

NEW YORK STATE BRIDGE AUTHORITY
General Revenue Bonds, Series 2012
Continuing Disclosure Statement
For the Year Ended December 31, 2019

(1)

CURRENT TOLL RATES

Current Toll Rates are as set forth in Table 3 of the Official Statement dated April 26, 2012 for the Series 2012 Bonds (hereinafter the "2012 Official Statement)."

(2)

TOLL PAYING TRAFFIC ON AUTHORITY BRIDGES
(Refer to Table 1 of the Series 2012 Official Statement)
(000's)

Year	Rip Van Winkle Bridge	Kingston-Rhinecliff Bridge	Mid-Hudson Bridge	Newburgh-Beacon Bridge	Bear Mountain Bridge	Total
2005	2,705	3,738	7,004	12,591	3,170	29,208
2006	2,747	3,812	7,007	12,556	3,208	29,330
2007	2,706	3,815	6,988	12,740	3,229	29,478
2008	2,660	3,785	6,823	12,369	3,253	28,890
2009	2,703	3,871	6,867	12,317	3,255	29,012
2010	2,640	3,931	6,986	12,556	3,289	29,402
2011	2,604	3,878	6,872	12,364	3,303	29,021
2012	2,654	3,856	6,893	12,341	3,438	29,181
2013	2,671	3,841	6,883	12,380	3,425	29,199
2014	2,737	3,866	6,908	12,354	3,494	29,359
2015	2,829	3,951	7,121	12,519	3,718	30,138
2016	2,924	4,053	7,253	13,234	3,953	31,417
2017	2,971	4,099	7,247	13,360	3,924	31,601
2018	2,984	4,111	7,293	13,461	3,914	31,763
2019	2,979	4,142	7,382	13,466	3,939	31,908

(3)

TOLL REVENUES FROM AUTHORITY BRIDGES
(Refer to Table 4 of the Series 2012 Official Statement)
(\$000's)

Year	Rip Van Winkle Bridge	Kingston-Rhinecliff Bridge	Mid-Hudson Bridge	Newburgh-Beacon Bridge	Bear Mountain Bridge	Total
2005	3,125	3,910	7,084	21,977	3,311	39,407
2006	3,181	3,991	7,048	21,763	3,393	39,376
2007	3,083	3,979	6,999	21,842	3,403	39,306
2008	3,003	3,929	6,823	20,600	3,404	37,759
2009	3,014	3,983	6,843	19,874	3,370	37,084
2010	2,970	4,058	6,945	20,302	3,394	37,669
2011	2,957	4,050	6,881	19,899	3,454	37,242
2012	4,330	5,712	10,061	28,783	4,936	53,822
2013	4,424	5,819	10,301	29,341	5,004	54,889
2014	4,560	5,889	10,384	29,338	5,066	55,237
2015	4,748	6,035	10,737	29,752	5,393	56,665
2016	4,862	6,176	10,982	31,161	5,809	58,990
2017	4,926	6,250	10,984	30,966	5,698	58,824
2018	4,933	6,279	11,115	31,017	5,676	59,020
2019	4,921	6,311	11,220	30,824	5,693	58,969

(4)

TRAFFIC, TOLL REVENUES AND OPERATING EXPENSES
(Refer to Table 5 of the Series 2012 Official Statement)

Year	Toll Paying Vehicles (000's)	Toll Revenues (\$000's)	Average Toll Per Vehicle (\$)	Operating Expenses FN1 FN6	Average Operating Expense Per Tolloed Vehicle (\$)
Authority Operating Statistics (Totals For All Bridges)					
2005	29,208	39,407	1.35	21,714	0.74
2006	29,330	39,376	1.34	22,519	0.77
2007	29,478	39,306	1.33	23,277	0.79
2008	28,890	37,759	1.31	23,901	0.83
2009	29,012	37,084	1.28	21,327	0.74
2010	29,402	37,669	1.28	23,177	0.79
2011	29,022	37,242	1.28	22,426	0.77
2012	29,181	53,822	1.84	23,207	0.80
2013	29,199	54,889	1.88	24,739	0.85
2014	29,359	55,237	1.88	25,089	0.85
2015	30,138	56,665	1.88	24,557	(6) 0.81
2016	31,417	58,990	1.88	24,948	0.79
2017	31,601	58,824	1.86	25,900	(6) 0.82
2018	31,763	59,020	1.86	27,007	(6) 0.85
2019	31,908	58,969	1.85	27,551	0.86

Percent Growth Versus Previous Year

Year	Toll Paying Vehicles	Toll Revenues	Average Toll Per Vehicle (\$)	Operating Expenses FN1	Average Operating Expense Per Tolloed Vehicle
2005	-1.33%	-0.95%	0.38%	2.94%	4.33%
2006	0.42%	-0.08%	-0.49%	3.71%	3.28%
2007	0.50%	-0.18%	-0.68%	3.37%	2.85%
2008	-1.99%	-3.94%	-1.98%	2.68%	4.77%
2009	0.42%	-1.79%	-2.20%	-10.77%	-11.14%
2010	1.34%	1.58%	0.23%	8.67%	7.23%
2011	-1.29%	-1.13%	0.16%	-3.24%	-1.98%
2012	0.55%	44.52%	43.76%	3.48%	2.92%
2013	0.06%	1.98%	1.92%	6.60%	6.54%
2014	0.55%	0.63%	0.09%	1.41%	0.86%
2015	2.65%	2.59%	-0.07%	-2.12%	-4.65%
2016	4.24%	4.10%	-0.14%	1.59%	-2.54%
2017	0.59%	-0.28%	-0.86%	3.82%	3.21%
2018	0.51%	0.33%	-0.18%	4.27%	3.74%
2019	0.45%	-0.09%	-0.54%	2.01%	1.55%

FN1: Excluding depreciation on equipment, and excluding net loss on sale of equipment and excluding other post-employment benefits. Maintenance Reserve expenditures are reflected in the Authority's capital budget. See Table 8
 FN6: In 2015 the Authority implemented GASB 68, similar to GASB 45, the Authority includes only physical disbursements to the NYS & Local Retirement System for each year to compute operating expenditures under the resolution. Gains or losses on the value of the funds assets are excluded. In 2018 the Authority implemented GASB 75, and update of GASB 45, and excluded those non-cash related expenses as well.

NEW YORK STATE BRIDGE AUTHORITY
General Revenue Bonds, Series 2012
Continuing Disclosure Statement
For the Year Ended December 31, 2019

(5)

NET REVENUES AND OPERATING EXPENSES
(Refer to Table 6 of the Series 2012 Official Statement)
(\$000's)

Year	Toll Revenues	Operating Expenses (2)	Net Operating Revenues	Other Revenues (3)	Net Revenues
2005	39,407	21,714	17,693	1,679	19,372
2006	39,376	22,519	16,857	2,304	19,161
2007	39,306	23,277	16,029	2,661	18,690
2008	37,759	23,901	13,858	1,535	15,393
2009	37,084	21,327	15,757	530	16,287
2010	37,669	23,177	14,492	925	15,417
2011	37,242	22,426	14,816	3,259	18,075
2012	53,822	23,207	30,615	2,119	32,734
2013	54,889	24,739	30,150	1,104	31,254
2014	55,237	25,089	30,148	1,423	31,571
2015	56,665	24,557	32,108	1,148	33,256
2016	58,990	24,948	34,042	1,292	35,334
2017	58,824	25,900	32,924	1,696	34,620
2018	59,020	27,007	32,013	2,618	34,631
2019	58,969	27,551	31,418	4,142	35,560

FN2: Excluding depreciation on equipment and excluding net loss on sale of equipment

FN3: Investment and other income, excluding Construction Fund and General Fund Interest and net gain on sale of equipment. For 2011, Other Revenues includes federal grants of \$2.5 million.

FN4: Restated as incorrectly excluded interest income in the Series 2012 Official Statement

(6)

DEBT SERVICE COVERAGE
(Refer to Table 7 of the Series 2012 Official Statement)

Year	Net Operating Revenues (\$000's) FN1 FN5	Net Revenues (\$000's) FN5	Debt Service (\$000's)	Net Revenues After Debt Service (\$000's)	Net Operating Revenue Coverage of Debt Service	Net Revenue Coverage of Debt Service
2005	17,693	19,372	8,191	11,181	2.16	2.37
2006	16,857	19,161	8,191	10,970	2.06	2.34
2007	16,029	18,690	8,191	10,499	1.96	2.28
2008	13,858	15,393	8,191	7,202	1.69	1.88
2009	15,757	16,287	8,191	8,096	1.92	1.99
2010	14,492	15,417	8,191	7,226	1.77	1.88
2011	14,816	18,075	8,191	9,884	1.81	2.21
2012	30,615	32,734	9,911	22,823	3.09	3.30
2013	30,150	31,254	11,278	19,977	2.67	2.77
2014	30,148	31,571	11,277	20,294	2.67	2.80
2015	32,108	33,256	11,281	21,976	2.85	2.95
2016	34,042	35,334	11,278	24,056	3.02	3.13
2017	32,924	34,620	11,240	23,380	2.93	3.08
2018	32,013	34,631	11,237	23,394	2.85	3.08
2019	31,418	35,560	11,237	24,323	2.80	3.16

FN5 Refer to table "Net Revenues and Operating Expenses" above

(7)

CAPITAL PROGRAM EXPENDITURES
(Refer to Table 8 of the Series 2012 Official Statement)
(\$000's)

Year	Expenditures
2005	20,044,000
2006	7,391,000
2007	14,270,000
2008	8,019,000
2009	7,909,000
2010	13,143,000
2011	15,657,000
2012	20,854,000
2013	34,579,000
2014	56,309,000
2015	36,767,000
2016	7,897,000
2017	20,494,000
2018	24,329,000
2019	18,524,000

(8)

CONSULTANT ENGINEER'S REPORT ON PHYSICAL CONDITION OF BRIDGES

Summaries of the 2018 Maintenance Inspection Reports prepared by the Consulting Engineer are attached (Attachment #1).

(9)

CAPITAL PLANNING PROCESS

The 5-year Capital Improvement Program adopted by the Authority in September 2019 is attached (Attachment #2). Staff review of capital needs and project scheduling for 2020 is ongoing.

NEW YORK STATE BRIDGE AUTHORITY
General Revenue Bonds, Series 2012
Continuing Disclosure Statement
For the Year Ended December 31, 2019
2019 Maintenance Inspections



CHARLESTON WV | EDWARDSVILLE IL | MECHANICSBURG PA | MOORESTOWN NJ | NEW ORLEANS LA
PHILADELPHIA PA | POUGHKEEPSIE NY | ST LOUIS MO | WASHINGTON DC

October 18, 2019

Ms. Tara Sullivan, Acting Executive Director
New York State Bridge Authority
P. O. Box 1010
Highland, New York 12528-0010

RE: PN3672.19
RIP VAN WINKLE BRIDGE
2019 Maintenance Inspection

Dear Ms. Sullivan:

Transmitted herewith are 8 copies of our report covering the 2019 Maintenance Inspection of the Rip Van Winkle Bridge. The inspection was performed in accordance with our Engineering Services Agreement BA 2017-OE-102-ES.

The Rip Van Winkle Bridge generally remains in satisfactory to good condition. Items of maintenance and repair that have been performed by Authority maintenance forces and/or by contract forces since the 2018 Biennial Inspection are listed in the report.

The pedestrian sidewalk, pedestrian railings and the steel railings atop the concrete parapets have been replaced as part of the ongoing Contract BA 2014-RE-102-CM, and remain in good condition.

In general, the condition of the paint system is in satisfactory to good condition with isolated areas of paint failures that are generally found along the lower portions of the deck truss metalwork and towers. These areas typically exhibit minor to moderate section loss with advanced crevice corrosion between adjacent components of the truss metalwork and bracing. Other items of concern include addressing the broken and loose hold down bolts for the finger joint at Panel Point 40, and removing any areas of unsound and loose concrete that may become a potential falling object hazard.

Items of the bridge that should continue to receive attention include annual rinsing and removal of dirt and debris found within the bottom chord joints, truss metalwork within the splash zones, and drainage troughs of the deck joints. Other maintenance items include, but are not limited to, greasing the stringer and truss expansion bearings, replacing deficient fasteners, and addressing noted deficiencies throughout the maintenance walkways, light standards and electrical components.

Prior to the 2019 Maintenance Inspection, the west abutment bearing links were repaired under contract BA-2018-RE-101-CM. The misalignment of the roadway joint was in the process of being repaired during the 2019 Maintenance Inspection.



A comparison of expansion dam movements recorded at various temperatures continues to show restriction of movement at Panel Point 15 and Panel Point 25 for the main suspended span. The range of movement at the ends of the through-truss spans (Panel Points 0 and 40) are greater than expected, indicating center span movement is likely being transferred to these locations through minor translation of the towers at Piers 1 and 2. Although there continues to be no evidence of structural distress due to the condition, close monitoring of the joint movements should continue and further evaluation is recommended for this condition.

The west and east approaches are in satisfactory-to-good condition. The east approach was in the process of being reconstructed during the 2019 Maintenance Inspection. The reconstruction of the roadway including the addition of a traffic was completed prior to the inspection with ancillary work still on-going.

The findings of the 2019 Maintenance Inspection are detailed in the report, and recommendations for maintenance and repairs, routine maintenance, and monitoring on a regular basis are listed at the end of the text.

This report is based upon examinations and studies, at the times and in the manner herein discussed. The nature of the inspection does not permit assurance that there are not latent or hidden defects in the condition of the members, lack of uniformity in the quality of the materials used or detrimental occurrences subsequent to the inspection. No responsibility can, therefore, be assumed for lack of integrity of the structure from unpredictable causes or those beyond the scope of this inspection and report.

If there are any questions concerning the inspection or the contents of this report, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Quentin P. Johnson".

Quentin P. Johnson, P. E.,
Vice President

QPJ:sed
encl.

Ms. Tara Sullivan
Acting Executive Director
New York State Bridge Authority
PO Box 1010
Highland, NY 12528-0010

January 7, 2020

**RE: BA-2017-RE-103-ES
2019 Biennial Inspection of the Kingston-Rhinecliff Bridge**

Dear Ms. Sullivan:

Transmitted, herewith, are 7 copies of the 2019 Biennial Inspection of the Kingston-Rhinecliff Bridge. The inspection was performed in accordance with our Engineering Services Agreement BA 2017-RE-103-ES Biennial Bridge Inspection Services.

The Kingston-Rhinecliff Bridge remains in good functional condition. There were no structural or safety flags issued during this 2019 Biennial Inspection. Those few conditions that required immediate attention were repaired within 24 hours. Items of maintenance and repair that were performed by the maintenance personnel since the previous inspection are listed in this report.

One new crack in web of Floorbeam FB23-0 (Top flange coping at Girder G2), and new cracks in five End Diaphragms (D3 at PP U70, D4 at PP U70, D4 at PPU81, D1 at PP U128, D4 at PP U128) were found in 2019. All of those cracks will require drilling of arresting holes. Top and bottom flange copings of End Diaphragms and Floorbeams, especially those with rough cuts where new fatigue cracks may appear, should be monitored in the future. Similarly, the tack welds should be monitored for the same reason.

The deterioration of the thin layer of asphalt wearing surface has led to deterioration of the exodermic deck, the areas of underdeck steel corrosion have grown in size and locations since the previous inspection. In the near future, the asphalt is to be removed, the concrete of the deck is to be repaired as needed and thoroughly sealed prior to placing of the new asphalt. The underside of deck should be cleaned and painted afterwards.

The deterioration of the expansion joints has led to corrosion of steel members and concrete deck located below the faulty joints. Expansion joints were in the process of rehabilitation during this 2019 inspection.

The inspection findings are discussed in this report (which includes the NYSDOT BDIS report), as well as the recommendations for maintenance and repairs. Most of the recommendations are minor in nature, and would appear to be within the capabilities of the bridge maintenance personnel.

This report was prepared based on our inspection findings and in accordance with the requirements of the December 2012 FHWA Bridge Inspection Reference Manual (BIRM) and March 2017 NYSDOT Bridge Inspection Manual

If you have any questions, please do not hesitate to contact me at (646) 879-1676.

Sincerely,
ATANE



Mohammed Eldorr, P.E.
Assistant Vice President



COLORADO | ILLINOIS | LOUISIANA | MISSOURI | NEW JERSEY | NEW YORK | NORTH CAROLINA | PENNSYLVANIA | TEXAS | WASHINGTON, DC | WEST VIRGINIA

3/10/2020

Ms. Tara Sullivan, Executive Director
New York State Bridge Authority
P. O. Box 1010
Highland, NY 12528-0010

RE: PN3672.19
THE FRANKLIN D. ROOSEVELT MID-HUDSON BRIDGE
2019 Maintenance Inspection

Dear Ms. Sullivan:

We are transmitting, herewith, 7 copies of our report covering the 2019 Maintenance Inspection of the Mid-Hudson Bridge. The inspection was performed in accordance with our Engineering Services Agreement BA 2017-OE-102-ES.

The main suspension bridge and the associated east approach structures remain in satisfactory-to-good condition. Maintenance and/or repair items that have been addressed since the 2018 Maintenance Inspection are listed at the beginning of the report.

The majority of deficiencies present in various bridge elements are minor in nature and can be addressed by Authority maintenance forces; however, there are some deficiencies that will need to be addressed by contract forces. Typical findings include isolated areas with minor-to-moderate corrosion, fastener deficiencies and deficiencies associated with the wearing surface, deck joints, light standards, signage, fencing, guide railings, roadway drainage and paint protection. Items of concern include the restricted bearing movement of the roadway stringers at the east and west towers; significant deterioration of the deck and metalwork at the east joint of the Rinaldi boulevard Structure; isolated locations with significant deterioration of sidewalk stringers and cantilever sidewalk brackets; and light standards with significant impact damage or cracking.

Items of the bridge that should continue to receive attention include annual rinsing and removal of dirt and debris found along the lower portions of the stiffening truss metalwork and within the splash zones, and drainage troughs of the finger joints. Other maintenance items include, but are not limited to, greasing the stringer and truss expansion bearings, replacing deficient fasteners, cleaning and painting isolated areas of paint failures and addressing noted deficiencies throughout the approach roadways, light standards and electrical components.





In general, the condition of the paint system is in satisfactory to good condition with isolated areas of paint failures that are generally found along the "splash zone" of the roadway along the length of the stiffening truss, and below the joints of the east approach structures. These areas typically exhibit minor to moderate section loss, advanced crevice corrosion and isolated corrosion holes.

The 2019 Maintenance Inspection findings are discussed in the report, and recommendations for maintenance and repairs are listed at the end of the text.

This report is based upon examinations and studies, at the times and in the manner herein discussed. The nature of the undertaking does not permit assurance that there may not be latent or hidden defects in the condition of the members, lack of uniformity in the quality of the materials used or detrimental occurrences subsequent to the inspection. No responsibility can, therefore, be assumed for lack of integrity of the structure from unpredictable causes or those beyond the scope of the inspection and report.

Should any questions arise concerning the inspection or the contents of this report, please do not hesitate to contact us.

Very truly yours,

Quentin P. Johnson, P. E.,
Vice President

QPJ:sed

encl.



March 6, 2020

Ms. Tara Sullivan
Acting Executive Director
New York State Bridge Authority
Headquarters Office: Mid-Hudson Bridge Plaza
P.O. Box 1010
Highland, NY 12528-0010

Re: Biennial Bridge Inspection Services, Contract BA-2017-RE-103-ES – Newburgh Beacon Bridge – North Span – 2019 Biennial Inspection

Dear Ms. Sullivan:

We are pleased to submit herewith seven (7) copies of the final 2019 New York State Bridge Authority Biennial Inspection Report for the above referenced project in accordance with our Agreement No. BA-2017-RE-103-ES. The report presents a general overview along with detailed findings, conclusions and repair recommendations for the Newburgh Beacon Bridge – North Span, the Balmville Road bridge, the Route 9W Overpass structure and the main bridge Route 84 westbound approach roadways to/from the main bridge. The inspection was conducted in accordance with the policies and latest requirements of the New York State Department of Transportation (NYSDOT) and the guidelines of the National Bridge Inspection Standards (NBIS) of the Federal Highway Administration (FHWA).

The main bridge and the Balmville Road structure remain in overall good condition. The I-84 Overpass over Route 9W was undergoing replacement during this inspection. Since the previous 2018 Maintenance Inspection, several repairs and maintenance items have been performed by Authority maintenance and/or contract forces.

The paint system throughout the length of the main bridge was replaced over a period of five years and was completed in the fall of 2014. The paint system throughout the girder spans, deck truss spans and the through truss spans remains in overall good condition with the exception of localized areas of paint failure and active corrosion typically near joints and/or at below splash zones of the through truss spans. During this inspection, the main bridge catwalk lowering project under Contract BA-2016-RE-109-CM was near completion. In addition, this contract also included installment of a new conduit tray along the north side of the catwalk.

The item of major concern for the main bridge remains to be the ongoing deterioration of the concrete deck. During this inspection, it was noted that there continues to be an increase in the number of repaired areas throughout the top of the deck which exhibit significant deterioration. The riding quality along the length of the bridge is severely affected due to numerous areas of deteriorated asphalt and concrete repair patches. The underside of the deck typically exhibits transverse cracking with efflorescence, spalling, mapcracking and signs of leakage through deck. Since the 2018 Inspection, there have been numerous locations that have required shoring to be installed under Contract BA-2016-RE-109-CM in preparation for full depth deck repairs. Within the deck truss spans, the concrete deck exhibits numerous areas that pump up to 1/8" vertically under live loading. It is recommended that the concrete deck continue to be closely monitored for any additional repairs required until a deck replacement is completed.

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The following items should be addressed and/or continue to receive attention: repair ongoing and widespread deterioration of bituminous wearing surface at top of deck and concrete deck repairs, monitor areas of minor to moderate section loss in through truss members and repair localized areas of moderate to significant section loss of through truss members as listed in Table 1 of Appendix B, repair/replace deficient fasteners, monitor the displaced fascia stone in top course of Pier 12 plinth for any further movement, monitor the fatigue cracks in the floorbeam web copes at Pier W1 and the cracks in the stringer end diaphragm copes for any signs of further propagation/distress, clean and paint all truss members that contain active corrosion and delaminated rust especially at the "splash zone" locations, repair/replace the steel parapets, remove cracked and delaminated portions of the concrete transverse haunches and addressing deficiencies related to the electrical systems, lighting standards and overhead sign and signal structures.

The Balmville Road structure remains in overall good condition with isolated areas in poor condition. The abutment deck joints exhibit areas of spalled joint headers with deteriorated joint seals and gouging of the steel armor angle at several locations.

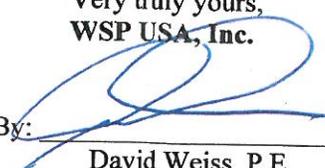
The Route 9W Overpass Structure is currently under stage construction, where Stages 1 & 2 have been completed under Contract: BA2016-RE-102-CM, where Girders G6 - G12 carry traffic on the south half of the bridge and the north half of the bridge was not in place during the time of the 2019 inspection. The south half of the west abutment, Piers 1 and 2, and the east abutment are currently under rehabilitation. The deck and superstructure at the south half are in like new condition.

The 2019 Biennial Inspection findings are discussed in the report, and recommendations for maintenance and repairs are listed at the end of the text.

This report is based upon examinations and studies at the times and in the manner herein discussed. The nature of the undertaking does not permit assurance that there may not be latent or hidden defects in the condition of the members, lack of uniformity in the quality of the materials used or detrimental occurrences subsequent to the inspection. No responsibility can, therefore, be assumed for lack of integrity of the structure from unpredictable causes or those beyond the scope of the inspection and report.

Should you have any questions or comments, please feel free to contact us.

Very truly yours,
WSP USA, Inc.

By: 

David Weiss, P.E.
Principal

Encl.
cc: File



CHARLESTON WV | EDWARDSVILLE IL | MECHANICSBURG PA | MOORESTOWN NJ | NEW ORLEANS LA
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October 18, 2019

Ms. Tara Sullivan, Acting Executive Director
New York State Bridge Authority
P. O. Box 1010
Highland, New York 12528-0010

RE: PN4043
THE HAMILTON FISH NEWBURGH-BEACON BRIDGE (SOUTH SPAN)
2019 Biennial Inspection

Dear Ms. Sullivan:

Transmitted herewith are 8 copies of our report covering the 2019 Biennial Inspection of the Newburgh-Beacon Bridge (South Span) and the associated portions of the approach roadways. The inspection was performed in accordance with our Engineering Services Agreement BA 2017-RE-103-ES.

The bridge remains in overall satisfactory condition. Items of maintenance and repair that have been performed by Authority maintenance forces and/or by contract forces since the 2018 Maintenance Inspection are listed in the report.

Replacement of the structural deck was completed prior to the 2016 Maintenance Inspection, and the new deck, parapets and sign structures remain in overall good condition with minor deficiencies noted. Prior to the 2019 Biennial Inspection, a contract was completed for the cleaning and painting of the underside of the pedestrian walkways within the girder spans, the stringers and floorbeams below the previous stringer relief joint locations, and the interior of numerous bottom chord truss joints.

The primary concern remaining for the bridge is the numerous locations exhibiting abnormal corrosion of the weathering steel of the superstructure metalwork. Moderate to severe section loss and crevice corrosion is a concern throughout the bridge where moisture leakage and accumulations of debris do not allow the weathering steel to receive normal drying cycles. Locations typically occur below the existing expansion joints, and bottom chord truss joints below locations with scupper downspouts and areas where moisture can enter the box truss chord members. The most significant deterioration was found at the sway bracing of Panel Point 0; however, this area is currently scheduled to be repaired under Contract BA-2019-RE-103-CM.

The previously noted fatigue cracks found in the crossframe connection angles in the girder spans (4 locations) remain largely unchanged from the previous inspection. The more significant fatigue cracks (3 out of 6 locations) found in the webs of the stringers in the Through Truss were recently repaired by drilling arrest holes and compression sleeves installed to prevent further cracking. The remaining locations exhibit minor cracking that should be monitored during future inspections.

The pedestrian walkway support metalwork and the walkway tread plates throughout the length of the main structure continue to exhibit numerous locations with section loss and/or corrosion holes in the



Ms. Tara Sullivan

October 18, 2019

tread plates and deck ribs. During the 2019 Biennial Inspection, the Authority's maintenance crew was actively repairing a few locations. Temporary shoring has been installed at numerous locations with severe corrosion of the deck ribs. The Authority currently has issued Contract BA-2019-RE-103-CM to address these areas.

The pedestrian walkway joist connection plates in the girder and deck truss spans continue to exhibit small cracks primarily at the top of the inboard stringer; however, the majority of the locations have had arrest holes and compression sleeves installed to prevent further cracking. The number of crack locations found in the connection plates has stabilized with no significant changes noted since the 2018 Maintenance Inspection. Although the cracked plates are not an immediate concern at this time, the Authority should continue a program to monitor and drill arrest holes and install compression sleeves at all of the remaining locations noted with cracks. These cracks should continue to be monitored for any significant changes in crack length during each biennial inspection.

The paint system on the painted portions of the deck truss and through truss metalwork continues to exhibit deterioration. Areas with paint failures are becoming larger and more widespread. The areas noted throughout the bridge metalwork exhibiting abnormal corrosion of the unpainted weathering steel should be cleaned and painted. It appears that many of the interiors of the bottom chord box members have been cleaned and painted between the sealing diaphragms below each truss joint; however, it is recommended that the Authority develop an inspection plan for the removal of the newly installed perforations covers to allow access to the interiors of the bottom chord members.

Other items of the bridge that should continue to receive attention include annual washing and removal of dirt and debris found within the bottom chord joints, truss metalwork within the splash zones, and drainage troughs of the deck joints. Other maintenance items include, but are not limited to, greasing the stringer and truss expansion bearings, replacing deficient fasteners, and addressing noted deficiencies throughout the maintenance walkway, light standards and electrical components.

The 2019 Biennial Inspection findings are discussed in the report, and recommendations for maintenance and repairs are listed at the end of the text.

This report is based upon examinations and studies at the times and in the manner herein discussed. The nature of the inspection does not permit assurance that there are not latent or hidden defects in the condition of the members, lack of uniformity in the quality of the materials used or detrimental occurrences subsequent to the inspection. No responsibility can, therefore, be assumed for lack of integrity of the structure from unpredictable causes or those beyond the scope of this inspection and report.

If there are any questions concerning the inspection or the contents of our report, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Quentin P. Johnson', is written over a faint, larger version of the signature.

Quentin P. Johnson, P. E.,
Vice President

QPJ:sed
encl.



COLORADO | ILLINOIS | LOUISIANA | MISSOURI | NEW JERSEY | NEW YORK | NORTH CAROLINA | PENNSYLVANIA | TEXAS | WASHINGTON, DC | WEST VIRGINIA

3/10/2020

Ms. Tara Sullivan, Executive Director
New York State Bridge Authority
P. O. Box 1010
Highland, NY 12528-0010

RE: PN3672.19
BEAR MOUNTAIN BRIDGE
2019 Maintenance Inspection

Dear Ms. Sullivan:

Transmitted, herewith, are 6 copies of the 2019 Maintenance Inspection of the Bear Mountain Bridge. The inspection was performed in accordance with our Engineering Services Agreement BA 2017-OE-102-ES and includes inspection findings of the William J. Moreau Popolopen Creek Footbridge.

The Bear Mountain Bridge remains in good structural condition with numerous components requiring attention and maintenance. The maintenance and repair items performed by the bridge maintenance personnel since the 2018 Biennial Inspection are listed in the report.

The majority of deficiencies present in various bridge elements are minor in nature and can be addressed by Authority maintenance forces; however, there are some deficiencies that will need to be addressed by contract forces. Typical findings include isolated areas with minor-to-moderate corrosion, fastener deficiencies and deficiencies associated with the wearing surface, deck joints, light standards, signage, fencing, guide railings, roadway drainage and paint protection. The areas of greatest concern are the continued deterioration of the deck and reinforcing steel; contact between the tower metalwork and the main span hangers; isolated areas of the floor system and superstructure components that exhibit moderate to severe levels of surface corrosion and loss of section; and the numerous locations noted with corroded and broken suspender rope wires. The areas of deterioration found throughout the deck are likely to increase, and additional areas of shoring and full depth repairs will likely be warranted in the future.

Items of the bridge that should continue to receive attention include annual rinsing of the superstructure metalwork. Other maintenance items include, but are not limited to, greasing the stringer and truss expansion bearings, replacing deficient fasteners, cleaning and painting isolated areas of paint failures and addressing noted deficiencies throughout the approach roadways, light standards and electrical components.





In general, the condition of the paint system is in satisfactory to good condition with isolated areas of paint failures that are generally found along the lower portions of the stiffening truss, below the north and south ends of the stringer relief joints, and the metalwork below the discharge tubes along the north and south edges of the deck. These areas typically exhibit minor to moderate section loss, advanced crevice corrosion and isolated corrosion holes.

The 2019 Maintenance Inspection findings are discussed in the report, and recommendations for maintenance and repairs are listed at the end of the text. A majority of the recommendations are minor in nature and would appear to be within the capabilities of the bridge maintenance personnel.

This report is based upon examinations and studies, at the times and in the manner herein discussed. The nature of the undertaking does not permit assurance that there may not be latent or hidden defects in the condition of the members, lack of uniformity in the quality of the materials used or detrimental occurrences subsequent to the inspection. No responsibility can, therefore, be assumed for lack of integrity of the structure from unpredictable causes or those beyond the scope of the inspection and report.

Should any questions arise concerning the inspection or the contents of this report, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Quentin P. Johnson".

Quentin P. Johnson, P. E.,
Vice President

QPJ:sed

encl.

**NEW YORK STATE BRIDGE AUTHORITY
General Revenue Bonds, Series 2012
Continuing Disclosure Statement
For the Year Ended December 31, 2019
Capital Improvement Program**



Bridge Authority

**New York State Bridge Authority
Capital Improvement Program
2020 - 2024
(\$ 000,000's)**

FACILITY	2019	PROGRAM YEARS				FIVE (5) YEAR TOTAL	
		2020	2021	2022	2023		2024
Rip Van Winkle Bridge	\$0.775	\$2.000	\$0.000	\$10.000	\$0.000	\$0.000	\$12.000
Kingston-Rhinecliff Bridge	\$1.800	\$5.000	\$0.000	\$6.000	\$10.000	\$20.000	\$41.000
Mid-Hudson Bridge	\$0.050	\$10.750	\$6.000	\$2.000	\$0.000	\$10.500	\$29.250
Newburgh-Beacon Bridge	\$10.600	\$6.500	\$41.500	\$36.500	\$5.750	\$0.000	\$90.250
Bear Mountain Bridge	\$0.025	\$3.000	\$0.000	\$0.500	\$10.000	\$0.000	\$13.500
Walkway over the Hudson	\$1.564	\$0.700	\$0.000	\$0.000	\$0.000	\$2.600	\$3.300
Systemwide (Engineering)	\$3.000	\$4.200	\$3.650	\$3.200	\$3.100	\$2.950	\$17.100
Systemwide (IT Dept.)	\$0.665	\$1.148	\$0.586	\$0.357	\$0.298	\$0.538	\$2.927
Systemwide (Adminstration)	\$0.040	\$0.120	\$0.070	\$0.040	\$0.040	\$0.050	\$0.320
Systemwide (Operations)	\$1.780	\$14.725	\$11.895	\$5.995	\$0.495	\$0.500	\$33.610
Program Total	\$20.299	\$48.143	\$63.701	\$64.592	\$29.683	\$37.138	\$243.257

Board Adopted Sept. 19, 2019