTIONS**

Narrative Description of Property: Briefly describe the property and its setting. Include a verbal description of the location (e.g., north side of NY 17, west of Jones Road); a general description of the building, structure or feature including such items as architectural style (if known), number of stories, type and shape of roof (flat, gabled, mansard, shed or other), materials and landscape features. Identify and describe any associated buildings, structures or features on the property, such as garages, silos, privies, pools, gravesites. Identify any known exterior and interior alterations such as additions, replacement windows, aluminum or vinyl siding or changes in plan. Include dates of construction and alteration, if known. Attach additional sheets as needed.

The Kosciuszko Bridge is a fixed, multiple span, combination (deck and through) Warren truss bridge with overhead bracing. Part of the six-lane, Brooklyn-Queens Expressway (I-278) in Queens and Kings Counties, New York, the bridge spans Newtown Creek and the truss spans extends northeast from Meeker Avenue and Varick Street in Greenpoint, Brooklyn, to Laurel Hill Boulevard and 54th Street in Maspeth, Queens. Originally constructed as the Meeker Avenue Bridge in 1939, the bridge was renamed the Kosciuszko Bridge in 1940 to commemorate the Polish Revolutionary War hero, Thaddeus Kosciuszko. In 1960, with the completion of the Brooklyn-Queens Expressway (Interstate I-278), the Kosciuszko Bridge was officially linked to the completed highway system.

The bridge has a vertical clearance of 125 feet over Newtown Creek, and rises 175 feet in height at its highest point and 6,021.3 feet in length with a total of 22 spans that rest on 21 cast-in-place, segmental arched, reinforced concrete piers. The span over the Newtown Creek measures 300 feet, while the approach spans vary from 120 to 230 feet. There are 10 deck truss spans at the Brooklyn side, 11 deck truss spans at the Queens side, and one through truss span over the Newtown Creek.

Bridge piers rest on concrete foundations. Constructed of reinforced concrete, shafts for the piers were cast in sections according to the height of the piers—taller piers are made up of four sections, for example. The tallest piers are those supporting the main span. These piers are double cross braced, riveted steel towers on concrete bases. The pattern of the cross bracing on the main span piers has a lattice-like pattern.

The truss spans connect to abutments located at Meeker Avenue and Varick Street in Greenpoint, Brooklyn, and at Laurel Hill Boulevard and 54th Street in Maspeth, Queens. These abutments lead to low level reinforced concrete approaches which are clad in brick in a stretcher bond pattern. The approaches are further decorated with interspersed panels approximately five feet wide that feature sawtooth detailing. A roll-up metal garage bay and a single-leaf metal door are located at the east elevation of the Brooklyn side of the bridge, providing access to the storage areas located within the abutments. Windows for the storage spaces are located beneath the roadway and remain at both the Brooklyn and Queens sides of the bridge. Window openings are enclosed by metal grills and rest on concrete sills. The Brooklyn viaduct has concrete rigid frames that provide vehicular access to the areas perpendicular to the bridge's approaches at Morgan Avenue, Vandervoort Avenue, Varick Avenue and Stewart Avenues.

The main superstructure element of the bridge is of the Warren deck truss type. The riveted steel deck truss extends from the abutments to the main bridge spans at each side of the bridge. The bridge's roadway is supported by concrete filled steel grating and topped by asphalt to create the road surface. The roadway is cantilevered over the trusses, supported by cross bracing beneath the I-beam-supported roadway. The roadway is lined by concrete curbs with a metal railing and three foot steel panels or splash guards. The roadway of the main span is lined with open metal railings. Light for the bridge is provided by light posts spaced evenly at the sides of the bridge.

The Warren through truss main span of the bridge features a superstructure made of polygonal top riveted steel chords and overhead cross bracing. Centrally located on the overhead bracing at the Brooklyn side and the Queens side are commemorative plaques. Installed when the bridge was renamed in 1940, the plaques bear the crests of the United States and Poland in addition to the "new" name of the bridge, the Thaddeus Kosciuszko Bridge. J. Frank Johnson is also recognized on the plaque as the Chief Engineer.

The repaving of the existing asphalt-on-concrete deck occurred in 1958. The second repaving project was initiated in 1967, at a cost of \$6 million dollars. The largest improvement to date on the bridge was a 1966 replacement of the concrete deck and the elimination of the two, eight foot wide pedestrian sidewalks to accommodate wider traffic lanes. Subsequent work included the replacement of the barriers, railings, lampposts, crossbeams, and drainage system, with the intention of alleviating bridge traffic. Other rehabilitation work included a three-year repair project initiated in 1996 that reinforced the concrete piers; the general cleaning, painting, and maintenance of the structural system in 2000, and the resurfacing of the deck including general bridge and ramp repairs in 2005.¹¹

Overall, the bridge is in fair condition. The steel members of the bridge, particularly the superstructure, substructure and main span piers appear to be in good condition, despite rusting in some areas. However, the bridge steel that supports the roadway develops cracks in numerous locations and frequent maintenance is required. Additionally, the roadway deck also needs frequent repair to maintain a safe riding surface. Although abutment storage areas were not accessible at the time of this survey effort, it appears as though some of the storage space openings have been sealed or in filled with brick. Despite these modifications and alterations, the original form and structure of the bridge are intact.

¹¹ Parsons, *Kosciuszko Bridge Project*, "Chapter II: Project Identification, Evolution, Conditions and Needs and Objectives," July 1, 2005, pg. II.B-2.

Narrative Description of Significance: Briefly describe those characteristics by which this property may be considered historically significant. Significance may include, but is not limited to, a structure being an intact representative of an architectural or engineering type or style (e.g., Gothic Revival style cottage, Pratt through-truss bridge); association with historic events or broad patterns of local, state or national history (e.g., a cotton mill from a period of growth in local industry, a seaside cottage representing a locale's history as a resort community, a structure associated with activities of the "underground railroad."); or by association with persons or organizations significant at a local, state or national level. Simply put, why is this property important to you and the community. Attach additional sheets as needed.

Applying the methodology of the 2002 Historic Bridge Inventory, it has been determined that BIN 1075699, or the Kosciuszko Bridge, is **eligible** under National Register Criterion C-6. Built in 1939, this fixed, multiple span, Warren deck and thru truss bridge with overhead bracing represents a significant and unusual variation of the Warren truss type. According to the *Evaluation of National Register Eligibility, Task C3 of the Historic Bridge Inventory Master Plan*, bridges built after 1925 were strongly influenced by standardization and do not represent significant examples of their type. They are recommended as non-eligible unless they possess historical significance, a significant variation or other unique feature or association. Significant variations or features of individuality within the post-standardization Warren truss type include: deck truss, multiple span, double-intersection truss, unusual substruts, and unusual curved top and bottom chords.¹² Structural elements of the Kosciuszko Bridge include multiple spans, Warren deck and thru trusses, and overhead bracing, all categorized as "significant variations or features of individuality." The Kosciuszko Bridge therefore, embodies distinctive characteristics of multiple span bridges, as well as Warren deck and thru truss types with overhead bracing. Built in 1939, the Kosciuszko Bridge reflects its period and methods of its construction. Thus, the Kosciuszko Bridge is considered eligible under Criterion C-6. This determination is supported by the following justification.

The Kosciuszko Bridge exhibits significant variation from common or standardized Warren truss types for many reasons. One of the most characteristic elements of the Kosciuszko Bridge is that it contains 22 spans. Bridges that have one or more piers in addition to the abutments are called multiple span bridges. Long bridges such as the Kosciuszko Bridge are generally multiple span bridges. The multiple spans of the Kosciuszko Bridge are considered a characteristic or defining element of the bridge. The span over the Newtown Creek measures 250 feet, while the approach spans vary from 200-300 feet. The total bridge length is 6,021 feet. There are 10 spans at the Brooklyn side, 11 spans at the Queens side, and one span over the Newtown Creek.

Another significant variation of the standardized Warren truss type is deck trusses. The main component of any bridge is the decking, which comprises of a slab, girder, and trusses. In a deck configuration, traffic travels on top of the main structure. In a deck truss bridge, the truss supports the bridge deck. The approaches of the Kosciuszko Bridge measure approximately 5,771 feet and are supported by Warren deck trusses. While the approach spans at the Brooklyn and Queens sides are supported by Warren deck trusses, the Newtown Creek span is supported by a Warren thru truss with overhead bracing. Polygonal top chords support the overhead bracing, giving it an appearance similar to that of a camelback truss. The overhead bracing of the Warren thru truss is also considered to be a significant variation of the standardized Warren truss type.

The form of the Kosciuszko Bridge follows its function. The design for the Kosciuszko Bridge, although not attributed to a particular designer or engineer, is one that accommodates ships as well as cars. The 125 foot height of the bridge allowed ships to travel beneath it on the Newtown Creek, at one time considered one of the busiest world ports, while the 6,021 foot length provided a straighter and more direct roadway for the expressway of which it was a part. Constructed in 1939, the Kosciuszko Bridge reflects Depression-Era Bridge Construction. Bridges built during this period met the increasing demands of the traveling public.¹³ Built as the first element of the future Brooklyn-Queens Expressway, the Kosciuszko Bridge played a critical part in connecting motorists to Brooklyn and Queens. The Brooklyn-Queens Expressway, a segment of I-278, was vital to the roadway improvement effort initiated in the mid-twentieth century. The purpose of this project was to alleviate congestion and improve traffic flow in and around New York. The engineering difficulties associated with the Kosciuszko Bridge accommodating both cars and boats resulted in the plan of a straighter roadway with a longer approach than that of any previous bridge at this location. The segment between Brooklyn and Queens was built to connect the east and west thoroughfares of Long Island, greatly aiding the transportation network and commerce between the boroughs. The connection also allowed motorists to access the Triborough Bridge, and ultimately, the 1939-1940 World's Fair in Flushing Meadows, Queens.

Of the 211 early- and post-standardization Warren truss bridges in the State of New York, 75 have been determined eligible for listing in the National Register of Historic Places. Of those 75, three are located in the New York City Region. A site visit to the three eligible Warren truss bridges occurred on May 25, 2006. This visit provided an opportunity to compare the Kosciuszko Bridge with the three eligible Warren truss bridges in the New York City Region. The three eligible bridges in the New York City Region were all built during the early-standardization (pre-1925) period. All three of the eligible bridges within the New York City Region are Warren thru truss types. None of the eligible bridges however, have polygonal top chords with overhead bracing, similar in appearance to a camelback truss. The Kosciuszko Bridge was also compared with eligible bridges built post-standardization (post-1925) in the State of New York. The comparison of the Kosciuszko Bridge with other post-standardization bridges in the State emphasized the significance of the fixed, multiple span, Warren deck and thru truss form of the Kosciuszko Bridge because another example of this unusual configuration of structural elements was not found in the State.

¹² Mead & Hunt and Allee King Rosen Fleming, Inc., *Evaluation of National Register Eligibility, Task C3 of the Historic Bridge Inventory Master Plan*, prepared for the New York State Department of Transportation, Albany, New York and the Federal Highway Administration, Albany, New York, January 2002, pg. 4-50.

¹³ Mead & Hunt, *Contextual Study of New York State's Pre-1961 Bridges*, Prepared for the New York Department of Transportation, November 1999, pg. 61.

Although the construction of the Kosciuszko Bridge as the first element of the Brooklyn-Queens Expressway (BQE) is considered an important event, it is not one of national significance, nor is it more important than the construction of the Expressway itself or the other BQE bridges. The Kosciuszko Bridge is therefore considered not eligible for listing under Criterion A. Although the Kosciuszko Bridge honors Thaddeus Kosciuszko, it does not illustrate his important achievements; rather, it *commemorates* them. Therefore, the Kosciuszko Bridge is not eligible for listing under Criterion B. Additionally, there are other examples of Thaddeus Kosciuszko commemorations in the New York City Region. The Kosciuszko Bridge is not likely to yield information important in prehistory or history and is thus not eligible for listing under Criterion D.

BIBLIOGRAPHY

Daily News. "Bids Readied for Kosciuszko Span Revamp." August 5, 1971.

Mead & Hunt and Allee King Rosen & Fleming, Inc., Evaluation of National Register Eligibility, Task C3 of the Historic Bridge Inventory Master Plan, prepared for the New York State Department of Transportation, Albany, New York and the Federal Highway Administration, Albany, New York, January 2002.

Mead & Hunt, Contextual Study of New York State's Pre-1961 Bridges, Prepared for the New York Department of Transportation, Albany, New York: November 1999.

Archives and collection consulted include:

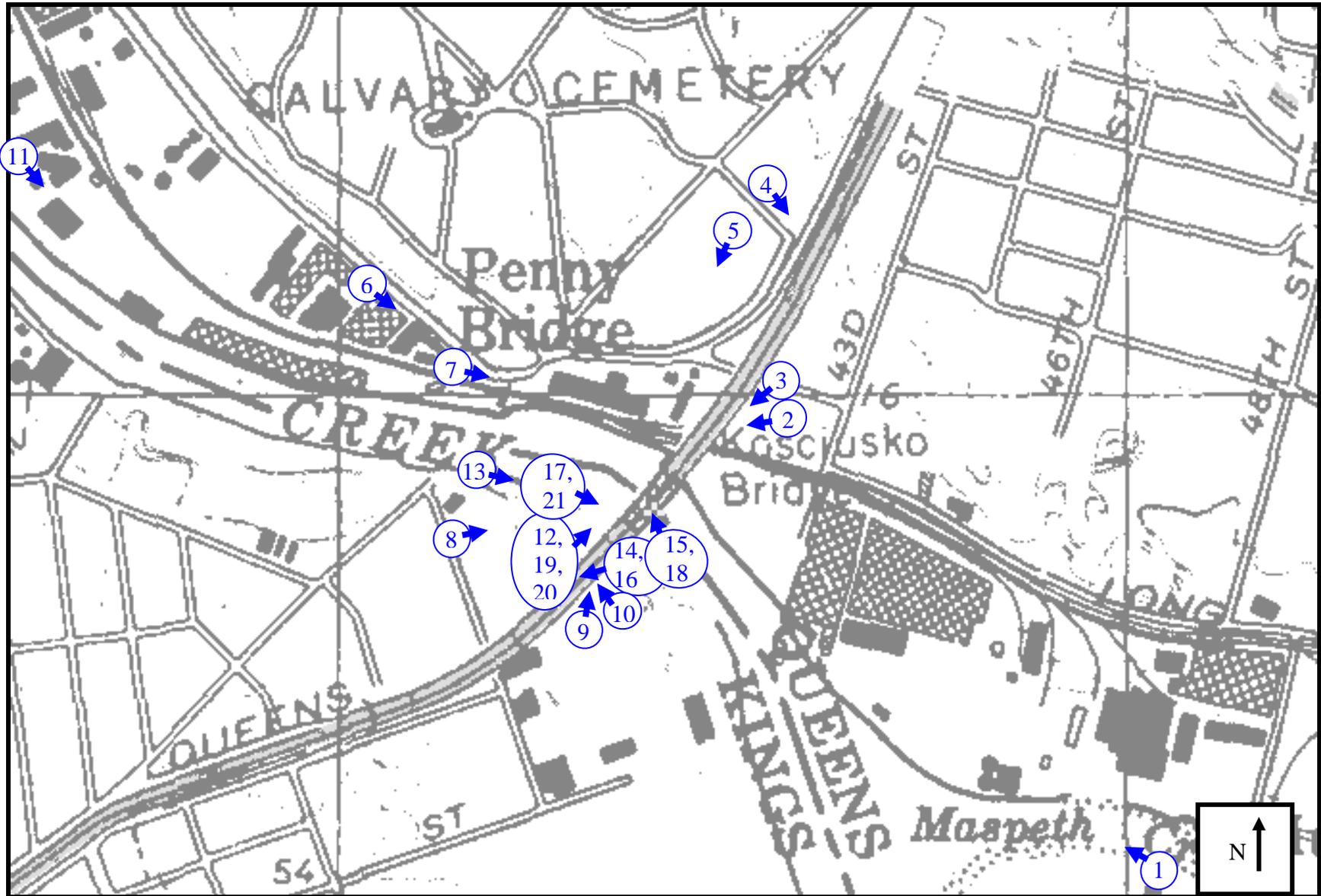
Library of Congress, Geography and Map Division, Washington D.C.
Municipal Archives, NY, NY
New York Historical Society, NY, NY
Queens Borough Public Library, Jamaica, NY
The Brooklyn Public Library, Brooklyn, NY
The New York Public Library, NY, NY

Agencies and organizations consulted by telephone and internet include:

NYC Department of Records, NY, NY
Pratt Institute Library, Brooklyn, NY
The Brooklyn Historical Society, Brooklyn, NY
The Kosciuszko Foundation, Inc., NY, NY
The Queens Historical Society, Flushing, NY

TABLE V-4: Kosciuszko Bridge Photograph Location Index

Photograph Location Number	Photo Number	Description
1	V-12	View of Kosciuszko Bridge, looking east from Greenpoint Avenue Bridge
2	V-13	Extent of Kosciuszko Bridge looking south from Laurel Hill Boulevard, Queens, New York
3	V-14	Kosciuszko Bridge, looking west from 56th Road, Queens, New York
4	V-15	Kosciuszko Bridge, looking northwest from Grand Street Bridge
5	V-16	Detail of steel substructure looking southwest from Greenpoint, Brooklyn, New York
6	V-17	Detail of concrete piers and substructure, looking southwest from Greenpoint, Brooklyn, New York
7	V-18	Detail of the Warren truss main span and overhead bracing, looking northwest from Greenpoint, Brooklyn, New York
8	V-19	View of Kosciuszko Bridge supports over Newtown Creek, looking northeast from Greenpoint, Brooklyn, New York
9	V-20	Detail of truss connection beneath Kosciuszko Bridge
10	V-21	Detail of sawtooth brick elements on exterior of bridge abutments, on the Brooklyn side



Brooklyn/Queens, New York

USGS Map, 2006

Figure V-3. Kosciuszko Bridge Photograph Location Map

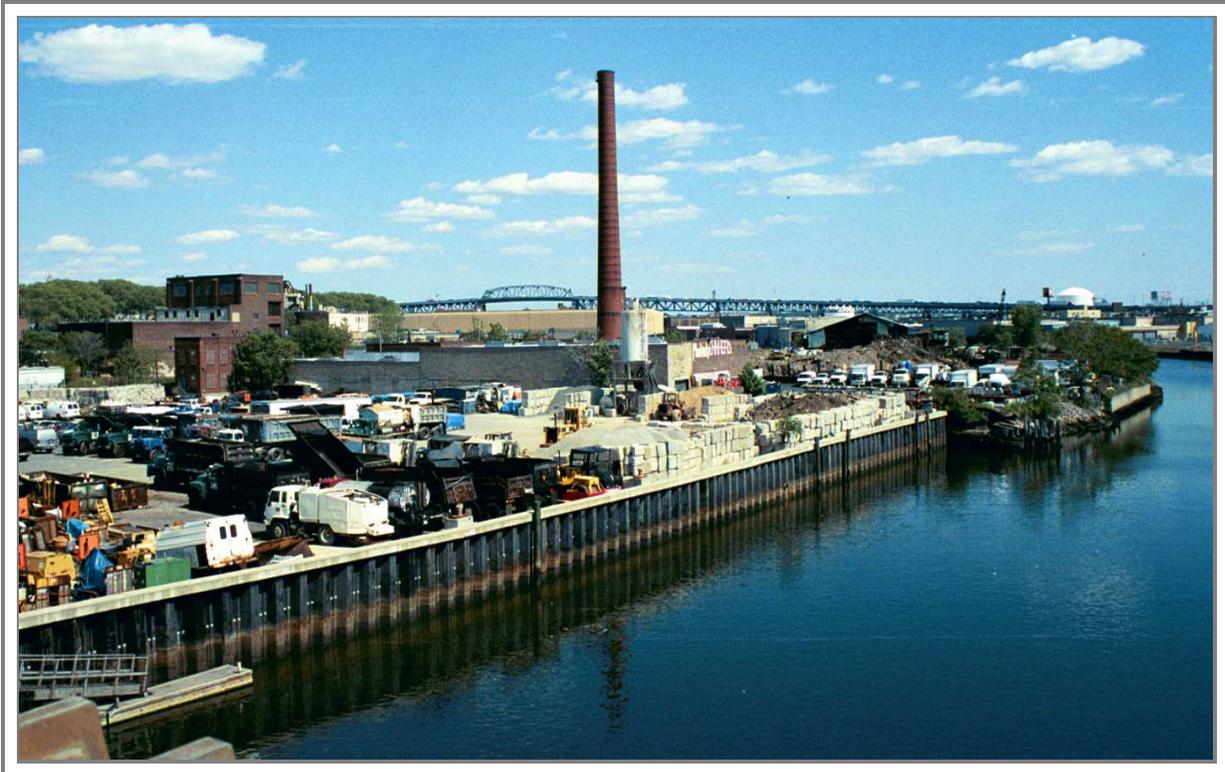


Photo V-12. View of Kosciuszko Bridge, looking east from Greenpoint Avenue Bridge

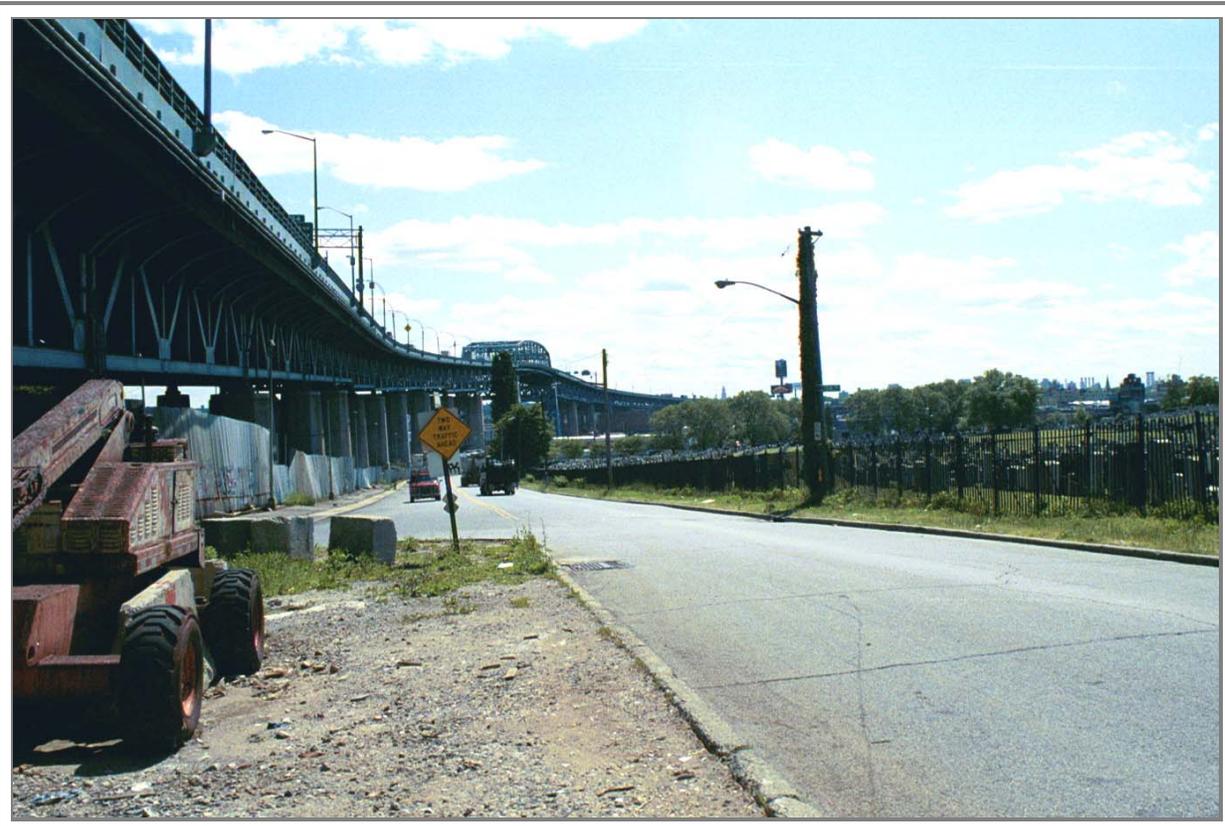


Photo V-13. Extent of Kosciuszko Bridge looking south from Laurel Hill Boulevard, Queens, New York



Photo V-14. Kosciuszko Bridge, looking west from 56th Road, Queens, New York

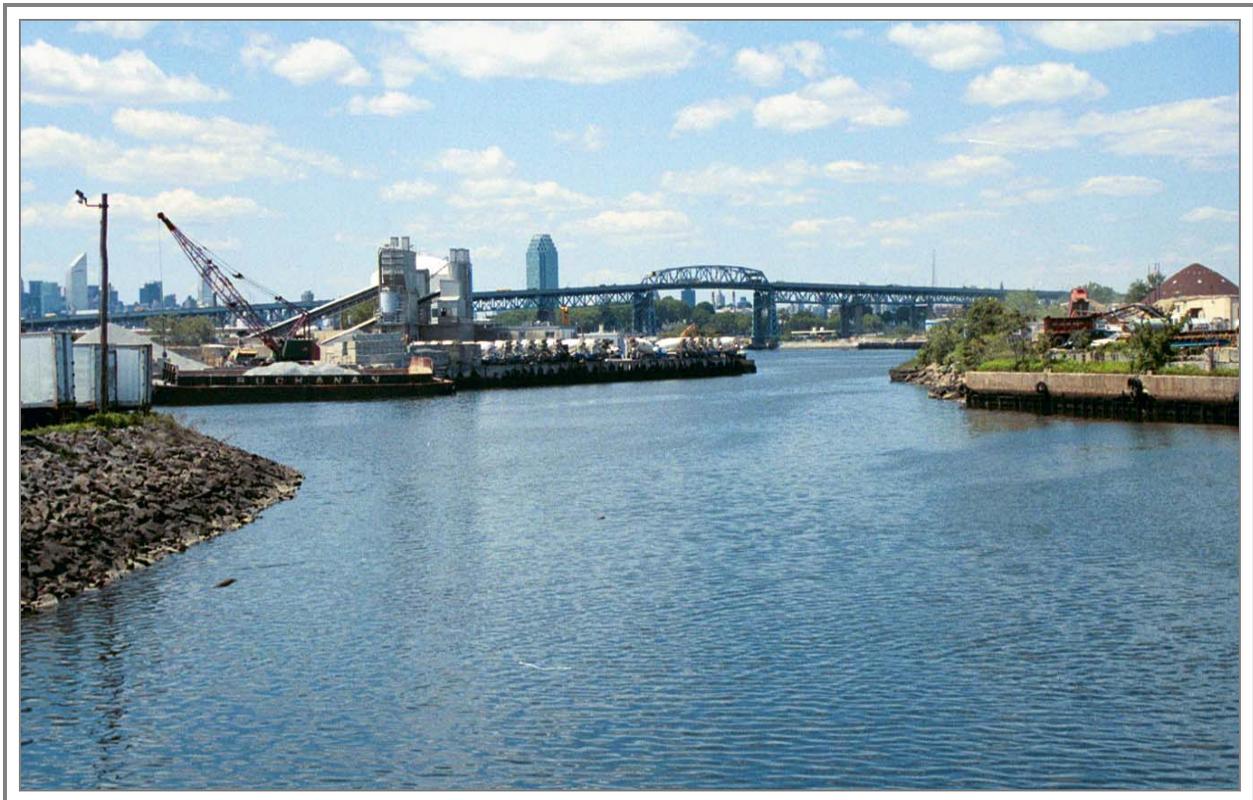


Photo V-15. Kosciuszko Bridge, looking northwest from Grand Street Bridge



Photo V-16. Detail of steel substructure looking southwest from Greenpoint, Brooklyn, New York



Photo V-17. Detail of concrete piers and substructure, looking southwest from Greenpoint, Brooklyn, New York



Photo V-18. Detail of the Warren truss main span and overhead bracing, looking northwest from Greenpoint, Brooklyn, New York



Photo V-19. View of Kosciuszko Bridge supports over Newtown Creek, looking northeast from Greenpoint, Brooklyn, New York



Photo V-20. Detail of truss connection beneath Kosciuszko Bridge

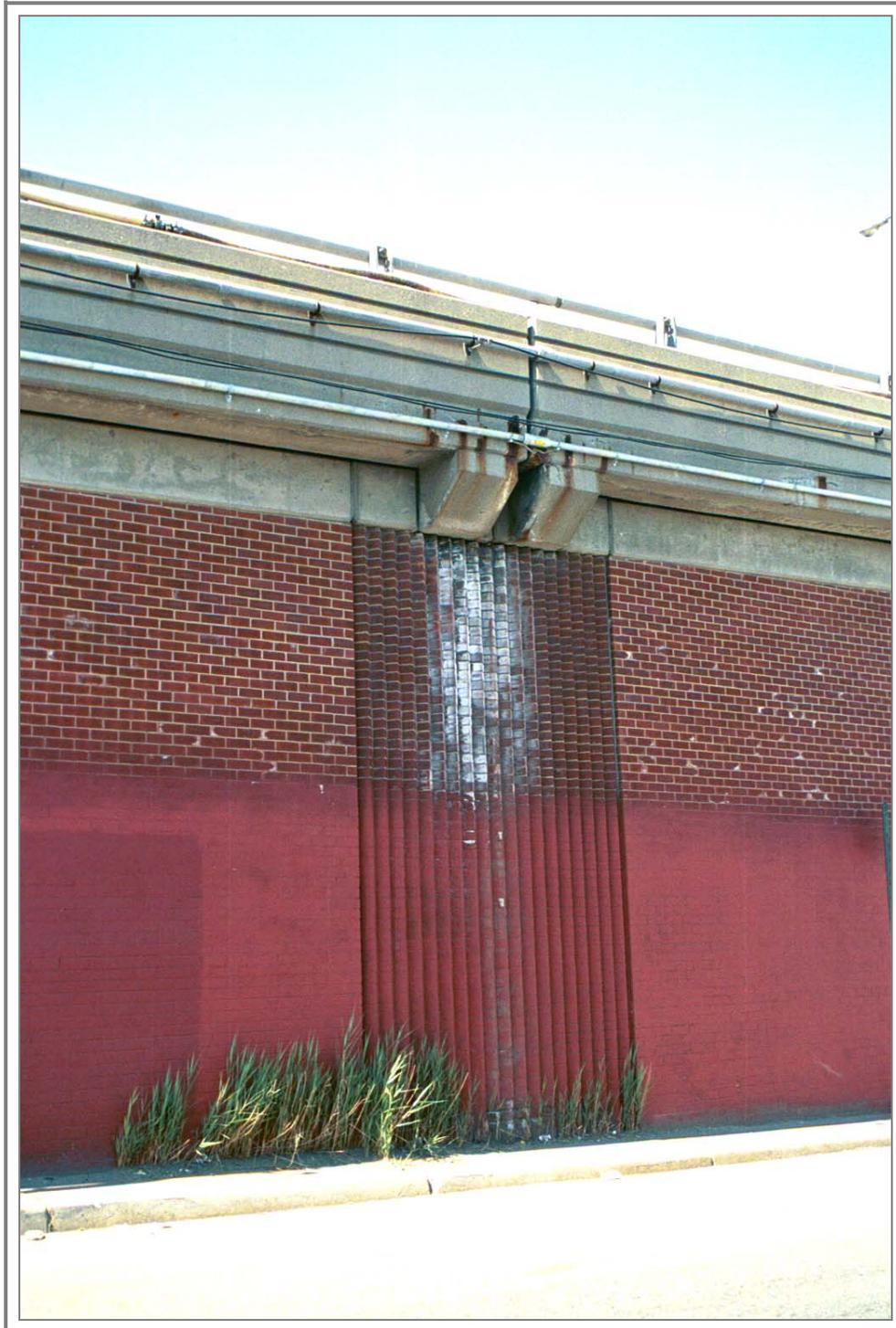


Photo V-21. Detail of sawtooth brick elements on exterior of bridge abutments, on the Brooklyn side