

# New York State Department of Transportation General Bridge Inspection Report

**Inspection Date:** June 14, 2016

## Structure Information

**BIN:** 5510090

**Feature Carried:** EXIT 35 RAMP

**Feature Crossed:** 90IX

**Orientation:** 1 - NORTH

**Region:** 03 - SYRACUSE

**County:** ONONDAGA

**Political Unit:** Town of DEWITT

**Approximate Year Built:** 1954

**Primary Owner:** 2L - NYS Thruway Authority

**Primary Maintenance Responsibility:** 2L - NYS Thruway Authority

**General Type Main Span:** 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

**Number of Spans:** 4

## 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

## Federal NBI Ratings

**NBI Deck Condition:** 5

**NBI Channel Condition:** N

**NBI Superstructure Condition:** 5

**NBI Culvert Condition:** N

**NBI Substructure Condition:** 4

## Action Items

**Non-Structural Condition Observations noted:** NO

**Vulnerability Reviews Recommended:** Steel

**Diving Inspection Requested:** NO

**Further Investigation Requested:** NO

## Inspector & Reviewer Signature Information

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

**Date:** August 04, 2016

**Review Signature:** Andre Bigos, P.E. 51640

**Date:** August 11, 2016

Report Printed: January 25, 2017 2:26:42

### ***Special Emphasis Inspection***

Special Emphasis Detail	"Other" Special Emphasis Detail Description	Hands-On Insp Performed	Hands-On Inspection Note
AASHTO Category D, E, and E' welded details	Cat E' welds ends cov plates interior girders Spans 2 & 3 Cat E welds at jacking stiffeners at piers	No	Exempted 2014
Steel Web Bearing Area	Web loss > 25% G1 Span 3 Over Pier 2	Yes	All special emphasis details were inspected 100% hands-on and no defects were observed. Mark E Fabend, PE 085884 6/2/2016.
Other (Unique & unusual features)	Welded repairs to impacted G5 & G6 in Span 3	Yes	All special emphasis details were inspected 100% hands-on and no defects were observed. Mark E Fabend, PE 085884 6/2/2016.

### ***Additional Information***

#### **Overloads Observed**

No overload vehicles observed during this inspection.

#### **Notes to Next Inspector**

The BIN plate is located on the Begin Backwall in Bay 2. A scissors truck and WB driving lane and Ramp and WB passing lane closures (both provided by NYSTA) were utilized to inspect this bridge. EB lane closures were not used during this inspection.

#### **Improvements Observed**

Previous Safety Flag (No. 14-051) for deck deterioration in Bay 5 of Span 3 repaired with localized full-depth deck replacement. Repair was completed and flag was removed by NYSTA on 6/30/2014.

#### **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
12 - Reinforced Concrete Deck	8761	ft <sup>2</sup>	6251	930	1580		0
107 - Steel Open Girder/Beam	1202	ft		704	498		0
205 - Reinforced Concrete Column	9	each	5	1	3		0
215 - Reinforced Concrete Abutment	94	ft		51	43		0
220 - Reinforced Concrete Pile/Cap Footing	230	ft		94			136
227 - Reinforced Concrete Pile	40	each					40
234 - Reinforced Concrete Pier Cap	129	ft	82	15	32		0
302 - Compression Joint Seal	86	ft				86	0
313 - Fixed Bearing	24	each		24			0
316 - Other Bearing	24	each				24	0
330 - Metal Bridge Railing	611	ft		611			0
510 - Wearing Surfaces	7906	ft <sup>2</sup>	7600	306			0
515 - Steel Protective Coating	14333	ft <sup>2</sup>		10739	3594		0
800 - Scour	296	ft	42	254			0
810 - Sidewalk	285	ft <sup>2</sup>		161	124		0
811 - Curb	409	ft	409				0
830 - Secondary Members	4	each		4			0
831 - Steel Beam End	24	each			24		0
850 - Backwall	88	ft		66	22		0
851 - Abutment Pedestal	12	each		4	8		0
852 - Pier Pedestal	18	each	12	2	4		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	47	ft		17	30		0
BA220 - Reinforced Concrete Pile/Cap Footing	82	ft		47			35
BA227 - Reinforced Concrete Pile	20	each					20
BA313 - Fixed Bearing	6	each		6			0
515 - Steel Protective Coating	24	ft <sup>2</sup>		16	8		0
BA850 - Backwall	44	ft		22	22		0
BA851 - Abutment Pedestal	6	each		2	4		0
PR220 - Reinforced Concrete Pile/Cap Footing	21	ft					21

BIN: 5510090 Bridge Inspection Report  
Inspection Date: June 14, 2016

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
PR302 - Compression Joint Seal	43	ft				43	0
PR316 - Other Bearing	6	each				6	0
PR831 - Steel Beam End	6	each			6		0
12 - Reinforced Concrete Deck	1709	ft <sup>2</sup>	1099	450	160		0
107 - Steel Open Girder/Beam	229	ft		137	92		0
515 - Steel Protective Coating	1917	ft <sup>2</sup>		1725	192		0
330 - Metal Bridge Railing	119	ft		119			0
515 - Steel Protective Coating	751	ft <sup>2</sup>		375	376		0
810 - Sidewalk	56	ft <sup>2</sup>		28	28		0
<b>Span Number : 2</b>							
PR205 - Reinforced Concrete Column	3	each			3		0
PR220 - Reinforced Concrete Pile/Cap Footing	24	ft					24
PR234 - Reinforced Concrete Pier Cap	43	ft		11	32		0
PR316 - Other Bearing	6	each				6	0
PR831 - Steel Beam End	6	each			6		0
PR852 - Pier Pedestal	6	each		2	4		0
12 - Reinforced Concrete Deck	2526	ft <sup>2</sup>	2126		400		0
107 - Steel Open Girder/Beam	352	ft		202	150		0
515 - Steel Protective Coating	3080	ft <sup>2</sup>		2460	620		0
330 - Metal Bridge Railing	176	ft		176			0
515 - Steel Protective Coating	1093	ft <sup>2</sup>		550	543		0
810 - Sidewalk	82	ft <sup>2</sup>		41	41		0
<b>Span Number : 3</b>							
PR220 - Reinforced Concrete Pile/Cap Footing	21	ft					21
PR302 - Compression Joint Seal	43	ft				43	0
PR316 - Other Bearing	6	each				6	0
PR831 - Steel Beam End	6	each			6		0
12 - Reinforced Concrete Deck	2827	ft <sup>2</sup>	1837	140	850		0
107 - Steel Open Girder/Beam	394	ft		230	164		0
515 - Steel Protective Coating	3448	ft <sup>2</sup>		2760	688		0
330 - Metal Bridge Railing	197	ft		197			0
515 - Steel Protective Coating	1203	ft <sup>2</sup>		600	603		0
<b>Span Number : 4</b>							
EA215 - Reinforced Concrete Abutment	47	ft		34	13		0
EA220 - Reinforced Concrete Pile/Cap Footing	82	ft		47			35
EA227 - Reinforced Concrete Pile	20	each					20
EA851 - Abutment Pedestal	6	each		2	4		0



Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
PR316 - Other Bearing	6	each				6	0
PR831 - Steel Beam End	6	each			6		0
12 - Reinforced Concrete Deck	1699	ft <sup>2</sup>	1189	340	170		0
107 - Steel Open Girder/Beam	227	ft		135	92		0
515 - Steel Protective Coating	1902	ft <sup>2</sup>		1710	192		0
330 - Metal Bridge Railing	119	ft		119			0
515 - Steel Protective Coating	747	ft <sup>2</sup>		375	372		0
810 - Sidewalk	55	ft <sup>2</sup>			55		0

\*For structures with 3 or less spans, all elements of all spans are shown.

For structures with 4 or more spans, elements (parent/child) with Condition State values of 3, 4, or 5 are shown.

\*\* 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 located at MP 278.93 along the NYS Thruway (90IX) and is oriented North.

### Element Condition Notes

**Span 1: 12 - Reinforced Concrete Deck**  
**Span 2: 12 - Reinforced Concrete Deck**  
**Span 3: 12 - Reinforced Concrete Deck**  
**Span 4: 12 - Reinforced Concrete Deck**

**Condition State 3 Note**

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

**Referenced Sketch(es):** None

The left fascia in Span 1 is spalled for approx. 80% of its length for full-height by up to 2" deep with exposed and corroded rebar. The deck is in good to fair condition in approx. 90% of Span 1, 85% of Span 2, 70% of Span 3 and 90% of Span 4 with areas of mapcracking with light efflorescence. Approx. 10% of Span 1, 15% of Span 2, 30% of Span 3 and 10% of Span 4 is spalled up to 1.5" deep with exposed rebar, primarily around the scupper downspouts and over the piers. No loose concrete was observed during this inspection. Previous Safety Flag SF14-051 was issued during the 2014 inspection for deck deterioration in Span 3 Bay 5. The flag was removed by NYSTA personnel on 6/30/2014 after full depth deck repairs were completed.

**Span 1: 107 - Steel Open Girder/Beam**  
**Span 2: 107 - Steel Open Girder/Beam**  
**Span 3: 107 - Steel Open Girder/Beam**  
**Span 4: 107 - Steel Open Girder/Beam**

**Condition State 3 Note**

**Referenced Photo(s):** 10, 14, 15

**Referenced Sketch(es):** None

The webs of all girders over each of the piers have section loss at the end 3-4". The section loss is typically 10-15%. However, these losses are located outside of the bearing stiffeners. The worst area of web section loss is in Span 3 on Girder G1 over Pier 2. At this location, there is 30% section loss on the bottom 2" of the web for 12" extending inward from the end of the girder. The bearing stiffeners of all girders over the piers typically have 10-20% section loss with the worst being up to 40% loss over Pier 2.

The top 16" of the Span 3 Girder G6 web over Pier 2 has an average section loss of 35%. This occurs over a length of approx. 8". The end 3" of the girder was measured to be 0.27" with 0.35" measured at 6.5" from the end of the girder.

Both fascia girders, in all spans, have areas of previous pitting on the bottom 8" of the girder webs and the bottom flanges. The pitting on the webs is up to 1/4" which results in approx. 40% section loss. Pitting on the girder bottom flanges is

estimated to be approx. 25% section loss on the outboard flange and <5% on the inboard flange, resulting in a total estimated section loss of approx. 10%.

The ends of Girders G1-G3 at Pier 1 and Girders G1-G4 at Pier 3 are touching and the webs are slightly twisted from previous overexpansion of the bearings. The worst location is Girder G1 over Pier 3 with up to 3/8" lateral misalignment/bending of the webs.

The CS-3 quantity for Span 1 consists of the end 4 feet of the 4 interior girders over the pier and the total 38 foot length of each fascia girder. Therefore, the total CS-3 quantity for Span 1 is 92 LF.

The CS-3 quantity for Span 2 consists of the end 4 feet of the 4 interior girders over both piers and the total 59 foot length of each fascia girder. Therefore, the total CS-3 quantity for Span 1 is 150 LF.

The CS-3 quantity for Span 3 consists of the end 4 feet of the 4 interior girders over both piers and the total 66 foot length of each fascia girder. Therefore, the total CS-3 quantity for Span 1 is 164 LF.

The CS-3 quantity for Span 4 consists of the end 4 feet of the 4 interior girders over the pier and the total 38 foot length of each fascia girder. Therefore, the total CS-3 quantity for Span 1 is 92 LF.

**Span 1: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating**  
**Span 2: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating**  
**Span 3: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating**  
**Span 4: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating**

**Condition State 3 Note**

**Referenced Photo(s):** 1

**Referenced Sketch(es):** None

Most of the paint in Spans 1 and 4 is in fair condition. However, approx. 10% of the surface area of the steel framing is in poor condition with light rust freckling, peeling, blistering and active steel corrosion. Most of the paint system in Spans 2 and 3 is also in fair condition. However, approx. 20% of the surface area of the steel framing is in poor condition with light rust freckling, peeling, blistering and active steel corrosion on the bottom flanges of the girders, the lower portions of the webs and the outboard sides of the fascia girders. The rest of the paint is slightly faded.

**Span 1: BA215 - Reinforced Concrete Abutment**

**Condition State 3 Note**

**Referenced Photo(s):** 11, 12

**Referenced Sketch(es):** None

The begin abutment backwall has isolated areas of tight cracking with efflorescence and shallow spalls along the top of the backwall. There is moderate to heavy efflorescence buildup adjacent to the weep holes in Girder Bays 1-3. This combines for a total CS-3 quantity of 22 LF.

The pedestals supporting Girders G4 and G5 at the begin abutment have approx. 1 sqft shallow spalls on their end faces. The pedestal supporting Girder G6 is hollow sounding with delaminated concrete on the end and left faces. In addition, there is a 4 sqft by 2" deep spall on the top surface at the begin left, adjacent to the backwall. This spall slightly undermines the bearing by <5%. The concrete within the spall is solid. The pedestal supporting Girder G1 has a 1.3 sqft by up to 2" deep spall on the top right surface with no undermining of the bearing. This spall extends onto the right face of the pedestal for full height by 3" wide and up to 1" deep. This combines for a total CS-3 quantity of 3 LF per interior pedestal and 4 LF per fascia pedestal for a total of 14 LF.

Note, due to overlap of the pedestal and backwall CS-3 quantities, the total deteriorated length is 30 LF.

**Span 1: BA220 - Reinforced Concrete Pile/Cap Footing**  
**Span 1: PR220 - Reinforced Concrete Pile/Cap Footing**  
**Span 2: PR220 - Reinforced Concrete Pile/Cap Footing**  
**Span 3: PR220 - Reinforced Concrete Pile/Cap Footing**  
**Span 4: EA220 - Reinforced Concrete Pile/Cap Footing**

**Condition State 5 Note**

**Referenced Photo(s):** None

**Referenced Sketch(es):** None

The substructure footings were not visible for inspection. At the abutments, the wingwall footings were not visible, however the abutment footings were visible and in generally fair condition with minor deterioration observed at isolated locations.

<p><b>Span 1: BA227 - Reinforced Concrete Pile</b>  <b>Span 4: EA227 - Reinforced Concrete Pile</b></p> <p><i>Referenced Photo(s):</i> None  <i>Referenced Sketch(es):</i> None</p>	<p><b>Condition State 5 Note</b></p>
<p>The substructure piles were not visible for inspection.</p>	
<p><b>Span 1: PR302 - Compression Joint Seal</b>  <b>Span 3: PR302 - Compression Joint Seal</b></p> <p><i>Referenced Photo(s):</i> 10, 16  <i>Referenced Sketch(es):</i> None</p>	<p><b>Condition State 4 Note</b></p>
<p>The joints at Piers 1 and 3 are debonded for approx 75% of their lengths each. The seal is also weathered and cracked with heavy leakage onto the elements below, causing premature deterioration of the elements below.</p>	
<p><b>Span 1: BA313 - Fixed Bearing-515 - Steel Protective Coating</b>  <b>Span 2: PR313 - Fixed Bearing-515 - Steel Protective Coating</b>  <b>Span 3: PR313 - Fixed Bearing-515 - Steel Protective Coating</b>  <b>Span 3: PR316 - Other Bearing-515 - Steel Protective Coating</b>  <b>Span 4: EA313 - Fixed Bearing-515 - Steel Protective Coating</b></p> <p><i>Referenced Photo(s):</i> 2  <i>Referenced Sketch(es):</i> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The paint system on the bearings at the piers is in generally fair condition but slightly faded. The paint on the upper portions of the bearings at the abutments is in generally fair condition with no significant flaws. The paint on the lower portions of the bearings at the abutments is typically peeling and flaking.</p>	
<p><b>Span 1: PR316 - Other Bearing</b>  <b>Span 2: PR316 - Other Bearing</b>  <b>Span 3: PR316 - Other Bearing</b>  <b>Span 4: PR316 - Other Bearing</b></p> <p><i>Referenced Photo(s):</i> 8, 9, 10  <i>Referenced Sketch(es):</i> None</p>	<p><b>Condition State 4 Note</b></p>
<p>The bearings under the girders on Piers 1 and 3 are constructed of a sole plate with an LVL (laminated veneer lumber) stack and no masonry plate. The LVL stack is intended to function as the bearing pad. Although the bearing components are in materially fair condition, the functionality of these materials being used in such a way is suspect. The ends of several of the girders are touching at 75 degrees and slightly twisted. It could not be determined if this was from issues with the previous bearing system or this bearing system. It appears that the bearings were temporarily constructed this way, but have not been replaced with a permanent fix.</p>	
<p><b>Span 1: 330 - Metal Bridge Railing-515 - Steel Protective Coating</b>  <b>Span 2: 330 - Metal Bridge Railing-515 - Steel Protective Coating</b>  <b>Span 3: 330 - Metal Bridge Railing-515 - Steel Protective Coating</b>  <b>Span 4: 330 - Metal Bridge Railing-515 - Steel Protective Coating</b></p> <p><i>Referenced Photo(s):</i> 3  <i>Referenced Sketch(es):</i> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The paint on the discontinuous steel rail is cracking and peeling on approx. 50% of its area throughout all spans. The galvanization on the thrie beam upgrade is in generally fair condition with light rust freckling at isolated locations.</p>	
<p><b>Span 1: 810 - Sidewalk</b>  <b>Span 2: 810 - Sidewalk</b>  <b>Span 4: 810 - Sidewalk</b></p> <p><i>Referenced Photo(s):</i> 5  <i>Referenced Sketch(es):</i> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The tops of the right sidewalks in Spans 1 and 2 are spalled approx. 9" wide by up to 1" deep with no exposed bars. The top of the right sidewalk in Span 4 is spalled 4" wide by up to 1" deep for full length of the span. The top of the left sidewalk in Span 4 is spalled full width by full length of the span.</p>	

<p><b>Span 1: PR831 - Steel Beam End</b>  <b>Span 2: PR831 - Steel Beam End</b>  <b>Span 3: PR831 - Steel Beam End</b>  <b>Span 4: PR831 - Steel Beam End</b></p> <p><b>Referenced Photo(s):</b> 10  <b>Referenced Sketch(es):</b> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The webs of all girders over each of the piers have section loss at the end 3-4". The section loss is typically 10-15%. However, these losses are located outside of the bearing stiffeners. The worst area of web section loss is in Span 3 on Girder G1 over Pier 2. At this location, there is 30% section loss on the bottom 2" of the web for 12" extending inward from the end of the girder. The bearing stiffeners of all girders over the piers typically have 10-20% section loss with the worst being up to 40% loss over Pier 2.</p> <p>Also, the top 16" of the Span 3 Girder G6 web over Pier 2 has an average section loss of 35%. This occurs over a length of approx. 8". The end 3" of the girder was measured to be 0.27" with 0.35" measured at 6.5" from the end of the girder.</p>	
<p><b>Span 1: BA850 - Backwall</b></p> <p><b>Referenced Photo(s):</b> 11  <b>Referenced Sketch(es):</b> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The begin abutment backwall has isolated areas of tight cracking with efflorescence and shallow spalls along the top of the backwall. There is moderate to heavy efflorescence buildup adjacent to the weep holes in Girder Bays 1-3.</p>	
<p><b>Span 1: BA851 - Abutment Pedestal</b></p> <p><b>Referenced Photo(s):</b> 12  <b>Referenced Sketch(es):</b> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The pedestals supporting Girders G4 and G5 at the begin abutment have approx. 1 sqft shallow spalls on their end faces. The pedestal supporting Girder G6 is hollow sounding with delaminated concrete on the end and left faces. In addition, there is a 4 sqft by 2" deep spall on the top surface at the begin left, adjacent to the backwall. This spall slightly undermines the bearing by &lt;5%. The concrete within the spall is solid. The pedestal supporting Girder G1 has a 1.3 sqft by up to 2" deep spall on the top right surface with no undermining of the bearing. This spall extends onto the right face of the pedestal for full height by 3" wide and up to 1" deep.</p>	
<p><b>Span 2: PR205 - Reinforced Concrete Column</b></p> <p><b>Referenced Photo(s):</b> 6  <b>Referenced Sketch(es):</b> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The Pier 2 columns all have isolated spalls, light to moderate cracks and hollow and delaminated areas of concrete. The worst column is Column C2 which has a full height by up to 1'-6" wide by up to 4" deep spall with exposed rebar on the end face and a large area of delaminated concrete located between 2 full height vertical cracks on the begin face.</p>	
<p><b>Span 2: PR234 - Reinforced Concrete Pier Cap</b></p> <p><b>Referenced Photo(s):</b> 7  <b>Referenced Sketch(es):</b> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The underside of the pier cap, in the right column bay, is cracked with delaminated concrete and isolated spalls. There is a 5 sqft by up to 4" deep spall with exposed rebar near the center of the end face, at the top corner of the cap. The top surface of the cap, adjacent to the spall, is hollow sounding, but the concrete within the spalled area is solid. Also, there is a crack extending from the spall across the face of the pedestal under Girder G3. There are moderate to heavy cracks on the begin face of the cap, between the pedestals.</p>	
<p><b>Span 2: PR852 - Pier Pedestal</b></p> <p><b>Referenced Photo(s):</b> 7  <b>Referenced Sketch(es):</b> None</p>	<p><b>Condition State 3 Note</b></p>
<p>The pedestals supporting Girders G1-G4 are deteriorated as follows: Pedestal 1 has light cracking with hollow sounding areas on the begin face and top surface. Pedestal 2 has light cracking and hollow sounding areas on the end face. Pedestal 3 has light to moderate cracking and hollow sounding areas on the begin face and cracking with delaminated concrete on the end face. Pedestal 4 has cracking and hollow sounding areas on the end face. Pedestals 5 and 6 have very minor</p>	

deterioration and rate CS-2.

**Span 4: EA215 - Reinforced Concrete Abutment**

**Condition State 3 Note**

**Referenced Photo(s):** 2, 13

**Referenced Sketch(es):** None

The pedestal supporting Girder G1 has a 1/16" wide vertical crack with no displacement down the entire face of the pedestal. However, the concrete is solid adjacent to the crack. The pedestals supporting Girders G4-G6 are spalled to varying degrees on their begin faces. The worst is a 1.5 sqft by up to 2" deep spall with exposed rebar on the begin face of the pedestal supporting Girder G5. No undermining of the bearings was observed. This combines for a CS-3 quantity of 3 LF per interior pedestal and 4 LF per fascia pedestal for a total of 13 LF.

**Span 4: EA851 - Abutment Pedestal**

**Condition State 3 Note**

**Referenced Photo(s):** 2, 13

**Referenced Sketch(es):** None

The pedestal supporting Girder G1 has a 1/16" wide vertical crack with no displacement down the entire face of the pedestal. However, the concrete is solid adjacent to the crack. The pedestals supporting Girders G4-G6 are spalled to varying degrees on their begin faces. The worst is a 1.5 sqft by up to 2" deep spall with exposed rebar on the begin face of the pedestal supporting Girder G5. No undermining of the bearings was observed.

**Field Notes**

**Staff Present During Inspection**

Name	Title	Organization
Admir Domazet	ATL	WSA Group
Mark Fabend	TL	WSA Group
NYSTA Crew	WZTC and Access	NYSTA

**General Equipment Required for Inspection\***

Access Type
13 - Walking
15 - Extension Ladder
19 - Up to 30 Foot Lift
29 - Lane Closure With Shadow Vehicle

\* 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
06/02/2016	08:30 AM	01:00 PM	75	Rain
06/14/2016	08:00 AM	10:00 AM	55	Clear

**Inspection Times (hours)**

Time required for travel, inspection and report preparation	14
Lane closure usage	4
Railroad flagging time	No



### Inspection Photographs

Photo Number: 1

Photo Filename: 278.93\_5510090\_PH\_01.JPG

**Attachment Description:**  
Span 3 Paint and Deck -  
Looking Towards Begin in  
Bay 2 (Typical Condition)



Photo Number: 2

Photo Filename: 278.93\_5510090\_PH\_02.JPG

**Attachment Description:**  
End Abutment Bearings,  
Pedestals and Paint -  
Looking at Right Side of  
Girder G1



Photo Number: 3

Photo Filename: 278.93\_5510090\_PH\_03.JPG

**Attachment Description:**  
Span 3 Railing Paint -  
Looking Towards Begin at  
Right Side Railing (Typical  
Condition)



Photo Number: 4

Photo Filename: 278.93\_5510090\_PH\_04.JPG

**Attachment Description:**  
Span 1 Fascia - Looking  
Along Left Fascia Towards  
End





Photo Number: 5

Photo Filename: 278.93\_5510090\_PH\_05.JPG

**Attachment Description:**  
Span 4 Sidewalk - Looking  
Towards End Along Left  
Sidewalk (Typical  
Condition)



Photo Number: 6

Photo Filename: 278.93\_5510090\_PH\_06.JPG

**Attachment Description:**  
Pier 2 Column - Looking at  
End Face Column C2  
Towards Begin Right



Photo Number: 7

Photo Filename: 278.93\_5510090\_PH\_07.JPG

**Attachment Description:**  
Pier 2 Cap and Pedestals -  
Looking at End Face in  
Girder Bay 3 Towards Begin



Photo Number: 8

Photo Filename: 278.93\_5510090\_PH\_08.JPG

**Attachment Description:**  
Spans 3 and 4 Bearings -  
Looking Towards End Left  
at G5 Bearing Over Pier 3





Photo Number: 9

Photo Filename: 278.93\_5510090\_PH\_09.JPG

**Attachment Description:**  
Span 3 Bearings - Looking  
Towards End Left at G3  
Bearing Over Pier 3



Photo Number: 10

Photo Filename: 278.93\_5510090\_PH\_10.JPG

**Attachment Description:**  
Steel Beam Ends and  
Bearings - Looking Towards  
Left at Girder G1 Over Pier  
3



Photo Number: 11

Photo Filename: 278.93\_5510090\_PH\_11.JPG

**Attachment Description:**  
Begin Abutment Backwall -  
Looking Towards Begin in  
Girder Bay 3



Photo Number: 12

Photo Filename: 278.93\_5510090\_PH\_12.JPG

**Attachment Description:**  
Begin Abutment Pedestals -  
Looking at Left Face of  
Pedestal 6





Photo Number: 13

Photo Filename: 278.93\_5510090\_PH\_13.JPG

**Attachment Description:**  
End Abutment Pedestals -  
Looking at Begin Face of  
Pedestal 5



Photo Number: 14

Photo Filename: 278.93\_5510090\_PH\_14.JPG

**Attachment Description:**  
Span 3 Primary Members -  
Looking Towards Begin  
Along Right Side of Girder  
G6



Photo Number: 15

Photo Filename: 278.93\_5510090\_PH\_15.JPG

**Attachment Description:**  
Span 3 Primary Members -  
Looking Towards Begin  
Along Right Side of Girder  
G6



Photo Number: 16

Photo Filename: 278.93\_5510090\_PH\_16.JPG

**Attachment Description:**  
Pier 1 Joint - Looking  
Towards Right Across Joint  
(Typical Condition)



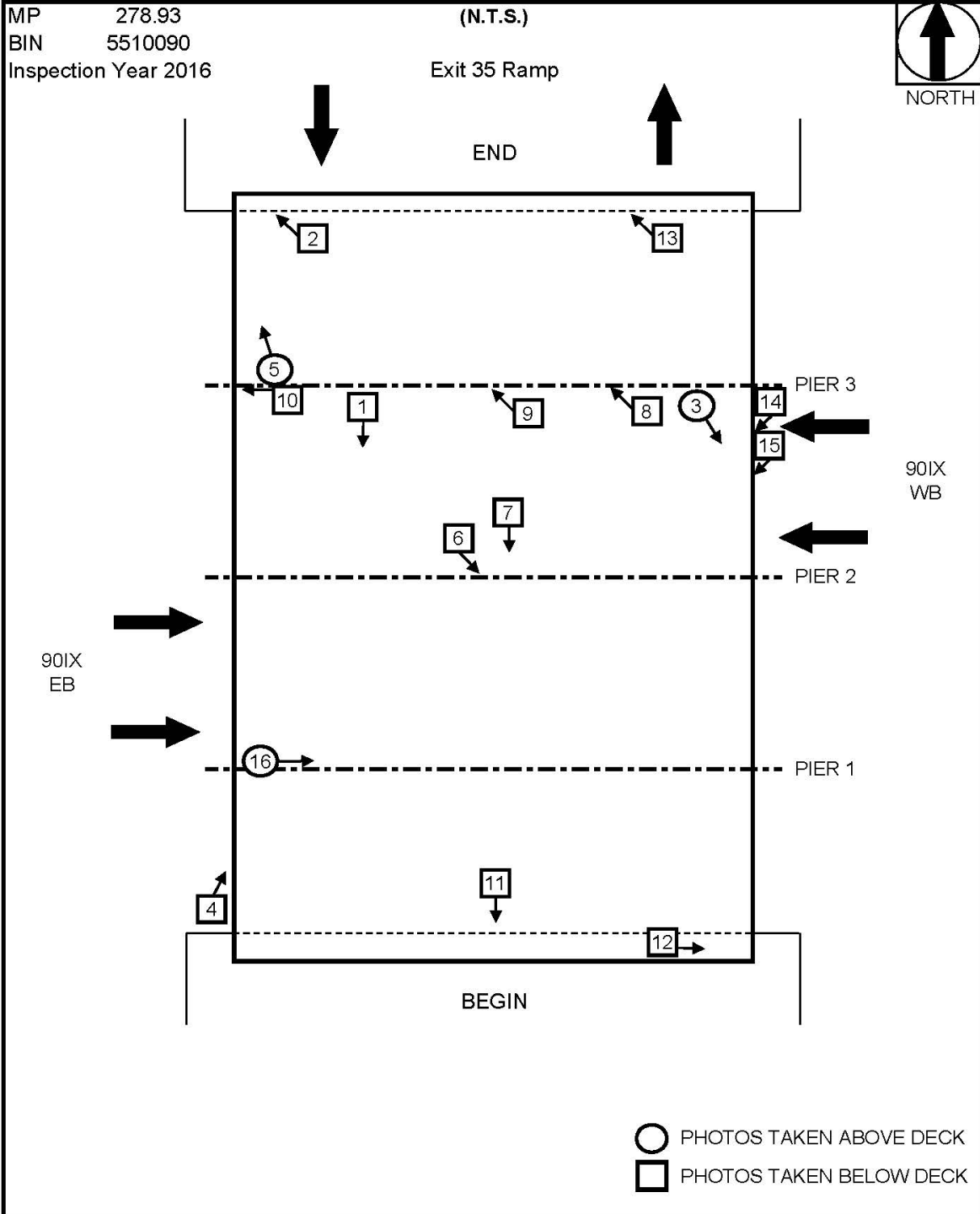


### Inspection Sketches

Sketch Number: 17

Sketch Filename: 278.93\_5510090\_2016\_PLP.jpg

#### PHOTO LOCATION PLAN



**Sketch Description:** Photo Location Plan

Sketch Number: 18

Sketch Filename: 278.93\_5510090\_2016\_VertClear.jpg



MINIMUM BRIDGE UNDERCLEARANCE  
MAINLINE BRIDGES  
BUFFALO DIVISION  
NEW YORK STATE THRUWAY AUTHORITY

MP: 278.93 SHEET 1 OF 1  
BIN: 5510090 DATE: 6/14/2016

Bridge Orientation: North

Feature Crossed: 90 IX WB

TWY Traffic Direction:

Date	A	B	C	D	E	F	G	H	A'	B'	C'	D'	E'	F'	G'	H'
5/15/2008		14.86		14.59	14.70					14.51		14.17	14.20		14.34	
12/10/2009										14.49		14.16	14.20		14.40	
6/2/2010	15.15	14.84		14.58	14.70					14.49		14.13	14.20		14.39	
6/27/2011	15.06	14.84		14.56	14.70				14.68	14.49		14.14	14.19		14.40	
6/20/2012	15.06	14.84		14.56	14.70				14.70	14.53		14.19	14.28		14.41	14.44
6/17/2014	15.06	14.84		14.58	14.70				14.67	14.51		14.19	14.28		14.40	14.43
6/14/2016	15.07	14.88		14.61	14.74				14.72	14.57		14.26	14.33		14.43	14.43

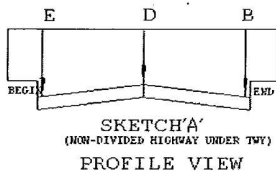
**REMARKS:**

- Measurements taken along Left Fascia Girder (G6).
- 2016 - No significant changes to measurements since previous inspection.

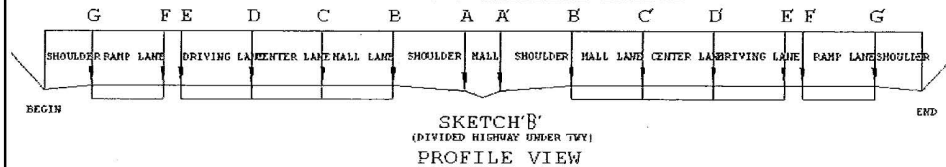
**NOTES:**

- Use appropriate profile sketch 'A' or 'B'
- When using sketch 'B' use points E, D & B and E', D' & B' to record measurements for 2 lane sections.
- When using sketch 'B', use point F for detached ramps only
- H and H' measurements taken at any other needed location or NA. Note location in remarks.
- Only one row of measurements should be recorded (i.e. only the lowest measurements of each point should be recorded)
- For thruway ramp over other roadway use this form and specify "ramp" under thruway traffic direction column.  
The measurement and recording should be done in the same manner as stated in '4' above.
- For riveted construction stringers, Dimensions shall be taken to the bottom of the rivet heads.

**THRUWAY MAINLINE BRIDGE**



**THRUWAY MAINLINE BRIDGE**



**Sketch Description: Vertical Clearance Measurements**



Sketch Number: 19

Sketch Filename: 278.93\_5510090\_2016\_LRFV.jpg

**NEW YORK STATE THRUWAY AUTHORITY**

**BRIDGE INSPECTION FIELD VERIFICATION OF LOAD RATING DATA**

Date: 06/14/16

MP/BIN: 278.93 / 5510090

Feature Carried / Crossed: Exit 35 Ramp O/ 90IX

**Dead Load:**

WS Thickness & Material Shown on Plans - 7" RC Deck With 4" Average Asph Overlay

Changes Noted in Field: Note: Previous reports called for a 4" RC Deck

Railing Type Shown on Plans - 4 Rail Steel With Thrie Beam Upgrade

Changes Noted in Field: None

Other DL Contributions (e.g. utilities) on Plans - ITS conduit and sensors located in Spans 2 & 3 in Bay 1

Changes Noted in Field: None

Section Loss: 10% BF Loss Throughout, 30% Web Loss G1 at Beg Sp 3

Existing Documentation (sketches, etc.) ? - None

Location of Documentation (previous report, blue folder, etc.)? - None

New Section Loss noted? - None

Brief Description (attach sketches if helpful) - N/A

Additional Notes: None

Attachments: yes no (please circle)

Team Leader: Mark E Fabend

Signature: Mark E. Fabend

Date: June 14, 2016

**Sketch Description:** Load Rating Field Verification

**Standard Photographs**

278.93-STD-99-00-14BegApp.JPG



278.93-STD-99-00-14EnRtWW.JPG





278.93-STD-99-00-14EndAbt.JPG



278.93-STD-99-00-14EndApp.JPG





278.93-STD-99-00-14LookLt.JPG



278.93-STD-99-00-14LookRt.JPG



278.93-STD-99-00-14LtElev.JPG



278.93-STD-99-00-14P3Beg\_.JPG





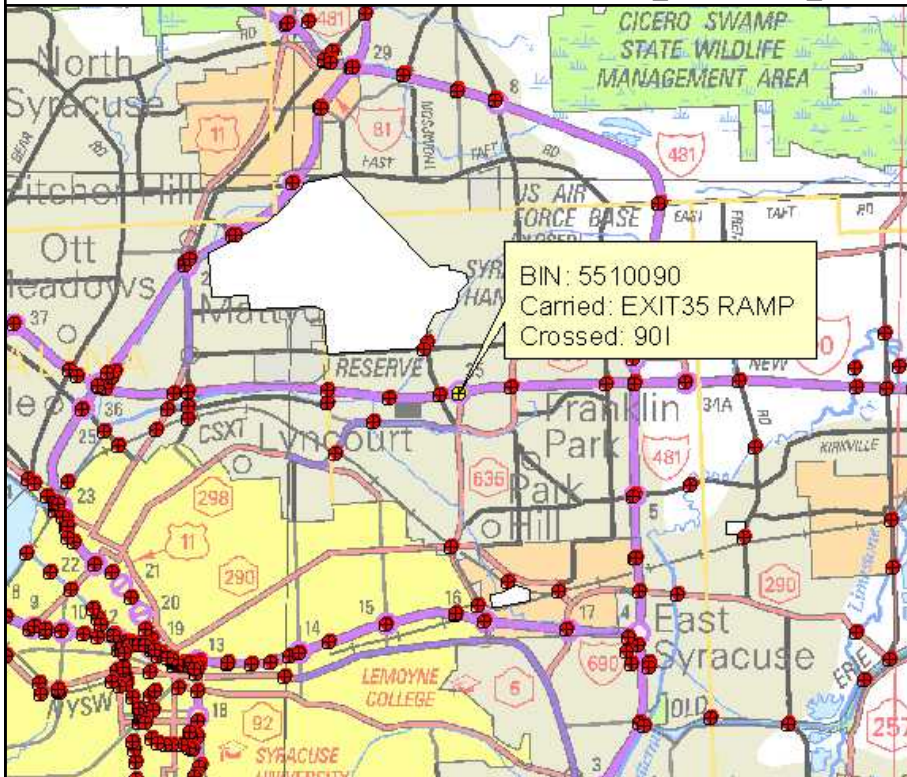
278.93-STD-99-00-14RtElev.JPG



278.93-STD-99-00-14Under\_.JPG



5510090\_LOCATION\_MAP.JPG



5510090\_QUAD\_MAP.JPG

