

**New York State Bridge Task Force
Report to the Governor
August 31, 2007**

Status of Bridge Review

I. INTRODUCTION

In response to the collapse of the I-35W bridge in Minneapolis on August 1, 2007, Governor Spitzer established a task force, chaired by the New York State Department of Transportation (NYSDOT) Executive Deputy Commissioner and comprised of participants from the New York State Department of Transportation, New York State Thruway Authority, New York State Bridge Authority, and the Metropolitan Transportation Authority. The Task Force was directed to:

- determine whether bridges in New York State of similar design and type as the I-35W bridge continue to be safe to use;
- review the State's bridge inspection standards and procedures; and
- report back to the Governor in 30 days.

II. SUMMARY

The Governor's Task Force has verified that the deck truss bridges in New York State are safe for travel by the public. The Task Force has demonstrated that the bridge inspection protocols used in New York are effective and Task Force members have the ability to respond quickly. There are 49 deck truss bridges in New York State and all 49 of these bridges have had visual inspections completed by August 31st. More detailed follow-up inspections will be done by November 1, 2007.

The detailed general inspections are performed on all bridges at least once every two years as required by state and federal laws, which are commonly referred to as biennial inspections. In cases where the general inspections of deck truss bridges are not scheduled for this year, special fracture critical inspections will be performed to examine the non-redundant structural elements that could potentially lead to a bridge failure. As a result, all 49 deck truss bridges will have received general or fracture critical inspections this year.

Deck trusses are generally large and complicated bridges. The visual inspections and the more detailed inspections that are underway have found some minor problems, which is

not unusual. This demonstrates that our bridge inspection protocols are effective. We are identifying and correcting problems early before they become serious and compromise a bridge's ability to remain in service.

The collapse of the I-35W bridge provided us the opportunity to reinforce our existing direction to contractors and workers on bridges in the State by reminding them of the requirement not to overload structures under construction. It also allowed NYSDOT to review its inspection protocols and to verify that all the bridge owners in the State are conforming to the protocols. The Task Force can report that all the public bridge owners are meeting or exceeding the standards for bridge inspection and safety assurance that were established by NYSDOT pursuant to federal regulations, 23 CFR Part 650, and Article 9 of the Highway Law as amended by the State's Graber Law, Chapter 781 of the Laws of 1988. NYSDOT will be issuing its annual Graber Law report later this year.

This event was also a sobering reminder to those agencies having stewardship responsibilities for the State's bridges that these structures are old and require vigilance, great effort, and significant funding to ensure they continue to serve the traveling public. The report provides some preliminary information about the effort to keep this part of the transportation system operating safely.

III. ACTIONS TAKEN FOR DECK TRUSS HIGHWAY BRIDGES

Identification

NYSDOT immediately identified and compiled a list of the 49 deck truss highway bridges in New York State with a design similar to that of the I-35W Bridge (please see attached table).

Of the 49 deck truss highway bridges in New York State, 20 are state owned, 12 are locally owned, 15 are owned by authorities, and 2 are highway bridges owned by railroads. Pursuant to Article 9 of the Highway Law, NYSDOT inspects its own highway bridges, as well as highway bridges owned by localities, railroads, and commissions that do not collect tolls, ultimately inspecting about 94% of the highway bridges in the State. Toll authorities and commissions are responsible for their own inspections and are required to submit their inspections to NYSDOT, which maintains the State's bridge inventory and inspection database. Please note that the Newburgh-Beacon twin-span bridge is considered a single bridge out of the total of 49 deck truss highway bridges.

Review of Most Recent Inspection Report

The most recent inspection report for each of the 49 deck truss highway bridges was reviewed by the NYSDOT Office of Structures to help guide follow-on activities. In addition, authorities conducted a similar review of their own inspection reports.

Visual Inspections

Instructions were issued to perform an immediate visual inspection of each deck truss highway bridge to ensure they are safe for public use. This process included a visual inspection of all deck truss spans, including the deck elements, primary and secondary steel members, bearings, joints, and supporting substructures. The superstructure and substructure members were also observed for condition and alignment, plumbness (where applicable), deterioration and/or loss of section, and joint and bearing positioning. Conditions were inspected for each of these bridges and findings recorded. As of August 31st, all of the visual inspections for these bridges have been completed.

Accelerated Schedule for General Inspections

Twenty-eight of the 49 deck truss highway bridges were originally scheduled for a general inspection in the 2007 inspection season. To comply with the Governor's direction, the schedules for 13 of these inspections were moved up to ensure that all 28 inspections began by the end of August.

Fracture Critical Inspections

For those deck truss highway bridges that had not been inspected in over a year, special inspections of the fracture critical members began by the end of August. This type of inspection is part of the general (biennial) bridge inspection. Fracture critical members are those truss members whose fracture would likely result in a major failure or collapse of the bridge. A fracture critical inspection is close-up (hands-on) visual inspection of critical steel members to detect cracks induced by fatigue, distortion, or corrosion that could potentially lead to a member fracture. The visual inspections may be supplemented by non-destructive tests to confirm the presence of suspected cracks.

In addition, deck truss highway bridges inspected within the past year were evaluated for the need to conduct a special fracture critical inspection. The determination to perform a fracture critical inspection was made on an individual bridge-by-bridge basis, based on review of the condition of the fracture critical members from the most recent inspection report and from Bridge Safety Assurance vulnerability assessment data (e.g., steel construction details, redundancy) related to the bridges.

As a result of the Governor's initiative, all 49 deck truss highway bridges will have received special fracture critical or general inspections this year.

Response to Federal Highway Administration (FHWA) Technical Advisories

On August 2nd, in response to the uncertainty surrounding the cause of the I-35W bridge collapse, FHWA issued a Technical Advisory that strongly advised all state transportation agencies and other bridge owners to immediately re-inspect all steel deck truss bridges with fracture critical members. New York State followed the FHWA recommendations by ordering inspections for all deck truss highway bridges in the State.

Since the I-35W bridge had been undergoing some deck construction at the time of the collapse, FHWA issued another Technical Advisory on August 8th concerning construction loads on bridges. Based on this advisory, NYSDOT instructed its regional construction and structures staff not to allow any stockpiling of materials on bridges under construction and to prevent contractors from parking unused equipment on bridges. We advised other state and local agencies to take similar action.

NYSDOT also followed up on the FHWA Technical Advisory by reviewing its policies and procedures regarding construction loads on bridges. A list of all relevant specifications and guidance was compiled and transmitted to regional construction and structures staff to ensure awareness and compliance. The Department's policies concerning construction equipment and vehicle loadings were determined to be clear and complete. The Department does not directly prohibit the stockpiling of raw material on bridge decks, but requires the Engineer in Charge to approve the stockpile location. NYSDOT is reviewing this issue to determine if stronger measures are needed.

Bridge Task Force Meeting

A meeting of the Bridge Task Force was held on August 13, 2007. Participating agencies were: NYSDOT, New York State Bridge Authority, New York State Thruway Authority, MTA Bridges and Tunnels, New York City Department of Transportation, Long Island Rail Road, New York City Transit, Metro-North Railroad, and MTA Headquarters.

The purpose of the meeting was to share inspection procedures and protocols, share inspection plans, and develop a plan of action once the cause of the Minnesota bridge collapse is known. In addition, the agencies wanted to share their thinking about active construction activities that could have potentially played a role in the bridge collapse and discuss procedures in New York State for the structural analysis of equipment/material and traffic loadings during construction.

Outcomes from the meeting included:

- Commitment to meet the Governor's schedule for bridge inspections.
- Each agency provided a status of their inspection efforts to date. All agencies will meet the Governor's schedules for inspecting these bridges.
- Reviewed requirements for special inspections of deck truss bridges, including fracture critical inspections where necessary.
- Reviewed Federal technical advisory on construction operations on bridges.
- Public railroad agencies agreed to inspect deck truss railroad bridges.

- Once the cause of the Minnesota bridge collapse has been determined, the agencies will confer to coordinate and communicate appropriate next steps.

Preliminary Inspection Findings

No serious problems have been found. Some deficiencies have been identified through our “flagging” procedure which requires a timely response in order to address the defect encountered. Approximately 5% of all bridge inspections result in a flag condition being discovered. Deck trusses are older and more complicated, and inspections of them generally result in more flags.

As of the date of this report, one of the 49 deck truss highway bridges has received a “Red” flag and others have received “Yellow” flags. Some specific examples of preliminary inspection findings include:

- The Route 219 Bridge over the Cattaraugus Creek in Cattaraugus County was posted to restrict certain trucks with overweight permits from using the bridge, due to observations made by the inspection team during the general inspection and results from a load rating analysis. This posting does not affect everyday traffic using the bridge.
- The Route 9W Bridge over the Popolopen Creek in Orange County received a “Red” flag as a result of its recent visual inspection due to a crack in one of the tiedown eyebars at the abutment. A structural analysis confirmed there is sufficient remaining load capacity to allow the bridge to remain open to traffic until a repair is made. A repair design has been developed which will be implemented by NYSDOT maintenance forces.
- The Creamery Road over Woodbury Creek Bridge in Orange County received a “Yellow” flag as a result of its visual inspection, due to deterioration of one of its floorbeams. The condition of the floorbeams will be evaluated to determine its impact on the load carrying capacity of the bridge.
- During the visual inspection of the Patroon Island Bridge in Albany County, what appeared to be a crack in one of the superstructure members was observed. Immediate action was taken to address this issue and, upon further investigation, it was discovered that the “crack” was actually a ridgeline formed in the paint and not a crack.

Due to the size of these bridges and the level of work associated with conducting fracture critical inspections and the general inspections for those bridges where the schedule has been moved up, it will be several more months before the results from all of the inspections are known. NYSDOT will summarize the findings from all of these inspections in our next report.

IV. BRIDGE INSPECTION PROTOCOLS

New York State is home to more than 17,000 highway bridges, and NYSDOT's bridge inspection program is the frontline of ensuring the safety of the millions who travel on these bridges daily.

As bridges age and their components begin to deteriorate, inspection protocols serve to quantify their condition. However, if any bridge that is inspected is determined to be unsafe for use, it is immediately closed to traffic. Before a bridge deteriorates to this point, the inspections provide information relevant to maintaining, repairing, rehabilitating, and eventually replacing the bridge.

State Rating System

NYSDOT is responsible for making sure all of the highway bridges in the State are inspected pursuant to state regulations (Graber Law) and federal mandates. NYSDOT inspects about 94% of the highway bridges in the State. Toll authorities and commissions are responsible for their own inspections and are required to submit their inspection data to NYSDOT.

NYSDOT's bridge inspection program meets or exceeds federal requirements and consistently receives high marks in annual FHWA management reviews. The State requires all highway bridges to be inspected at least every two years and is one of the few states in the nation that requires bridge inspection teams to be headed by licensed professional engineers who have undergone specific training.

In New York State, bridge inspectors assess all of a bridge's individual parts. They are required to evaluate, assign a condition score, and document the condition of up to 47 structural elements, including rating 25 components of each span of a bridge, in addition to general components common to all bridges. The NYSDOT condition rating scale ranges from 1 to 7, with 7 being in new condition and a rating of 5 or greater considered as good condition.

NYSDOT computes an overall New York State condition rating for each bridge by combining the ratings of individual components using a weighted average formula. This formula assigns greater weights to the ratings of the bridge elements having the greatest structural importance, and lesser weights for minor structural and non-structural elements. If a bridge has multiple spans, each element common to the spans is rated and the lowest individual span element rating is used in the condition rating formula.

NYSDOT defines a deficient bridge as one with a state condition rating less than 5.0. A deficient condition rating indicates deterioration at a level that requires corrective maintenance or rehabilitation to restore the bridge to its fully functional, non-deficient

condition. It does not mean that the bridge is unsafe for public use. New York's condition rating scale is unique and it predates national bridge inspection standards

All bridges are also analyzed for their capacity to carry vehicular loads. Bridges that cannot safely carry heavy vehicles, such as some tractor trailers, are posted with weight limits. Based upon inspection and load capacity analysis, any bridge deemed unsafe is closed.

As part of the inspection process, when inspectors find a deficiency that requires a timely response, a "flag" is issued. "Red" flags are issued for deficiencies involving critical structural components that require prompt evaluation and corrective measures to resolve the flag condition. "Yellow" flags identify conditions that are less critical, yet if left unattended until the next scheduled inspection would likely progress to a more critical deficient state. If a "Yellow" flag condition is not corrected, the bridge will require an annual inspection. "Safety" flags are issued for conditions that present a safety hazard to the public (e.g. cracked sidewalks) or to traffic (e.g. bridge rail requiring repair), but that do not affect the structural integrity of the bridge.

Federal Rating System

The federal ratings result from overall average condition assessments of each bridge's three or four major components and do not require the multi-element evaluations mandated by New York State's bridge inspection program.

The federal ratings are used to identify bridges that do not meet contemporary FHWA standards. Those bridges are classified as either "structurally deficient" or "functionally obsolete."

Bridges are considered "structurally deficient," according to the FHWA, if significant load carrying elements are found to be in poor or worse condition due to deterioration and/or damage, the bridge has inadequate load capacity, or repeated bridge flooding causes traffic delays. The fact that a bridge is "structurally deficient" does not imply that it is unsafe or likely to collapse.

A "structurally deficient" bridge, when left open to traffic, typically requires significant maintenance and repair to remain in service and eventual rehabilitation or replacement to address deficiencies. In order to remain in service, structurally deficient bridges are often posted with weight limits.

"Functionally obsolete" refers to a bridge's inability to meet current standards for managing the volume of traffic it carries, not its structural integrity. For example, a bridge may be functionally obsolete if it has narrow lanes, no shoulders, or low vertical clearances.

Based upon data submitted to the FHWA in April 2007, about 12% of the highway bridges in New York State are classified, under the broad federal standards, as

structurally deficient, and about 26% are classified as functionally obsolete. These classifications do not mean the bridges are unsafe, rather that they would require repairs or modifications to restore their condition or improve their functionality. Again, if a bridge is deemed unsafe, it is closed to traffic.

Bridge condition information is used to establish preventative and corrective maintenance programs, as well as bridge rehabilitation and replacement programs. It also is used to help measure program performance. Federal deficiency lists are used to determine federal bridge funding eligibility for capital improvements.

V. SHARING OF BRIDGE INFORMATION WITH THE PUBLIC

NYSDOT Bridge Data Website

In response to the growing public interest in the safety and condition of bridges, on August 17, 2007, NYSDOT published a website listing all of the 17,000 highway bridges in the State by county, along with an identifier as to whether the bridge is considered structurally deficient, functionally obsolete, or neither, as determined by federal standards. The NYSDOT condition rating was added to the bridge listing on August 30.

Included on the website is a brief narrative of the State and Federal bridge inspection requirements, information on interpreting the inspection data, and what the data is used for. Also included is a table of frequently asked questions related to bridge safety and inspection.

The address to the website is: <https://www.nysdot.gov/portal/page/portal/main/bridgedata>

Responses to the Public, Public Officials, and the Media

Since the Minnesota bridge collapse, NYSDOT has received and responded to numerous inquiries on bridge conditions from elected officials. Topics of concern include bridge inspection frequencies, the status of bridge conditions in New York State and funding associated with bridge repairs, and the status and findings from the Governor's initiative to inspect New York State's deck truss highway bridges. NYSDOT and other Task Force members have responded to hundreds of media inquiries about the safety and status of highway bridges in New York State and associated funding for bridge repairs. NYSDOT has also arranged for dozens of reporters to observe actual bridge inspections, to provide them with a better understanding of New York's bridge inspection process.

VI. SENSITIVITY TO SECURITY CONCERNS

NYSDOT coordinated with the Office of Homeland Security (OHS) on the bridge data recently published on the Department's website and on guidance for bridge owners in determining what information in bridge inspection reports is considered security sensitive and, accordingly, should not be available to the public upon request.

Bridges that are identified as being part of the OHS-defined critical infrastructure are candidates to have portions of their inspection reports considered security sensitive. Inspection reports for bridges not identified as critical infrastructure may be released to the public upon request.

NYSDOT, in consultation with OHS, is preparing guidelines on what information in bridge inspection reports is considered security sensitive. These guidelines will be provided to all bridge owners in New York State.

VII. NON-HIGHWAY DECK TRUSS BRIDGES

Public agencies that provide passenger rail service have agreed to inspect their deck truss railroad bridges. Metro-North Railroad owns one deck truss railroad bridge that has already been inspected; New York City Transit owns one deck truss railroad bridge that is currently being inspected; and NYSDOT owns two deck truss railroad bridges (Adirondack Scenic Railroad) that will be inspected at the beginning of September. The Long Island Rail Road confirmed it owns no deck truss bridges.

Twenty-four private railroads own or operate bridges in New York State and provide NYSDOT with annual certifications that their railroad bridges are safe to carry the loads operated on them. NYSDOT does not currently have information as to which of these railroads own any deck truss bridges.

VIII. NEXT STEPS

The Task Force will issue another report in 60 days summarizing the condition of New York's 49 deck truss bridges based on the results of the accelerated general inspections and fracture critical inspections currently underway.

NYSDOT is undertaking a comprehensive review of its highway and bridge capital requirements and funding needs as directed pursuant to the recent congestion pricing legislation. This process, in conjunction with Executive Budget development, will guide future funding decisions. This effort should include an enhanced bridge maintenance program aimed at keeping critical bridge elements from deteriorating further, slowing the rate of bridges becoming deficient. The Department will share more details of this effort in the Task Force's next report.

New York State Deck Truss Highway Bridge Inventory

Region	County	BIN	Bridge Name	Date of Last General Inspection ¹	Completion Date for Visual Inspection	Completion Date for General Inspection or Fracture Critical Inspection (Actual or scheduled)	Flagging Status	Federal Structurally Deficient?	NYSDOT Average Condition Rating (from April '07 BDMS Database)	Owner
1	Albany	1092839	I-90 Patroon Island Bridge	11-Nov-06	11-Aug-07	16-Sep-07	Yellow & Safety		4.36	New York State DOT
1	Albany	5513549	Thruway over the Normanskill	15-Nov-06	16-Aug-07	14-Sep-07	None		5.04	New York State Thruway Authority
1	Essex	5521180	Crown Point Bridge	20-Oct-05	17-Aug-07	12-Sep-07	Safety	X	3.76	New York State DOT
1	Greene	5017820	Rt 23 over CSX	2-May-06	14-Aug-07	24-May-07	None		4.53	New York State Bridge Authority
1	Greene	5513199	Thruway over Cauterskill Road	15-Dec-05	22-Aug-07	19-Sep-07	None		5.37	New York State Thruway Authority
1	Greene	5513219	Thruway over Catskill Creek	13-Dec-05	23-Aug-07	21-Sep-07	None		5.38	New York State Thruway Authority
1	Rensselaer	1004310	Rt 7 over Hoosic River	30-Nov-06	9-Aug-07	9-Aug-07	None	X	4.48	New York State DOT
1	Rensselaer	1016990	Rt 22 over Hoosic River	10-Aug-05	9-Aug-07	21-Aug-07	Safety		5.05	New York State DOT
1	Rensselaer	1024720	Rt 40 over Hoosic River	27-Nov-06	22-Aug-07	22-Aug-07	None	X	4.29	New York State DOT
1	Saratoga	1006730	Rt 9N over Hudson River	23-Aug-06	13-Aug-07	13-Aug-07	Safety	X	3.92	New York State DOT
1	Saratoga	3304190	Batchellerville Bridge	3-Nov-06	30-Aug-07	30-Aug-07	None	X	3.56	County
1	Warren	1053660	Rt 28N over Hudson River	8-Jun-06	15-Aug-07	15-Aug-07	None		4.40	New York State DOT
1	Warren	3305530	Bridge St. over Hudson River	11-Oct-06	14-Aug-07	14-Aug-07	None		4.61	County
3	Tompkins	2210620	Stewart Ave over Fall Creek	9-Aug-06	9-Aug-07	9-Aug-07	None		5.86	City
4	Monroe	1052239	Rt 104 over Irondequoit Bay	21-Aug-06	17-Aug-07	22-Aug-07	Yellow & Safety		5.25	New York State DOT
4	Monroe	2211300	Smith Street over Genesee River	21-Nov-06	30-Aug-07	30-Aug-07	Safety		3.97	City
5	Cattaraugus	1041590	Rt 219 over Cattaraugus Creek	14-Oct-05	15-Aug-07	15-Aug-07	None		4.27	New York State DOT
5	Erie	3362260	Ward Drive over Big Gulf Creek	20-Jul-06	23-Aug-07	24-Jul-07	None		4.30	County
5	Erie	5043981	I-190 over Niagara River	21-Nov-06	17-Aug-07	21-Oct-07	Safety		3.91	New York State Thruway Authority
5	Erie	5043982	I-190 over Niagara River	21-Nov-06	17-Aug-07	21-Oct-07	Yellow	X	3.84	New York State Thruway Authority
5	Erie	5045751	I-190 over Moses Parkway	23-Nov-05	24-Aug-07	21-Sep-07	Yellow & Safety		3.78	New York State Thruway Authority
5	Erie	5045752	I-190 over Moses Parkway	18-Nov-05	24-Aug-07	21-Sep-07	Safety		3.98	New York State Thruway Authority
7	St. Lawrence	3341140	CR 49 over East Branch of the St Regis River	1-Jun-05	9-Aug-07	18-Jun-07	None		4.66	County
7	St. Lawrence	5523230	Ogdensburg International Bridge over the St Lawrence	16-Jun-06	22-Aug-07	28-Sep-07	Yellow	X	4.29	Ogdensburg Bridge & Port Authority
8	Columbia	1006460	Rt 9G over the Roeliff Jansen Kill	15-Jun-05	14-Aug-07	14-Aug-07	None	X	4.36	New York State DOT
8	Orange	1003130	Rt 6 over the Wallkill	31-May-05	11-Aug-07	30-May-07	None		5.00	New York State DOT
8	Orange	1007150	Rt 9W over Popolopen Creek	1-Jun-06	14-Aug-07	14-Aug-07	Red, Yellow & Safety		4.85	New York State DOT
8	Orange	1035340	Rt 97 over Mongaup River	2-May-06	8-Aug-07	8-Aug-07	None		5.34	New York State DOT
8	Orange	3344290	Creamery Rd over Woodbury Creek	4-Apr-06	14-Aug-07	14-Apr-07	Yellow		3.69	County
8	Orange	5060381	Newburgh-Beacon Bridge (I-84 over Hudson)	2-Jun-06	16-Aug-07	24-May-07	None		5.01	New York State Bridge Authority
8	Orange	5060382	Newburgh-Beacon Bridge (I-84 over Hudson)	2-Jun-05	17-Aug-07	24-May-07	None		4.73	New York State Bridge Authority
8	Rockland	1007140	Rt 9W over Cedar Pond Brook	18-Jul-06	7-Aug-07	7-Aug-07	Yellow		3.99	New York State DOT
8	Rockland	1027660	Rt 59 over Pascack Creek	28-Jun-05	9-Aug-07	9-Aug-07	None		4.76	New York State DOT
8	Rockland	5503400	Bear Mountain Bridge	13-Apr-06	24-Aug-07	10-May-07	None		4.76	New York State Bridge Authority
8	Rockland	5516340	Tappan Zee Bridge (I-87)	30-Nov-06	28-Aug-07	28-Oct-07	Yellow & Safety		2.96	New York State Thruway Authority
8	Ulster	5025530	Mid Hudson Bridge	26-May-06	24-Aug-07	27-Apr-07	None		4.81	New York State Bridge Authority
8	Ulster	5040010	Kingston-Rhinecliff Bridge	9-Jun-07	24-Aug-07	1-Jun-07	Safety		5.49	New York State Bridge Authority
8	Westchester	2265110	South Tenth Ave over Metro-North RR NH Line	17-Nov-06	10-Aug-07	8-Aug-07	Yellow & Safety	X	4.22	MTA Metro-North Railroad
8	Westchester	5502200	Taconic Parkway over Croton Dam Road	12-Oct-06	27-Aug-07	27-Aug-07	None		5.36	New York State DOT
8	Westchester	7712650	Beekman Ave over Metro-North RR HU Line	19-Aug-06	15-Aug-07	27-Jun-07	None		4.78	MTA Metro-North Railroad
9	Sullivan	1013799	Rt 17 over Edwards Island Road	29-Nov-06	16-Aug-07	16-Aug-07	Yellow & Safety		3.91	New York State DOT
9	Tioga	1060150	Rt 96 over the Susquehanna River	19-Sep-05	17-Aug-07	17-Aug-07	None		6.61	New York State DOT
11	Kings	1075699	Kosciusko Bridge	22-Nov-06	27-Aug-07	28-Sep-07	None		3.71	New York State DOT
11	New York	1240090	Macomb Dam Bridge	13-Jun-05	22-Aug-07	22-Aug-07	None		4.17	New York State DOT
11	New York	2240019	Brooklyn Bridge	17-Nov-06	27-Aug-07	30-Aug-07	Yellow & Safety	X	2.92	City
11	New York	2240028	Manhattan Bridge	30-Nov-06	28-Aug-07	30-Sep-07	Yellow		4.36	City
11	New York	2240048	Queensboro Bridge	15-Nov-06	27-Aug-07	27-Aug-07	None		4.43	City
11	New York	2240089	145th St over Harlem River	24-Jun-06	22-Aug-07	22-Aug-07	None	X	3.08	City
11	New York	2240120	University Heights Bridge	8-Jun-06	21-Aug-07	21-Aug-07	None		5.53	City
11	Queens	5521240	Marine Parkway over Rockaway Inlet	21-Jun-05	30-Aug-07	5-Jul-07	None		4.75	MTA Bridges & Tunnels

¹(from April '07 BDMS Database)

Bridge Owner
 NYSDOT
 Authority
 Local
 Other

8/31/2007