APPENDIX 9:
MAJOR HIGHWAY AND BRIDGE PROJECTS
Appendix 9: Major Highway and Bridge Projects*

1. Regional Transportation Plan 2015-2040 (RTP) Projects 9-3
2. Transportation Improvement Projects (TIP) 2014-2018 9-27

* Projects with costs of over $100 million and regionally significant projects
## 1. Plan 2040 Projects

<table>
<thead>
<tr>
<th>BRONX</th>
</tr>
</thead>
</table>
| **Project Name:**  
Cross Bronx Expressway Bridge Rehab (Boston Post Rd to Bronx River Parkway) |
| **Purpose & Need**  
To rehabilitate the deteriorated bridge structures. |
| **Project Description:**  
Rehabilitation of bridges, on Cross Bronx Expressway between Boston Post Road exit to Bronx River Parkway exit in Bronx County, to address structural deficiency issues. |
| **Alternatives Considered**  
1. In kind rehabilitate of the bridge structures.  
2. Widen the structures to improve geometric features.  
3. Do nothing. |
| **EJ-Environmental-Historic Preservation Implications**  
No significant environmental impacts. No EJ or historic preservation implications |
| **Other Information**  
PIN X726.80. Bin #s: 1066407, 106641a, 1066419, 1067089, 1075559, 1076270 |
| **Project Sponsor:** NYSDOT |
| **Projected Cost ($M):** $125.000 |
| **Projected Completion:** 2023 |
## BRONX

### Project Name:
East 153rd Street Bridge at Park Avenue in the Bronx

### Purpose and Need:
With the demolition of the original bridge in 1992, a vital transportation link was removed from the traffic network. The building of this facility would provide an additional east/west corridor in an area that has limited east/west routes and is prone to traffic congestions during the various peak hours. It will significantly reduce current congestion on the other main east-west corridors in the South Bronx, namely East 149th and East 161st Streets. It will provide the planned transportation infrastructure required to satisfy the travel demand and trip generated the newly constructed and planned developments. It will contribute to the economic revitalization of the area. With improved traffic circulation, reduced congestion, improved travel speed and the proposed bicycle lane and pedestrian sidewalks encouraging non motorized modes, it will contribute to energy saving, reduction in CO2 emission and improved air quality. Jobs will be created directly as a result of the construction activity and indirectly as a result of increased economic activity in the area. The South Bronx is an extremely economically depressed area, with many census tracts with poverty more than 3 times the national average.

### Project Description:
Re-construction of the East 153rd Street Bridge, over MTA Metro–North Commuter Railroad tracks, between Park/ Morris Avenues and Concourse Village West/Grand Concourse, in the South Bronx. The proposed bridge would be 105 feet wide and 511 feet long and will be supported by towers 195 feet high located near the center of the bridge and abutments at each end of the bridge. The 4-lane cable stay bridge will have two 5’-0” wide bicycle lanes and two 10’-0” wide sidewalks to encourage alternative modes of travel. And the bridge deck cross section will be approximately 4 feet deep. The overall life span of the new structure is estimated to be a minimum of 100 years. The bridge construction will be undertaken in one phase as a shovel-ready project under the American Recovery and Reinvestment Act of 2009.

### Alternatives Considered
1. Bridge reconstruction
2. Do nothing.

### EJ-Environmental-Historic Preservation Implications
Potential for significant traffic impacts at five locations which could be mitigated by signal timing adjustments. The proposed action would also displace 33 parking spaces. No EJ and historic preservation implications.

### Other Information
N/A

### Project Sponsor: NYCDOT
**Projected Project Cost ($M):** 143.750
**Projected Completion:** 2026
### BRONX

#### Project Name:
Replacement of City Island Road Bridge over Eastchester Bay in the Bronx

#### Purpose and Need:
The existing City Island was built in 1901 as a seven span bridge. Spans 2 and 3 were swing spans, which were made fixed in 1963. Since its construction in 1901, many repairs have been completed to provide safe passage for traffic. The bridge has outlived its useful life. The most recent Inspection report gave the bridge a rating of 3.389, indicating "serious deterioration or not functioning as designed". There are substandard lane-widths making it impossible to close half of the bridge keeping 2 lanes open while rehabilitating the other half. The goal of the project is to maintain safe, reliable access for vehicular, bicycle and pedestrian traffic to and from City Island with and condition rating of 5 or greater and improved geometric deficiencies.

#### Project Description:
Replacement of City Island road bridge over Eastchester Bay in Bronx county with a single span cable-stayed structure to bring to a state of good repair.

#### Alternatives Considered
The preferred alternative is a complete replacement with a single span cable-stayed structure along the same roadway alignment with a 50 meter high vertical tower located on the west approach. There will be three vehicular lanes, 2 bicycle lanes and 2 sidewalks. A temporary bridge will be required for this alternative. A total of nine alternatives were considered including online and offline replacements as well as rehabilitation of the existing structure. Offline replacements were considered to have a significant permanent impact to the surrounding parkland and wetland areas. Several multi-span alternatives were considered as well. A single span bridge has the advantage of no piers to maintain in the waterway.

#### EJ-Environmental-Historic Preservation Implications
No EJ impacts.

The existing west bridge abutment and approach roadway are located within NYS Wetlands in Pelham Bay Park. The permanent impact to the wetlands of 0.47 acre is due to the expanded width of the proposed bridge and tower. The temporary impact of 0.7 acre is due to temporary roadway that will be located to the south of the existing road. As stipulated by NYSDEC, approximately 3.7 acres of wetlands would need to be created as mitigation for the above mentioned impacts. NYSDEC came up with the idea of replacing Turtle Cove Culvert since that was a recommendation of a study they had previously conducted on improving the wetlands at Turtle Cove which is a 19 acre site. The new culvert will be wider to provide better tidal flow from Eastchester Bay to Turtle Cove which is located about 1/2 mile from City Island Bridge. Regarding Parkland: The wider bridge and tower will require DOT to take parkland from Parks. Parkland Alienation Legislation was passed by the NYS Legislature and signed by the Governor in 2006. In addition, an MOU was signed between DOT and Parks to establish specific terms of the arrangement. The Esplanade and supporting seawall which fall within the DOT Right of Way will be rehabilitated with improved landscaping and turned over to Parks. In return, 0.53 acre of parkland will be converted for highway/bridge purposes.
Bridge replacement will require demolition of the existing City Island Road Bridge, resulting in an adverse effect to this National Register of Historic Places-eligible resource. As noted in a Memorandum of Agreement (MOA) between FHWA, NYSDOT and SHPO, prior to demolition, the bridge will be documented according to Historic American Building Survey level II standards. The MOA also requires NYSDOT to conduct archaeological investigations during construction, with continued consultation with SHPO.

<table>
<thead>
<tr>
<th>Other Information</th>
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<tbody>
<tr>
<td>Bin # 2-24021-0</td>
</tr>
<tr>
<td>Project Sponsor:  NYCDOT</td>
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<tr>
<td>Projected Project Cost (SM): 102.688</td>
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<tr>
<td>Projected Completion: 2017</td>
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</tbody>
</table>
### BRONX

**Project Name:** Rehabilitation of the Shore Road Bridge over Hutchinson River in Bronx

**Purpose and Need:**
The goals of this project are to improve the structural integrity of the bridge; provide effective and safe transportation service on the bridge; and maximize benefits and minimize impacts of the bridge.

**Project Description:**
The construction of a new bridge at an adjacent location to the existing structure. The existing bridge will be demolished after completion of new bridge.

**Alternatives Considered:**
Three alignments and six alternatives were considered, including the on-line and southern alignments. The alternatives include No Build option, long-term rehabilitation, two low-level movable structures, a cable-stayed structure and high-level fixed low span, and multiple span bridges.

**EJ-Environmental-Historic Preservation Implications:**
No EJ impacts.

During construction of the new bridge and demolition of the old bridge there are likely to be temporary impacts on: the adjacent wetlands; storm water runoff; traffic; noise; and air quality.

No historic preservation impacts.

**Other Information**
BIN 2-240200

**Project Sponsor:** NYCDOT
**Projected Project Cost ($M):** 300.000
**Projected Completion:** 2026
### BROOKLYN

**Project Name:** Rehabilitation of the Belt Parkway Bridge over Paerdegat Basin in Brooklyn.

### Purpose & Need
The project replaces the existing bridge with an entirely new structure to address the structural and safety deficiencies associated with the existing bridge. The existing bridge is a deteriorating structure that requires frequent maintenance and repairs. The bridge contains several non-standard geometric elements that are not in keeping with current design standards.

### Project Description:
This project is part of the improvement to the structural integrity of 10 bridges, providing effective and safe transportation service on the bridges, and maximizing benefits while minimizing adverse impacts.

### Alternatives Considered
5 alternatives considered:
1. No Build option
2. Major rehabilitation of the bridge, including superstructure, deck and slabs but original designs would remain. This would require phased construction and reduction of travel lanes during each stage.
3. Widen the bridge
4. Same as #2 but build temporary bridges during construction
5. Replace the bridge

### EJ-Environmental-Historic Preservation Implications
No EJ implications.

Environmental and other impacts are only temporary during construction. Potential impacts on commercial activity, leisure and recreational resources near the projects. Beneficial fiscal impacts from employment, wages and salaries, economic output, taxes. Significant increases in dust, noise, traffic, and air quality near staging areas. Temporary negative effects on visual resources, neighborhood character, natural resources, water quality and hazardous materials but the necessary mitigation measures will be taken. Public and private utility services and energy usage may have only minor disruptions. A Wetland improvement program was subsequently included.

Potential prehistoric archaeological resources may exist beneath the Paerdegat Basin and be impacted by subsurface disturbances. To prevent impacts, a soil boring program would be designed, along with subsequent analysis, testing and mitigation.

### Other Information
- Bin 2231489

**Project Sponsor:** NYCDOT

**Projected Cost ($M):** $204,341

**Projected Completion:** 2014
**BROOKLYN**

**Project Name:**
Rehabilitation of the Belt Parkway Bridge over Gerritson Inlet in Brooklyn.

**Purpose & Need**
The project replaces the existing bridge with an entirely new structure to address the structural and safety deficiencies associated with the existing bridge. The existing bridge is a deteriorating structure that requires frequent maintenance and repairs. The bridge contains several non-standard geometric elements that are not in keeping with current design standards.

**Project Description:**
This project is part of the improvement to the structural integrity of 10 bridges, providing effective and safe transportation service on the bridges, and maximizing benefits while minimizing adverse impacts.

**Alternatives Considered**
5 alternatives considered:
1. No Build option
2. Major rehabilitation of the bridge, including superstructure, deck and slabs but original designs would remain. This would require phased construction and reduction of travel lanes during each stage.
3. Widen the bridge
4. Same as #2 but build temporary bridges during construction
5. Replace the bridge

**EJ-Environmental-Historic Preservation Implications**
No EJ implications.

Impacts are only temporary during construction and were fully evaluated in the FGEIS document. Potential impacts on commercial activity, leisure and recreational resources near the projects were identified. Beneficial fiscal impacts from employment, wages and salaries, economic output, taxes are anticipated. Significant increases in dust, noise, traffic and air quality are possible near staging areas and are addressed in the contract documents. Temporary negative effects on visual resources, neighborhood character, natural resources, water quality and hazardous materials were evaluated and the necessary mitigation measures will be taken. A wetland mitigation program was subsequently included.

Potential prehistoric archaeological resources may exist beneath the Gerritson Inlet and be impacted by subsurface disturbances. To prevent impacts, a soil boring program would be designed, along with subsequent analysis, testing and mitigation.

**Other Information**
Project in 2011-2015 TIP programmed in 2011 PIN X021.54

**Project Sponsor:** NYCDOT
**Projected Cost ($M):** $115.743
**Projected Completion:** 2017
**BROOKLYN**

**Project Name:**
Rehabilitation of the Belt Parkway Bridge over Mill Basin in Brooklyn.

**Purpose & Need**
The project replaces the existing bridge with an entirely new structure to address the structural and safety deficiencies associated with the existing bridge. The existing bridge is a deteriorating structure that requires frequent maintenance and repairs. The bridge contains several non-standard geometric elements that are not in keeping with current design standards.

**Project Description:**
This project is part of the improvement to the structural integrity of 10 bridges, providing effective and safe transportation service on the bridges, and maximizing benefits while minimizing adverse impacts.

**Alternatives Considered**
5 alternatives considered:
1. No Build option
2. Major rehabilitation of the bridge, including superstructure, deck and slabs but original designs would remain. This would require phased construction and reduction of travel lanes during each stage.
3. Widen the bridge
4. Same as #2 but build temporary bridges during construction
5. Replace the bridge

**EJ-Environmental-Historic Preservation Implications**
No EJ implications.

Impacts are only temporary during construction and were fully evaluated in the FGEIS document. Potential impacts on commercial activity, leisure and recreational resources near the projects were identified. Beneficial fiscal impacts from employment, wages and salaries, economic output, taxes are anticipated. Significant increases in dust, noise, traffic and air quality are possible near staging areas and are addressed in the contract documents. Temporary negative effects on visual resources, neighborhood character, natural resources, water quality and hazardous materials were evaluated and the necessary mitigation measures will be taken. A wetland mitigation program was subsequently included.

Potential prehistoric archaeological resources may exist beneath the Mill Basin and be impacted by subsurface disturbances. To prevent impacts, a soil boring program would be designed, along with subsequent analysis, testing and mitigation.

**Other Information**
BIN# 2231479. Project in 2011-2015 TIP programmed in 2012 PIN X021.52

**Project Sponsor:** NYCDOT

**Projected Cost ($M):** $216.183

**Projected Completion:** 2018
### BROOKLYN

**Project Name:** Rehabilitation of the Belt Shore Parkway/ Fresh Creek area bridge in Brooklyn

**Purpose & Need**
The project replaces the existing bridge with an entirely new structure to address the structural and safety deficiencies associated with the existing bridge. The existing bridge is a deteriorating structure that requires frequent maintenance and repairs. The bridge contains several non-standard geometric elements that are not in keeping with current design standards.

**Project Description:**
This project is part of the improvement to the structural integrity of 10 bridges, providing effective and safe transportation service on the bridges, and maximizing benefits while minimizing adverse impacts.

**Alternatives Considered**
5 alternatives considered:
1. No Build option
2. Major rehabilitation of the bridge, including superstructure, deck and slabs but original designs would remain. This would require phased construction and reduction of travel lanes during each stage.
3. Widen the bridge
4. Same as #2 but build temporary bridges during construction
5. Replace the bridge

**EJ-Environmental-Historic Preservation Implications**
No EJ implications.

Impacts are only temporary during construction and were fully evaluated in the FGEIS document. Potential impacts on commercial activity, leisure and recreational resources near the projects were identified. Beneficial fiscal impacts from employment, wages and salaries, economic output, taxes are anticipated. Significant increases in dust, noise, traffic and air quality are possible near staging areas and are addressed in the contract documents. Temporary negative effects on visual resources, neighborhood character, natural resources, water quality and hazardous materials were evaluated and the necessary mitigation measures will be taken. A wetland mitigation program was subsequently included.

No historic preservation implications.

**Other Information**
BIN 2231509.

**Project Sponsor:** NYCDOT
**Projected Cost ($M):** $113.00
**Projected Completion:** 2014
**MANHATTAN**

**Project Name:**  
Reconstruction of the Manhattan Bridge #14-cable re-wrapping and suspenders in Manhattan

<table>
<thead>
<tr>
<th>Purpose &amp; Need</th>
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<tbody>
<tr>
<td>As part of NYCDOT’s regular bridge and maintenance program, the agency regularly performs maintenance operations to provide safety of pedestrian and vehicular movement on its facilities.</td>
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<thead>
<tr>
<th>Project Description:</th>
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<tbody>
<tr>
<td>The work will entail: Cable Band Painting; Main Cable unwrapping, Inspection, removal of lead paste and repacking with non-lead based grease and re-wrapping cables; Suspenders rope replacement and installation of new anchorages; and Touch-up painting. The work requires the removal of lead based paint from the cable bands and removal of red lead based paint from the main cables which would be replaced by non-lead based materials.</td>
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| Alternatives Considered | N/A |

| EJ-Environmental-Historic Preservation Implications | No EJ implications. |

To ensure that work would be in conformance with strict industry and regulatory requirements, and that quality control is exercised, a comprehensive set of drawings and contract specifications were prepared. These bid documents require strict engineering controls to mitigate, minimize and/or eliminate potential impacts to the environment and human health from the hazardous materials removed from the bridge. NYCDOT issued the Final Environmental Impact Statement (FEIS) for Lead Paint Removal Operations on NYC Department of Transportation Bridges (CEQR No.: 96-DOT-005Y). The purpose of the FEIS was to assist DOT in the development of a set of technical procedures associated with its bridge maintenance program. Lead–containing paint is applied to steel structures because of its ability to inhibit corrosion and its effectiveness as a base in creating a good coating system. The potential impacts related to the lead paint removal activities could occur as a result of fugitive emissions released during failures in the working containment system. For the maintenance of its steel bridges, including paint and rust removal techniques, guidelines for containment systems, and requirements for inspection and monitoring were detailed in the FEIS. The procedures are based on established guidelines as developed by the Society for Protective Coatings, which represent the industry standard for the protection of public health and the environment. These procedures permit NYCDOT to fulfill its responsibilities for protecting the structural integrity of its bridges while protecting the health of workers, community residents and visitors, minimizing environmental impacts resulting from lead paint removal and maintenance procedures.

No historic preservation implications

<table>
<thead>
<tr>
<th>Other Information</th>
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<tbody>
<tr>
<td>Bin 2231489</td>
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<th>Project Sponsor:</th>
<th>NYCDOT</th>
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<tbody>
<tr>
<td>Projected Cost ($M):</td>
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<td>Projected Completion:</td>
<td>2014</td>
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## MANHATTAN

<table>
<thead>
<tr>
<th><strong>Project Name:</strong></th>
<th>Rehabilitation of the Manhattan Bridge - Seismic Retrofit In Manhattan</th>
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</thead>
</table>

### Purpose & Need
The purpose of this project is to evaluate and strengthen all structural members and their connections of the Manhattan Bridge including expansion joints, cables, suspenders, anchorages, masonry piers, and abutments, and bearings.

### Project Description:
Work on this project will include: all approach truss bearings (at piers, abutments and anchorages) replaced with isolation bearings; reinforcement of the approach piers; abutments should be reinforced. Also primary members/connections of the superstructure framing that are vulnerable should be strengthened and the upper and lower lateral bracing systems for the approach spans should be replaced.

### Alternatives Considered
N/A

### EJ-Environmental-Historic Preservation Implications
N/A

### Other Information
N/A

### Project Sponsor: NYCDOT
**Projected Cost ($M):** $150.000
**Projected Completion:** 2023
### QUEENS

**Project Name:**
BQE-GCP east leg interchange reconstruction

**Purpose & Need**
To reduce accidents and relieve congestion on the roadway network at the BQE/GCP east leg interchange

**Project Description:**
Redesign the BQE/GCP East Leg Interchange

**Alternatives Considered**
Explored various ways to increase capacity on the ramps between each roadway through lane modifications, new tunnels, and various cut/cover construction scenarios. Also explored physical, operational, and signal changes to the local roadways.

**EJ-Environmental-Historic Preservation Implications**
None of the feasible design alternatives will have a disproportionate high and adverse effect on EJ populations. The majority of improvements are within the existing Right-of-Way and there would be no significant environmental impacts. The only area affected would be grass strips along the roadway adjacent to the ramps.

BQE lies between St. Michael’s cemetery on the west and Bulova Corp. Center on the east. The project will have no adverse effect on either of these.

**Other Information**
N/A

**Project Sponsor:** NYSDOT
**Projected Cost (M):** $115.448
**Projected Completion:** 2023
### QUEENS

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>BQE-GCP west leg interchange reconstruction</th>
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<tbody>
<tr>
<td><strong>Purpose &amp; Need</strong></td>
<td>To reduce accidents and relieve congestion on the roadway network at the BQE/GCP west leg interchange</td>
</tr>
<tr>
<td><strong>Project Description:</strong></td>
<td>Redesign the BQE/GCP west leg Interchange</td>
</tr>
<tr>
<td><strong>Alternatives Considered</strong></td>
<td>Explored various alignments in the interchange to optimize the traffic operation between the two highways in a cost-effective manner</td>
</tr>
<tr>
<td><strong>EJ-Environmental-Historic Preservation Implications</strong></td>
<td>None of the feasible design alternatives will have a disproportionate high and adverse effect on EJ populations. No significant environmental impacts. No historic preservation impacts.</td>
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<td><strong>Other Information</strong></td>
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<td>NYSDOT</td>
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<tr>
<td><strong>Projected Cost ($M):</strong></td>
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<td><strong>Projected Completion:</strong></td>
<td>2035</td>
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## QUEENS

<table>
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<tr>
<th>Project Name:</th>
<th>Reconstruction of Rikers Island Bridge In Queens</th>
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### Purpose & Need
Cores taken from the bridge deck in 2003 revealed that the estimated useful life of the deck would soon expire, thus making bridge rehabilitation necessary. The salty environment of the channel significantly affects superstructure and this continued deterioration could also negatively impact the structural integrity of the bridge.

### Project Description:
This project involves replacing the superstructure of this rapidly deteriorating bridge.

### Alternatives Considered
N/A

### EJ-Environmental-Historic Preservation Implications
N/A

### Other Information
N/A

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<th>Project Sponsor:</th>
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<tr>
<td>Projected Cost ($M):</td>
<td>$100,000</td>
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<tr>
<td>Projected Completion:</td>
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## Ed Koch Queensboro Bridge Seismic Retrofit To Extend Service Life, Located In Queens And Manhattan

### Purpose & Need
As part of bringing the Ed Koch Queensboro Bridge into a state of good repair, this project will evaluate and strengthen all structural members and their connections of the Bridge.

### Project Description:
Retrofit measures:
* **Manhattan Approach and Ramps** - Strengthen columns and column base anchorages, strengthen floor beams and connections to columns, bracings, footings, replace concrete protection, retrofit retaining walls and embankments.
* **Main Bridge** - Strengthen piers and towers, Retrofit fixed bearings.
* **Queens Approach and Ramps** - Retrofit bearings retaining walls and embankments, strengthen towers and bents, columns and column base anchorages, footings, shear transfer between truss segments, Strengthen truss members and connections, floor beams connections and bracings.

### Alternatives Considered
N/A

### EJ-Environmental-Historic Preservation Implications
N/A

### Other Information
BIN 2240047, 2240048

### Project Sponsor
NYCDOT

### Projected Cost ($M)
$150.000

### Projected Completion
2023
## Multi-County

| Project Name: East River hazard mitigation project – Ed Koch Queensboro, Williamsburg, Manhattan and Brooklyn Bridges |
| Purpose & Need: Secure the Ed Koch Queensboro, Williamsburg, Manhattan and Brooklyn Bridges against terror attacks. |
| Project Description: Repairs Will Address Structural Elements & Coatings on the Ed Koch Queensboro, Williamsburg, Manhattan, & Brooklyn Bridges |
| Alternatives Considered: N/A |
| EJ-Environmental-Historic Preservation Implications: N/A |
| Other Information: N/A |
| Project Sponsor: NYCDOT |
| Projected Cost ($M): $572.000 |
| Projected Completion: 2026 |
### SUFFOLK COUNTY

#### Project Name:
NY 347: Implement Green Route 347 Project
(multiple construction contracts)

#### Purpose & Need
The planning, development and selection of a Preferred Alternative in the NY Route 347 Safety and Mobility Improvement Project Final Environmental Impact Statement (FEIS)/Final Section 4(f) Evaluation were guided by the following goals: Increase safety and efficiency for the traveling public; Improve capacity, mobility and travel time reliability by developing an efficient highway improvement that provides congestion relief while standards or standard design and environmental criteria. Provide a transportation system that fits within project constraints identified through public involvement activities and meets current engineering standards or standard design and environmental criteria. The project goals and objectives to support them were presented at NYSDOT’s Open Forum Public Hearing on August 23, 2006. Additional public input was obtained prior to this presentation at NYSDOT’s Environmental Scoping Public Information Meetings in May 2005. These goals and objectives function as the guiding principles in the development of a Preferred Alternative for NY Route 347.

#### Project Description:
Implementing a green route on NY 347 to increase safety and efficiency for the traveling public.

#### Alternatives Considered
FHWA and NYSDOT considered a variety of alternatives for the NY Route 347 Safety and Mobility Improvement Project. Preliminary project alternatives including nine Build Alternatives in addition to a community based Associated Brookhaven Civic Organizations (ABCO) proposal were pursued earlier in the NY Route 347 reconstruction project. Chapter II and Chapter VIII of the FEIS/ Final Section 4 (f) Evaluation contain discussions of these previously considered alternatives. These alternatives, proposed in the original corridor planning study report, did not meet project goals and objectives. Subsequently, a supplemental to the original corridor planning study report was developed and a tenth alternative, the Build Alternative was proposed.
EJ-Environmental-Historic Preservation Implications

No EJ implications.

The environmental factors and benefits that played a role in the selection of the Preferred Alternative were: Noise, Right-of-Way Acquisition; Air Quality; Energy; Surface Waters; Wetlands; Water Source Quality (Groundwater); and General Ecology and Wildlife. Other environmental factors analyzed which did not play a major role in decision making are discussed in detail in Chapter IV of the FEIS/ Final Section 4 (f) Evaluation.

NYSDOT and FHWA have consulted with the New York State Historic Preservation Office (SHPO), pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended. Through the consultation process it has been determined that 58 Gibbs Pond Road and the Naimia Site (USN 10308.000902) are eligible for listing on the National Register of Historic Places and that the Selected or Preferred Alternative will have an adverse effect upon these sites.

Other Information

Multiple construction contracts including those projects programmed within the proposed FFY 14 to FFY 18 TIP. Future Plan phases include:

- PIN 005418 – NY 347 Reconstruction (NY 25-Terry Rd) - $132.327 m
- PIN 005409 – NY 347 Reconstruction (CR 97 – Hallock Rd) - $72.717 m
- PIN OT2155 – NY 347 Reconstruction ((Old Town Rd – NY 25A) - $86.038 m
- PIN 005410 - NY 347 Reconstruction (CR 97 - Old Town Rd) - $86.306 m
- PIN OT2156 – NY 25 Over NY 347 Reconstruction & NY 347 (NY 25 – Hallock Rd) - $46.674 m
- PIN 005412 – NY 347 Reconstruction (NY 347 over NY 97 Interchange) - $107.424 m
- PIN OT2493 – NY 25/NY 347 Interchange Reconstruction - $ 84.776 m
- PIN 005411 – NY 347 Reconstruction (Old Willets Rd – NY 454 Split) - $102.031
- PIN OT2305 – NY 347 Reconstruction (NSP – Old Willets Rd) - $ 88.329 m

Project Sponsor: NYSDOT
Projected Cost ($M): $854.72
Projected Completion: 2019-2033
**NASSAU COUNTY**

<table>
<thead>
<tr>
<th><strong>Project Name:</strong> Long Island Motor Parkway Trail</th>
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**Purpose & Need:** The Long Island Motor Parkway was originally built to provide a form of recreation for William K. Vanderbilt Jr., who wanted a landscaped parkway to drive and race his vehicles. It also provided an important vehicular connection from Queens through Nassau County to Suffolk County.

Nassau County now seeks to develop a (approximately 18 mile) continuous multi-use trailway through the County that will, to the extent possible, utilize the route of the historic Long Island Motor Parkway (hereinafter “LIMP”). When implemented, the new Motor Parkway Trail will once again provide important recreational connection through Nassau County, but this time for hikers and bicyclists. Furthermore, the Trail will provide an important alternative transportation link between communities, open space resources and employment centers for those wishing to walk or bike through Nassau County to these destinations. Therefore, a resurrected Motor Parkway Trail can once again become an important recreational and transportation resource for the County.

**Project Description:** This project is envisioned to be completed in segments (as follows), although there’s been no specific alignment defined beyond the demonstration project.

*Segment A:* The Trail will begin at the west near the Queens border at Lakeville Road north of the Northern State Parkway and run east to a point behind existing residences along the original LIMP alignment until it reaches Herrick’s School Property.

*Segment B:* At Herrick’s High School the LIMP will head east then south along parts of the original LIMP alignment through to Williston Park.

*Segment C:* The Trail will continue south and then east along parts of the original LIMP until it reaches the Roosevelt Field Mall area.

*Segment D:* From the Mall the Trail will again follow the original LIMP alignment east and then south until it reaches Eisenhower Park.

*Segment E:* Leaving the Park the Trail will head north along the proposed Emerald Ribbon Pathway and then turn east connect with the proposed Wantagh Parkway Trail. The trails will then head south get back to the original LIMP alignment and then run east Wantagh State Parkway.

*Segment F:* West of the Wantagh State Parkway, the Trail will follow the original LIMP alignment through north Levittown, where it will eventually turn south on Jerusalem Avenue to go east at the town baseball field and along Polaris Drive which generally follows the original alignment of the LIMP.
**Segment G:** From Polaris Drive the Trail will head south and then east through Hicksville and will ultimately end up following the Bethpage Bikeway north and east through Bethpage State Park.

**Segment H:** The Trail will continue through Bethpage State Park then head north and east until it meets up with the southern border of the Old Bethpage Restoration Village where it will follow the original LIMP alignment and end in Nassau County as a loop trail by the historic LIMP Bridge at Coyler Farm.

**Demonstration Project:** Nassau County will be designing and constructing a one-mile section of Segment E of the planned Motor Parkway Trail in the Hamlet of Salisbury, Town of Hempstead. The trail will be located within County right-of-way along Salisbury Park Drive between Stewart Avenue (western limit) to Carmon Avenue (eastern limit). The project calls for a dedicated multi-use trail to be installed between the existing roadway curb line and the fence bordering Eisenhower County Park. The paved trail, varying in widths from 10’ to 12’, will be for use by cyclists, joggers, walkers and other non-motorized modes. An existing public parking lot at the western terminus of the planned trail (south side of Salisbury Avenue &@ Stewart Avenue) will serve as the trailhead with parking available for trail users. The project is estimated to cost $1,000,000 inclusive of design and construction. Funding is expected to be through the County’s Environmental Bond Act (EBA). It is anticipated that the design will be finalized in the spring of 2013 and construction will commence in the summer of 2013.

**Alternatives Considered:** The project includes alternate alignments to address issues involving property acquisition and traffic safety.

**EJ-Environmental-Historic Preservation Implications:** This project in its entirety will help resurrect portions of one of Long Island’s first roadways, thereby preserving an important link to Long Island’s past via a new multi-use trail.

**Other Information:**

**Project Sponsor:** Nassau County

**Projected Cost ($M):** $18 - $25 million, including the $1.0 million for the pilot project.

**Projected Completion Date:** 2025 – 2030 for all eight segments beyond the pilot project.
## Project Name:
Tappan Zee Hudson River Crossing Project

### Purpose & Need
The purpose and need for the project is to maintain a vital link in the regional and national transportation network by providing an improved Hudson River crossing. The Tappan Zee Bridge is located in the State of New York, crossing the Hudson River between the Village of South Nyack in Rockland County and the Village of Tarrytown in Westchester County.

### Project Description:
The Tappan Zee Bridge carries Interstate 87 (New York State Thruway) and Interstate 287. During the past 20 years (1990 to 2010), traffic volumes have grown by almost 30 percent on the Tappan Zee Bridge, and the bridge now carries approximately 138,000 vehicles per day. Volumes are highest during the morning eastbound commute and the evening westbound commute, but the bridge is prone to severe congestion during non-commuter periods as well. The Tappan Zee Bridge carries between 5,000 and 8,000 vehicles per hour during 15 hours (7 AM to 10 PM) of a typical weekday.

The Tappan Zee Bridge provides the only interstate highway crossing of the Hudson River for the 48-mile stretch between the George Washington Bridge (Interstate 95) and the Newburgh-Beacon Bridge (Interstate 84). It is a vital link between the population and employment centers of Rockland and Westchester Counties, is a major route for freight movement, and is an emergency evacuation route.

The proposed bridge replacement project would address the structural, operational, mobility, safety, and security needs of the three miles long Tappan Zee Hudson River Crossing. The replacement will provide 12 foot wide travel lanes with an oversized shoulder in each direction for emergency vehicle access as well as a share use path for pedestrians and bicycles on the northern span. In addition to addressing the current non-standard elements on the bridge, it will have improved grades and sight distance and meet current seismic design criteria.

### Alternative/s Considered
The proposed bridge replacement project would address the structural, operational, mobility, safety, and security needs of the three miles long Tappan Zee Hudson River Crossing. The replacement will provide 12 foot wide travel lanes with an oversized shoulder in each direction for emergency vehicle access as well as a share use path for pedestrians and bicycles on the northern span. In addition to addressing the current non-standard elements on the bridge, it will have improved grades and sight distance and meet current seismic design criteria.

The toll plaza at the east side of the bridge will also be reconstructed to provide three highway speed E-ZPass toll lanes. The bridge replacement will not preclude accommodation of future transit service.

### EJ-Environmental-Historic Preservation Implications
The project is being progressed in accordance with the National Environmental Policy Act (NEPA) and the State Environmental Quality Review Act (SEQRA). The NEPA/SEQRA environmental review is currently in process with a Draft Environmental Impact Statement (DEIS) released on January 26, 2012 and public hearings held in February 28, 2012 and March 1, 2012. Availability of the Final EIS is expected early summer of 2012 and the Record of Decision in late summer of 2012.
The DEIS identified impacts to the following resources: Visual and Aesthetic, Historic and Cultural, Noise, and Ecological resources during construction. The proposed action may also require full or partial property acquisition and temporary easements.

The project sponsor will work with affected property owners to develop a plan to help offset adverse visual impacts, such as landscaping. Mitigation for historic and cultural resources includes producing; Historic American Engineering Record documentation of the bridge; produce educational materials for use by local libraries, historical societies, and educational institutions; and Historic American Building Survey recordation to document removed resources. Noise mitigation measures include noise barriers where feasible and reasonable, and based on community input. Mitigation of ecological impacts is under consideration in coordination with the environmental regulatory agencies.

The DEIS has also identified numerous Environmental Performance Commitments (EPCs) which are activities to be implemented during construction to mitigate and avoid potential impacts to resources. Specific EPCs that will be utilized include measures to minimize, avoid, or otherwise mitigate potential; air quality impacts, noise impacts both on land and in the water, water quality impacts and more.

The DEIS reviewed the likely potential impacts of the project on minority and low-income population areas. Based on this review, these population areas would not bear a disproportionately high or adverse share of operational impacts resulting from the project.

The Final EIS will incorporate additional information and analyses, as necessary.

Other Information
In December 2011 Governor Cuomo signed the Infrastructure Investment Act into law which enables the use of “design-build” project delivery methods for a three year period. The Tappan Zee Hudson River Crossing project was selected to utilize the design-build process to accelerate the completion of the project. President Obama also identified the Tappan Zee Hudson River Crossing project as a high priority, and the project was approved for Federal fast-tracked review.

In accordance with SAFETEA-LU Section 6002, and the NEPA process numerous agencies are involved in this project as lead, cooperating or participating. Among those agencies are: FWHA, NYS DOT, NYSTA, NYS DEC, USCG, USACE, USFWS, NOAA, NMFS, USEPA, SHPO, NYS DOS, NYSOGS, and many more. Public meetings and open houses were held, with stakeholders and elected officials and will continue to be held as part of the project outreach program.

Project Sponsor: NYSTA
Projected Cost ($M): The estimated total project cost to complete the Tappan Zee Replacement project ranges from $4.6 billion to $5.6 billion in year-of-expenditure dollars which represent the 20th percentile and 80th percentile of the probability range respectively. For planning purposes a 70% confidence level is often used as a baseline cost and in this case that cost is $5.4 billion.
Projected Completion: 2017
1. TIP PROJECTS 2014-2018

<p>| Project Name: | Replacement of the concrete deck and minor rehabilitation of the structural steel and substructures for approximately 1.5 Kms on the Major Deegan Expressway between 138th St &amp; 161st St/Macombs Dam Bridge Interchange |
| Purpose &amp; Need | The concrete roadway deck is in need of replacement since it exhibits advanced deterioration and spalling. Some steel repairs are also needed due to fatigue cracking. |
| Project Description: | As described in the project’s name above |
| Alternatives Considered | 1. No-build (Do nothing) 2. Rehabilitation &quot;In-Kind&quot; - This alternative which will rehabilitate the existing structure without any changes in the roadway’s geometry with the following features: new mainline and ramp reinforced concrete deck, median barrier and fascia parapets. 3. Rehabilitation with operational improvements - This alternative would include all of the upgrade included in a and will also include substantial widening of the viaduct to accommodate standard shoulders and widened exit ramp to relieve bottlenecks at the mainline traffic. This alternative would require substantial property acquisitions. The preferred alternative was alternative 2. |
| EJ-Environmental-Historic Preservation Implications | The preferred alternative and will not have any EJ implications. The preferred alternative and will not have significant impact on any environmental factors. The SHPO has reviewed the project in accordance with Section 106 of the National Historic Preservation Act and their letter dated December 21, 2010 offers an opinion that the work will have No Adverse Effect upon cultural resources in, or eligible for inclusion in the State and National Register of Historic Places. |
| Other Information | TIP PIN X720.30 |
| Project Sponsor: | NYSDOT |
| Projected Cost ($M): | $246.058 |
| Projected Completion: | 2018 |</p>
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## STATEN ISLAND

**Project Name:**
Replacement Of The Existing Goethals Bridge Between Elizabeth, New Jersey And Staten Island, New York Along the I-278 Corridor

### Purpose & Need
The Port Authority of NY and NJ, under its Goethals Bridge Modernization Program (GBMP), proposed to replace the existing Goethals Bridge. The purpose and need for the project is to replace the functionally obsolete existing structure with a bridge designed to modern standards that will provide more reliable service, as well as the flexibility to meet long-term needs for local and regional movement of people and goods. The existing bridge has narrow lanes, no emergency shoulders, and a pronounced bend in the alignment of the approach span in New Jersey, impeding efficient traffic flow and the ability to clear even minor incidents quickly. Increasing auto and truck volumes across the bridge magnify the impact of these deficiencies. Opened to traffic in 1928, the Goethals Bridge requires ongoing repairs, maintenance, and rehabilitation at escalating costs; The constraints of its narrow span limit the extent to which traffic management technologies can be applied to improve traffic flows, and preclude accommodation of future transit service or priority-lane treatment. The existing bridge’s design does not support efficient trucking operations. Currently the Goethals Bridge does not provide pedestrian/bicycle access. Overall, it is the most vulnerable segment of the I-278 corridor, limiting the potential to accommodate diversion of traffic from another routes in the event of emergency.

### Project Description:
The Goethals Bridge project will replace the existing structure with a crossing that includes three 12-foot-wide lanes in each direction, full shoulders, a pedestrian/bicycle way, and other improvements. The design incorporates load-bearing capacity and space between its side-by-side roadway decks to add a dedicated transit right-of-way should future conditions warrant. The replacement will tie in to the roadway network at the same locations as the existing bridge, which will be demolished after two-way service can be operated on the replacement structure.

### Alternatives Considered
As required by NEPA, the DEIS evaluated the potential impacts of the No-Build alternative, representing future conditions in the study area if no action is taken to replace or improve the Goethals Bridge. The types of alternatives considered in the environmental review process included the following: bridge replacement south or north of the existing Goethals Bridge (the Port Authority's proposal); rehabilitation for significant extension of the existing bridge’s life span; other structural replacement or improvement alternatives (requiring construction of transportation infrastructure); non-structural improvement alternatives (not requiring construction of transportation infrastructure, such as charging higher tolls during rush hour to encourage travel during other periods to reduce congestion); and reasonable alternatives identified through the scoping process.

### EJ-Environmental-Historic Preservation Implications
No EJ implications.
Given the identification of "populations of concern" within the Goethals Bridge Study Area (see Section 4.5.6), an Environmental Justice assessment was conducted to determine if a disproportionate share of the Proposed Project's adverse environmental impacts would be borne by low-income and/or minority populations. As presented in Appendix D.4, this review examined the extent to which populations of concern concentrated in or immediately adjacent to the Proposed Project would experience disproportionately high and adverse environmental impacts as a result of the Proposed Project. Despite the residential displacements that would occur within the City of Elizabeth's neighborhood located between Krakow Street and Bay Way, the assessment concluded that the Proposed Project would not result in any disproportionate adverse impacts to minority and/or low-income residents. Temporary minor disturbances to some residents living within the broader Goethals Bridge Study Area may occur during construction.

As a result of the architectural resource investigations conducted in the New York and New Jersey APs in 2007 and subsequent consultation with the state historic preservation offices (SHPOs) in each state, a total of 90 properties were either previously identified or evaluated as part of the current EIS process (see FEIS Section 4.8 and Appendices E.1, E.2 and E.3). The studies identified eleven of these resources listed in or eligible for listing in the National Register of Historic Places. The effects of the Proposed Project on these 11 historic properties have been evaluated pursuant to Section 106 of the National Historic Preservation Act and associated implementing regulations found in Title 36 CFR 800. The complete effects assessment is contained in Appendix E.5. Based on the results of the effects assessment, the Proposed Project will have an adverse effect on three historic properties within architectural APs; the Goethals Bridge, the Staten Island Railroad Historic District, and the Staten Island Railway Lift Truss Bridge over Arthur Kill.

**Other Information**
PIN X770.47

**Project Sponsor:** PA NY&NJ  
**Projected Cost:** $1.5 B  
**Projected Completion:** 2018
### STATEN ISLAND

**Project Name:** Bayonne Bridge Navigational Clearance Project

**Purpose & Need:** The purpose of the project is to reconstruct the roadway of the Bayonne Bridge over the Kill Van Kull. The project would increase vertical clearance, improve substandard features, and provide seismic stability. In addition, the project would preserve the long-term economic efficiency and sustainability of the Port of New York and New Jersey, and bring the bridge into conformance with modern highway and structural design standards.

**Project Description:** The project entails construction of a new roadway deck within the constraints of the existing arch structure, to raise the air draft of the structure from 151’ to 215’. The completed replacement deck will not change the number of traffic lanes (2 in each direction). It will include safety enhancements and a widened pedestrian way accommodating walkers and cyclists. The project will extend the life of the crossing.

**Alternatives Considered:** In advance of the NEPA process, PANYNJ evaluated alternatives ranging from bridge modifications, replacement, and non-bridge alternatives. As part of the environmental review process, environmental impacts associated with the No-Build and Raise the Roadway alternatives were assessed.

**EJ-Environmental-Historic Preservation Implications:** An Environmental Justice analysis was conducted as part of the NEPA process and concluded that the project would not result in any disproportionately high and adverse effects on minority or low-income populations during operation or construction. From the historic preservation perspective, as part of the Section 106 process conducted in accordance with the National Historic Preservation Act (NHPA), it was determined that the project would adversely affect the NR-eligible Bayonne Bridge by removal and replacement of historic features of the bridge. A Programmatic Agreement to resolve this adverse effect was developed and executed in May 2013 among the US Coast Guard, PANYNJ, New York and New Jersey State Historic Preservation Officers, and the Advisory Council on Historic Preservation. Proposed measures to resolve this adverse effect are included in the environmental documentation prepared as part of the NEPA process. After concluding a comprehensive public review, the USCG issued a Finding of No Significant Impact (FONSI) for the project and issued a Final Environmental Assessment for public review in May 2013.

**Other Information:** The project has been included in both the NYMTC and North Jersey Transportation Planning Authority current TIPs and long-term plans. PANYNJ will fund this project from its self-financed capital program resources, so it will not impact the fiscally constrained MPO plans.

**Project Sponsor:** The Port Authority of New York & New Jersey

**Projected Cost ($M):** 1.0 B

**Projected Completion Date:** Achieve New Navigational Clearance, late 2015; Full Project Completion, mid-2017
## Project Name:
Replacement of the Kosciuszko Bridge over Newtown Creek from Morgan Avenue to L.I.E. interchange

### Purpose & Need
The project addresses the structural, safety and operational deficiencies associated with the Kosciuszko Bridge. The existing bridge is a deteriorating structure that requires frequent maintenance and repairs. The bridge contains several non-standard geometric elements, including an existing vertical profile that is not in compliance with modern standards for an interstate highway, resulting in unacceptably high accident rates and excessive delays to traffic.

### Project Description:
Bridge replacement to provide operational improvements and address structural integrity issues and motorists safety

### Alternatives Considered
The EIS investigated both rehabilitation and replacement alternatives. These considered constructing new permanent or temporary bridge structures, on (either) one or both sides of the existing bridge. The selected alternative is a bridge replacement that involves constructing a new permanent EB structure on the EB side of the existing bridge and a new permanent WB structure within the footprint of the existing bridge.

### EJ-Environmental-Historic Preservation Implications
No EJ impacts were identified in the EIS.

As described in the EIS, impacts to an existing playground located near the bridge will be mitigated by providing additional and improved parkland. Since the project is located within an area with a long history of industrial uses, contamination is common in the soil and groundwater throughout the project limits. As noted in the EIS, construction will require removal or containment of contaminated materials, requiring the implementation of site-specific health & safety protocols, air monitoring, and soil & groundwater management plans.

Bridge replacement will require demolition of the existing Kosciuszko Bridge, resulting in an adverse effect to this NRHP-eligible resource. As noted in a Memorandum of Agreement (MOA) between FHWA, NYSDOT and SHPO, prior to demolition, the bridge will be documented according to HAER standards at a level to be determined by NYSDOT in consultation with SHPO. The MOA also requires NYSDOT to conduct archaeological investigations prior to construction, with continued consultation with SHPO.

### Other Information
- Phase 1 PIN X731.24
- Phase 2 PIN X729.77

### Project Sponsor: NYSDOT
- Phase 1
  - Projected Cost ($M): $686.000
  - Projected Completion: 2018
- Phase 2
  - Projected Cost ($M): $290.000
  - Projected Completion: 2018