

# New York State Department of Transportation General Bridge Inspection Report

*Inspection Date:* July 11, 2018

## Structure Information

*BIN:* 5500100

*Feature Carried:* LINCOLN AVE CR 84

*Feature Crossed:* 907W 907W87011019

*Orientation:* 3 - EAST

*Region:* 08 - POUGHKEEPSIE

*County:* WESTCHESTER

*Political Unit:* City of MOUNT VERNON

*Approximate Year Built:* 1935

*Primary Owner:* New York State Department of Transportation

*Primary Maintenance Responsibility:* New York State Department of Transportation

*General Type Main Span:* 1 - Concrete, 07 - Frame

This Bridge is not a Ramp

*Number of Spans:* 1

## Postings

*Posted Load Matches Inventory:* Yes

*Posted Load in field:* Not Posted

*Posted Vertical Clearances Match Inventory:* Yes

*Inventory On:* Not Posted

*Inventory Under:* 10 Feet 10 Inches

## Number of Flags Issued

*Red PIA:* 0

*Red:* 0

*Yellow:* 0

*Safety PIA:* 0

## New York State Inspection Overview

*General Recommendation:* 4

## Federal NBI Ratings

*NBI Deck Condition:* N

*NBI Superstructure Condition:* 4

*NBI Substructure Condition:* 6

*NBI Channel Condition:* N

*NBI Culvert Condition:* N

## Action Items

Non-Structural Condition Observations noted: YES

Vulnerability Reviews Recommended: NO

Diving Inspection Requested: NO

Further Investigation Requested: NO

## Inspector & Reviewer Signature Information

*Inspection Signature:* Mark E. Fabend, P.E. 085884-1

*Date:* September 06, 2018

*Review Signature:* Shahin Ariaey-Nejad, P.E. 076130-1

*Date:* September 07, 2018

*Processed by :*

*Date:*

Report Printed: February 14, 2019 8:44:48 AM

***Additional Information***

**Overloads Observed**

No overload vehicles observed during this inspection.

**Notes to Next Inspector**

The BIN plates are located on the begin abutment stem at the begin left and the end abutment stem at the end right. No contracted access or traffic control are required to inspect this bridge.

**Improvements Observed**

2018: None

**Pedestrian Fence Height**

5'

**Snow Fence**

None

**Bin Plate Condition**

OK

**Scour Critical Rating**

N - Bridge not over waterway.

**Field Notes**

**Staff Present During Inspection**

Name	Title	Organization
Josh Villafane	ATL Trainee	WSA Group, P.E. - P.C.
Michael Riozzi	ATL	WSA Group, P.E. - P.C.

Access Type
13 - Walking

\* For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

**Detailed Time & Weather Conditions**

Field Date	Arrival	Departure	Temp (F)	Weather Conditions
07/11/2018	08:00 AM	09:50 AM	75	Clear

Inspection Times (hours)	
Time required for travel, inspection and report preparation	5
Lane closure usage	None
Railroad flagging time	No

**Element Quantities**

**Element Assessment Summary Table**

Element	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
38 - Reinforced Concrete Slab	4830	ft <sup>2</sup>		3220	1610		0
215 - Reinforced Concrete Abutment	148	ft		140	8		0
220 - Reinforced Concrete Pile Cap/Footing	224	ft					224
334 - Masonry Bridge Railing	138	ft		111	27		0
510 - Wearing Surfaces	3174	ft <sup>2</sup>		3174			0
800 - Erosion or Scour	224	ft	224				0
853 - Wingwall	68	ft		68			0
860 - Headwall	138	ft	103	35			0

**Element Assessment by Span**

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
<i>Span Number : 1</i>							
BA215 - Reinforced Concrete Abutment	74	ft		70	4		0
BA220 - Reinforced Concrete Pile Cap/Footing	78	ft					78
BA800 - Erosion or Scour	78	ft	78				0
BW220 - Reinforced Concrete Pile Cap/Footing	42	ft					42
BW800 - Erosion or Scour	42	ft	42				0
BW853 - Wingwall	42	ft		42			0
EA215 - Reinforced Concrete Abutment	74	ft		70	4		0
EA220 - Reinforced Concrete Pile Cap/Footing	78	ft					78
EA800 - Erosion or Scour	78	ft	78				0
EW220 - Reinforced Concrete Pile Cap/Footing	26	ft					26
EW800 - Erosion or Scour	26	ft	26				0
EW853 - Wingwall	26	ft		26			0
38 - Reinforced Concrete Slab	4830	ft <sup>2</sup>		3220	1610		0
510 - Wearing Surfaces	3174	ft <sup>2</sup>		3174			0
334 - Masonry Bridge Railing	138	ft		111	27		0
860 - Headwall	138	ft	103	35			0

\*\* Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

**Inspection Notes**

**General Comments**

The bridge is posted for 10'-10" vertical clearance. The NBI Deck Element (Item 58) is rated 'N' due to the fill between the roadway elements and the reinforced concrete deck.

**Element Condition Notes**

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 38 - Reinforced Concrete Slab</b>	4830	0	3220	1610	0	0
<p><b>Common</b>  <i>Referenced Photo(s):</i> 1, 2  <i>Referenced Sketch(es):</i> 2</p> <p>The underside of the concrete arch is in poor condition with several spalls throughout. Approx. 1/3rd of the area is spalled up to 5" deep with exposed rebars (up to 20% section losses.) Refer to the deck sketch for specific spall sizes and locations. Due to the spalling, 1591 SF of the slab rates CS-3. The rest of the slab is in fair condition with minor deterioration and several scuff marks from over-height vehicles (bridge is posted for 10'-10" vertical clearance) and rates CS-2.</p>						
<b>Span 1: BA215 - Reinforced Concrete Abutment</b>	74	0	70	4	0	0
<p><b>Common</b>  <i>Referenced Photo(s):</i> 3  <i>Referenced Sketch(es):</i> None</p> <p>There are 4 spalls at the begin right with exposed rebars (&lt;10% section losses.) Three of the spalls are 2 ft high by 6" wide by up to 1-1/2" deep and the fourth spall is 5 ft high by up to 8" wide by up to 1-1/2" deep. As a result, 4 LF of the begin abutment stem rates CS-3. The rest of the begin abutment stem is in fair condition with minor deterioration and rates CS-2.</p>						
<b>Span 1: EA215 - Reinforced Concrete Abutment</b>	74	0	70	4	0	0
<p><b>Common</b>  <i>Referenced Photo(s):</i> 4  <i>Referenced Sketch(es):</i> None</p> <p>There is a 3 ft high by 2 ft wide by up to 1-1/2" deep spall with adjacent delaminated concrete near the end right. There is also a 2 ft diameter by up to 1-1/2" deep spall near mid length of the stem. There is no exposed rebar in either spall and 4 LF of the end abutment stem rates CS-3. The rest of the end abutment stem is in fair condition with minor deterioration and rates CS-2.</p>						
<b>Span 1: 334 - Masonry Bridge Railing</b>	138	0	111	27	0	0
<p><b>Common</b>  <i>Referenced Photo(s):</i> 5  <i>Referenced Sketch(es):</i> None</p> <p>There are several locations along both masonry rails where the stone are cracked or missing. There are 5 locations along the left rail where the stone is missing and rates CS-3 for 22 LF. There is 1 location along the right rail near midspan where the stone is cracked and rates CS-3 for 5 LF. The rest of the stone rail is in fair condition with minor deterioration of the mortar joints and rates CS-2.</p>						

**Non-Structural Condition Observations**

Category: OTHER -Sidewalk on Bridge    Quantity: 372    Unit: sqft

Referenced Element(s): NONE

Referenced Photo(s): 6

Referenced Sketch(es): NONE

Approx. 50% of the left sidewalk is spalled or scaled up to 1" deep with isolated areas of exposed reinforcing mesh (negligible section losses.) Approx. 10% of the right sidewalk is spalled or scaled up to 1" deep with no exposed reinforcing mesh. Due to these conditions, 372 SF of the sidewalk is affected. All of the spalled areas are tapered on their edges and do not pose a tripping hazard. The rest of the sidewalk is in fair condition with minor deterioration.

Category: OTHER -Curb on Bridge    Quantity: 83    Unit: ft

Referenced Element(s): NONE

Referenced Photo(s): 6,7

Referenced Sketch(es): NONE

The entire left curb is spalled full height by full width. (Refer to Photo 6) There is a 6 ft long section near midspan of the right curb that is spalled full height by full width. There is also a 12 ft long by full width by up to 3" high area of spalled curb near the end. (Refer to Photo 7) Due to these conditions, 83 LF of the curb is affected. The rest of the curb is in fair condition with minor deterioration.

# New York State Department of Transportation General Bridge Inspection Report

*Inspection Date:* July 19, 2017

## Structure Information

*BIN:* 3348300

*Feature Carried:* EAST LINCOLN AVE

*Feature Crossed:* HUTCHINSON RIVER

*Orientation:* 3 - EAST

*Region:* 08 - POUGHKEEPSIE

*County:* WESTCHESTER

*Political Unit:* City of MOUNT VERNON

*Approximate Year Built:* 1931

*Primary Owner:* 30 - County

*Primary Maintenance Responsibility:* 30 - County

*General Type Main Span:* 1 - Concrete, 11 - Arch - Deck

This Bridge is not a Ramp

*Number of Spans:* 1

## Postings

*Inventoried Posted Load:* Not Posted

*Posted Load Matches Inventory:* Yes

*Inventoried Vertical Clearances:*

*On:* Not Posted

*Under:* Not Posted

## Number of Flags Issued

*Red PIA:* 0

*Red:* 0

*Yellow:* 0

*Safety PIA:* 0

## New York State Inspection Overview

*General Recommendation:* 5

## Federal NBI Ratings

*NBI Deck Condition:* N

*NBI Superstructure Condition:* 6

*NBI Substructure Condition:* 6

*NBI Channel Condition:* 5

*NBI Culvert Condition:* N

## Action Items

Non-Structural Condition Observations noted: NO

Vulnerability Reviews Recommended: Hydraulic

Diving Inspection Requested: NO

Further Investigation Requested: NO

## Inspector & Reviewer Signature Information

*Inspection Signature:* Paul Amidon, P.E. 058236-1

*Date:* August 06, 2017

*Review Signature:* Robert Seeley, P.E. 076148-1

*Date:* August 07, 2017

*Processed by:* Mark Struzinsky, P.E. 081130-1

*Date:* August 14, 2017

Report Printed: October 10, 2017 11:34:09 AM

***Additional Information***

**Overloads Observed**

No overload vehicles observed during this inspection.

**Notes to Next Inspector**

None

**Improvements Observed**

None

**Pedestrian Fence Height**

None

**Snow Fence**

None

**Bin Plate Condition**

OK

**Scour Critical Rating**

8 - Foundation stable for conditions; scour above footing

**Field Notes**

**Staff Present During Inspection**

Name	Title	Organization
Nicholas Mendola	ATL	WSP
Paul W. Schofield	ATL	WSP

General Equipment Required for Inspection*
Access Type
13 - Walking

\* For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

**Detailed Time & Weather Conditions**

Field Date	Arrival	Departure	Temp (F)	Weather Conditions
07/19/2017	08:50 AM	11:30 AM	80	Sunny

Inspection Times (hours)	
Time required for travel, inspection and report preparation	10
Lane closure usage	
Railroad flagging time	

**Element Quantities**

**Element Assessment Summary Table**

Element	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
144 - Reinforced Concrete Arch	36	ft			36		0
215 - Reinforced Concrete Abutment	140	ft		130	10		0
220 - Reinforced Concrete Pile/Cap Footing	204	ft					204
334 - Masonry Bridge Railing	70	ft	70				0
800 - Erosion or Scour	204	ft	204				0
801 - Stream Hydraulics	1	each			1		0
810 - Sidewalk	806	ft <sup>2</sup>	806				0
811 - Curb	70	ft	70				0
853 - Wingwall	64	ft	64				0

**Element Assessment by Span**

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
<i>Span Number : 1</i>							
BA215 - Reinforced Concrete Abutment	70	ft		70			0
BA220 - Reinforced Concrete Pile/Cap Footing	70	ft					70
BA800 - Erosion or Scour	70	ft	70				0
BW220 - Reinforced Concrete Pile/Cap Footing	32	ft					32
BW800 - Erosion or Scour	32	ft	32				0
BW853 - Wingwall	32	ft	32				0
EA215 - Reinforced Concrete Abutment	70	ft		60	10		0
EA220 - Reinforced Concrete Pile/Cap Footing	70	ft					70
EA800 - Erosion or Scour	70	ft	70				0
EW220 - Reinforced Concrete Pile/Cap Footing	32	ft					32
EW800 - Erosion or Scour	32	ft	32				0
EW853 - Wingwall	32	ft	32				0
144 - Reinforced Concrete Arch	36	ft			36		0
334 - Masonry Bridge Railing	70	ft	70				0
801 - Stream Hydraulics	1	each			1		0
810 - Sidewalk	806	ft <sup>2</sup>	806				0
811 - Curb	70	ft	70				0

\*\* Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

**Inspection Notes**

**General Comments**

None.

**Element Condition Notes**

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 144 - Reinforced Concrete Arch</b>	36	0	0	36	0	0

**Condition State 3 Note**

**Referenced Photo(s):** 1, 2, 3, 4

**Referenced Sketch(es):** None

The arch was poured in 9 sections.  
 There are short random cracks with efflorescence in section 1  
 There are 2 or 3 (1/16" wide) transverse crack from section 2 to section 8 at the crown with efflorescence.  
 In section 8, there is a full length longitudinal crack open 1/8" with heavy efflorescence.  
 All joints between sections have been patched in the past. The joints between sections 1 and 2 and 2 and 3 have had the patch material fail exposing spalled concrete for 10 length x 6 inches wide and up to 3 inches deep.  
 The rest of the concrete appears in fair condition.

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: EA215 - Reinforced Concrete Abutment</b>	70	0	60	10	0	0

**Condition State 3 Note**

**Referenced Photo(s):** 5

**Referenced Sketch(es):** None

The end stem has spalled for a 10 foot length x 1 foot high and up to 3 inches deep below arch section #2. The rest is in better condition.

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 801 - Stream Hydraulics</b>	1	0	0	1	0	0

**Condition State 3 Note**

**Referenced Photo(s):** 6, 7, 8, 9

**Referenced Sketch(es):** None

**Waterway Opening (CS3):**  
 The upstream and downstream channel has reduced the stream x-sectional area by earth, stones and vegetation encroachment.  
 In the stream channel underneath the bridge, there are several large stones eroded from the stream bank and lodged in the stream channel. Also, there is a large area of channel siltation up to 3 fet deep adjacent to the begin abutment. As a result, the stream cross-sectional area under the bridge is reduced by 20%.

**Bank Protection (CS3):**  
 All four quadrants have large rip-rap bank protection. At end right, the stones are encroaching into the channel. No Changes noted. The other 3 quadrants are in better condition.

**Stream Alignment (CS2):** No significant problems noted.

**Stream Erosion (CS2):** No significant problems noted.

# New York State Department of Transportation General Bridge Inspection Report

*Inspection Date:* April 25, 2018

## Structure Information

*BIN:* 5523450

*Feature Carried:* 1ST AVE RAMP -HRP

*Feature Crossed:* HUTCHINSON RIVER

*Orientation:* 8 - NORTHWEST

*Region:* 08 - POUGHKEEPSIE

*County:* WESTCHESTER

*Political Unit:* Village of PELHAM

*Approximate Year Built:* 1987

*Primary Owner:* New York State Department of Transportation

*Primary Maintenance Responsibility:* New York State Department of Transportation

*General Type Main Span:* 5 - Prestressed Concrete, 05 - Box Beam or Box Girders - Multiple

This Bridge is not a Ramp

*Number of Spans:* 1

## Postings

*Inventoried Posted Load:* Not Posted

*Posted Load Matches Inventory:* N/A

*Inventoried Vertical Clearances:*

*On:* Not Posted

*Under:* Not Posted

## Number of Flags Issued

*Red PIA:* 0

*Red:* 0

*Yellow:* 0

*Safety PIA:* 0

## New York State Inspection Overview

*General Recommendation:* 5

## Federal NBI Ratings

*NBI Deck Condition:* 6

*NBI Superstructure Condition:* 6

*NBI Substructure Condition:* 7

*NBI Channel Condition:* 6

*NBI Culvert Condition:* N

## Action Items

Non-Structural Condition Observations noted: NO

Vulnerability Reviews Recommended: NO

Diving Inspection Requested: NO

Further Investigation Requested: NO

## Inspector & Reviewer Signature Information

*Inspection Signature:* Daniel Hadden, P.E. 092521

*Date:* June 20, 2018

*Review Signature:* Shahin Ariaey-Nejad, P.E. 076130-1

*Date:* June 21, 2018

*Processed by :*

Report Printed: June 28, 2018 7:50:02 AM

***Additional Information***

**Overloads Observed**

No overload vehicles observed during this inspection.

**Notes to Next Inspector**

2018 Access: Walking  
The BIN plate is at the begin abutment on the left side.

**Improvements Observed**

2018: None.

**Pedestrian Fence Height**

None

**Snow Fence**

None

**Bin Plate Condition**

OK

**Scour Critical Rating**

8 - Foundation stable for conditions; scour above footing

**Field Notes**

**Staff Present During Inspection**

Name	Title	Organization
Charles Carway	ATL	JUNMA

**General Equipment Required for Inspection\***

Access Type
13 - Walking

\* For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

**Detailed Time & Weather Conditions**

Field Date	Arrival	Departure	Temp (F)	Weather Conditions
04/25/2018	09:00 AM	11:00 AM	53	Rain

**Inspection Times (hours)**

Time required for travel, inspection and report preparation	9
Lane closure usage	None
Railroad flagging time	No

**Element Quantities**

**Element Assessment Summary Table**

Element	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
15 - Prestressed Concrete Top Flange	962	ft <sup>2</sup>		873	89		0
104 - Prestressed Concrete Closed Web/Box Girder	260	ft	211	49			0
215 - Reinforced Concrete Abutment	54	ft	53	1			0
220 - Reinforced Concrete Pile/Cap Footing	94	ft					94
310 - Elastomeric Bearing	14	each	14				0
321 - Reinforced Concrete Approach Slab	920	ft <sup>2</sup>		920			0
330 - Metal Bridge Railing	74	ft	74				0
510 - Wearing Surfaces	852	ft <sup>2</sup>		772	80		0
515 - Steel Protective Coating	277	ft <sup>2</sup>	249	28			0
800 - Erosion or Scour	94	ft	94				0
801 - Stream Hydraulics	1	each			1		0
811 - Curb	74	ft		74			0
850 - Backwall	54	ft	54				0
851 - Abutment Pedestal	14	each	7	7			0
853 - Wingwall	40	ft	30	10			0

**Element Assessment by Span**

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
<i>Span Number : 1</i>							
BA215 - Reinforced Concrete Abutment	27	ft	26	1			0
BA220 - Reinforced Concrete Pile/Cap Footing	27	ft					27
BA310 - Elastomeric Bearing	7	each	7				0
BA321 - Reinforced Concrete Approach Slab	460	ft <sup>2</sup>		460			0
BA800 - Erosion or Scour	27	ft	27				0
BA850 - Backwall	27	ft	27				0
BA851 - Abutment Pedestal	7	each	4	3			0
BW220 - Reinforced Concrete Pile/Cap Footing	20	ft					20
BW800 - Erosion or Scour	20	ft	20				0
BW853 - Wingwall	20	ft	10	10			0
EA215 - Reinforced Concrete Abutment	27	ft	27				0
EA220 - Reinforced Concrete Pile/Cap Footing	27	ft					27
EA310 - Elastomeric Bearing	7	each	7				0
EA321 - Reinforced Concrete Approach Slab	460	ft <sup>2</sup>		460			0

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
EA800 - Erosion or Scour	27	ft	27				0
EA850 - Backwall	27	ft	27				0
EA851 - Abutment Pedestal	7	each	3	4			0
EW220 - Reinforced Concrete Pile/Cap Footing	20	ft					20
EW800 - Erosion or Scour	20	ft	20				0
EW853 - Wingwall	20	ft	20				0
15 - Prestressed Concrete Top Flange	962	ft <sup>2</sup>		873	89		0
510 - Wearing Surfaces	852	ft <sup>2</sup>		772	80		0
104 - Prestressed Concrete Closed Web/Box Girder	260	ft	211	49			0
330 - Metal Bridge Railing	74	ft	74				0
515 - Steel Protective Coating	277	ft <sup>2</sup>	249	28			0
801 - Stream Hydraulics	1	each			1		0
811 - Curb	74	ft		74			0

\*\* Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

### Inspection Notes

#### General Comments

None

### Element Condition Notes

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 15 - Prestressed Concrete Top Flange</b>	962	0	873	89	0	0
<b>Common</b>						
<b>Referenced Photo(s):</b> 1, 2, 8, 9, 10, 11						
<b>Referenced Sketch(es):</b> None						
The Prestressed Concrete Top Flange element is completely covered with a concrete wearing surface, however the following was evident:						
The concrete wearing surface has 2 longitudinal cracks open from 1/16 inch to ¼ inch. One of the cracks is along the center of the travel lane. The other crack is along the right edge of the travel lane (along the painted white line) (Photo 1). There is a 2 inch deep x 5 feet long x 10 inch wide spall near the center of the travel lane at approximately mid-span. (Photo 2)						
On the left fascia:						
At the begin left side there is a spalled area up to 2' long x full height x up to 5" deep with 2 exposed corroded reinforcement bars. (Photo 8)						
At the end left side there is a spall on the bottom 1.5' long x 4" high x 5" deep, a spall at the top 6" long x 10" wide x 7" deep and a 2' long x up to 1/8" longitudinal crack. (Photo 9)						
On the right fascia:						
At the begin right side there is a 10" long x 6" high delaminated area and at top a 3' long delaminated area. (Photo 10)						
At end right side there is a spall at the bottom 6" long x 6" wide x 3" deep spall and at the top a 1.5' long area of cracks with light efflorescence. (Photo 11)						

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 15 - Prestressed Concrete Top Flange-510 - Wearing Surfaces</b>	852	0	772	80	0	0

**Condition State 3 Note**

**Referenced Photo(s):** 1, 2, 3, 4

**Referenced Sketch(es):** None

The concrete wearing surface has 2 longitudinal cracks open from 1/16 inch to 1/4 inch. One of the cracks is along the center of the travel lane. The other crack is along the right edge of the travel lane (along the painted white line) (Photo 1). There is a 2 inch deep x 5 feet long x 10 inch wide spall near the center of the travel lane at approximately mid-span. (Photo 2) At the begin end of the deck at the center there is a 6 inch wide x 2 inch long x 1 inch deep and 4 inch wide x 2 inch long x 1 inch deep spalls. (Photo 3) At the end of the deck on the right side, the wearing surface has spalled 1 inch deep by 3 inches long by 3 feet wide. (Photo 4) The grooves in the wheel paths are worn. The ride is good unless vehicle wheels travel over the potholes.

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 104 - Prestressed Concrete Closed Web/Box Girder</b>	260	211	49	0	0	0

**Condition State 2 Note**

**Referenced Photo(s):** 5

**Referenced Sketch(es):** None

There is moderate efflorescence between beams 3 and 4. (Photo 5)

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: BA220 - Reinforced Concrete Pile/Cap Footing</b>	27	0	0	0	0	27
<b>Span 1: EA220 - Reinforced Concrete Pile/Cap Footing</b>	27	0	0	0	0	27
<b>Span 1: BW220 - Reinforced Concrete Pile/Cap Footing</b>	20	0	0	0	0	20
<b>Span 1: EW220 - Reinforced Concrete Pile/Cap Footing</b>	20	0	0	0	0	20

**Condition State 5 Note**

**Referenced Photo(s):** None

**Referenced Sketch(es):** None

The footings at the abutments and wingwalls are buried and are therefore not visible for inspection.

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 801 - Stream Hydraulics</b>	1	0	0	1	0	0

**Condition State 3 Note**

**Referenced Photo(s):** 6, 7

**Referenced Sketch(es):** 2, 3, 4

See attached Stream Hydraulics Defect History sketch.

Waterway Opening 6140/ Debris Near Bridge 6180: Along the end abutment there is a 10 foot wide silt bar that is restricting the stream flow. Previously reported debris found on bridge seat indicating inadequate waterway opening was not observed during this inspection (Photo 6)

Bank Erosion 6165: The begin left and end left stream banks are nearly vertical up to 3 feet high with exposed tree roots. (Photo 7)

# New York State Department of Transportation General Bridge Inspection Report

*Inspection Date:* May 08, 2018

## Structure Information

*BIN:* 5500099

*Feature Carried:* 907W 907W87011018

*Feature Crossed:* HUTCHINSON RIVER

*Orientation:* 1 - NORTH

*Region:* 08 - POUGHKEEPSIE

*County:* WESTCHESTER

*Political Unit:* Village of PELHAM

*Approximate Year Built:* 1926

*Primary Owner:* New York State Department of Transportation

*Primary Maintenance Responsibility:* New York State Department of Transportation

*General Type Main Span:* 1 - Concrete, 11 - Arch - Deck

This Bridge is not a Ramp

*Number of Spans:* 1

## Postings

*Inventoried Posted Load:* Not Posted

*Posted Load Matches Inventory:* Yes

*Inventoried Vertical Clearances:*

*On:* Not Posted

*Under:* Not Posted

## Number of Flags Issued

*Red PIA:* 0

*Red:* 0

*Yellow:* 0

*Safety PIA:* 0

## New York State Inspection Overview

*General Recommendation:* 5

## Federal NBI Ratings

*NBI Deck Condition:* N

*NBI Superstructure Condition:* 5

*NBI Substructure Condition:* 6

*NBI Channel Condition:* 6

*NBI Culvert Condition:* N

## Action Items

Non-Structural Condition Observations noted: NO

Vulnerability Reviews Recommended: NO

Diving Inspection Requested: NO

Further Investigation Requested: NO

## Inspector & Reviewer Signature Information

*Inspection Signature:* Shuangbi Chen, P.E. 085634-1

*Date:* July 02, 2018

*Review Signature:* Shahin Ariaey-Nejad, P.E. 076130-1

*Date:* July 02, 2018

*Processed by:* Michael Ruppe, P.E. 083037-1

*Date:* July 03, 2018

Report Printed: July 12, 2018 7:36:02 AM

***Additional Information***

**Overloads Observed**

No overload vehicles observed during this inspection.

**Notes to Next Inspector**

BIN plate is located on Right side of the Begin stem.

**Improvements Observed**

2018 - None

**Pedestrian Fence Height**

None

**Snow Fence**

None

**Bin Plate Condition**

OK

**Scour Critical Rating**

8 - Foundation stable for conditions; scour above footing

**Field Notes**

**Staff Present During Inspection**

Name	Title	Organization
Yin Fu	ATL	South Col Engineering

**General Equipment Required for Inspection\***

Access Type
13 - Walking

\* For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

**Detailed Time & Weather Conditions**

Field Date	Arrival	Departure	Temp (F)	Weather Conditions
05/08/2018	10:10 AM	11:45 AM	59	Sunny

**Inspection Times (hours)**

Time required for travel, inspection and report preparation	8
Lane closure usage	None
Railroad flagging time	No

**Element Quantities**

**Element Assessment Summary Table**

Element	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
144 - Reinforced Concrete Arch	25	ft		20	5		0
220 - Reinforced Concrete Pile/Cap Footing	309	ft					309
227 - Reinforced Concrete Pile	152	each					152
331 - Reinforced Concrete Bridge Railing	93	ft		93			0
800 - Erosion or Scour	309	ft	309				0
801 - Stream Hydraulics	1	each		1			0
853 - Wingwall	125	ft	63	62			0

**Element Assessment by Span**

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
<i>Span Number : 1</i>							
BA220 - Reinforced Concrete Pile/Cap Footing	92	ft					92
BA227 - Reinforced Concrete Pile	56	each					56
BA800 - Erosion or Scour	92	ft	92				0
BW220 - Reinforced Concrete Pile/Cap Footing	56	ft					56
BW227 - Reinforced Concrete Pile	20	each					20
BW800 - Erosion or Scour	56	ft	56				0
BW853 - Wingwall	56	ft	28	28			0
EA220 - Reinforced Concrete Pile/Cap Footing	92	ft					92
EA227 - Reinforced Concrete Pile	56	each					56
EA800 - Erosion or Scour	92	ft	92				0
EW220 - Reinforced Concrete Pile/Cap Footing	69	ft					69
EW227 - Reinforced Concrete Pile	20	each					20
EW800 - Erosion or Scour	69	ft	69				0
EW853 - Wingwall	69	ft	35	34			0
144 - Reinforced Concrete Arch	25	ft		20	5		0
331 - Reinforced Concrete Bridge Railing	93	ft		93			0
801 - Stream Hydraulics	1	each		1			0

\*\* Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

**Inspection Notes**

**General Comments**

None

**Element Condition Notes**

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
<b>Span 1: 144 - Reinforced Concrete Arch</b>	25	0	20	5	0	0
<p><b>Common</b>  <b>Referenced Photo(s):</b> 1, 2, 3, 4, 5, 6  <b>Referenced Sketch(es):</b> None</p> <p>The arch was widened in the distant past (Photo 1). The left 1/3 of the arch is newer than the right 2/3 of the arch. There is a construction joint (Photo 2) in the middle of the right 2/3 of the arch. The construction joint has cracked up to 3/16" wide x full length of the arch with spalling adjacent to the crack up to 2" deep and 2" wide.                      In the Begin half of the arch underside (Photo 3), there is a 2 square foot cracked, delaminated area, approximately 8' right of the left 1/3 (newer section), and a 1' long x 4" wide x 1.5" deep spall with exposed rebar near the construction joint in the middle of the right 2/3 of the arch. Also there are 3 full height vertical cracks up to 1/8" wide with moderate efflorescence above weep holes.                      In the End half of the arch (Photo 4), there are multiple shallow spalls up to 1' long x 3" wide, with exposed rebar above the walkway in the right 2/3 of the arch. No section loss to the exposed rebar is evident and the spall area has been painted.                      The underside of the left and right spandrel wall has heavy dripping efflorescence with stalactites (Photos 5 and 6).</p>						
<b>Span 1: 801 - Stream Hydraulics</b>	1	0	1	0	0	0
<p><b>Common</b>  <b>Referenced Photo(s):</b> 7, 8  <b>Referenced Sketch(es):</b> 4</p> <p>See Stream Hydraulics Defect History Sketch.</p>						

# New York State Department of Transportation General Large Culvert Inspection Report

*Inspection Date:* June 28, 2017

## Structure Information

*CIN:* C890715

*Feature Carried:* 907W907W87014000

*Feature Crossed:* PELHAM LAKE

*Orientation:* 8 - NORTHWEST

*Region:* 08 - POUGHKEEPSIE

*County:* WESTCHESTER

*Political Unit:* Town of PELHAM

*Approximate Year Built:* 1970

*Primary Owner:* New York State Department of Transportation

*Primary Maintenance Responsibility:* New York State Department of Transportation

*General Type Main Span:* 1 - Concrete, 01 - Slab

This Bridge is not a Ramp

*Number of Spans:* 1

## Postings

*Posted Vertical Clearance On:* Not Posted

*Bridge Load Posting:* Not Posted

*Posted Vertical Clearance Under:* Not Posted

## Number of Flags Issued

*Red PIA:* 0

*Red:* 0

*Yellow:* 0

*Safety PIA:* 0

## New York State Inspection Overview

*General Recommendation:* 4

## Action Items

Non-Structural Condition Observations noted: NO

Vulnerability Reviews Recommended: NO

Diving Inspection Requested: NO

Further Investigation Requested: NO

## Inspector & Reviewer Signature Information

*Inspection Signature:* Joseph Ferrante

*Date:* June 28, 2017

*Review Signature:* Nicholas Demos, P.E. 068529-1

*Date:* August 29, 2017

Report Printed: September 18, 2017 8:41:24 AM

***Additional Information***

**Overloads Observed**

No overload vehicles observed during this inspection.

**Notes to Next Inspector**

The culvert passes below an off ramp from the Hutchinson Pkwy Northbound just south of Lincoln Ave. The direction of orientation is west. The CIN Plate is attached to the left fascia.

**Improvements Observed**

None

**Pedestrian Fence Height**

None

**Snow Fence**

None

## Element Quantities

**Element Assessment Summary Table**

Element	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
38 - Reinforced Concrete Slab	528	ft <sup>2</sup>		503	25		0
215 - Reinforced Concrete Abutment	66	ft		66			0
330 - Metal Bridge Railing	32	ft		32			0
510 - Wearing Surfaces	400	ft <sup>2</sup>		400			0
515 - Steel Protective Coating	128	ft <sup>2</sup>		128			0
800 - Erosion or Scour	106	ft	106				0
801 - Stream Hydraulics	1	each	1				0
853 - Wingwall	40	ft	30	10			0

**Element Assessment by Span\***

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
<i>Span Number : 1</i>							
BA215 - Reinforced Concrete Abutment	33	ft		33			0
BA800 - Erosion or Scour	33	ft	33				0
BW800 - Erosion or Scour	20	ft	20				0
BW853 - Wingwall	20	ft	20				0
EA215 - Reinforced Concrete Abutment	33	ft		33			0
EA800 - Erosion or Scour	33	ft	33				0
EW800 - Erosion or Scour	20	ft	20				0
EW853 - Wingwall	20	ft	10	10			0
38 - Reinforced Concrete Slab	528	ft <sup>2</sup>		503	25		0
<i>510 - Wearing Surfaces</i>	400	ft <sup>2</sup>		400			0
330 - Metal Bridge Railing	32	ft		32			0
<i>515 - Steel Protective Coating</i>	128	ft <sup>2</sup>		128			0
801 - Stream Hydraulics	1	each	1				0

\*\* Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

## Inspection Notes

### General Comments

The structure is a reinforced concrete slab with a 16 ft span and an out to out width of 33 ft.  
 Depth of cover: 0 ft

## Element Condition Notes

<b>Span 1: 38 - Reinforced Concrete Slab</b>	<b>Condition State 3 Note</b>
<i>Referenced Photo(s):</i> 2, 3 <i>Referenced Sketch(es):</i> None	
The following defects are at the slab underside. All spalls have exposed reinforcement:  At 5 ft from the right side, there is a 2 SF spall up to 2" deep along the end abutment. At 12 ft from the right side, there is a 1/2" wide full span crack with surrounding spalling up to 9" wide and 2.5" deep and an adjacent 2 SF delaminated area. At 14 ft from the right side, there is a 4 SF spall up to 2.5" deep with and adjacent 4 SF delaminated area. At 20 ft from the right side, there is a 2 SF spall up to 2" deep along the end abutment.	
<b>Span 1: BA215 - Reinforced Concrete Abutment</b>	<b>Condition State 2 Note</b>
<i>Referenced Photo(s):</i> 4 <i>Referenced Sketch(es):</i> None	
The abutments have some fine cracking with efflorescence.	
<b>Span 1: BA800 - Erosion or Scour</b>	<b>Condition State 1 Note</b>
<i>Referenced Photo(s):</i> 5 <i>Referenced Sketch(es):</i> None	
The stream channel and embankments are well protected by large stones and rip rap.	
<b>Span 1: 801 - Stream Hydraulics</b>	<b>Condition State 1 Note</b>
<i>Referenced Photo(s):</i> 1, 5 <i>Referenced Sketch(es):</i> None	
The flow is straight through the culvert with no significant obstruction.	
<b>Span 1: EW853 - Wingwall</b>	<b>Condition State 2 Note</b>
<i>Referenced Photo(s):</i> 6 <i>Referenced Sketch(es):</i> None	
The end right wingwall has areas of deteriorated mortar pointing.	

**Field Notes**

**Staff Present During Inspection**

Name	Title	Organization
D. Sotomayor	Assistant CI	KSE
J. Ferrante	Senior CI	KSE

**General Equipment Required for Inspection\***

Access Type
13 - Walking

\* For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

**Detailed Time & Weather Conditions**

Field Date	Arrival	Departure	Temp (F)	Weather Conditions
06/28/2017	10:45 AM	02:00 PM	74	Sunny

**Inspection Times (hours)**

Time required for travel, inspection and report preparation	4.5
Lane closure usage	
Railroad flagging time	