

BIN: 5009929 **MP:** 238.22
Region: 2 **County:** 6 ONEIDA
Feature Carried: 90IX
Feature Crossed: NYS Route 69, Oriskany Blvd.
General Recommendation: 4
Condition Rating: 3.61
Inspect Date: 9/2/2015



New York State Thruway Authority - Bridge Inspection Report

2015 INSPECTION

FLAGS	<input type="checkbox"/> RED	<input checked="" type="checkbox"/> YELLOW	<input checked="" type="checkbox"/> SAFETY	<input type="checkbox"/> NONE
	<input type="checkbox"/> PIA		<input type="checkbox"/> PIA	<input type="checkbox"/> REMOVE / INACTIVE

REVIEWED BY: *Garret Hoffmann*
 Garret Hoffmann

TITLE: Quality Control Engineer PE# 70686

**NEW YORK STATE
THRUWAY AUTHORITY
FLAGGED BRIDGE REPORT**

INITIAL:

AL RED FLAG
YELLOW FLAG
SAFETY FLAG

FLAG NUMBER: 15-067
SUPERSEDED FLAG(S): _____
INSPECTOR: Andrew Lachina
DATE OF INSPECTION: 8/19/2015

CURRENT FLAG INDICATOR: **ACTIVE**

PROMPT INTERIM ACTION RECOMMENDED: _____ YES X NO

BRIDGE DESCRIPTION:

MP: 238.22 BIN: 5009929
REGION: 2 COUNTY: 6 (ONEIDA) TOWN: Whitesboro
FEATURES: CARRIED: 90IX CROSSED: NYS Route 69, Oriskany Blvd.
NUMBER OF SPANS BY TYPE: 3 Span; Steel Stringer/Multi-Beam or Girder
YEAR BUILT: 1954

POSTED FOR LOAD: _____ YES X NO TONS: _____

IS BRIDGE WHOLLY OR PARTIALLY THRUWAY OWNED: X YES _____ NO

DESCRIPTION OF FLAGGED CONDITION (Be specific as to exact nature and location of **problem**) :

The Girder ends over Piers 1 and 2 exhibit heavy active corrosion, with significant web section loss in the lower portion of the critical bearing area. Significant web section typically extends for a height of at least 8" above the bearing. There is no distortion or buckling at this time, however it is apparent that corrosion and section loss are progressing at a very rapid rate.
There are no bearing stiffeners and there is only a partial-height diaphragm connection plate on both sides of the interior girders, and on the "inside" of the fascia girders. These typically heavily corroded connection plates only provide support to prevent sidesway buckling, and provide no support against local web yielding or local web crippling.
Two Locations meet NYSDOT Yellow Flag criteria of >50% web section loss directly over bearing:
Span 1, Girder G5 at Pier 1 - 55% section loss
Span 2, Girder G1 at Pier 1 - 50% section loss
Span 1, Girder G1 at the Begin Abutment and 15 additional girder end locations over Piers 1 & 2 have similar (26%-41%) web section loss, but do not meet the extent of deterioration to warrant a Yellow Flag. See attached Section Loss Documentation.

INSTANT DEVELOPED PHOTOS ATTACHED? X YES _____ NO IF YES, NUMBER ATTACHED: 3

FLAGGED BRIDGE REPORT COMPLETED BY: Andrew Lachina DATE: 8/20/2015

VERBAL NOTIFICATION: (For Red Flags and Safety Flags with PIA only)

TO: _____ of Headquarters on _____
TO: _____ (Responsible Party) on _____
BY: _____

* The appropriate caption in the upper left of this form shall be initialed by the individual who is the initialled

Andrew Lachina 8/20/15
Signature of Thruway Team Leader Date:

Location:	238.22-FLG-99-00-15S1P1G5.JPG	1
Span 1, Girder G5 over Pier 1 from Right		
Description:		
Lower portion of the web bearing area exhibits heavy active corrosion, with 55% section loss.		
Reference:		
FLAG # : 15-067		

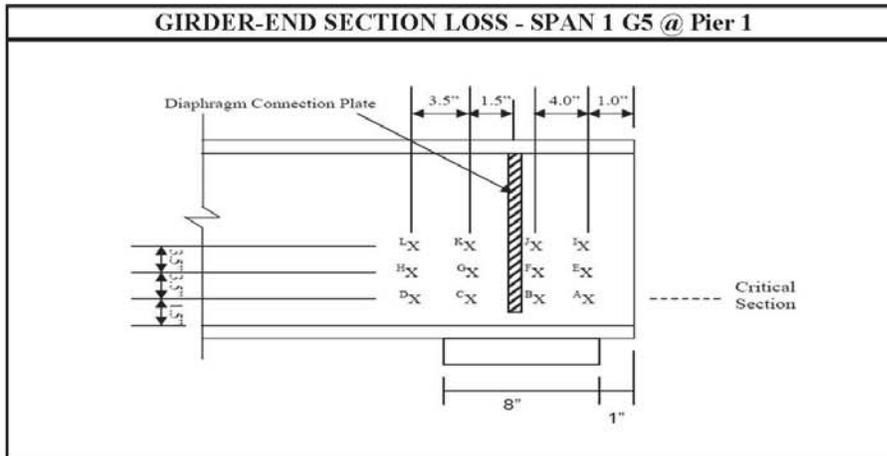
Location:	238.22-FLG-99-02-15S2P1G1.JPG	2
Span 2, Girder G1 over Pier 1 from Left		
Description:		
Bearing area has significant active corrosion, with 50% section loss in the lower portion of the web.		
Reference:		
FLAG # : 15-067		

Location:	238.22-FLG-99-03-15S2P1G1.JPG	3
Span 2, Girder G1 over Pier 1 from Right		
Description:		
Heavy active corrosion with 50% section loss directly over the bearing.		
Reference:		
FLAG #: 15-067		

Flag Log No: 15-067

Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-01-15S1G5P1.jpg



W 30x116		tw = 0.564	Span Side Length= 5.076	Joint Side Length = 5.000								
S1 G5 @ Pier 1	Row 1		Row 2		Row 3							
	Joint Side	Span Side	Joint Side	Span Side	Joint Side	Span Side						
	A	B	C	D	E	F	G	H	I	J	K	L
	0.134	0.218	0.317	0.337	0.362	0.348	0.464	0.454	0.384	0.434	0.501	0.497
Average (in)	0.176		0.327		0.355		0.459		0.409		0.499	
Weighted Ave. (in)	0.252				0.407				0.454			
% SL	55%				28%				19%			

Span 1, G5 @ Pier1	Percent Section Loss	
Design Section per Plan: W 30x116;	2015	
Web Thickness: 0.564", Bearing Stiffener: None*		
Avg. Web SL. Span Side (9*tw=5.076") [Avg% / Worst%]	24% / 42%	
Avg. Web SL. Joint Side (5.0") [Avg% / Worst%]	44% / 69%	
Computed Ave. SL.	34%	
Computed Ave. SL. for critical Section (Row 1)	55%	
Notes:		
2015: Web Section Loss monitoring established.		

*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 5.076" + 5.0" = 10.076"

Total original effective bearing area = 10.076" x 0.564" = 5.682 in²

Sample calculations: (Row 1)

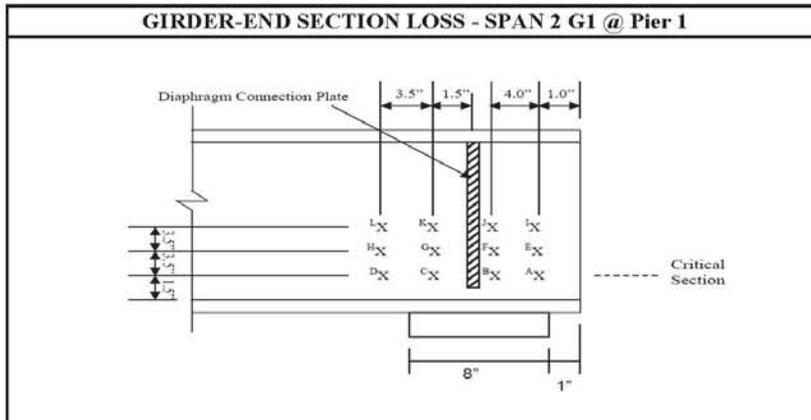
Weighted Ave. = [(Span Side SL x Span Side Length) + (Joint Side SL x Joint Side Length)] / Total effective bearing length

Weighted Average = [(0.327" x 5.076") + (0.176" x 5.0")] / (10.076") = 0.252"

Flag Log No: 15-067

Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-02-15S2G1P1.jpg



W 36x230		tw = 0.765	Span Side Length= 6.885	Joint Side Length = 5.000								
S2 G1 @ Pier 1	Row 1		Row 2		Row 3							
	Joint Side		Span Side		Joint Side		Span Side					
	A	B	C	D	E	F	G	H	I	J	K	L
	0.329	0.284	0.406	0.476	0.389	0.342	0.509	0.492	0.487	0.518	0.602	0.542
Average (in)	0.307		0.441		0.366		0.501		0.503		0.572	
Weighted Ave. (in)	0.384				0.444				0.543			
% SL	50%				42%				29%			

Span 2, G1 @ Pier1	Percent Section Loss	
Design Section per Plan: W 36x230;	2015	
Web Thickness: 0.765", Bearing Stiffener: None*		
Avg. Web SL. Span Side (9*tw=6.885") [Avg% / Worst%]	34% / 42%	
Avg. Web SL. Joint Side (5.0") [Avg% / Worst%]	49% / 60%	
Computed Ave. SL.	40%	
Computed Ave. SL. for critical Section (Row 1)	50%	
Notes:		
2015: Web Section Loss monitoring continued.		

*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 6.885" + 5.0" = 11.885"

Total original effective bearing area = 11.885" x 0.765" = 9.09 in²

Sample calculations: (Row 1)

Weighted Average = [(Span Side SL x Span Side Length) + (Joint Side SL x Joint Side Length)] / (Total effective bearing length)

Weighted Average = [(0.441" x 6.885") + (0.307" x 5.0")] / (11.885") = 0.384"

**NEW YORK STATE
THRUWAY AUTHORITY
FLAGGED BRIDGE REPORT**

INITIAL:

____ RED FLAG

____ YELLOW FLAG

Ad. SAFETY FLAG

FLAG NUMBER: 15-084

SUPERSEDED FLAG(S): _____

INSPECTOR: Andrew Lachina

DATE OF INSPECTION: 9/2/2015

CURRENT FLAG INDICATOR: **ACTIVE**

PROMPT INTERIM ACTION RECOMMENDED: _____ YES X NO

BRIDGE DESCRIPTION:

MP: 238.22 BIN: 5009929

REGION: 2 COUNTY: 6 (ONEIDA) TOWN: Whitesboro

FEATURES: CARRIED: 90IX CROSSED: NYS Route 69, Oriskany Blvd.

NUMBER OF SPANS BY TYPE: 3 Span; Steel Stringer/Multi-Beam or Girder

YEAR BUILT: 1954

POSTED FOR LOAD: _____ YES X NO TONS: _____

IS BRIDGE WHOLLY OR PARTIALLY THRUWAY OWNED: X YES _____ NO

DESCRIPTION OF FLAGGED CONDITION (Be specific as to exact nature and location of problem) :

Safety Flag is being issued based on QC comments.
In Span 2 and Span 3, the Deck is only 7.5" thick and exhibits widespread severe spalling with exposed, debonded and heavily corroded transverse and longitudinal reinforcement. Spalled areas are up to 4" deep, and exhibit moderate to heavy dampness. Exposed reinforcement bars typically have 20% to 40% section loss, with isolated areas where rebar has rusted through. Further deterioration may result in a punch-thru.
Worst locations of deck damage include:

Span 2, Bay 1 at Begin - 4" deep spalling, with severely corroded & debonded rebar. Remaining concrete is very soft.
Span 2, Bay 4 at L/3 - 5' L x 8' W x 3" D spall w/ 13 debonded bars. Remaining concrete is very damp.
Span 2, Bays 10 & 11 - 2.5" to 4" deep spalling with debonded rebar Full-width between girders.
Span 3, Bay 1 at Begin - 6' L x 8' W area of 3" deep spalling with several main transverse bars completely rusted thru.
Span 3, Median Bay 7 - 12 SF area of spalling up to 9" deep, completely debonding entire bottom mat of rebar.

Other areas have similar, but less severe spalling, see attached deck notes and sketches.

INSTANT DEVELOPED PHOTOS ATTACHED? X YES _____ NO IF YES, NUMBER ATTACHED: 6

FLAGGED BRIDGE REPORT COMPLETED BY: Andrew Lachina DATE: 10/22/2015

VERBAL NOTIFICATION: (For Red Flags and Safety Flags with PIA only)

TO: _____ of Headquarters on _____

TO: _____ (Responsible Party) on _____

BY: _____

* The appropriate caption in the upper left of this form shall be initialled by the individual who is the initialled

Andrew Lachina 10/22/15
Signature of Thruway Team Leader Date:

Location:	238.22-FLG-99-01-15S2By1B.JPG	1
Span 2, Bay 1 at Begin		
Description:		
12 SF x up to 4" deep spall with 5 debonded and heavily corroded transverse bars. The concrete within the spall is very damp, and crumbles easily when struck.		
Reference:		
FLAG #: 15-084		

Location:	238.22-FLG-99-02-15S2By4B.JPG	2
Span 2, Bay 4 at L/3		
Description:		
40 SF x 3" deep spall with 13 debonded and heavily corroded bars. The remaining concrete is very damp.		
Reference:		
FLAG #: 15-084		

Location:	238.22-FLG-99-03-15B10-11.JPG	3
Span 2, Girder Bays 10 and 11 from Begin		
Description:		
Up to 4" deep spalling with debonded and heavily corroded rebar affecting a 100 SF area in each bay.		
Reference:		
FLAG # : 15-084		

Location:	238.22-FLG-99-04-152Bay10.JPG	4
Span 2, Girder Bay 10 from Begin		
Description:		
Up to 4" deep spalling with heavily corroded and debonded transverse bars.		
Reference:		
FLAG # : 15-084		

Location:	238.22-FLG-99-05-153Bay1B.JPG	5
Span 3, Deck in Bay 1 at Begin		
Description:		
50 SF x 3" deep spall with debonded, heavily corroded and broken reinforcement.		
Reference:		
FLAG #: 15-084		

Location:	238.22-FLG-99-06-15S3Bay7.JPG	6
Span 3, Deck in Bay 7, WB (Right) Overhang at End		
Description:		
12 SF x up to 9" deep (full depth) spall. Spalling exposed 2 debonded longitudinal bars, and 6 debonded bottom transverse bars and the ends of 3 top transverse bars.		
Reference:		
FLAG #: 15-084		

Flag Log No: 15-084

Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-07-15S2Deck.jpg

SPAN 2 DECK DETERIORATION REMARKS

The Span 2 Deck is only 7.5" thick and exhibits severe spalling with exposed and heavily corroded reinforcement. Spalled areas exhibit moderate to heavy dampness, and exposed transverse bars have 20% to 40% section loss, with isolated areas where rebar has rusted through. Deterioration is as follows:

Bay 1: 12 SF x 4" deep with 5 debonded transverse bars at the Begin.

45 SF x up to 3" deep at L/3, with 35 exposed transverse bars, 21 of which are debonded.

75 SF x 3" deep at 2/3L, with over 50 exposed transverse bars, most of which are debonded.

10 SF x 3" deep at the End, with 10 transverse bars.

Bay 2: 30 SF x 3" deep over 2 separate areas near the Begin, with 8 debonded bars.

10 SF x 3" deep over 4 separate areas near L/3.

Bay 3: 24 SF x 3" deep near the Begin, with 5 debonded bars.

36 SF x 3" deep near L/4 with 7 debonded transverse bars.

3 SF x 3" deep near the End.

Bay 4: 40 SF x 3" deep near the Begin, with 5 debonded bars.

40 SF x 3" deep near L/3 with 13 debonded bars.

10 SF x 2.5" deep near Midspan.

20 SF x 3" deep near 2/3L, with 3 debonded bars.

Bay 5: 50 SF x 3" deep near the Begin, with over 15 transverse bars debonded.

20 SF x 3" deep over 2 separate areas near L/3, with 6 debonded bars.

36 SF x 3" deep near 2/3L with 6 debonded transverse bars.

Bay 6: 15 SF x 2" deep over 3 separate area near L/3.

Bay 10: 100 SF (+/- 12' L x +/- 8' W) x up to 4" deep in the Begin half of the span, with over 20 debonded bars.

Bay 11: 45 SF x up to 4" deep near the Begin, with 10 debonded bars.

30 SF x up to 4" deep near L/3, with 8 debonded bars.

30 SF x up to 4" deep near 2/3L, with 6 debonded bars.

Bay 12: 3 separate 5 SF x 3" deep spalls near the Begin, L/3 and Midspan.

Bay 13: 20 SF x 3" deep over 3 separate areas near Midspan.

Right Fascia Overhang: 4 SF x 3" deep at the Begin.

16 SF x 2" deep near Midspan.

6 SF x 3" deep at the End.

Overall, deterioration affects 50% of the total surface area.

Flag Log No: 15-084

Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-08-15S3Deck.jpg

SPAN 3 DECK DETERIORATION REMARKS

The Span 3 Deck exhibits the following deterioration:

Bay 1: 50 SF x 3" deep spall at the Begin. Spalling exposes 4 longitudinal and 10 transverse bars, 2 of which are broken.
12 SF delamination near Midspan.

Bay 2: 12 SF delamination at the Begin.
16 SF delamination at the End.

Bay 3: 40 SF of hollow sounding concrete over 2 separate areas, near the Begin.
15 SF delamination near Midspan.

Bay 4: 4 SF x 3" deep spall with exposed rebar at the Begin. The spall is surrounded by 6 SF of delaminated concrete.

Bay 5: 12 SF of dampness at the Begin.

Bay 6: 4 SF x 3" deep spall with exposed and debonded reinforcement.

Bay 7 (Median): The WB (Right) overhang has a 12 SF x up to 9" deep (full depth) spall with exposed and debonded reinforcement at the End. Spalling exposed 2 debonded longitudinal bars, and 6 debonded bottom transverse bars and the ends of 3 top transverse bars.

The remainder of the Bay 7 surface area is damp with rust staining and efflorescence.

Bay 8: 15 SF of hollow sounding concrete at the End.
The remainder of the Bay 8 surface area exhibits dampness with efflorescence throughout.

Bay 9: 64 SF delamination near L/3.
10 SF of hollow sounding concrete at the End.

Bay 10: 70 SF delamination near L/3.
55 SF delamination at the End.

Bay 11: 32 SF delamination at the Begin.
3 SF x 3" deep spall with exposed rebar near Midspan.
100 SF delamination near the End.

Bay 12: 24 SF delamination near the Begin.

Bay 13: 4 SF x 2" deep spall with exposed rebar surrounded by a 24 SF delamination near the Begin.
2 SF x 2.5" deep spall with exposed rebar near Midspan.

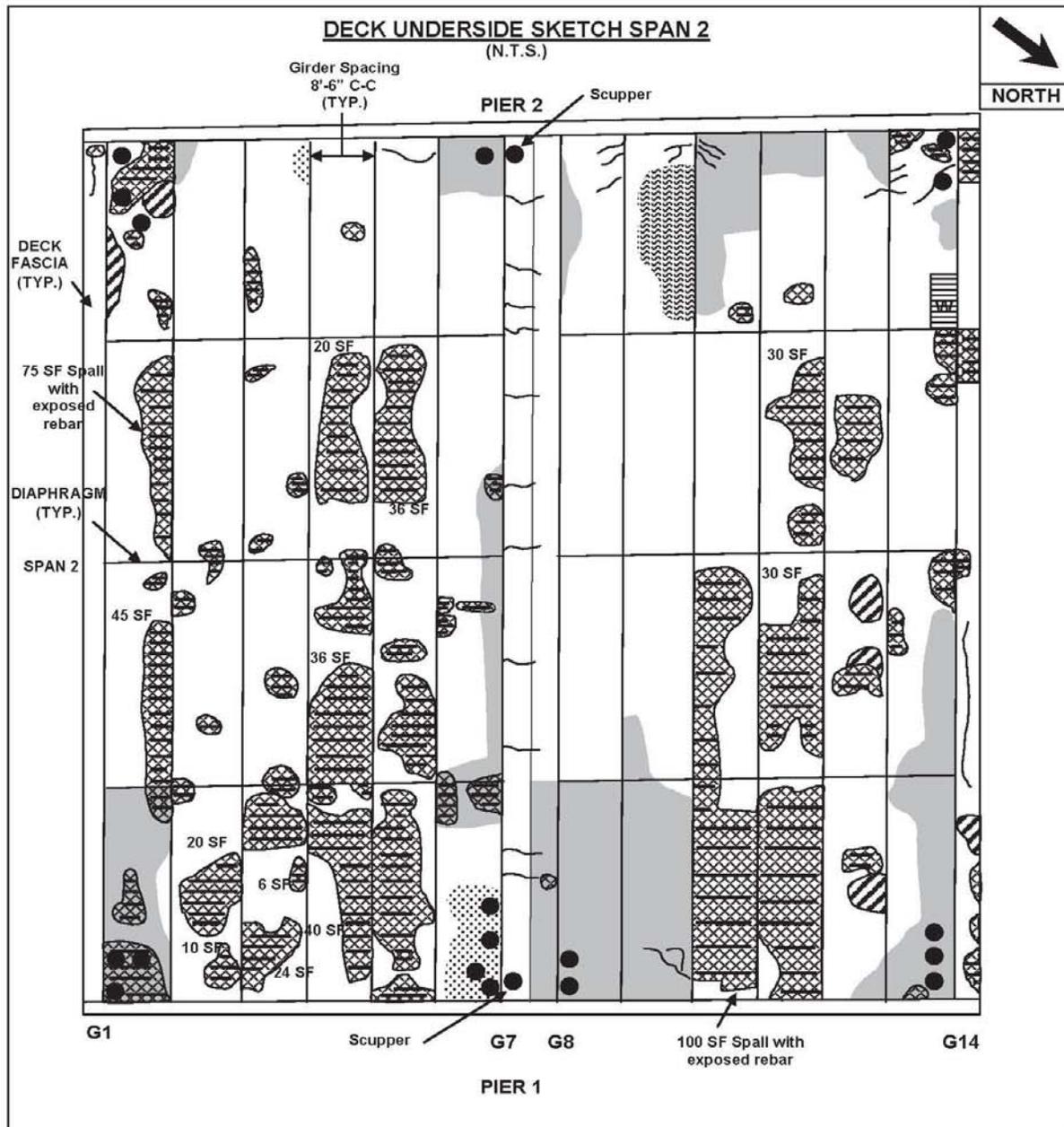
Right Fascia Overhang: 4 SF x 3" deep spall with exposed and corroded rebar at the Begin.

Overall, deterioration affects 20% of the total surface area.

Flag Log No: 15-084

Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-09-15S2Deck.jpg

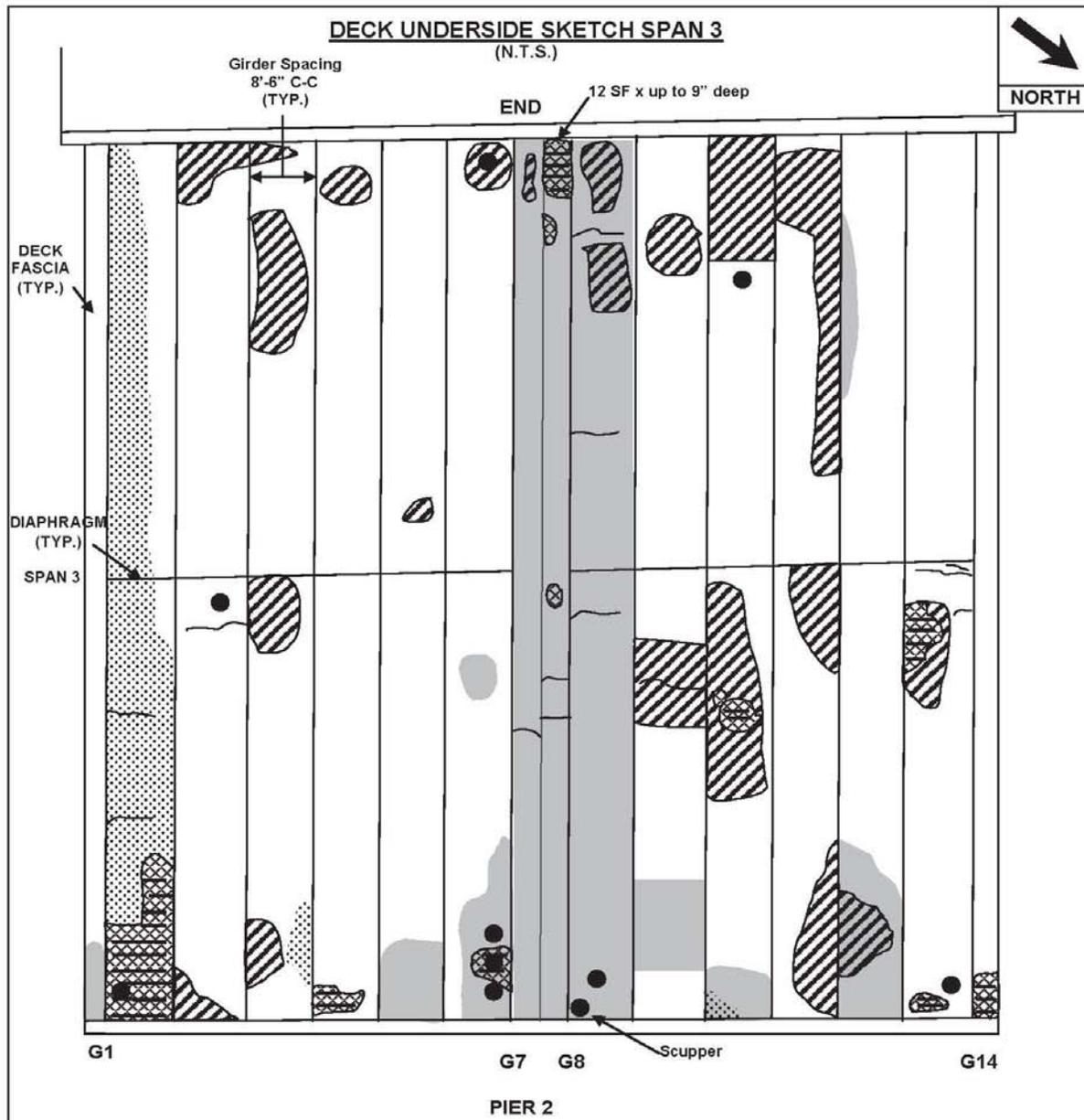


	Crack with Efflorescence		Damp / Discolored		Spall
	Random Hairline Cracking		Hollow / Delaminated		Spall with exposed rebar
	Scaling		Wood Shoring		Honeycomb
					Weep

Flag Log No: 15-084

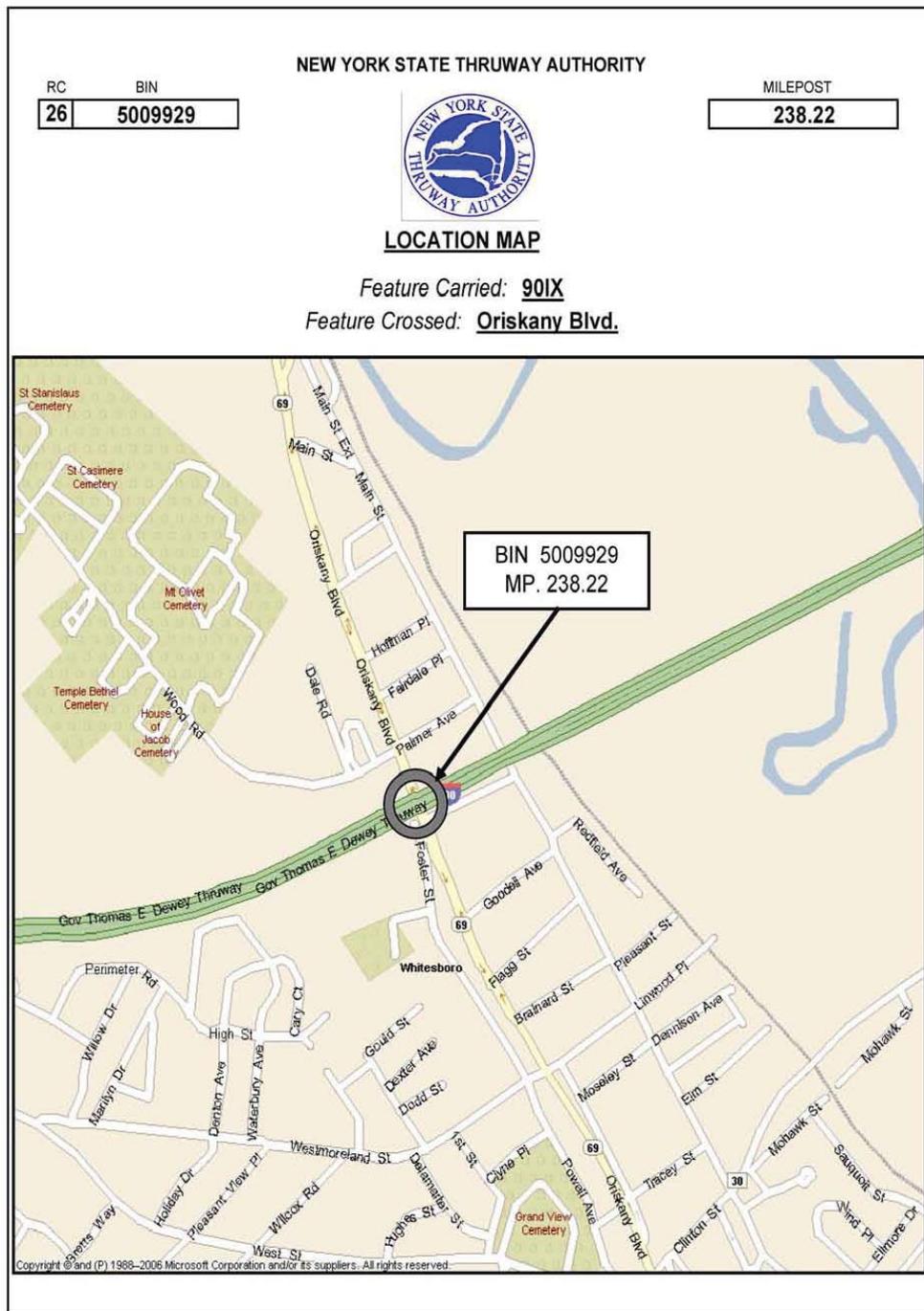
Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-10-15S3Deck.jpg



	Crack with Efflorescence		Damp / Discolored		Spall
	Random Hairline Cracking		Hollow / Delaminated		Spall with exposed rebar
	Scaling		Wood Shoring		Honeycomb
					Weep

Sketch Type: Location Map
File Name: 238.22-10-01-15LOCMAP.jpg



INSPECTION

NYS DEPT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

SHEET 1 OF 32

DATE:

MO	DAY	YEAR
09	02	15
13	14	15
16	17	18

RC - BIN:

1	2	3	4	5	6	7	8	9	
2	6	-	5	0	0	9	9	2	9

 MP: 238.22

TEAM LEADER: Andrew Lachina

Signature: Andrew M. Lachina

P.E. NUMBER: 092598 STATE: NY

ASST. TEAM LEADER: Fady Gerges

RAMP BRIDGE ATTACHED TO SPAN: _____ BIN: _____

INSPECTION AGENCY:

13	
19	20

 TYPE OF INSPECTION:

1
21

 1-BIENNIAL 3- IN DEPTH 5- SPECIAL
2- INTERIM 4- NONE (UNDER CONTRACT)

STATE HWY. NO: _____ MILEPOINT: _____ POLIT. UNIT: Whitesboro

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: NYS Route 69, Oriskany Blvd.

TOTAL SPANS: 3 BRIDGE ORIENTED: Southwest YEAR BUILT: 1954

BRIDGE TYPE: Steel Stringer/Multi-Beam or Girder AADT/YEAR 22059/2013

VERTICAL CLEARANCE AND LOAD POSTINGS	ON: NOT POSTED	Under: NOT POSTED	Loading: NONE	<table border="1"><tr><td>06</td><td>2</td></tr><tr><td>118</td><td>120</td></tr></table>	06	2	118	120														
	06	2																				
118	120																					
<table border="1"><tr><td>0</td><td>Ft</td><td>0</td><td>In</td></tr><tr><td>19</td><td>20</td><td>21</td><td>22</td></tr></table>	0	Ft	0	In	19	20	21	22	<table border="1"><tr><td></td><td>Ft</td><td></td><td>In</td></tr><tr><td>23</td><td>24</td><td>25</td><td>26</td></tr></table>		Ft		In	23	24	25	26	<table border="1"><tr><td></td><td>TONS</td></tr><tr><td>27</td><td>28</td></tr></table>		TONS	27	28
0	Ft	0	In																			
19	20	21	22																			
	Ft		In																			
23	24	25	26																			
	TONS																					
27	28																					

ABUTMENTS:	Begin	End	WINGWALLS:	Begin	End	APPROACHES:											
Joint with deck	<table border="1"><tr><td>5</td></tr><tr><td>22</td></tr></table>	5	22	<table border="1"><tr><td>5</td></tr><tr><td>23</td></tr></table>	5	23	Walls	<table border="1"><tr><td>5</td></tr><tr><td>40</td></tr></table>	5	40	<table border="1"><tr><td>5</td></tr><tr><td>41</td></tr></table>	5	41	Drainage	<table border="1"><tr><td>5</td></tr><tr><td>53</td></tr></table>	5	53
5																	
22																	
5																	
23																	
5																	
40																	
5																	
41																	
5																	
53																	
Bearings, anchors bolts, pad	<table border="1"><tr><td>4</td></tr><tr><td>24</td></tr></table>	4	24	<table border="1"><tr><td>5</td></tr><tr><td>25</td></tr></table>	5	25	Footings	<table border="1"><tr><td>9</td></tr><tr><td>42</td></tr></table>	9	42	<table border="1"><tr><td>9</td></tr><tr><td>43</td></tr></table>	9	43	Embankment	<table border="1"><tr><td>5</td></tr><tr><td>54</td></tr></table>	5	54
4																	
24																	
5																	
25																	
9																	
42																	
9																	
43																	
5																	
54																	
Bridge seat and pedestals	<table border="1"><tr><td>3</td></tr><tr><td>26</td></tr></table>	3	26	<table border="1"><tr><td>4</td></tr><tr><td>27</td></tr></table>	4	27	Erosion or scour	<table border="1"><tr><td>6</td></tr><tr><td>44</td></tr></table>	6	44	<table border="1"><tr><td>6</td></tr><tr><td>45</td></tr></table>	6	45	Settlement	<table border="1"><tr><td>6</td></tr><tr><td>55</td></tr></table>	6	55
3																	
26																	
4																	
27																	
6																	
44																	
6																	
45																	
6																	
55																	
Backwall	<table border="1"><tr><td>4</td></tr><tr><td>28</td></tr></table>	4	28	<table border="1"><tr><td>4</td></tr><tr><td>29</td></tr></table>	4	29	Piles	<table border="1"><tr><td>9</td></tr><tr><td>46</td></tr></table>	9	46	<table border="1"><tr><td>9</td></tr><tr><td>47</td></tr></table>	9	47	Erosion	<table border="1"><tr><td>5</td></tr><tr><td>56</td></tr></table>	5	56
4																	
28																	
4																	
29																	
9																	
46																	
9																	
47																	
5																	
56																	
Stem (breastwall)	<table border="1"><tr><td>8</td></tr><tr><td>30</td></tr></table>	8	30	<table border="1"><tr><td>8</td></tr><tr><td>31</td></tr></table>	8	31	STREAM CHANNEL:		Pavement	<table border="1"><tr><td>5</td></tr><tr><td>57</td></tr></table>	5	57					
8																	
30																	
8																	
31																	
5																	
57																	
Erosion or scour	<table border="1"><tr><td>4</td></tr><tr><td>32</td></tr></table>	4	32	<table border="1"><tr><td>5</td></tr><tr><td>33</td></tr></table>	5	33	Stream Alignment	<table border="1"><tr><td>8</td></tr><tr><td>48</td></tr></table>	8	48	Guide Railing	<table border="1"><tr><td>4</td></tr><tr><td>58</td></tr></table>	4	58			
4																	
32																	
5																	
33																	
8																	
48																	
4																	
58																	
Footings	<table border="1"><tr><td>9</td></tr><tr><td>34</td></tr></table>	9	34	<table border="1"><tr><td>9</td></tr><tr><td>35</td></tr></table>	9	35	Erosion And Scour	<table border="1"><tr><td>8</td></tr><tr><td>49</td></tr></table>	8	49	GENERAL RECOMMEND	<table border="1"><tr><td>4</td></tr><tr><td>60</td></tr></table>	4	60			
9																	
34																	
9																	
35																	
8																	
49																	
4																	
60																	
Piles	<table border="1"><tr><td>9</td></tr><tr><td>36</td></tr></table>	9	36	<table border="1"><tr><td>9</td></tr><tr><td>37</td></tr></table>	9	37	Waterway Opening	<table border="1"><tr><td>8</td></tr><tr><td>50</td></tr></table>	8	50							
9																	
36																	
9																	
37																	
8																	
50																	
Recommendation	<table border="1"><tr><td>4</td></tr><tr><td>38</td></tr></table>	4	38	<table border="1"><tr><td>4</td></tr><tr><td>39</td></tr></table>	4	39	Bank Protection	<table border="1"><tr><td>8</td></tr><tr><td>51</td></tr></table>	8	51							
4																	
38																	
4																	
39																	
8																	
51																	

ACCESS CATEGORY:

- Walk-Up
- Lane Close Shad
- Extension Ladder
- Lift Small (<= 30 ft.)

FLAG ISSUED?

- NONE:

--
- YELLOW:

1

- RED:

--
- SAFETY:

1

BRIEF REASON

- YF 15-067 - Sp 1, G5 & Sp 2, G1 > 50% Web Brg. SL over Pier 1
- SF 15-084 - Span 2 & 3: Severe Deck Spalling

Vulnerability Reassessment Review Recommended?

HYD	OVL	STL	COL	CON	SMC	1 = YES 2 = NO 3 = NA X = NOT USED THIS CYCLE						
<table border="1"><tr><td>3</td></tr></table>	3	<table border="1"><tr><td>X</td></tr></table>	X	<table border="1"><tr><td>1</td></tr></table>	1	<table border="1"><tr><td>X</td></tr></table>	X	<table border="1"><tr><td>X</td></tr></table>	X	<table border="1"><tr><td>X</td></tr></table>	X	
3												
X												
1												
X												
X												
X												
65					70							

REVIEWED BY:	<u>Garret Hoffmann</u> Garret Hoffmann
P.E. NUMBER:	70686
DATE:	10/19/2015

RC - BIN:

2	6	-	5	0	0	9	9	2	9
1	2		3	4	5	6	7	8	9

NYS DEPT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

SHEET 2 OF 32

TEAM LEADER: Andrew Lachina

ASST. TEAM LEADER: Fady Gerges

DATE:

09	02	15
MO	DAY	YEAR
13	14	15
16	17	18

OTHERS: NYSTA Maintenance - MPT

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: NYS Route 69, Oriskany Blvd.

SPAN NO.	DECK ELEMENTS												SUPERSTRUCTURE					PIER										UTILITIES		
	Wearing surface	Curbs	Sidewalk & Fascias	Railings & Parapets	Scuppers	Gratings	Median	MONO DECK SURFACE	Deck Structural	Primary Members	Secondary Members	Paint	Joints	Recommendation	Brgs., Anchor Bolts, Pads	Pedestals	Top of Pier	CapBeam	Stem Solid Pier	Capbeam	Pier Columns	Footings	Erosion or Scour	Piles	Recommendation	Lighting Standards and Fixtures	Sign Structures	Utilities and Utilities Supports		
10	11	12	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
0	0	1	5	6	4	4	5	8	5	8	4	4	5	3	2	4	3	4	4	8	4	4	9	6	9	4	8	8	5	
0	0	2	4	6	4	4	3	8	5	8	2	4	5	3	2	3	3	4	4	8	5	5	9	6	9	4	8	8	8	
0	0	3	5	5	5	5	3	8	4	8	3	4	5	3	8	3	8	8	8	8	8	8	8	8	8	8	8	8	8	

DIVING INSPECTION REQUIRED? Yes No If yes, indicate year of last diving inspection.

SPECIAL EMPHASIS INSPECTION REQUIRED: Yes No If yes, indicate type below

- NON-REDUNDANT/FRACTURE CRITICAL
- PIN AND HANGERS
- FATIGUE-PRONE WELDS (AASHTO D, E, OR E') Sp.2: partial length welded cover plates.
- NON-CATEGORIZED FATIGUE-PRONE DETAILS Sp's 1-3: Out-of-plane bending; Sp 2: G13 V-Groove Weld bot Flg
- OTHERS (SPECIFY) Web brg. SL > 25%; jacking stiff. Sp's.1-3: Web brg. SL @ 30 loc.; jacking stiff.

RECOMMEND FURTHER INVESTIGATION 1 = NO 2 = YES 19

REMARKS

FIELD NOTES

DATE	TIME OF ARRIVAL	TIME OF DEPARTURE	TEMP (F/C)	WEATHER CONDITIONS / ACCESS EQUIPMENT	Field Notes
08/17/2015	12:00:00 pm	5:00:00 pm	84/29	Clear	Walking / Extension Ladder
08/18/2015	7:00:00 am	5:00:00 pm	70/21	Clear	Walking / Extension Ladder
08/19/2015	7:00:00 am	12:00:00 pm	72/22	Clear	Walking / Extension Ladder
09/02/2015	7:30:00 am	1:30:00 pm	54/12	Rain	Walking / MPT / Scissor Lift Truck

FEDERAL RATING FORM

NYS DEPT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

MP: 238.22

RC - BIN:

2	6	-	5	0	0	9	9	2	9
1	2		3	4	5	6	7	8	9

SHEET 3 OF 32

TEAM LEADER: Andrew Lachina

DATE:

09	02	15
MO	DAY	YEAR
13	14	15
16	17	18

ASST. TEAM LEADER: Fady Gerges

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: NYS Route 69, Oriskany Blvd.

Description	Deck	Superstructure	Substructure	Channel	Culvert
Fed. Item #	58	59	60	61	62
RATING	3	4	5	N	N
	19	20	21	22	23

Notes:

- 1) See attached explanations for Federal Item Nos. a) 58- Deck, 59- Superstructure, 60- Substructure; b) 61- Channel and Channel Protection; c) 62- Culverts.

- 2) Item Nos. 58, 59, and 60 shall be coded N for all culverts.

- 3) A rating or an N must be entered for all Federal Items. Blanks are not acceptable.

INSPECTED BY: Andrew Lachina TITLE: Team Leader

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: NYS Route 69, Oriskany Blvd.

BRIDGE INSPECTION AND CONDITION REPORT
SUPPLEMENTARY INSPECTION ACTIVITIES

BIN PLATE LOCATION/ CONDITION	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Missing <input checked="" type="checkbox"/> Damaged/Defaced <input checked="" type="checkbox"/> End Abutment <input checked="" type="checkbox"/> Begin Abutment
	Right face of begin right wingwall (good) and face of end backwall in Bay 2 (defaced). There is a good BIN plate to the left of G1 at the end abutment.
FLOOD ELEVATION MARKINGS	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Satisfactory <input type="checkbox"/> Missing <input type="checkbox"/> Damaged/Illegible (described below)
ELECTRICAL	<input type="checkbox"/> Class A (Caution) <input checked="" type="checkbox"/> Class B (Warning) <input type="checkbox"/> Class C (Danger)
SPECIAL EMPHASIS	<input type="checkbox"/> Not Required <input checked="" type="checkbox"/> A 100% Hands-On Inspection Given To: See below
	<input checked="" type="checkbox"/> No Defects Found <input type="checkbox"/> Defects Described Below
UPGRADES REPORT	<input type="checkbox"/> None <input checked="" type="checkbox"/> Minor (see below) <input type="checkbox"/> Major Rehab (see below) (Contract #:)

The following work was completed (explain to the right of any item checked: repaired, replaced, begin, end, left, right, etc.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Superstructure | Span 3, G14 at Pier 2 - New 4" Wide x 1/2" Thick bearing stiffener welded to the Right side "only". | <input type="checkbox"/> Curb, Sidewalk, Fascia |
| <input type="checkbox"/> Deck | | <input type="checkbox"/> Bridge Rail |
| <input checked="" type="checkbox"/> Wearing Surface | In Span 3, raveled pavement in the WB travel lanes, at the Pier 2 joint header has been patched with liquid asphalt | <input type="checkbox"/> Approach Rail |
| <input type="checkbox"/> Appr. Pavement | | <input type="checkbox"/> Signage |
| <input type="checkbox"/> Substructure | | <input type="checkbox"/> Other (explain below) |

GENERAL COMMENTS/UNUSUAL CONDITIONS: **Unusual Conditions (explain below)**

- SPECIAL EMPHASIS:
- (1) Welds at ends of partial length cover plates in Span 2.
 - (2) Jacking stiffeners near the end of Spans 1 and 2 and near the begin of Spans 2 and 3.
 - (3) Girders are susceptible to out-of-plane bending at diaphragm connections.
 - (4) Spans 1-3: Web bearing section loss close to or > 25% at 30 locations.
 - (5) A V-groove weld exists about 4" from the end Cat E cover plate weld on left side of G13.

INSPECTED BY: Andrew Lachina TITLE: Team Leader

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: NYS Route 69, Oriskany Blvd.

BRIDGE INSPECTION MPT REQUIREMENTS

**Instructions: Circle Thruway direction, then check yes or no for each lane/shoulder closure.
Comment on reason for each closure. Examples: cover plates, impact damage, etc.**

EAST BOUND LANE CLOSURE

Driving lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Driving lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Center lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:
Mall lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Mall lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Ramp lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:

WEST BOUND LANE CLOSURE

Driving lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Driving lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Center lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:
Mall lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Mall lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Ramp lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:

NOTES:

NYSTA forces provided MPT and a scissor lift on Oriskany Boulevard to inspect the superstructure, deck and S.E.

RATING FORM: TP349					
ITEM:	TITLE:	RATINGS			
	REMARKS:	NEW:	PRE:	PHOTO #:	

24 Bearings, Anchor Bolts, Pads (Begin)

The Begin Abutment Bearings are low steel, fixed bearings with rotational sole plates. 4 4 1

The Bearings under Fascia girders G1 & G14 exhibit heavy corrosion with thick rust delaminations on all bearing components. Corrosion may inhibit normal girder end rotation.

The remaining 12 Bearings are in good condition and would rate '5'.

26 Bridge Seat and Pedestals (Begin)

The Begin Abutment Pedestals exhibit cracked, delaminated and spalled concrete as follows: 3 3 2, 3

Pedestal 2: 1 SF of cracked and delaminated concrete along the top Right corner, which continues 2' down the front Right corner.

Pedestal 6: 2 SF x 3" deep top corner spall with exposed rebar along the Right face.

Pedestal 14: 18" L x 3' W x up to 2" deep spall on the top surface, which undermines the G14 masonry plate. Undermining measures 3.5" horizontally at the Begin Right corner, and 1" horizontally along the remainder of the Begin face. Also, the End face is undermined by 1/2" along the Right half of its width. Loss of contact area is approximately 20%. Additionally, there are 2 SF of cracked concrete along the front Left corner.

The remaining 11 Pedestals would rate '5'.

27 Bridge Seat and Pedestals (End)

The End Abutment Pedestals exhibit cracked, delaminated and spalled concrete as follows: 4 4 4

Pedestal 2: 1 SF x 2" deep surface spall on the Left face.

Pedestal 6: 1/2 SF x 1" deep surface spall on the Right face.

Pedestal 9: 2 SF x 1.5" deep top corner spall along the Right face.

Pedestal 14: 1 SF x 1" deep spall on the Front face, surrounded by 2 SF of cracked and delaminated concrete.

The remaining 10 Pedestals would rate '5'.

RATING FORM: TP349					
ITEM:	TITLE:	RATINGS			
	REMARKS:	NEW:	PRE:	PHOTO #:	

28 Backwall (Begin)

The Begin Abutment Backwall exhibits the following deterioration: 4 4 5

Bay 1: Heavy efflorescence covering the entire surface area of the bay.

Bay 3: 6 SF x 2" deep spall with exposed reinforcement near G4. The adjacent concrete is hollow sounding over a 10 SF area.

Bay 4: 16 SF of cracked and delaminated concrete along the top of the wall, which affects the entire width of the bay. 2 SF of hollow sounding concrete at the bottom Left corner.

Bay 10: 4 SF x 2.5" deep spall with exposed rebar behind G11, which is surrounded by 4 SF of cracked and delaminated concrete.

Bay 11: 1 SF x 1" deep surface spall surrounded by 10 SF of cracked and delaminated concrete.

Bay 13: 1 SF x 1.5" deep surface spall behind G14. The bottom of the wall is affected by 10 SF of hollow sounding concrete.

29 Backwall (End)

The End Abutment Backwall exhibits the following deterioration: 4 4 6, 7

Left of Girder G1: 8 SF x up to 4" deep spall with 1 horizontal and 2 vertical bars exposed, debonded and heavily corroded. Spalling concrete extends behind G1 for a length of 2'.

Bay 1: 10 SF of hollow sounding concrete near G1.

Bay 3: 5 SF x 2" deep spall with 1 horizontal and 1 vertical bar exposed, debonded and heavily corroded. The adjacent concrete is hollow sounding over an 8 SF area.

Bay 4: 18 SF x 2" deep spall with 2 horizontal and 3 vertical bars exposed, debonded and heavily corroded. The adjacent concrete is hollow sounding over an 8 SF area.

Bay 10: 10 SF x 2" deep spall with exposed rebar at the top of the wall, near G11. The spall is surrounded by 5 SF of delaminated concrete.

Bay 11: 1 SF x 2" deep spall surrounded by 4 SF of hollow sounding concrete. However, reinforcement is not exposed.

32 Erosion or Scour (Begin)

The Begin Abutment embankment material is settled and the stone slope protection is displaced over a 20' Wide area below girder bays 6-8. 4 4 8

Settlement and erosion is up to 12" deep at the top, affects the entire length of the slope. However, the Begin abutment footing is not exposed.

RATING FORM: TP349				
ITEM:	TITLE:	RATINGS		
	REMARKS:	NEW:	PRE:	PHOTO #:

58 Guide Railing

The Approach Guide Railing is affected by impact damage as follows: 4 4 9, 10

Begin Left: The w-beam rail alignment is generally wavy, with several leaning posts. Post #8 is disconnected from the rail.

End Left: Near the transition, strong Posts #4 thru #6 are disconnected from the rail.

End Right: The w-beam alignment is generally wavy. Approximately 50' from the bridge, the w-beam is deformed. Post #5 is disconnected from the rail.

Guide Railing at the Begin Right would rate '5'.

RATING FORM: TP350					
ITEM:	TITLE:		RATINGS		
	REMARKS:	SPAN:	NEW:	PRE:	PHOTO #:

19 Wearing Surface

Span 2: 2 4 4 12

In Span 2, there is evidence of ponding over a 15' Long x 8' Wide area in the WB (Right) Median near the Begin. Ponding water appears to be seeping thru the wearing surface, which is promoting further deterioration of the deck.

The Wearing Surface in all 4 travels is in good condition and would rate '5'.

Span 3: 3 5 4 11

In Span 3, the previously raveled pavement in the WB travel lanes, along the Pier 2 joint header has been patched and sealed with liquid asphalt since the last inspection.

The asphalt wearing surface is in good condition in all 4 travel lanes. Rating is raised from '4' to '5'.

21 Sidewalks & Fascias

Span 1: 1 4 4 13

In Span 1, the Left Fascia has a 4' L x up to 14" H x 3" D bottom corner spall with exposed reinforcement at the End.

The Right Fascia has isolated 1" deep spalls along the top corner of the coping, affecting 10% of the span length.

The Left and Right Sidewalks would rate '5'.

Span 2: 2 4 4 14

In Span 2, the Right Fascia has 3 separate 2' L x up to 8" H x 3" D bottom corner spalls with exposed reinforcement near the Begin. The remainder of the Right fascia is solid throughout.

The Left Fascia is in good condition and would rate '5'.

The Left and Right Sidewalks would also rate '5'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

22 Railings & Parapets

Span 1: 1 4 5 15

The Left and Right Railings are a panelized 4 rail system, with a thrie beam retrofit.

The Left Railing, original 4 rail system exhibits complete paint failure, with heavy corrosion and rust delamination. The top rail has severe corrosion with rust-thru perforations located near Post 7 and on the End side of Post 8. Near Post 7, rust-thru perforations occur along the underside of the top rail and measure 4' Long on the Begin side of the post and 2' Long on the End side. On the End side of Post 8, perforations are 2.5' Long along the top and bottom faces of the cantilevered portion of the rail.

The Right Railing, original 4 rail system exhibits damaged and flaking paint, with moderate corrosion and rust delamination.

Rating is lowered from '5' to '4'.

Span 2: 2 4 5 16

The Left Railing, original 4 rail system exhibits complete paint failure, with moderate corrosion and rust delamination. Railing Posts 6 and 7 have cracked welds at their base plates. At Post 6, the weld is cracked thru on the Begin, Right and End sides of the post. The weld for Post 7 is cracked on the Begin and Right sides. Both Posts 6 and 7 are sturdy under foot pressure.

The Right Railing, original 4 rail system exhibits damaged and flaking paint, with moderate corrosion and rust delamination.

Rating is lowered from '5' to '4' due to cracked welds at the base plates of 2 consecutive posts.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

23 Scuppers

Span 2: 2 3 3 12, 17

In Span 2, the Begin small diameter scupper in the WB (Right) Median is plugged with dirt. The plugged scupper has resulted in ponding in the Median over a 15' Long x 8' Wide area.

The Scuppers at the Begin and End of the EB (Left) Median are open. However, their downspouts drain stormwater directly onto the top of the cap at Pier 1 and Pier 2.

Span 3: 3 3 3 18

In Span 3, the Begin small diameter scupper in the WB (Right) Median is plugged with dirt. However, stormwater appears to be seeping thru and there is no evidence of ponding.

25 Median

Span 3: 3 4 5 19

The Median barrier is comprised of back-to-back w-beam rails on lightweight posts.

In Span 3, the Left (EB) w-beam is disconnected from Post 1. Post 2 has broken welds and is disconnected from its base plate. The railing connection to Post 3 is loose. The back-to-back w-beam barrier is continuous over the bridge, and remains well-aligned and mounted at a proper height.

Rating is lowered from '5' to '4'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

27 Deck Structural

Span 1: 1 4 4 20, 21

The Span 1 Deck exhibits the following deterioration:

Left Fascia Overhang: 8 SF x 4" deep spall with exposed reinforcement at the End. Adjacent to the spall, there is a 6 SF area of hollow sounding concrete.

Bay 1: 1 SF x 2" deep spall surrounded by 15 SF of damp and delaminated concrete at the Begin.
3 SF x 3" deep spall with debonded and heavily corroded rebar near the weep tube at the End. The concrete adjacent to the spall is delaminated over a 20 SF area.

Bay 2: 2 separate 1 SF delaminations at the Begin.
4 SF of cracked and delaminated concrete at the End.

Bay 3: A total of 35 SF of hollow sounding concrete over 2 areas at the Begin.

Bay 4: 3 SF of delaminated concrete at the Begin.
6 SF of delaminated concrete affecting the entire width of the bay, at the End.

Bay 5: 25 SF of damp and delaminated concrete at the End.

Bay 6: 2 SF delamination surrounding the weep tube at the Begin.
6 SF x 3" deep spall with exposed and heavily corroded rebar surrounding the weep tube at the End. Adjacent to the spall, there is a 24 SF delamination.

Bay 7 (Median): The WB (Left) overhang has isolated dampness with hollow sounding concrete at the Begin, Midspan and End.
The EB (Right) overhang has dampness and hollow sounding concrete affecting the entire surface area.

Bay 13: 4 SF delamination around the weep tube at the End.

Overall, deterioration affects 30% of the total surface area.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

27 Deck Structural

Span 2 and Span 3: 2 2 2 22, 23, 24, 25

Safety Flag 15-084 is being issued based on QC comments.

In Span 2 and Span 3, the Deck is only 7.5" thick and exhibits widespread severe spalling with exposed, debonded and heavily corroded transverse and longitudinal reinforcement. Spalled areas are up to 4" deep, and exhibit moderate to heavy dampness. Exposed reinforcement bars typically have 20% to 40% section loss, with isolated areas where rebar has rusted through. Further deterioration may result in a punch-thru.

Worst locations of deck damage include:

Span 2, Bay 1 at Begin - 4" deep spalling, with severely corroded & debonded rebar. Remaining concrete is very soft.

Span 2, Bay 4 at L/3 - 5' L x 8' W x 3" D spall w/ 13 debonded bars. Remaining concrete is very damp.

Span 2, Bays 10 & 11 - 2.5" to 4" deep spalling with debonded rebar Full-width between girders.

Span 3, Bay 1 at Begin - 6' L x 8' W area of 3" deep spalling with several main transverse bars completely rusted thru.

Span 3, Median Bay 7 - 12 SF area of spalling up to 9" deep, completely debonding entire bottom mat of rebar.

Other areas have similar, but less severe spalling, see attached deck notes and sketches.

Span 2:

The Span 2 Deck exhibits significant deterioration is as follows:

Bay 1: 12 SF x 4" deep with 5 debonded transverse bars at the Begin. (SF 15-084)
 45 SF x up to 3" deep at L/3, with 35 exposed transverse bars, 21 of which are debonded.
 75 SF x 3" deep at 2/3L, with over 50 exposed transverse bars, most of which are debonded.
 10 SF x 3" deep at the End, with 10 transverse bars.

Bay 2: 30 SF x 3" deep over 2 separate areas near the Begin, with 8 debonded bars.
 10 SF x 3" deep over 4 separate areas near L/3.

Bay 3: 24 SF x 3" deep near the Begin, with 5 debonded bars.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

27 Deck Structural

36 SF x 3" deep near L/4 with 7 debonded transverse bars.
3 SF x 3" deep near the End.

Bay 4: 40 SF x 3" deep near the Begin, with 5 debonded bars.
(SF 15-084) 40 SF x 3" deep near L/3 with 13 debonded bars.
10 SF x 2.5" deep near Midspan.
20 SF x 3" deep near 2/3L, with 3 debonded bars.

Bay 5: 50 SF x 3" deep near the Begin, with over 15 transverse bars debonded.
20 SF x 3" deep over 2 separate areas near L/3, with 6 debonded bars.
36 SF x 3" deep near 2/3L with 6 debonded transverse bars.

Bay 6: 15 SF x 2" deep over 3 separate area near L/3.

Bay 10: 100 SF (+/- 12' L x +/- 8' W) x up to 4" deep in the Begin half of the span, with over 20 debonded bars.(SF 15-084)

Bay 11: 45 SF x up to 4" deep near the Begin, with 10 debonded bars. (SF 15-084)
30 SF x up to 4" deep near L/3, with 8 debonded bars.
30 SF x up to 4" deep near 2/3L, with 6 debonded bars.

Bay 12: 3 separate 5 SF x 3" deep spalls near the Begin, L/3 and Midspan.

Bay 13: 20 SF x 3" deep over 3 separate areas near Midspan.

Right Fascia Overhang: 4 SF x 3" deep at the Begin.
16 SF x 2" deep near Midspan.
6 SF x 3" deep at the End.

Overall, deterioration affects 50% of the total surface area. Deterioration and spalling has progressed slightly since the previous 2013 inspection.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

27 Deck Structural

Span 3: 3 3 3 26, 27

The Span 3 Deck exhibits the following deterioration:

Bay 1: 50 SF x 3" deep spall at the Begin. Spalling exposes 4 longitudinal and 10 transverse bars, 2 of which are broken. (SF 15-084)
12 SF delamination near Midspan.

Bay 2: 12 SF delamination at the Begin.
16 SF delamination at the End.

Bay 3: 40 SF of hollow sounding concrete over 2 separate areas, near the Begin.
15 SF delamination near Midspan.

Bay 4: 4 SF x 3" deep spall with exposed rebar at the Begin. The spall is surrounded by 6 SF of delaminated concrete.

Bay 5: 12 SF of dampness at the Begin.

Bay 6: 4 SF x 3" deep spall with exposed and debonded reinforcement.

Bay 7 (Median): The WB (Right) overhang has a 12 SF x up to 9" deep spall with exposed and debonded reinforcement at the End. Spalling exposed 2 debonded longitudinal bars, and 6 debonded bottom transverse bars and the ends of 3 top transverse bars. The concrete within the spall is very soft, and crumbles easily. (SF 15-084)

The remainder of the Bay 7 surface area is damp with rust staining and efflorescence.

Bay 8: 15 SF of hollow sounding concrete at the End.
The remainder of the Bay 8 surface area exhibits dampness with efflorescence throughout.

Bay 9: 64 SF delamination near L/3.
10 SF of hollow sounding concrete at the End.

Bay 10: 70 SF delamination near L/3.
55 SF delamination at the End.

Bay 11: 32 SF delamination at the Begin.
3 SF x 3" deep spall with exposed rebar near Midspan.
100 SF delamination near the End.

Bay 12: 24 SF delamination near the Begin.

Bay 13: 4 SF x 2" deep spall with exposed rebar surrounded by a

RATING FORM: TP350			
ITEM:	TITLE:	RATINGS	
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

27 Deck Structural

24 SF delamination near the Begin.
2 SF x 2.5" deep spall with exposed rebar near Midspan.

Right Fasica Overhang: 4 SF x 3" deep spall with exposed and corroded rebar at the Begin.

Overall, deterioration affects 20 % of the total surface area.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

28 Primary Members

All Spans: 1 4 4 28, 29

The Girder ends over Piers 1 and 2 exhibit heavy active corrosion, with significant web section loss in the lower portion of the critical bearing area. Significant web section loss typically extends for a height of at least 8" above the bearing. There is no distortion or buckling at this time, however it is apparent that corrosion and section loss are progressing at a very rapid rate. There are no bearing stiffeners and there is only a partial-height diaphragm connection plate on both sides of the interior girders, and on the "inside" of the fascia girders. These typically heavily corroded connection plates only provide support to prevent sidesway buckling, and provide no support against local web yielding or local web crippling.

Two Locations meet NYSDOT Yellow Flag criteria of >50% web section loss directly over bearing:

- Span 1, Girder G5 at Pier 1 - 55% section loss
- Span 2, Girder G1 at Pier 1 - 50% section loss

Span 1, Girder G1 at the Begin Abutment and 27 additional girder end locations over Piers 1 & 2 have similar (21%-41) web section loss, but do not meet the extent of deterioration to warrant a Yellow Flag. See attached Section Loss Documentation.

In all 3 Spans, the End-Diaphragms over Pier 1 and Pier 2 exhibit heavy active corrosion, with large rust-thru perforations along the webs and flanges. The diaphragm webs typically have large holes at the girder connection plates and just above the bottom flange. Corrosion along the top and bottom flanges has resulted in loss of flange width, and 50% to 75% section loss to the bottom flange.

At the Begin and End Abutments, the End-Diaphragms in Bays 1 and 13 are in similar, but less severe condition with heavy active corrosion. The remainder of the End-Diaphragms over the Abutments are in good condition with no significant section loss.

Span 1:

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

28 Primary Members

In Span 1, in addition to G5, the following girders also have severe web bearing section loss:

- Span 1, Girder G1 at Begin Abutment - 28% section loss
- Span 1, Girder G1 at Pier 1 - 30% section loss
- Span 1, Girder G2 at Pier 1 - 36% section loss
- Span 1, Girder G3 at Pier 1 - 27% section loss
- Span 1, Girder G4 at Pier 1 - 32% section loss
- Span 1, Girder G5 at Pier 1 - 55% section loss (YF 15-067)
- Span 1, Girder G6 at Pier 1 - 41% section loss
- Span 1, Girder G7 at Pier 1 - 41% section loss
- Span 1, Girder G8 at Pier 1 - 23% section loss
- Span 1, Girder G10 at Pier 1 - 30% section loss
- Span 1, Girder G12 at Pier 1 - 23% section loss
- Span 1, Girder G13 at Pier 1 - 32% section loss
- Span 1, Girder G14 at Pier 1 - 28% section loss

The ends of Girders G9 & G11 at Pier 1 have 15% to 20% web section loss. Away from the bearings, the remaining areas of the girders are in good condition, with no significant section loss.

See attached Section Loss Documentation.

Span 2: 2 4 4 30

In Span 2, in addition to G1, the following girders have severe web section loss over the Pier 1 and Pier 2 bearings:

- Span 2, Girder G1 at Pier 1 - 50% section loss (YF 15-067)
- Span 2, Girder G2 at Pier 1 - 22% section loss
- Span 2, Girder G4 at Pier 1 - 28% section loss
- Span 2, Girder G13 at Pier 1 - 26% section loss
- Span 2, Girder G14 at Pier 1 - 24% section loss

The remaining 9 Girder ends at Pier 1 have 10% to 20% web section loss.

- Span 2, Girder G2 at Pier 2 - 21% section loss
- Span 2, Girder G3 at Pier 2 - 21% section loss
- Span 2, Girder G9 at Pier 2 - 24% section loss
- Span 2, Girder G11 at Pier 2 - 21% section loss

The remaining 10 Girder ends at Pier 2 have 10% to 20% web section loss.

Away from the Pier supports, all 14 girders are in good condition, with no significant section loss.

See attached Section Loss Documentation.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

28 Primary Members

Span 3: 3 4 4 31, 32

Span 3, Girder G14 at Pier 2: A new 4" Wide x 1/2" Thick bearing stiffener has been welded to the Right side "only" since the previous inspection. Yellow Flag 13-055 was removed by the owner on 2/24/2014.

In Span 3, the following girders have severe web section loss over the Pier 2 bearings:

- Span 3, Girder G1 at Pier 2 - 38% section loss
- Span 3, Girder G2 at Pier 2 - 23% section loss
- Span 3, Girder G3 at Pier 2 - 28% section loss
- Span 3, Girder G5 at Pier 2 - 33% section loss
- Span 3, Girder G7 at Pier 2 - 21% section loss
- Span 3, Girder G9 at Pier 2 - 28% section loss
- Span 3, Girder G10 at Pier 2 - 33% section loss
- Span 3, Girder G11 at Pier 2 - 22% section loss

The remaining 7 Girder ends at Pier 2 have 10% to 20% web section loss.

Away from the Pier supports, all 14 girders are in good condition, with no significant section loss.

See attached Section Loss Documentation.

30 Paint

All 3 Spans: 1 3 3 28, 33

In all 3 Spans, complete Paint failure affects the girder ends and end-diaphragms over Pier 1 and Pier 2, and has resulted in heavy active corrosion and moderate to severe section loss. Fascia Girders G1 and G14, and Median Girders G7 and G8 exhibit complete paint failure and surface corrosion along the top and bottom flanges, as well as the webs at the abutments. Along girders G2 - G6 and G9 - G13, paint failure affects the edges of the girder top and bottom flanges, with light to moderate rust scaling being typical throughout.

Overall, paint damage and active corrosion affects approximately 30% of the total steel surface area in each span.

2 3 3 30, 33
3 3 3 33

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

31 Joints

Pier 1: 1 2 2 34

The Pier 1 Joint has 12" wide concrete headers. Along the joint gap, several 4" wide sections of the original concrete headers have been replaced with elastomeric concrete. The joint is filled with a poured seal.

The Joint seal appears to be intact over the entire width of the bridge. However, the elastomeric concrete sections have pulled away from the original header, resulting in a 1/16" to 1/8" wide unsealed gap across the width of the bridge. The header sections are slightly uneven and vehicles encounter a noticeable bump when traveling over the joint.

Below Deck, there is heavy active joint leakage across the entire width of the bridge. Active joint leakage contributes to significant deterioration of the underlying elements.

Pier 2: 2 2 2 35

The Pier 2 Joint has 12" wide concrete headers. Along the joint gap, several 4" wide sections of the original concrete headers have been replaced with elastomeric concrete. The joint is filled with a poured seal.

The joint seal is missing in the WB (Right) driving lane, exposing a 3' length of rigid foam board within the joint gap. The elastomeric concrete sections have pulled away from the original header, resulting in a 1/16" to 1/8" wide unsealed gap across the width of the bridge. The header sections are slightly uneven and vehicles encounter a noticeable bump when traveling over the joint.

Below Deck, there is heavy active joint leakage across the entire width of the bridge. Active joint leakage contributes to significant deterioration of the underlying elements.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

33 Bearings, Anchor Bolts, Pads

Pier 1: 1 3 3 36

The Pier 1 Bearings are high steel rocker bearings for Span 1 girders and high steel fixed bearings for Span 2 girders.

All 14 Expansion bearings for Span 1 exhibit heavy corrosion with thick rust delaminations on all components. All 14 bearings are rotated within acceptable ranges at 71° F. However, corrosion appears to restrict proper movement.

All 14 Fixed bearings for Span 2 exhibit heavy corrosion with thick rust delaminations on all components. The corrosion appears to restrict proper girder end rotation.

Pier 2: 2 3 3 37

The Pier 2 Bearings are high steel rocker bearings for Span 2 and Span 3 girders.

All 28 Expansion bearings exhibit heavy corrosion with thick rust delaminations on all components. The corrosion appears to restrict proper movement, and several bearings appear at least partially frozen.

The Span 2 bearing under girder G2 has a 1/16" gap between the sole plate and pin. The rocker is loose and can be moved by hand. The girder moves vertically as heavier traffic passes, and the girder's sole plate appears to contact the bearing. The bearing appears to transmit at least some live load (LL) to the pier.

The Span 3 bearings under girders G1 and G14 are rotated 10° beyond neutral, in an expanded position, at 71° F. These bearings do not meet yellow flag criteria, which is a 12° tilt beyond the neutral position.

See attached Pier 2, Span 3 Bearing Documentation.

The remaining 26 Pier 2 bearings are positioned within +/- 5° of plumb at 71° F.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

34 Pedestals

Pier 1: 1 4 4 38

The Pier 1 Pedestals exhibit the following deterioration:

Pedestal 10: 2 SF of hollow sounding concrete on the End side of the Span 2 bearing.

Pedestal 12: 2 SF x 4" deep spall with exposed rebar on the End side of the Span 2 bearing. Spalling is within 4" of the masonry plate.

Pedestal 13: 2 SF of hollow sounding concrete on the End side of the Span 2 bearing.

The remaining 11 pedestals would rate '5'.

Pier 2: 2 4 4 39, 40

The Pier 2 Pedestals exhibit the following deterioration:

Pedestal 10: 2 SF of hollow sounding concrete on the Begin side of the Span 2 bearing.

Pedestal 11: 3 SF x up to 3" deep spall with exposed rebar on the Begin side of the Span 2 bearing. Spalling extends up to, but not under the bearing masonry plate.

Pedestal 12: 1 SF of hollow sounding concrete on the End side of the Span 2 bearing.

Pedestal 14: 2 separate 1/16" wide cracks emitting from the Span 2 and Span 3 bearing anchor bolts. Cracking continues 12" down the Right vertical face, and is surrounded by 2 SF of delaminated concrete. The Span 2 and Span 3 bearings under G14 appear "frozen" due to heavy corrosion and rust delaminations. Contraction is restricted, and the cracks in the pedestal appear to be the result of girder shortening, which is pulling the bearing anchor bolts.

The remaining 10 pedestals would rate '5'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

35 Top of Pier Cap or Beam

Pier 1: 1 4 4 41

The Top of Cap Beam exhibits the following deterioration:

Girder Bay 2: 6 SF x 3" deep top corner spall with exposed rebar along the End, with 5 SF of cracked and delaminated concrete extending 12" down the vertical face.

Girder Bay 10: 3 SF x 3" deep top corner spall with exposed rebar along the End, surrounded by 4 SF of delaminated concrete.

Girder Bay 12: 6 SF of hollow sounding concrete along the End corner.

The remainder of the Top of Cap Beam would rate '5'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

35 Top of Pier Cap or Beam

Pier 2: 2 4 4 39, 40

The Top of Cap Beam exhibits the following deterioration:

Left of Girder G1: 3 SF of cracked and delaminated concrete.

Girder Bay 2: 2 SF of cracked and delaminated concrete along the Begin edge.

Girder Bay 3: 3 SF x 2" deep top corner spall with exposed rebar along the Begin.

Girder Bay 4: 4 SF x 3" deep top corner spall with exposed rebar along the Begin.

Girder Bay 6: 2 SF of hollow sounding concrete along the Begin edge.

Girder Bay 8: 2 SF x 3" deep top corner spall with exposed rebar along the Begin.

Girder Bay 9: 2 SF of hollow sounding concrete along the Begin edge, which continues 3" down the vertical face to an 8' Long horizontal crack.

Girder Bay 10: 3 SF x 3" deep top corner spall with exposed rebar along the Begin. Adjacent to the spall is a 5 SF delamination.

Girder Bay 11: 5 SF x 2" deep spall with exposed rebar along the top surface, near the Begin.

Girder Bay 12: 4 SF x 2" deep spall with exposed rebar along the top surface, near the Begin.

Girder Bay 13: 3 SF x 3" deep spall with exposed rebar on the top surface, near the Begin.

Right of Girder G14: 2 separate 1/16" wide cracks emitting from the Span 2 and Span 3 bearing anchor bolts. Cracking continues 12" down the Right vertical face, and is surrounded by 2 SF of delaminated concrete.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

37 Cap Beam

Pier 1: 1 4 4 42

The Cap Beam exhibits the following deterioration:

Column Bay 1: 4 SF x 1" deep surface spall on the End face, above Column 1.

Column Bay 2: 4 SF of cracked and delaminated concrete on the End face, near the top.

Column Bay 3: 8 SF of cracked and delaminated concrete on the Begin face.

Column Bay 4: 2 SF of cracked and delaminated concrete along the Begin bottom corner, below the EB (Left) Median overhang. 2 SF x 3" deep bottom corner spall along the Begin, near Column 5.

Column Bay 5: 5 SF of hollow sounding concrete along the End bottom corner.

Column Bay 7: 8 SF of cracked and delaminated concrete over 2 areas on the Begin face.

38 Pier Columns

Pier 1: 1 4 4 43

The Pier 1 Columns exhibit the following deterioration:

Column 2: 2 SF x 2" deep surface spall on the End Right face, near the gradeline. Adjacent to the spall, there is an 18 SF delamination on the End face that wraps around to the End Left quadrant.

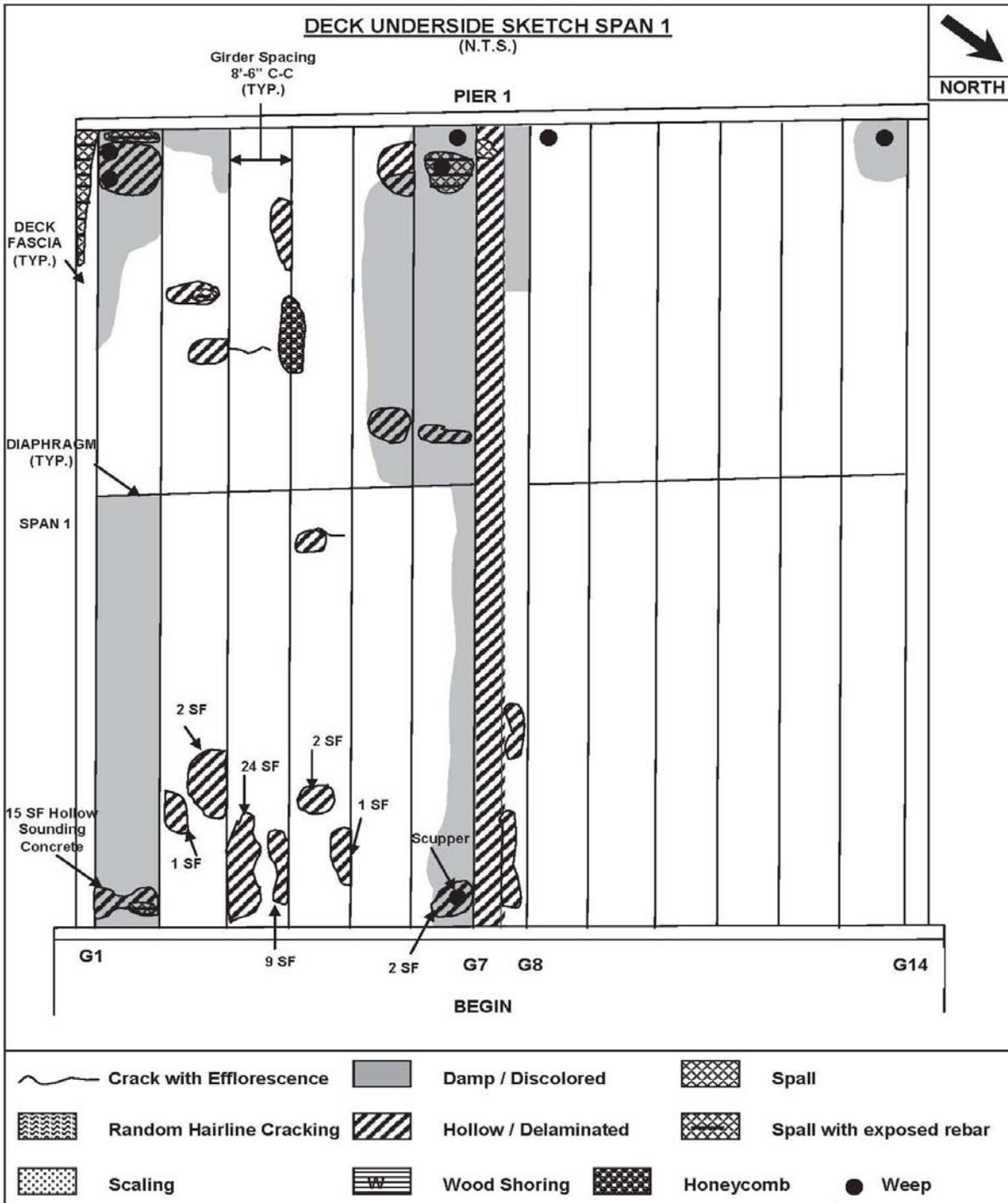
Column 4: 3 SF of hollow sounding concrete on the End face, near the top.

Column 5: 3 SF of hollow sounding concrete on the End face, near the top.

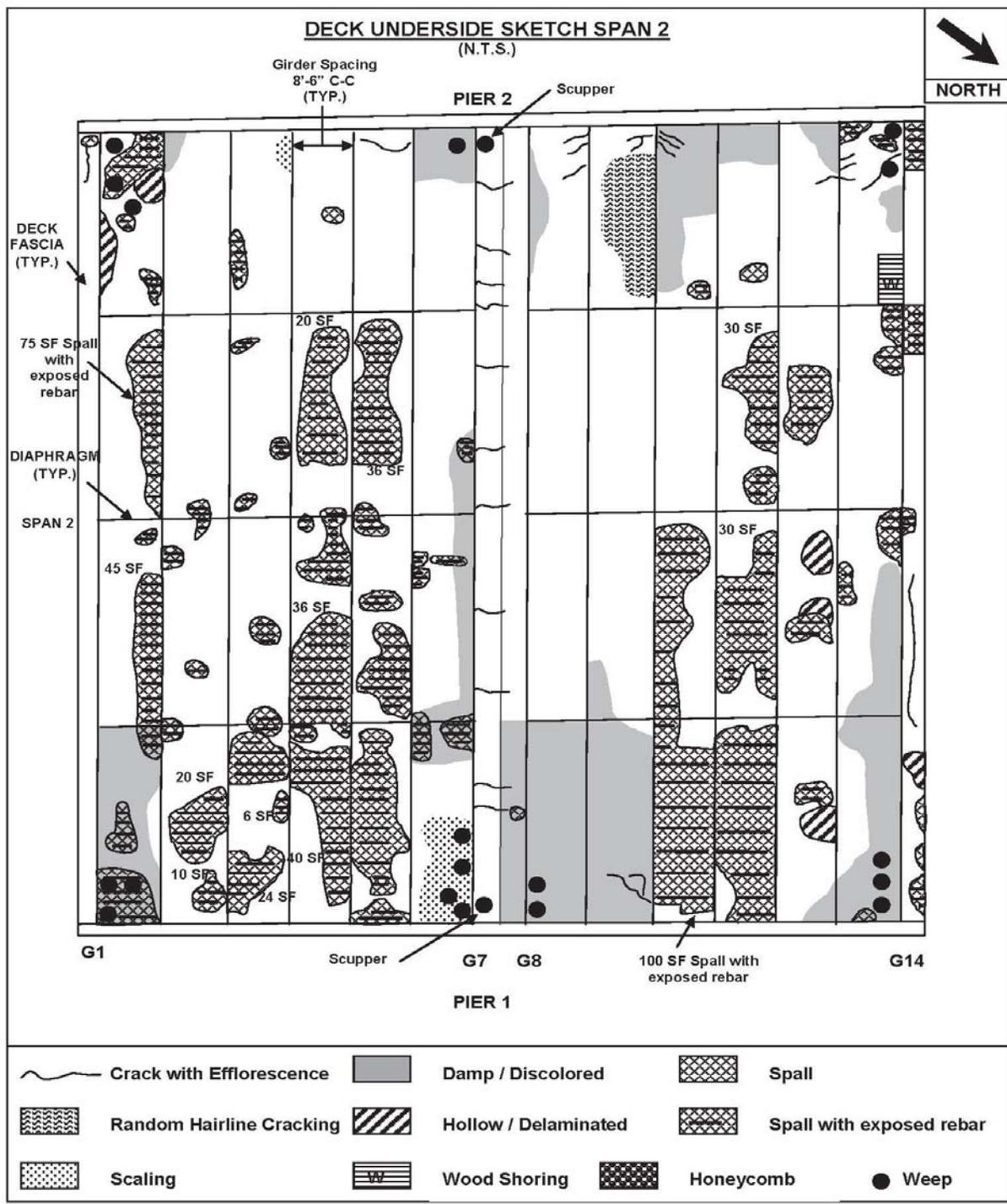
Column 6: 40 SF of cracked and delaminated concrete extending from the End Left to the End Right quadrant.

Sketch Type: Deck

File Name: 238.22-12-01-15DeckS1.jpg

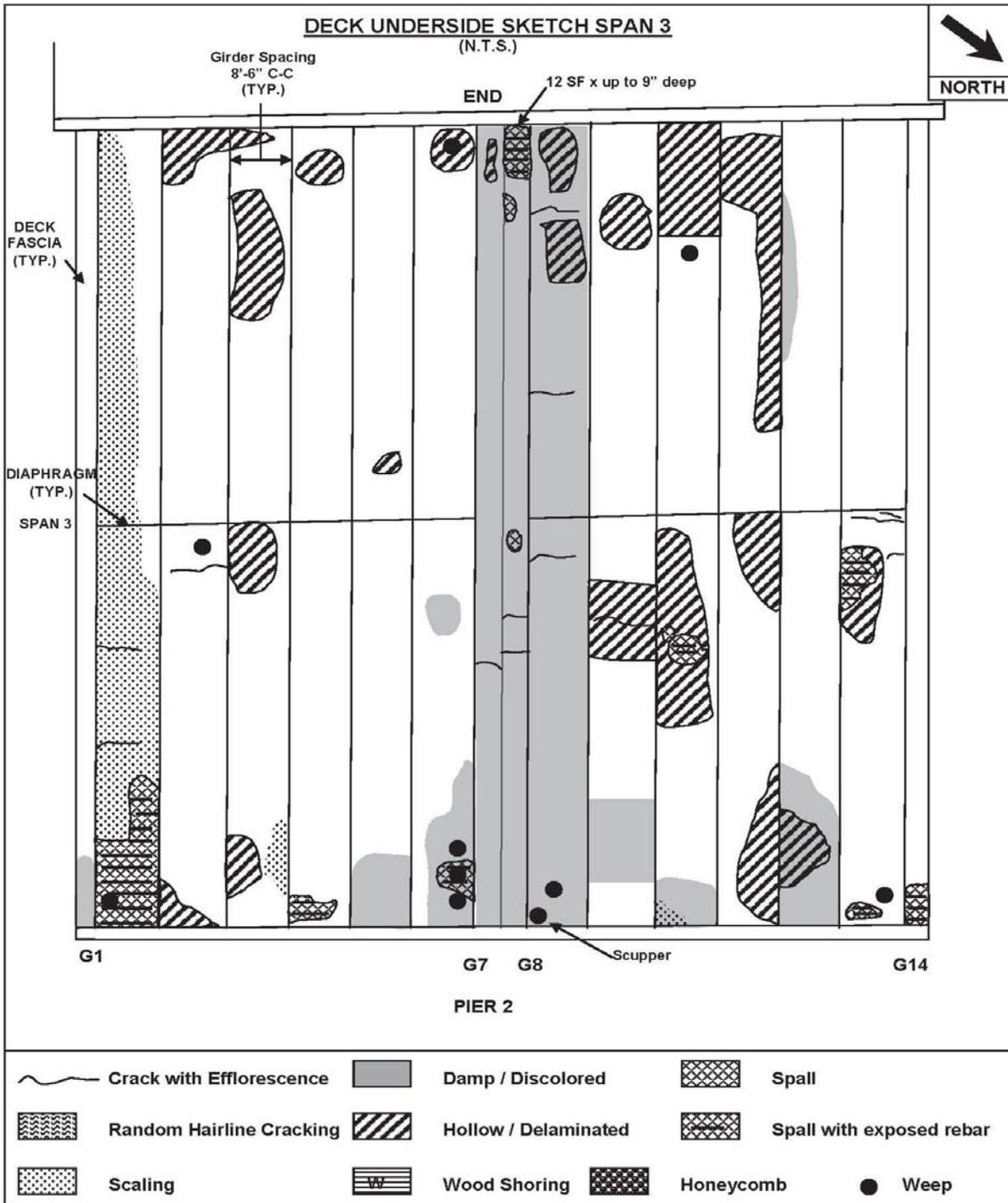


Sketch Type: Deck
 File Name: 238.22-12-02-15DeckS2.jpg

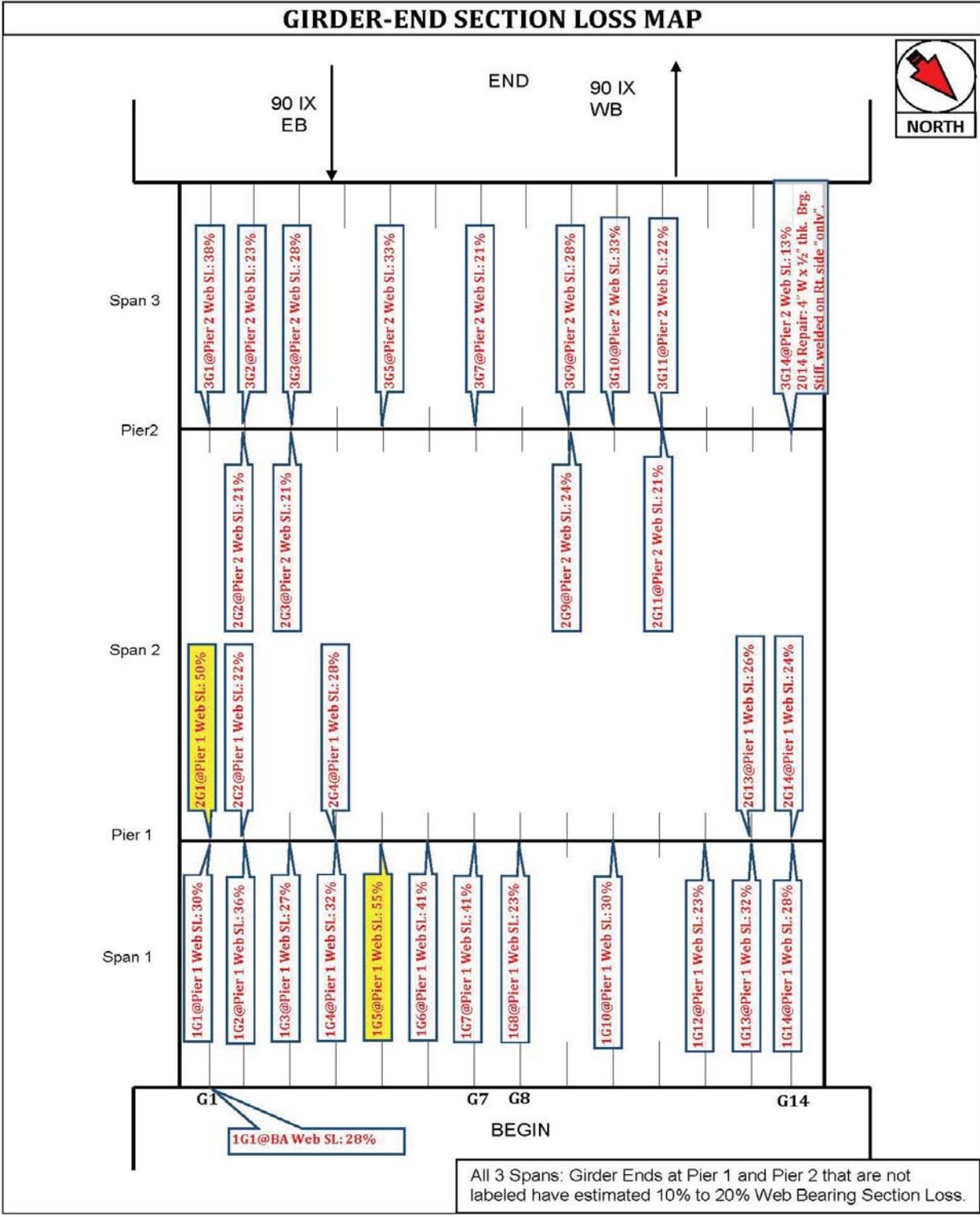


Sketch Type: Deck

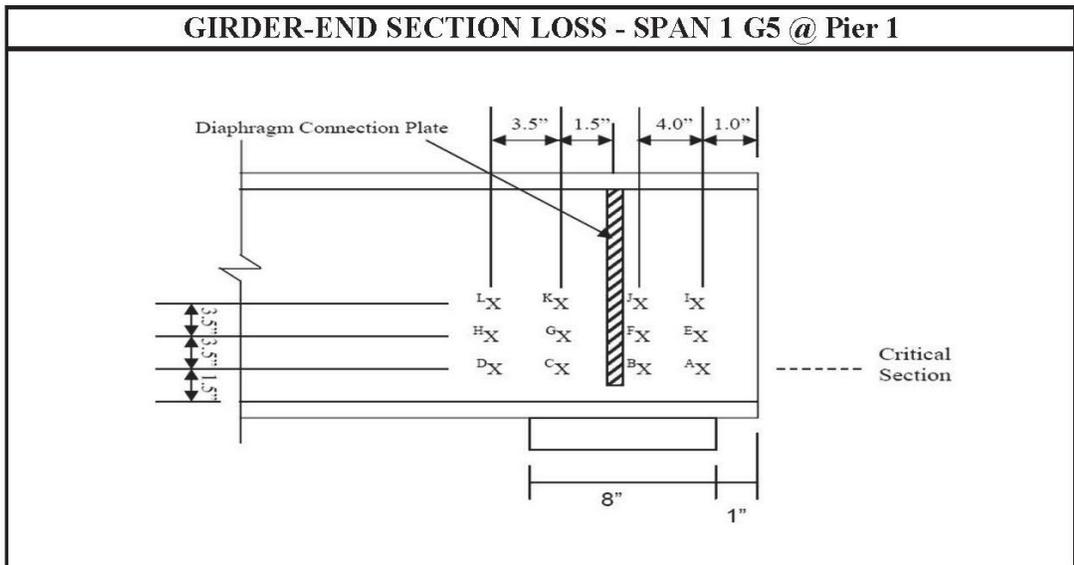
File Name: 238.22-12-03-15DeckS3.jpg



Sketch Type: Special Emphasis
 File Name: 238.22-17-02-15WebMap.jpg



Sketch Type: Special Emphasis
File Name: 238.22-17-00-15S1G5P1.jpg



W 30x116		tw = 0.564		Span Side Length= 5.076				Joint Side Length = 5.000				
S1 G5 @ Pier 1	Row 1				Row 2				Row 3			
	Joint Side		Span Side		Joint Side		Span Side		Joint Side		Span Side	
	A	B	C	D	E	F	G	H	I	J	K	L
	0.134	0.218	0.317	0.337	0.362	0.348	0.464	0.454	0.384	0.434	0.501	0.497
Average (in)	0.176		0.327		0.355		0.459		0.409		0.499	
Weighted Ave. (in)	0.252				0.407				0.454			
% SL	55%				28%				19%			

Span 1, G5 @ Pier1	Percent Section Loss		
Design Section per Plan: W 30x116;	2015		
Web Thickness: 0.564", Bearing Stiffener: None*			
Avg. Web SL. Span Side (9*tw=5.076") [Avg% / Worst%]	24% / 42%		
Avg. Web SL. Joint Side (5.0") [Avg% / Worst%]	44% / 69%		
Computed Ave. SL.	34%		
Computed Ave. SL. for critical Section (Row 1)	55%		
Notes:			
2015: Web Section Loss monitoring established.			

*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 5.076" + 5.0" = 10.076"

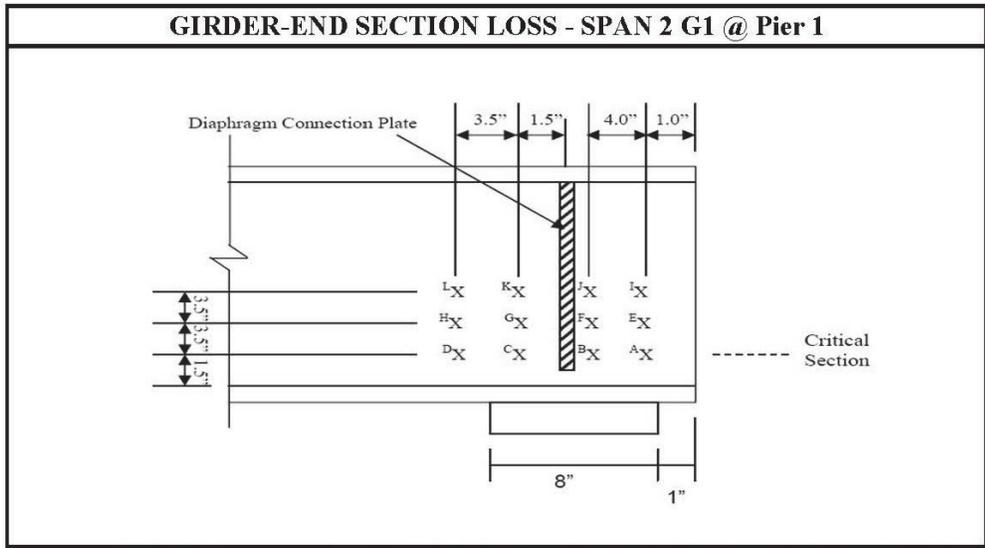
Total original effective bearing area = 10.076" x 0.564" = 5.682 in²

Sample calculations: (Row 1)

Weighted Ave. = [(Span Side SL x Span Side Length) + (Joint Side SL x Joint Side Length)] / Total effective bearing length

Weighted Average = [(0.327" x 5.076") + (0.176" x 5.0")] / (10.076") = 0.252"

Sketch Type: Special Emphasis
File Name: 238.22-17-01-15S2G1P1.jpg



W 36x230	tw = 0.765	Span Side Length = 6.885	Joint Side Length = 5.000									
S2 G1 @ Pier 1	Row 1		Row 2		Row 3							
	Joint Side		Span Side		Joint Side		Span Side					
	A	B	C	D	E	F	G	H	I	J	K	L
	0.329	0.284	0.406	0.476	0.389	0.342	0.509	0.492	0.487	0.518	0.602	0.542
Average (in)	0.307		0.441		0.366		0.501		0.503		0.572	
Weighted Ave. (in)	0.384				0.444				0.543			
% SL	50%				42%				29%			

Span 2, G1 @ Pier1	Percent Section Loss		
Design Section per Plan: W 36x230;	2015		
Web Thickness: 0.765", Bearing Stiffener: None*			
Avg. Web SL. Span Side (9*tw=6.885") [Avg% / Worst%]	34% / 42%		
Avg. Web SL. Joint Side (5.0") [Avg% / Worst%]	49% / 60%		
Computed Ave. SL.	40%		
Computed Ave. SL. for critical Section (Row 1)	50%		
Notes:			
2015: Web Section Loss monitoring continued.			

*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 6.885" + 5.0" = 11.885"

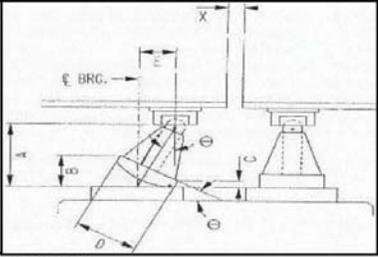
Total original effective bearing area = 11.885" x 0.765" = 9.09 in²

Sample calculations: (Row 1)

Weighted Average = [(Span Side SL x Span Side Length) + (Joint Side SL x Joint Side Length)] / (Total effective bearing length)

Weighted Average = [(0.441" x 6.885") + (0.307" x 5.0")] / (11.885") = 0.384"

Sketch Type: Miscellaneous
 File Name: 238.22-13-02-15P2S3Bg.jpg

PRUDENT ENGINEERING	NYSTA Bridge Inspection Rocker Bearing Calculations	Sheet No. ___ of ___ Job No. D214073 By AML Date 8/19/2015																																											
PIER 2, SPAN 3 BEARINGS																																													
Feature Carried: 901X Feature Crossed: Oriskany Blvd. Route 69		BIN: 5009929 MP: 238.22																																											
<p>Span Data:</p> <p>Abutment or Pier No.: Pier 2</p> <p>Span Length** (ft)(L_{span}): 33.5</p> <p>Bearing Height (in) (A): 7</p> <p>Bearing Width (in) (D): 6</p> <p>Exposed Abut Height (ft):</p> <p>Site Conditions:</p> <p>Temperature(T_{site})(°F): 71</p>	<p>Rocker Bearing Field Documentation Summary</p> <p>I. Reference Sketch:</p> <p>A = Height of rocker B = High corner of rocker plate C = Low corner of rocker plate D = width of rocker plate θ = Angle of rotation (tilt) E = Eccentricity (translation) X = minimum clear distance between girders or from girder to abutment.</p>																																												
<p>Determine Limits of Thermal Changes at Design Temperatures</p> <p>T_{max}: 120 Maximum Design Temperature (°F) T_{min}: -30 Minimum Design Temperature (°F) T_{expansion}: 49 T_{max} - T_{site} (°F) T_{contraction}: -101 T_{min} - T_{site} (°F) E_{steel}: 0.0000065 (Coefficient of expansion for steel) L_{expansion}: 0.13 E_{steel} x T_{expansion} x L_{span} x 12ⁱⁿ/_{ft} (in.) L_{contraction}: -0.26 E_{steel} x T_{contraction} x L_{span} x 12ⁱⁿ/_{ft} (in.)</p>																																													
<p>Calculate Bearing Rotation for Flag Conditions (TA 05-001)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Flag Type</th> <th>Criteria</th> <th>X (in)</th> <th>θ_{flag} (°) @</th> </tr> </thead> <tbody> <tr> <td>Yellow</td> <td>L_{chord} / 4</td> <td>1.55"</td> <td>12.00</td> </tr> <tr> <td>Red</td> <td>(3 / 8) L_{arc}</td> <td>2.33"</td> <td>19.00</td> </tr> <tr> <td>Red PIA</td> <td>L_{arc} / 2</td> <td>3.10"</td> <td>25.00</td> </tr> </tbody> </table>			Flag Type	Criteria	X (in)	θ _{flag} (°) @	Yellow	L _{chord} / 4	1.55"	12.00	Red	(3 / 8) L _{arc}	2.33"	19.00	Red PIA	L _{arc} / 2	3.10"	25.00																											
Flag Type	Criteria	X (in)	θ _{flag} (°) @																																										
Yellow	L _{chord} / 4	1.55"	12.00																																										
Red	(3 / 8) L _{arc}	2.33"	19.00																																										
Red PIA	L _{arc} / 2	3.10"	25.00																																										
<p>Calculate Additional Rotation due to Expansion / Contraction</p> <p>θ_{expansion} = 1.0 ° --> {Tan⁻¹ (L_{expansion} / A)}</p> <p>θ_{contraction} = -2.2 ° --> {Tan⁻¹ (L_{contraction} / A)}</p> <p style="font-size: small;">To be added to field bearing rotation to achieve rotation at maximum design temp. To be subtracted from the field bearing rotation to achieve rotation at minimum design temp.</p>																																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bearing</th> <th rowspan="2">θ_{measured}</th> <th colspan="4">Determine Maximum Movement of Bearings</th> <th rowspan="2">Is Flag Warranted</th> </tr> <tr> <th>θ_{max}</th> <th>θ_{min}</th> <th>E_{max}</th> <th>E_{min}</th> </tr> </thead> <tbody> <tr> <td>G1</td> <td>10.0</td> <td>11.0</td> <td>7.8</td> <td>1.34</td> <td>0.95</td> <td>No</td> </tr> <tr> <td>G2</td> <td colspan="6" rowspan="10" style="text-align: center; vertical-align: middle;">Bearings G2 - G13 are rotated within +/- 5° of the neutral position</td> </tr> <tr><td>G3</td></tr> <tr><td>G4</td></tr> <tr><td>G5</td></tr> <tr><td>G6</td></tr> <tr><td>G7</td></tr> <tr><td>G8</td></tr> <tr><td>G9</td></tr> <tr><td>G10</td></tr> <tr><td>G11</td></tr> <tr><td>G12</td></tr> <tr><td>G13</td></tr> <tr> <td>G14</td> <td>10.0</td> <td>11.0</td> <td>7.8</td> <td>1.34</td> <td>0.95</td> <td>No</td> </tr> </tbody> </table>			Bearing	θ _{measured}	Determine Maximum Movement of Bearings				Is Flag Warranted	θ _{max}	θ _{min}	E _{max}	E _{min}	G1	10.0	11.0	7.8	1.34	0.95	No	G2	Bearings G2 - G13 are rotated within +/- 5° of the neutral position						G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	10.0	11.0	7.8	1.34	0.95	No
Bearing	θ _{measured}	Determine Maximum Movement of Bearings				Is Flag Warranted																																							
		θ _{max}	θ _{min}	E _{max}	E _{min}																																								
G1	10.0	11.0	7.8	1.34	0.95	No																																							
G2	Bearings G2 - G13 are rotated within +/- 5° of the neutral position																																												
G3																																													
G4																																													
G5																																													
G6																																													
G7																																													
G8																																													
G9																																													
G10																																													
G11																																													
G12																																													
G13																																													
G14	10.0	11.0	7.8	1.34	0.95	No																																							

PHOTOGRAPHS

Location:	Photo Name:	Photo #:
Begin Abutment Bearing under Girder G1	238.22-349-24-00-15BrgG1B.JPG	1

Description(s):
- Heavy corrosion and rust delamination may restrict normal girder end rotation.



Reference:

Form:	Item:	Item Desc:	Rate:
349	24	Bearings, Anchor Bolts, Pads (Begin)	4

Location:	Photo Name:	Photo #:
Begin Abutment Pedestal beneath Girder G6	238.22-349-26-00-15PedG6B.JPG	2

Description(s):
- 2 SF x 3" deep top corner spall with exposed reinforcement.



Reference:

Form:	Item:	Item Desc:	Rate:
349	26	Bridge Seat and Pedestals (Begin)	3

Location:	Photo Name:	Photo #:
Begin Abutment Pedestal beneath Girder G14	238.22-349-26-01-Ped14B.JPG	3

Description(s):

- 18" L x 3' W x up to 2" deep spall surrounding the bearing masonry plate. Loss of contact area is approximately 20%.



Reference:

Form:	Item:	Item Desc:	Rate:
349	26	Bridge Seat and Pedestals (Begin)	3

Location:	Photo Name:	Photo #:
End Abutment Pedestal beneath Girder G14	238.22-349-27-00-15Ped14E.JPG	4

Description(s):

- 1 SF x 1" deep surface spall surrounded by 2 SF of cracked and delaminated concrete.



Reference:

Form:	Item:	Item Desc:	Rate:
349	27	Bridge Seat and Pedestals (End)	4

Location:	Photo Name:	Photo #:
Begin Abutment Backwall in Bay 3	238.22-349-28-00-15BWbay3.JPG	5

Description(s):
- 6 SF x 2" deep spall with exposed reinforcement and 10 SF of hollow sounding concrete.



Reference:

Form:	Item:	Item Desc:	Rate:
349	28	Backwall (Begin)	4

Location:	Photo Name:	Photo #:
End Abutment Backwall, Left of Girder G1	238.22-349-29-00-15BWendL.JPG	6

Description(s):
- 8 SF x up to 4" deep spall with exposed, debonded and heavily corroded reinforcement.



Reference:

Form:	Item:	Item Desc:	Rate:
349	29	Backwall (End)	4

Location:	Photo Name:	Photo #:
End Abutment Backwall in Bay 4	238.22-349-29-01-15BWbay4.JPG	7

Description(s):

- 18 SF x 2" deep spall with exposed, debonded and heavily corroded reinforcement.



Reference:

Form:	Item:	Item Desc:	Rate:
349	29	Backwall (End)	4

Location:	Photo Name:	Photo #:
Begin Abutment below Girder Bays 6-8	238.22-349-32-00-15BegEro.JPG	8

Description(s):

- The embankment settlement and erosion, with displaced stone protection affecting a 20' Wide area over the entire length of the slope.



Reference:

Form:	Item:	Item Desc:	Rate:
349	32	Erosion or Scour (Begin)	4

Location:	Photo Name:	Photo #:
End Approach, Left Guide Railing	238.22-349-58-00-15GREndL.JPG	9

Description(s):

- Posts #4, #5 and #6 are disconnected from the rail



Reference:

Form:	Item:	Item Desc:	Rate:
349	58	Guide Railing	4

Location:	Photo Name:	Photo #:
End Approach, Right Guide Railing	238.22-349-58-00-15GREndR.JPG	10

Description(s):

- Post #5 is disconnected, and the w-beam is deformed and wavy over a 50' length.



Reference:

Form:	Item:	Item Desc:	Rate:
349	58	Guide Railing	4

Location:	Photo Name:	Photo #:
Span 3, WB (Right) from End	238.22-350-19-00-15WSsp-3.JPG	11

Description(s):

- Asphalt Wearing Surface is in good condition.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	3	5

Location:	Photo Name:	Photo #:
Span 2, WB (Right) Median at Begin	238.22-350-19-15WSsp-2.JPG	12

Description(s):

- Evidence of ponding over a 15' Long x 8' Wide area. Ponding water appears to be seeping thru, which is promoting further deterioration of the deck.
- Plugged scupper has resulted in ponding water in a 15' Long x 8' Wide area.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	2	4
350	23	Scuppers	2	3

Location:	Photo Name:	Photo #:
Span 1, Left Fascia at End	238.22-350-21-01-15FascLt.JPG	13

Description(s):

- 4' L x up to 14" H x 3" D bottom corner spall with exposed reinforcement.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & 1 Fascias	4	

Location:	Photo Name:	Photo #:
Span 2, Right Fascia at Begin	238.22-350-21-02-15FascBR.JPG	14

Description(s):

- 3 seperate 2' Long x up to 8" High x up to 3" Deep spalls with exposed reinforcement.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & 2 Fascias	4	

Location:	Photo Name:	Photo #:
Span 1, Left Railing on the End side of Post 8	238.22-350-22-01-15RailLt.JPG	15

Description(s):

- 2.5' Long rust-thru perforations along the top and bottom faces of the top rail.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	22	Railings & Parapets	1	4

Location:	Photo Name:	Photo #:
Span 2, Left Railing Post 6	238.22-350-22-02-15LeftP6.JPG	16

Description(s):

- Cracked welds at the base plate on the Right and End sides of the post.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	22	Railings & Parapets	2	4

Location:	Photo Name:	Photo #:
Span 2, Scupper Downspout below EB (Left) Median	238.22-350-23-02-15P1S2BR.JPG	17

Description(s):

- Downspout is located directly over Pier 1, allowing stormwater to spill onto the top of the cap beam.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	23	Scuppers	2	3

Location:	Photo Name:	Photo #:
Span 3, Scupper in WB (Right) Median at Begin	238.22-350-23-03-15Scuppr.JPG	18

Description(s):

- Small diameter scupper inlet is plugged with dirt



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	23	Scuppers	3	3

Location:	Photo Name:	Photo #:
Span 3, Median Barrier Post #2, Looking from Left	238.22-350-25-03-15MedP#2.JPG	19

Description(s):

- Welds are broken and the post is disconnected from the base plate.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	25	Median	3	4

Location:	Photo Name:	Photo #:
Span 1, Deck in Bay 1 at End	238.22-350-27-01-15Bay_1E.JPG	20

Description(s):

- 3 SF x 3" deep spall with debonded and heavily corroded reinforcement. The surrounding concrete is cracked and delaminated.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	1	4

Location:	Photo Name:	Photo #:
Span 1, Deck in Bay 6 at End	238.22-350-27-01-15Bay_6E.JPG	21

Description(s):

- 6 SF x 3" deep spall with debonded and heavily corroded reinforcement. The surrounding concrete is delaminated.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	1	4

Location:	Photo Name:	Photo #:
Span 2, Girder Bay 1 from Begin	238.22-350-27-02-15S2Bay1.JPG	22

Description(s):

- 45 SF x up to 3" deep spall with 35 exposed and heavily corroded transverse bars, 21 of which are debonded.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	2

Location:	Photo Name:	Photo #:
Span 2, Girder Bay 4 at L/3 from End	238.22-350-27-03-15Bay_4B.JPG	23

Description(s):

- 40 SF x 3" deep spall with 13 debonded transverse bars. (SF 15-084)



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	2

Location:	Photo Name:	Photo #:
Span 2, Girder Bays 10 and 11 from Begin	238.22-350-27-04-15B10-11.JPG	24

Description(s):

- Up to 4" deep spalling with debonded rebar affecting a 100 SF area in each bay. (SF 15-084)



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	2

Location:	Photo Name:	Photo #:
Span 2, Girder Bay 10 from Begin	238.22-350-27-05-152Bay10.JPG	25

Description(s):

- Up to 4" deep spalling with heavily corroded and debonded transverse bars. (SF 15-084)



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	2

Location:	Photo Name:	Photo #:
Span 3, Girder Bay 1 at Begin	238.22-350-27-06-153Bay1B.JPG	26

Description(s):

- 50 SF x 3" deep spall with exposed rebar, including 2 broken transverse bars. (SF 15-084)



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	3	3

Location:	Photo Name:	Photo #:
Span 3, Girder Bay 7, WB (Right) Median Overhang	238.22-350-27-07-15S3Bay7.JPG	27

Description(s):

- 12 SF x up to 9" deep spall with exposed and debonded rebar, including the ends of 3 top transverse bars. (SF 15-084)



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	3	3

Location:	Photo Name:	Photo #:
Span 1, Girder Bay 4 from End	238.22-350-28-01-15P1Bay4.JPG	28

Description(s):

- End-Diaphragm has heavy active corrosion with rust-thru perforations in the lower portion of the web and the bottom flange.



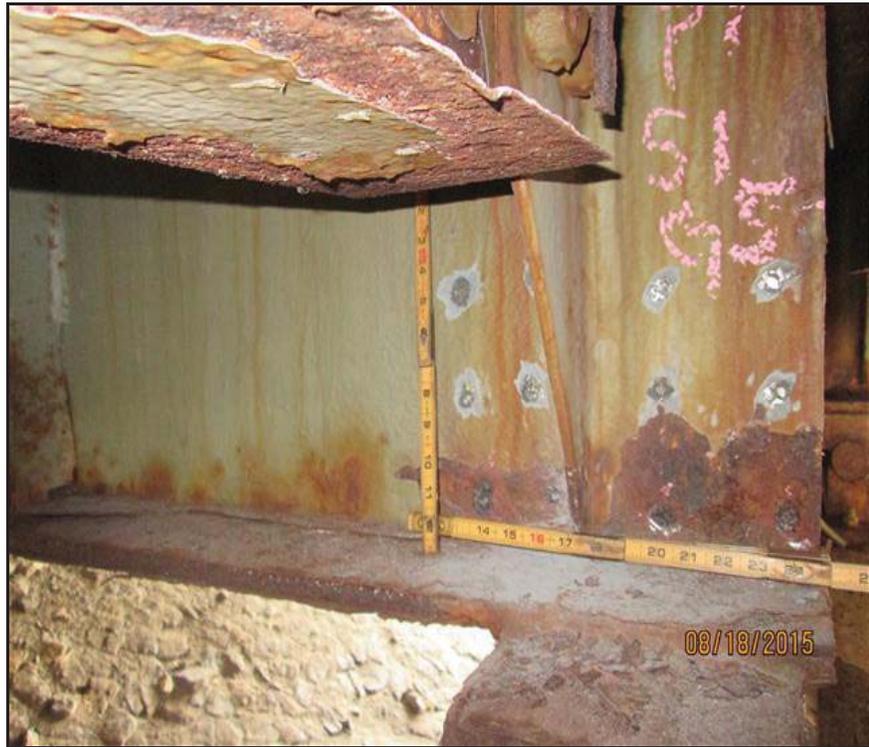
Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4
350	30	Paint	1	3

Location:	Photo Name:	Photo #:
Span 1, Girder G5 at Pier 1 from Right	238.22-350-28-01-15S1P1G5.JPG	29

Description(s):

- Lower portion of the web bearing area exhibits heavy active corrosion, with 55% section loss (Yellow Flag 15-067).



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4

Location:	Photo Name:	Photo #:
Span 2, Girder G1 at Pier 1 from Right	238.22-350-28-02-15S2P1G1.JPG	30

Description(s):

- Heavy active corrosion with 50% section loss directly over the bearing (Yellow Flag 15-067).



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2	4
350	30	Paint	2	3

Location:	Photo Name:	Photo #:
Span 3, Girder Bay 1 from Begin	238.22-350-28-03-15P2Bay1.JPG	31

Description(s):

- End-Diaphragm has heavy active corrosion with a 12" Long x 2" High rust-thru perforation in the lower portion of the web, near is connection to Girder G1.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	3	4



Location:	Photo Name:	Photo #:
Span 3, Girder G1 at Pier 2 from Right	238.22-350-28-03-15S3P2G1.JPG	32

Description(s):

- Heavy active corrosion with 38% web section loss directly over the bearing.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	3	4



Location:	Photo Name:	Photo #:
Span 2 from Begin Left	238.22-350-30-02-15PaintB.JPG	33

Description(s):

- Paint failure with light to moderate rust scaling (Typical).



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	30	Paint	1-3	3

Location:	Photo Name:	Photo #:
Pier 1 Joint from WB (Right) Median	238.22-350-31-01-15P1WBMd.JPG	34

Description(s):

- Elastomeric concrete header sections are slightly uneven and separated from the original concrete headers.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	1	2

Location:	Photo Name:	Photo #:
Pier 2 Joint from WB (Right) Shoulder	238.22-350-31-02-15P2WBrt.JPG	35

Description(s):

- Exposed rigid foam board within the Left wheel path of the driving lane. Ride quality over the joint is rough due to the uneven sections of the joint headers.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	2	2

Location:	Photo Name:	Photo #:
Pier 1, Span 2 Bearing under Girder G2 from Right	238.22-350-33-01-15P1S2G2.JPG	36

Description(s):

- Heavy corrosion with thick rust delaminations on all bearing components. Corrosion may restrict proper girder end rotation.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	1	3

Location:	Photo Name:	Photo #:
Pier 2, Span 3 Bearing under Girder G14 (Typical for G1)	238.22-350-33-02-152S3G14.JPG	37

Description(s):

- Bearing is rotated 10° beyond the neutral axis at 71° F. Corrosion appears to restrict thermal movement.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	2	3

Location:	Photo Name:	Photo #:
Pier 1, Pedestal beneath Girder G12 from End	238.22-350-34-01-15PedG12.JPG	38

Description(s):

- 2 SF x 4" deep with exposed reinforcement.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	1	4

Location:	Photo Name:	Photo #:
Pier 2, Pedestal 14 from Right	238.22-350-34-02-15Ped14R.JPG	39

Description(s):

- 2 separate 1/16" wide cracks emitting from the bearing anchor bolts. Cracking is surrounded by 2 SF of hollow sounding concrete.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	2	4
350	35	Top of Pier Cap or Beam	2	4

Location:	Photo Name:	Photo #:
Pier 2, from Girder Bay 10, Looking Right	238.22-350-34-02-15PedG11.JPG	40

Description(s):

- 3 SF x up to 3" deep spall with exposed rebar extending up to, but not under the bearing masonry plate.
- 11 SF x up to 3" deep spall with exposed rebar extending through the G11 Pedestal and into girder Bay 12.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	2	4
350	35	Top of Pier Cap or Beam	2	4

Location:	Photo Name:	Photo #:
Pier 1, Girder Bay 10 from End	238.22-350-35-01-15Bay10B.JPG	41

Description(s):

- 3 SF x 3" deep top corner spall with exposed rebar, surrounded by a 4 SF delamination.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier 1 Cap or Beam	1	4

Location:	Photo Name:	Photo #:
Pier 1, Column Bay 4 from Begin Left	238.22-350-37-01-15CB4BC5.JPG	42

Description(s):

- 2 SF x 3" deep bottom corner spall with exposed rebar near Column 5.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	4

Location:	Photo Name:	Photo #:
Pier 1, Column 6 from End	238.22-350-38-01-15P1Col6.JPG	43

Description(s):

- 40 SF of cracked and delaminated concrete affecting the entire height of the column.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	4



INVENTORY

INVENTORY FORM (BD234C)
VERIFICATION UPDATING LOG

CHANGES WERE REQUIRED and
Entered into III's

Date: 9/2/2015

M.P.: 238.22

BIN: 5009929

TEAM LEADER Andrew Lachina

REVIEWED BY Garret Hoffmann



**MINIMUM BRIDGE UNDERCLEARANCE
MAINLINE BRIDGES
SYRACUSE DIVISION
NEW YORK STATE THRUWAY AUTHORITY**

MP: 238.22 SHEET 1 OF 1

BIN: 5009929 DATE: 9/2/2015

Bridge Orientation: Southwest

TWY Traffic Direction: EAST

Feature Crossed: Oriskany Blvd - NYS Route 69

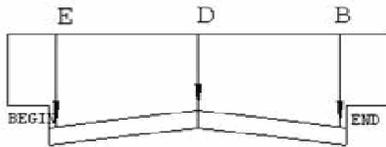
Date	A	B	C	D	E	F	G	H	A'	B'	C'	D'	E'	F'	G'	H'
07/14/2009		15.38		13.91	14.51											
11/23/2009		15.13		14.02	14.34											
07/12/2011		15.14		14.09	14.34											
08/05/2013	15.14			14.07	14.34											
09/02/2015		15.14		14.07	14.34											

REMARKS: 90 IX over Oriskany Blvd Route 69.
Controlling readings taken to the bottom of girder G1.
The "D" reading was taken at the crown of Route 69 near the Begin side of the turning lane.

NOTES:

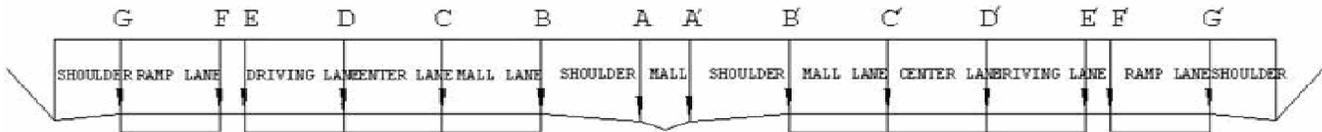
- 1) Use appropriate profile sketch 'A' or 'B'
- 2) When using sketch 'B' use points E,D & B and E', D' & B' to record measurements for 2 lane sections.
- 3) When using sketch 'B', use point F for detached ramps only
- 4) H and H' measurements taken at any other needed location or NA. Note location in remarks.
- 5) Only one row of measurements should be recorded(i.e. only the lowest measurements of each point should be recorded)
- 6) 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.
- 7) For riveted construction stringers, Dimensions shall be taken to the bottom of the rivet heads.

THRUWAY MAINLINE BRIDGE



SKETCH 'A'
(NON-DIVIDED HIGHWAY UNDER TWY)
PROFILE VIEW

THRUWAY MAINLINE BRIDGE



SKETCH 'B'
(DIVIDED HIGHWAY UNDER TWY)
PROFILE VIEW

ACCESS CATEGORY CODING FORM

RC - BIN:

1	2
2	6

 -

3	4	5	6	7	8	9
5	0	0	9	9	2	9

INSPECT DATE: 9/2/2015

TEAM LEADER: Andrew Lachina

Span No			Walking	Step Ladder	Extension	40' UBIU	60' UBIU	LGWT - UBIU	<= 30' Lift	30 - 90' Lift	> 90' Lift	Row Boat	Barge	Diving	RR Flagging	Electric RR	Scaffolding	Lane Closure	W/Shad Veh	Other	Contractor Code	Record Code	Tx Code	
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	116	118	120	
B	R	I	X		X				X										X			31	17	2
0	0	1	X		X																	31	17	2
0	0	2	X						X										X			31	17	2
0	0	3	X		X																	31	17	2

INSTRUCTIONS: - Only a single BIN will be addressed on any single sheet -

- a) Complete the date, preparer, and sheet number headings.
- b) Enter the region, county and BIN number.
- c) In the first line of the form, having a span number of "BRI", place an "X" in each access category necessary for a proper inspection of the entire bridge and enter the contractor code.
- d) In all subsequent rows, WITH ONE SPAN PER LINE AND USING AS MANY LINES AS THERE ARE SPANS FOR THE ENTIRE BRIDGE STRUCTURE, enter the span number being addressed (columns 10-12, right justified and zero filled) place an "X" in each access category necessary for a proper inspection of that span (and the two substructure faces facing that span) and enter the contractor code.
- e) IF DIVING ACCESS IS REQUIRED (as directed by Inspection TA 87-012) FOR EITHER OF THE TWO SUBSTRUCTURE FACES FACING THE SPAN BEING CODED, INDICATE SO WITH AN "X". THIS MUST BE DONE EVEN IF A DIVING INSPECTION IS NOT REQUIRED DURING THE CURRENT INSPECTION SEASON. NOTE that some NYSDOT documents refer to bridges requiring diving inspection as having an "I" ACCESS CATEGORY.
- f) Recode the entire bridge if ANY UPDATING of the Access Category is necessary.
- g) Use col. 28 for situations requiring lane closure WITHOUT a shadow vehicle and col. 29 for lane closure WITH a shadow vehicle.

LOAD RATING

Sketch Type: Miscellaneous
File Name: 238.22-13-00-15Loadrt.jpg

NEW YORK STATE THRUWAY AUTHORITY

BRIDGE INSPECTION FIELD VERIFICATION OF LOAD RATING DATA

Date: 9/2/2015

MP/BIN: 238.22/5009929

Feature Carried / Crossed: 90 IX over Oriskany Blvd. State Route 69

Dead Load:
 WS Thickness & Material Shown on Plans - 2.5" asphalt concrete
 Changes Noted in Field: None

Railing Type Shown on Plans - Panalized 4-rail steel w/ thric beam attached; median railing is b-b w beams
 Changes Noted in Field: None

Other DL Contributions (e.g. utilities) on Plans - None
 Changes Noted in Field: None

Section Loss:
 Existing Documentation (sketches, etc.) ? - Yes

Location of Documentation (previous report, blue folder, etc.)? - Previous Report

New Section Loss noted? - Yes
 Brief Description (attach sketches if helpful) -
Yellow Flag 15-069: S1, G5 @ P1 - 55% Web bearing section loss
Yellow Flag 15-069: S2, G1 @ P1 - 50% Web bearing section loss

Additional Notes: 28 additional locations with similar (21%- 41%) web bearing section loss.
See Primary Member remarks and section loss documentation.

Attachments: yes no (please circle)

Team Leader: Andrew M. Lachina

Signature: Andrew M. Lachina Date: 9/2/2015

LEVEL 2 LOAD RATING (VIRTIS LFD)

MILEPOST: 238.22

BIN: 5009929

REGION: 2

COUNTY: ONEIDA

FEATURE CARRIED: 90IX

FEATURE CROSSED: ORISKANY BOULEVARD (NY ROUTE 69)

LEVEL 2 LOAD RATING REVIEW

VIRTIS RUN DATE: 9/3/2013

CHANGES TO INPUT DATA: Section loss updated/added.
G8 distribution factors revised.
Deck thickness reduced due to spalling.
Wearing surface thickness revised.

LOADING	INVENTORY RATING (TONS)	OPERATING RATING (TONS)
HS-20	28.0 (HS-15)	46.8 (HS-26)
H-20	18.4 (H-18)	30.6 (H-30)

* ANALYSIS METHOD: LOAD FACTOR

CONTROLLING MEMBER FOR RATING

LOCATION: SPAN 3 - WESTBOUND

COMPONENT: MEDIAN FASCIA GIRDER G8

FAILURE TYPE: MIDSPAN FLEXURAL CAPACITY

EFFECTIVE SPAN LENGTH: 33'

H EQUIVALENT OF LEGAL LOAD: H25

PRIMARY MEMBER RATING: 4

SAFE LOAD CAPACITY: H26

SLC COMPUTATION USED (IN BOLD)				
0.60 HOR	0.70 HOR	0.80 HOR	0.85 HOR	HOR

ACTION TAKEN: NONE REQUIRED X

RECOMMEND LEVEL 1 _____

UNRATABLE _____

COMPLETED BY

Michael Gaskill

MICHAEL GASKILL
LOAD RATING ENGINEER

REVIEWED BY

Garret Hoffmann 9/3/13

GARRET HOFFMANN
PE # 070686
QUALITY CONTROL ENGINEER

**NEW YORK STATE THRUWAY AUTHORITY
STEEL DETAILS VULNERABILITY ASSESSMENT REVIEW (SDVA)***

Region: 2 **County:** 6 ONEIDA **BIN:** 5009929
(Code) (Name)

Carried: 90IX **Crossed:** NYS Route 69, Oriskany Blvd.

Owner: New York State Thruway Authority

Existing Steel Details Vulnerability Rating _____
Existing Rating Date _____

	Yes	No
1. Since the last assessment/inspection, were there any modifications to the steel superstructure or steel substructure ?		X
2. Since the last assessment/inspection, is there any reason to suspect a significant increase in the Avg. Daily Truck Traffic (AADT) ?		X
3. Since the last assessment/inspection, have any structural flags been issued for metal cracking, corrosion or metal impact damage ? (If yes, attach copy)	X	
4. Since the last assessment/inspection, is there any new evidence of metal cracking ?		X
5. Since the last assessment/inspection, has the condition rating dropped to 3 or below for the following elements (or raised from a 3 or below to a 4 or higher):		
a) Paint on a primary member ? (Form TP-350g, column 30)		X
b) Deck elements recommendation ? (Form TP-350g, column 27)		X
c) Joints ? (Form TP-349n, column 22 or 23 or Form TP-350g, column 31)		X
d) Primary member ?		
Steel Superstructure (Form TP-350g, column 28)	X	
Steel Substructure Rigid frames (Form TP-349n, columns 30 & 31)		X
Steel Pier capbeams (Form TP-350g, column 37)		X
e) Drainage ? (Form TP-350g, column 23 [scuppers] or column 24 [gratings])		X
f) Bearings ? (Form TP-349n, column 24 or 25 or Form TP-350g, column 33)		X

Comments (Explain, or reference, "Yes" answers to inspection report and note other things of possible significance)

Yellow Flag 15-067 issued for >50% web section loss directly over bearing at the following locations:

- Span 1, Girder G5 at Pier 1 - 55% section loss
- Span 2, Girder G1 at Pier 1 - 50% section loss

Inspected By Andrew Lachina **Team Leader** _____ **Date** 9/2/2015 **Quality Control Engineer** GH **Date** 10/19/2015
(Name) (Title) (Initial)

Does the Regional Bridge evaluation Engineer (RBEE) recommend follow-up action ? _____ No _____ Yes
 If Yes, Explain _____

(RBEE Signature) (Date)

* This form is to be completed only if there is a "Yes" answer, or a comment noting an item of possible significance.