

BIN: 5512790 **MP:** 262.01
Region: 2 **County:** 4 MADISON
Feature Carried: NORTH MAIN ST
Feature Crossed: 90IX
General Recommendation: 4
Condition Rating: 4.11
Inspect Date: 7/29/2015



New York State Thruway Authority - Bridge Inspection Report

2015 INSPECTION

FLAGS	<input type="checkbox"/> RED	<input type="checkbox"/> YELLOW	<input type="checkbox"/> SAFETY	<input checked="" 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

Sketch Type: Location Map

File Name: 262.01-10-00-15-LocMap.jpg

NEW YORK STATE THRUWAY AUTHORITY

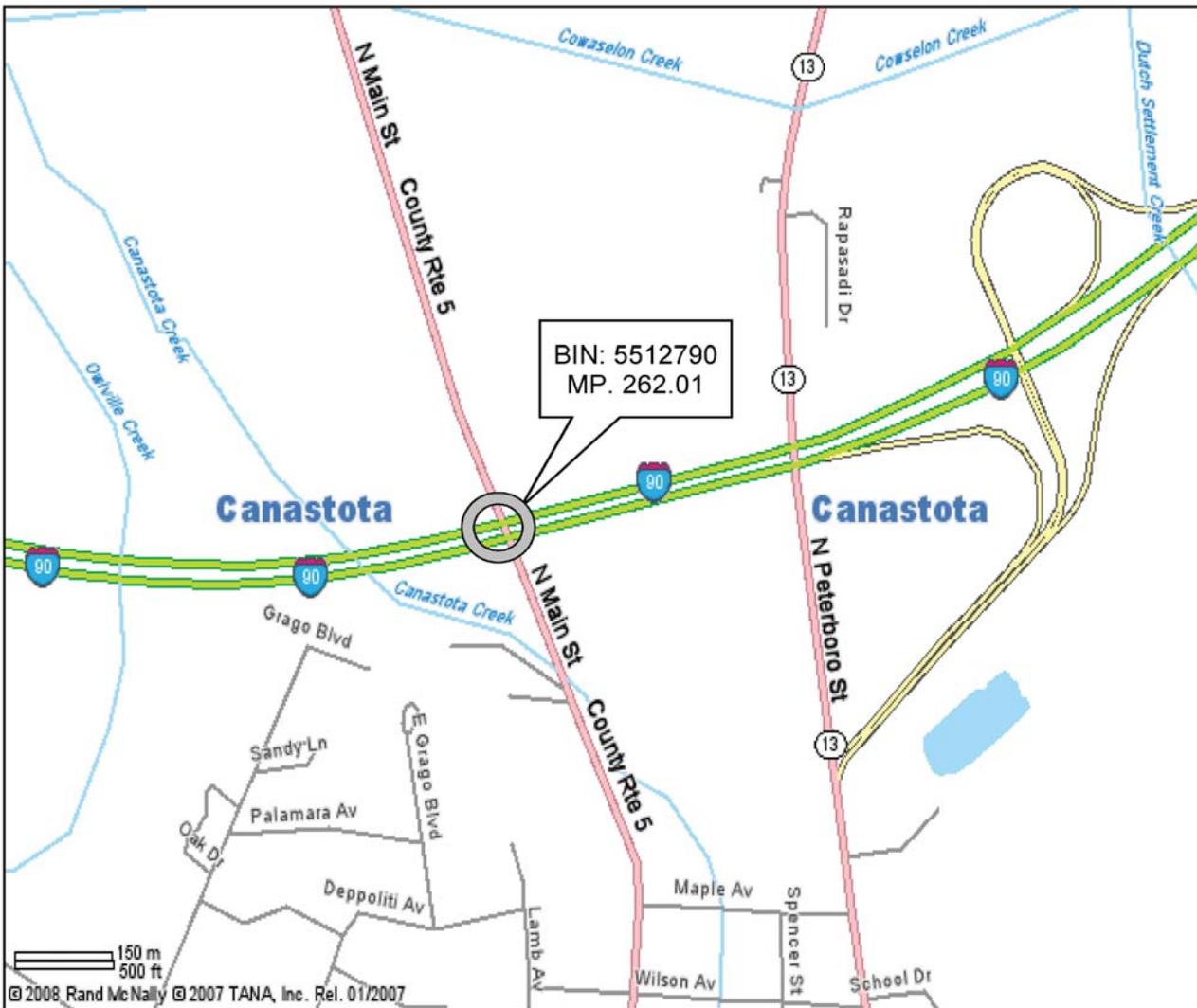
RC 24 BIN 5512790

MILEPOST 262.01



LOCATION MAP

Feature Carried: 90IX
Feature Crossed: North Main Street



INSPECTION

NYS DEPT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

SHEET 1 OF 30

DATE:

MO	DAY	YEAR
07	29	15
13	14	15
16	17	18

RC - BIN:

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

 MP: 262.01

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: Lenox

FEATURE(S) CARRIED: NORTH MAIN ST

FEATURE(S) CROSSED: 90IX

TOTAL SPANS: 4 BRIDGE ORIENTED: Northeast YEAR BUILT: 1953

BRIDGE TYPE: Steel Stringer/Multi-Beam or Girder AADT/YEAR 1317/2013

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>6</td></tr><tr><td>40</td></tr></table>	6	40	<table border="1"><tr><td>6</td></tr><tr><td>41</td></tr></table>	6	41	Drainage
5														
22														
5														
23														
6														
40														
6														
41														
Bearings, anchors bolts, pad	<table border="1"><tr><td>5</td></tr><tr><td>24</td></tr></table>	5	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
5														
24														
5														
25														
9														
42														
9														
43														
Bridge seat and pedestals	<table border="1"><tr><td>5</td></tr><tr><td>26</td></tr></table>	5	26	<table border="1"><tr><td>5</td></tr><tr><td>27</td></tr></table>	5	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
5														
26														
5														
27														
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44														
6														
45														
Backwall	<table border="1"><tr><td>6</td></tr><tr><td>28</td></tr></table>	6	28	<table border="1"><tr><td>6</td></tr><tr><td>29</td></tr></table>	6	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
6														
28														
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46														
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47														
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					
8														
30														
8														
31														
Erosion or scour	<table border="1"><tr><td>5</td></tr><tr><td>32</td></tr></table>	5	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			
5														
32														
5														
33														
8														
48														
Footings	<table border="1"><tr><td>6</td></tr><tr><td>34</td></tr></table>	6	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	
6														
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49														
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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>5</td></tr><tr><td>38</td></tr></table>	5	38	<table border="1"><tr><td>5</td></tr><tr><td>39</td></tr></table>	5	39	Bank Protection	<table border="1"><tr><td>8</td></tr><tr><td>51</td></tr></table>	8	51				
5														
38														
5														
39														
8														
51														

ACCESS CATEGORY:

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

FLAG ISSUED?

- NONE:
- YELLOW:
- RED:
- SAFETY:

BRIEF REASON

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><tr><td>65</td></tr></table>	3	65	<table border="1"><tr><td>X</td></tr></table>	X	<table border="1"><tr><td>2</td></tr></table>	2	<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><tr><td>70</td></tr></table>	X	70	
3														
65														
X														
2														
X														
X														
X														
70														

REVIEWED BY: Garret Hoffmann
Garret Hoffmann
P.E. NUMBER: 70686
DATE: 9/8/2015

RC - BIN:

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

NYS DEPT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

SHEET 2 OF 30

TEAM LEADER: Andrew Lachina

ASST. TEAM LEADER: Fady Gerges

DATE:

MO	DAY	YEAR
07	29	15
13	14	15
16	17	18

OTHERS: NYSTA Maintenance - MPT & Access

FEATURE(S) CARRIED: NORTH MAIN ST

FEATURE(S) CROSSED: 90IX

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	Cap Beam	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	4	6	5	5	5	8	8	8	5	5	5	4	4	5	3	5	8	8	8	4	9	6	9	5	8	8	8
0	0	2	4	6	4	5	5	8	8	8	4	5	5	3	4	5	4	3	8	8	8	5	9	6	9	4	8	5	8
0	0	3	3	6	4	5	5	8	8	8	3	5	5	3	4	4	2	3	8	8	8	6	9	6	9	4	8	5	8
0	0	4	4	6	6	5	5	8	8	8	5	5	5	4	8	5	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 Spans 1-4: End Floor Beams at Piers, incl. cover plates & PT rods.
- PIN AND HANGERS
- FATIGUE-PRONE WELDS (AASHTO D, E, OR E') Spans 2 & 3 Int. Girders: Cat. E' welds at partial-length cover plates.
- NON-CATEGORIZED FATIGUE-PRONE DETAILS Spans 1 & 2: Field-welded web jacking stiffeners.
- OTHERS (SPECIFY) Girder Web Bearing Section Loss Spans 1 & 2: Girder web bearing area w/ SL near 25% at 3 locations.

RECOMMEND FURTHER INVESTIGATION 1 = NO 2 = YES
 19

REMARKS
 Recommend annual inspection of underside of deck due to extensive cover concrete removal required in 2014 and 2015.

FIELD NOTES

DATE	TIME OF ARRIVAL	TIME OF DEPARTURE	TEMP (F/C)	WEATHER CONDITIONS / ACCESS EQUIPMENT	Field Notes
07/20/2015	11:00:00 am	4:30:00 pm	81/27	Clear	Walking / Extension Ladder
07/21/2015	2:00:00 am	10:00:00 am	70/21	Clear	Walking / Extension Ladder / Scissor Lift / MPT
07/22/2015	2:30:00 am	5:30:00 am	61/16	Clear	Walking / Scissor Lift / MPT
07/23/2015	3:00:00 am	7:00:00 am	61/16	Cloudy	Walking / Scissor Lift / MPT
07/29/2015	3:30:00 am	6:30:00 am	66/19	Clear	Walking / Scissor Lift / MPT

FEDERAL RATING FORM

NYS DEPT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

MP: 262.01

RC - BIN:

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

SHEET 3 OF 30

TEAM LEADER: Andrew Lachina

DATE:

07	29	15
MO	DAY	YEAR
13	14	15
16	17	18

ASST. TEAM LEADER: Fady Gerges

FEATURE(S) CARRIED: NORTH MAIN ST

FEATURE(S) CROSSED: 90IX

Description	Deck	Superstructure	Substructure	Channel	Culvert
Fed. Item #	58	59	60	61	62
RATING	5	5	4	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: NORTH MAIN ST

FEATURE(S) CROSSED: 90IX

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 type="checkbox"/> End Abutment <input checked="" type="checkbox"/> Begin Abutment
	BIN Plate Location: Begin Abutment, Pedestal at G3. Plate is defaced but legible.
FLOOD ELEVATION MARKINGS	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Satisfactory <input type="checkbox"/> Missing <input type="checkbox"/> Damaged/Illegible (decribed 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 #:)
	See Below

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

- | | |
|---|---|
| <input type="checkbox"/> Superstructure | <input type="checkbox"/> Curb, Sidewalk, Fascia |
| <input type="checkbox"/> Deck | <input type="checkbox"/> Bridge Rail |
| <input type="checkbox"/> Wearing Surface | <input type="checkbox"/> Approach Rail |
| <input type="checkbox"/> Appr. Pavement | <input type="checkbox"/> Signage |
| <input checked="" type="checkbox"/> Substructure At Pier 1, the upper 12' portion of the Left Column has been completely replaced. | <input type="checkbox"/> Other (explain below) |

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

1.) Spans 1-4: Non-Redundant/Fracture Critical steel end-floorbeams (6 total), in pairs straddling the joint at each of the 3 piers; including Cat. E' welds at ends of partial-length bottom-flange cover plates; & including retrofit post-tensioning bars on Floorbeam bottom flanges.

2.) Spans 2 & 3; Cat. E' welds at ends of partial length cover plates at interior girders G2, G3, & G4.

3.) Spans 1 & 2: Girder web bearing SL close to or > 25%, 3 locations: Span 1 Girders G1 & G5 at Pier 1; and Span 2 Girder G1

INSPECTED BY: Andrew Lachina TITLE: Team Leader

FEATURE(S) CARRIED: NORTH MAIN ST

FEATURE(S) CROSSED: 90IX

BRIDGE INSPECTION AND CONDITION REPORT
SUPPLEMENTARY INSPECTION ACTIVITIES

& G5 at Pier 1.

4.) Spans 1 & 2: Field-welded web stiffeners for jacking: Span 1, G1 @ Pier 1; Span 2, G1, G2, G4 & G5 @ Pier 1.

Note: Staggered Diaphragm welded connections to Fascia Girder webs are NOT considered special emphasis. This out-of-plane bending detail has a web gap $< 4 \times tw$; however, this detail is considered not-susceptible to distortion-induced cracking due to:

a.) Small (12°) skew and minimal stagger; b.) Web thickness ($tw = 0.580''$) $> 0.400''$; c.) Low AADT (1300 in 2013); d.) Tapered connection plates; and e.) Lack of any unusual restraint or geometry in the connections.

2015: All Special Emphasis items inspected as required. FINDINGS:

Item 1.) None; Item 2.) None; Item 3.) 1 location found and added to Special Emphasis in 2015; Item 4.) None.

GENERAL REMARKS:

GENERAL RECOMMENDATION: 4 (WAS 3)

The previously severely deteriorated portion of the Pier 1 Left Column has been completely replaced.

As a result, the overall weighted average condition rating has increased from 3.45 to 4.11.

Gen Rec is raised from '3' to '4'.

However, numerous large areas of spalling deck concrete over the travel lanes required immediate removal during this inspection. It appears the cover concrete on the underside of the deck is deteriorating at a rapid rate, since the 2014 inspection also noted extensive removal of loose concrete over the travel lanes. As a minimum, an Interim Inspection of the underside of the deck would be appropriate, and is recommended for 2016.

Due to lane closure restrictions from high traffic volume requiring night-time inspections in summer months, it is recommended this bridge be inspected in May.

INSPECTED BY: Andrew Lachina TITLE: Team Leader

FEATURE(S) CARRIED: NORTH MAIN ST

FEATURE(S) CROSSED: 90IX

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

WEST BOUND	LANE CLOSURE				Comments:
Driving lane shoulder	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		See Note Below.
Driving lane	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		See Note Below.
Center lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Mall lane	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		See Note Below.
Mall lane shoulder	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		See Note Below.
Ramp lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No		

NOTES:

WZTC and a Scissor Lift Truck were provided by NYSTA Bridge Maintenance, Syracuse Section. These were deployed in all 4 travel lanes (2 EB & 2 WB) and adjacent shoulders to provide access to:

- 1.) Piers 1 & 3 for inspection of Pier elements, Floorbeams, and Girder-ends at the Piers.
- 2.) Spans 2 & 3 for inspection of Cat. E' terminal welds on partial-length cover plates; sounding of Fascia and Deck concrete; and general inspection of Primary Members and Paint.

Note: Night-time lane closures were required this inspection due to high traffic volume. It is recommended to schedule this inspection in May.

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

32 Erosion or Scour (Begin)

The Begin Abutment embankment material is settled and the stone slope protection is displaced over a 6' Wide x 5' Long area below girder bay 4. Slope settlement exposes the vertical face of the stem footing for a length of 5', with a maximum exposed height of 8".

5 5 1

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

19 Wearing Surface

ALL SPANS: 1 4 4 2

In all 4 Spans, the concrete Wearing Surface exhibits a general loss of the transverse grooving throughout. The exposed aggregate surface is fairly smooth, and the skid resistance of the wearing surface has been significantly reduced.

In addition, the concrete Wearing Surface is affected by the following deterioration:

Span 2: 2 4 4 3

In Span 2, the Wearing Surface in the Left travel lane has several 2 SF areas of uneven asphalt patchwork near Midspan. The affected area represents 1% of the total surface in the span. Ride quality is slightly diminished.

The deck has several spalls with exposed rebar scattered throughout, and a few areas of dampness along the fascia girders, suggesting moderate leakage through the wearing surface.

Span 3: 3 3 3 4

In Span 3, the Wearing Surface in the Left and Right travel lane has numerous areas (about 10) of uneven asphalt patchwork, ranging from 1' to 3' in diameter and affecting the End half of the span. The affected area represents 2% of the total surface in the span. Ride quality is slightly diminished.

The deck has numerous large spalls with exposed rebar scattered throughout, and a few isolated areas of moderate dampness, suggesting significant leakage through the wearing surface.

Spans 1 and 4 have no potholes or noteworthy patches. 4 4 4 5

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

21 Sidewalks & Fascias

Span 1: 1 5 6 6

In Span 1, the Left Fascia has a 3' L x 3" H x 3" D bottom corner spall with exposed rebar near Midspan. The bridge railing anchorages are not affected. The remainder of the Left fascia is in good condition. Rating is lowered from '6' to '5' due to the isolated spall.

The Span 1, Right Fascia would rate '6'.

The Span 1, Left and Right Sidewalks would rate '6'.

Span 2: 2 4 4 7

In Span 2, the Left Fascia has a 48' Long bottom corner spall with exposed and heavily corroded rebar directly over the entire width of the I-90 EB travel lanes and shoulders, affecting 80% of the total span length. Spalling is typically 3" to 6" High x 3" deep, and continues 6" to 18" along the underside of the overhang. The bridge railing anchorages are not affected. The remainder of the Left fascia is solid, with no loose or delaminated concrete.

The Span 2, Right Fascia would rate '5'.

The Span 2, Left and Right Sidewalks would rate '6'.

Span 3: 3 4 4 8

In Span 3, the Right Fascia has bottom corner spalling with exposed and heavily corroded rebar directly over the I-90 WB travel lanes, affecting 40% of the total span length. Spalling is 25' Long x 1" to 4" High x up to 3" deep, and continues 6" to 12" along the underside of the overhang. The bridge railing anchorages are not affected. The remainder of the Right fascia is solid, with no loose or delaminated concrete.

The Span 3, Left Fascia would rate '5'.

The Span 3, Left and Right Sidewalks would rate '6'.

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

27 Deck Structural

Span 1: 1 5 5 6

The Span 1 Deck is typically solid, with only minor, isolated deterioration as follows:

Left Fascia Overhang: Near Midspan, there is a 3' L x 6" W x 3" D spall with exposed rebar along the bottom corner.

Bays 1 and 4: At the End, there are 3 SF areas of dampness surrounding the scupper opening in each bay.

Bays 2 and 3: Isolated, tight transverse cracking with very light efflorescence.

Total deterioration affects less than 2% of the total span surface area.

See Span 1 Deck Deterioration Sketch.

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

27 Deck Structural

Span 2: 2 4 4 7, 9, 10

The Span 2 Deck has isolated areas of spalling with exposed, corroded reinforcement as follows:

Left Fascia Overhang: 48' L x 6" to 18" W x 3" D along the outer edge, which affects 80% of the span length.

Bay 1: Two - 3' L x 2' W x 2" deep, both near L/4
4' L x 1.5' W x 2" deep near 2L/3

Bay 2: 5' L x 2' W x 2" deep near L/4
4 SF x 2" deep near 2L/3

Bay 3: 2' L x 2' W x 2.5" deep near L/4, with 1 fully debonded longitudinal bar
7'L x 2' W x 3" deep near Midspan, with 1 fully debonded longitudinal bar and about 15 transverse bars exposed.

Bay 4: 5' L x 2' W x 2.5" deep near L/3
4' L x 3' W x 2.5" deep at Midspan, with 1 fully debonded longitudinal bar and 5 exposed transverse bars.

Right Fascia Overhang: 2' L x 1' W x 2.5" deep at 2L/3.

Overall, spalling with exposed reinforcement affects approximately 10% of the total surface area.

The remainder of the Deck is solid, with only minor dampness along the fascia girders.

See Span 2 Deck Deterioration Sketch.

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

27 Deck Structural

Span 3: 3 3 3 8, 11, 12

The Span 3 Deck is affected by several large areas of spalling with exposed, corroded reinforcement as follows:

Left Fascia Overhang: Two - 2' L x 6" to 12" W x 2" D spalls near 3L/4.

Bay 1: 30' L x 4' to 6' W x 2" D with 8 fully debonded longitudinal bars, from L/3 to 5L/6

Bay 2: 20' L x 2' to 4' W x 2" D with 3 fully debonded longitudinal bars, from L/3 to 3L/4

Bay 3: 20' L x 3.5' W x 2.5" D with 4 fully debonded longitudinal bars, from L/3 to 3L/4

Bay 4: 2' L x 3' W x 2.5" D with 3 fully debonded longitudinal bars, near L/2
6' L x 3.5' W x 2.5" at 2L/3

Right Fascia Overhang: 25' L x 6" to 12" W x up to 3" D along the outer edge, which affects 40% of the span length.

Overall, spalling with exposed reinforcement affects approximately 25% of the total surface area.

The remainder of the Deck is solid, with only minor dampness, trace efflorescence and light mapcracking.

See Span 3 Deck Deterioration Sketch.

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

27 Deck Structural

Span 4: 4 5 5 13

The Span 4 Deck is typically solid, with only minor, isolated deterioration as follows:

Bay 1: A few tight transverse cracks with efflorescence.

Bay 4: 3 SF x 1/2" deep surface spall near the Begin and dampness for 3 SF surrounding the scupper at the Begin of Bay 4.

Right Fascia Overhang: 3' L longitudinal crack along the outer edge, near 3L/4.

Total deterioration affects less than 1% of the total span surface area.

See Span 4 Deck Deterioration Sketch.

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

28 Primary Members

ALL Spans: 1 5 5 14, 15, 16

In All Spans, Fascia Girders G1 and G5 have moderate corrosion and web section loss directly over the Pier bearings. Web loss is typically in a horizontal band 2" to 3" high and extends up to 3' from the bearing. In most locations, section loss is relatively minor and is estimated to be less than 15%.

In All Spans, the end-floorbeams at all 3 Piers have minor corrosion. The webs, bottom flanges and bottom flange cover plates have an estimated 10% section loss. The 1.5" diameter, threaded post-tension rods typically exhibit moderate surface corrosion, but no measurable loss of cross sectional area, though the threads have mostly rusted away.

Due to the Girder-Floorbeam framing configuration, with end-floorbeams framing into the fascia girders immediately above the bearings, bearing column loads are significantly higher, and section loss is more critical than for conventional multi-girder framing.

Span 1:

Span 1, Fascia Girders G1 and G5 exhibit web section loss as follows:

Span 1, Girder G1 at Pier 1:
Average Web SL in bearing area - 13%
SL in critical bearing section - 20%

Span 1, Girder G5 at Pier 1:
SL in critical bearing section - 20%

See attached Girder End Section Loss Documentation.

Away from the Pier 1 supports, Fascia Girders G1 and G5 have no significant section loss.

The remaining 3 girders in Span 1 have no significant section loss.

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

28 Primary Members

Span 2: 2 5 5 16, 17, 18

Span 2, Fascia Girders G1 and G5 exhibit web section loss as follows:

Span 2, Girder G1 at Pier 1:
Average Web SL in bearing area - 7%
SL in critical bearing section - 10%

Span 2, Girder G5 at Pier 1:
SL in critical bearing section - 22%

See attached Girder End Section Loss Documentation.

Fascia Girders G1 and G5 exhibit typical, less than 15% (estimated) web section loss over the Pier 2 bearings.

All 5 Girders exhibit moderate corrosion with minor bottom flange section loss over the I-90 EB travel lanes. "Informal" spot-check measurements indicate the following section losses:

Span 2, Girder G1 at L/2 (Girder G5 similar):
Bottom Flange - 14% SL
BF Cover Plate - 3% SL

Span 2, Girder G2 at L/2 (Girders G3 & G4 similar):
Bottom Flange - 13% SL
BF Cover Plate - 4% SL

Span 3: 3 5 5 16, 19

Span 3, Fascia Girders G1 and G5 exhibit typical, less than 15% (estimated) web section loss over the Pier 2 and Pier 3 bearings.

All 5 Girders exhibit moderate corrosion with moderate bottom flange section loss over the I-90 WB travel lanes. "Informal" spot-check measurements indicate the following section losses:

Span 3, Girder G4 at L/2 (Girders G2 & G3 similar):
Bottom Flange - 20% SL
BF Cover Plate - 2% SL

Span 2, Girder G5 at L/2 (Girder G1 similar):
Bottom Flange - 19% SL
BF Cover Plate - 7% SL

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

28 Primary Members

Span 4: 4 5 5 16

Span 4, Fascia Girders G1 and G5 exhibit typical, less than 15% (estimated) web section loss over the Pier 3 bearings.

Away from the Pier 3 supports, Fascia Girders G1 and G5 have no significant section loss.

The remaining 3 girders in Span 4 have no significant section loss.

30 Paint

Span 1 and Span 4 1 4 4 14, 15, 20

In Spans 1 and 4, Paint failure along the edges of the girder top and bottom flanges, with peeling and light rust scaling is typical throughout. The girder webs and diaphragms exhibit widespread rust freckling with minor corrosion.

Span 1 and 4, Fascia girders G1 & G5 have localized web section loss at Piers 1 & 3 respectively.

Span 1 and 4, End-Floorbeams at Piers 1 & 3 have section losses to the bottom flanges and bottom flange cover plates, and moderate surface corrosion along the post tension rods.

Overall, paint damage affects approximately 50% of the total steel surface area in each span.

Span 2 and Span 3 2 3 3 10, 17, 18

In Spans 2 and 3, Paint failure along the girder bottom flanges and cover plates, with moderate rust scaling and minor to moderate section loss, is typical throughout. The girder webs and diaphragms exhibit widespread rust freckling with minor corrosion.

Span 2 and 3, Fascia girders G1 & G5 have localized web section loss at all 3 Piers. Also, G1 and G5 exhibit heavy rust blisters on the lower 2/3 of the webs over the travel lanes, with moderate section loss.

Span 2 and 3, End-Floorbeams at all 3 Piers have section losses to the bottom flanges and bottom flange cover plates, and moderate surface corrosion along the post tension rods.

Overall, paint damage affects approximately 70% of the total steel surface area in each span.

3 3 3 11, 19
4 4 4 13

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

31 Joints

All 3 Pier Joints are comprised of concrete headers with a strip seal. 1 4 4 21, 22

Pier 1:

The Pier 1 Joint seal exhibits intermittent detachment throughout the width of the bridge, with minor fraying in the Left travel lane.

Below deck, conditions were dry during the inspection, but paint failure and corrosion on the underlying elements suggests moderate joint leakage. In girder Bay 3, the Span 2 header has a 6' Long x Full Width x 2" Deep spall.

Pier 2:

2 4 4 23

The Pier 2 Joint seal exhibits intermittent detachment throughout the width of the bridge, with minor fraying in the Right travel lane. The Span 2 header has a 4' Long x 1/8" Wide transverse crack near the centerline, in the Right travel lane.

Below deck, joint seepage is evident from rust and water stains.

Pier 3:

3 4 4 24

The Pier 3 Joint seal exhibits intermittent detachment throughout the width of the bridge. The Span 2 header has minor edge spalling in the Right travel lane.

Below deck, joint seepage is evident from rust and water stains.

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

33 Bearings, Anchor Bolts, Pads

All 3 Piers: 1 3 1 25, 26, 27

At all 3 Piers, only Fascia girders G1 and G5 have bearings. Interior girders G2, G3 and G4 frame into End-Floorbeams, which frame into the Fascia girders above these bearings. Each bearing is load-path non-redundant for the support of an entire span.

Pier 1:

Pier 1, all 4 bearings are sliding low steel rocker expansion bearings.

The Pier 1, Bearings under girders G1 for Span 1 and Span 2 have been cleaned and reset since the previous inspection. Both G1 Bearings are close to the neutral position at 70°F. These Bearings are in very good condition and would rate '6'.

The Pier 1, Span 1 Bearing under girder G5 is contracted 3/4" at 70°F. All bearing surfaces exhibit moderate corrosion, and pack rust under the sole plate appears to impede proper rotation.

The Pier 1, Span 2 Bearing under girder G5 is in the neutral position at 70°F. All bearing surfaces exhibit heavy corrosion with rust delamination, and pack rust under the sole plate. Corrosion restricts proper movement, and the sliding plate appears "frozen".

Pier 1 Bearing rating is raised from '1' to "only" '3' due to the corroded and "frozen" condition of the bearings under girders G5.

Pier 2: 2 4 4 28

Pier 2, all 4 fixed Bearings exhibit heavy corrosion with pack rust between the rocker and sole plate, which impedes, but does not appear to restrict proper rotation. The outer anchor bolt nuts have 50% to 75% material loss. However, all anchor bolts are intact and sound.

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

33 Bearings, Anchor Bolts, Pads

Pier 3: 3 2 2 29, 30

Pier 3, all 4 bearings are sliding low steel rocker expansion bearings.

The Pier 3, Span 3 Bearing under girder G1 is contracted 1/2" at 70°F. All bearing surfaces exhibit moderate corrosion, and pack rust under the sole plate. Corrosion restricts proper movement, and the sliding plate appears at least partially "frozen".

The Pier 3, Span 3 Bearing under girder G5 is at the neutral position at 70°F. All bearing surfaces exhibit moderate corrosion. There is pack rust under the sole plate, and the bronze sliding sheet is bowed upward slightly by 1/16" thick pack rust. Corrosion restricts proper movement, and the sliding plate appears at least partially "frozen".

The Pier 3, Span 3 Bearings would rate '4'.

The Pier 3, Span 4 Bearing under girder G1 is contracted 7/8" at 70°F. All bearing surfaces exhibit moderate corrosion. There is pack rust under the sole plate, and the bronze sliding sheet is bowed upward slightly by 1/16" thick pack rust. Corrosion restricts proper movement, and the sliding plate appears at least partially "frozen". Pedestal spalling undermines the End Left corner of the masonry plate by up to 1", and exposes the Left anchor bolt. Loss of contact area is less than 5%. This Bearing would rate '3'.

The Pier 3, Span 4 Bearing under girder G5 is contracted 1.75" at 70°F. The sliding plate overhangs the masonry plate by 3/4", which represents a 10% reduction in contact area. All bearing surfaces exhibit heavy corrosion, and pack rust under the sole plate. Corrosion restricts proper movement, and the sliding plate appears at least partially "frozen". This Bearing rates '2'.

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

34 Pedestals

Pier 1: 1 5 1 31

The Pier 1 Pedestal under girders G1 has been replaced since the previous inspection. The Pedestal is in new condition and would rate '7'.

The Pier 1 Pedestal under girders G5 is in good condition, and remains rated '5'.

Pier 2: 2 3 3 32, 33, 34

The Pier 2 Pedestal under girders G1 has top corner spalling along the Left and Begin Right faces. The Left side has 2" Wide x 18" High x up to 5" Deep spalling which continues along the top surface where it is 2" deep, and extends up to, but not under the G1 bearing masonry plates. The Begin Right quadrant has similar top corner spalling that extends to up to, but not under the Begin Right corner of the Span 2, G1 masonry plate. The remainder of the pedestal is solid sounding.

The Pier 2 Pedestal under girders G5 has hairline to 1/16" wide cracks emitting from the Span 2, G5 bearing anchor bolts on the Right and Left sides. The Span 2, G5 expansion bearing at Pier 1 appears "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.

Also, there is a 16" Wide x 6" High x 3" Deep spall on the Left face. Spalling continues along the top surface, but does not affect the G5 bearing masonry plate. The remainder of the pedestal is solid sounding.

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

34 Pedestals

Pier 3: 3 3 5 29

The Pier 3 Pedestal under girders G1 has hairline to 1/16" wide cracks emitting from the Span 4, G1 bearing anchor bolts on the Right and Left sides. Spalling along the crack on the Left side measures 4" Wide on the top surface, and undermines the End Left corner of the bearing masonry plate by up to 1". Loss of contact area is less than 5%. The Span 4, G1 expansion bearing appears at least partially "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 remainder of the pedestal is solid sounding.

Pier 3, Pedestal 1 rating is lowered from '5' to '3' due to cracking with edge spalling which undermines the Span 4 bearing.

The Pier 3 Pedestal under girders G5 is in good condition and would rate '5'.

38 Pier Columns

Pier 1: 1 4 1 35, 36

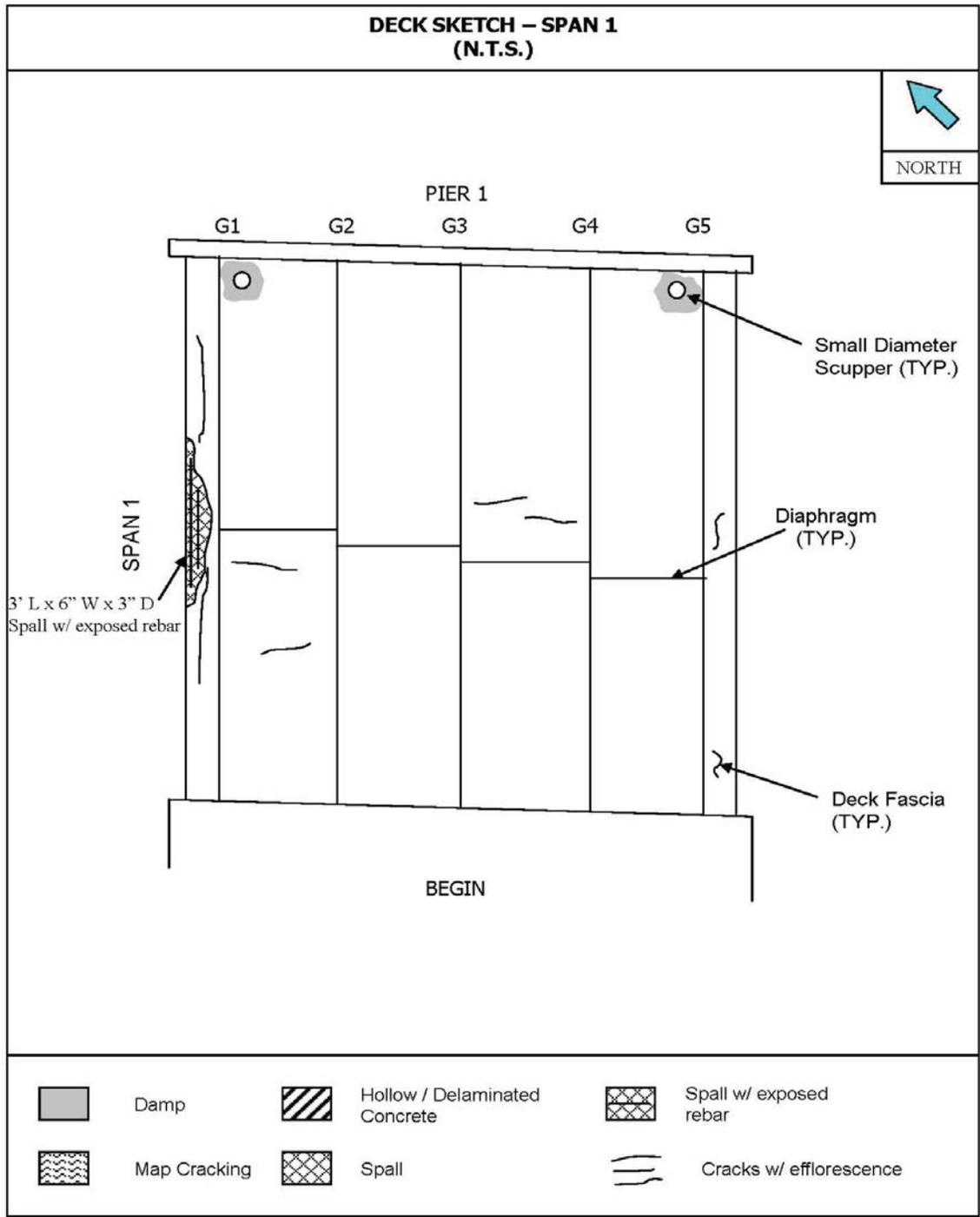
At Pier 1, the upper 12' portion of the Left Column was completely replaced, and Red PIA Flag 14-063 was removed by the previous inspector on 10/20/2014.

Pier 1, Right Column has a 4' H x 2'W x 3" D spall with exposed reinforcement on the End Left face at grade. The spall is surrounded by 35 SF of cracked and delaminated concrete.

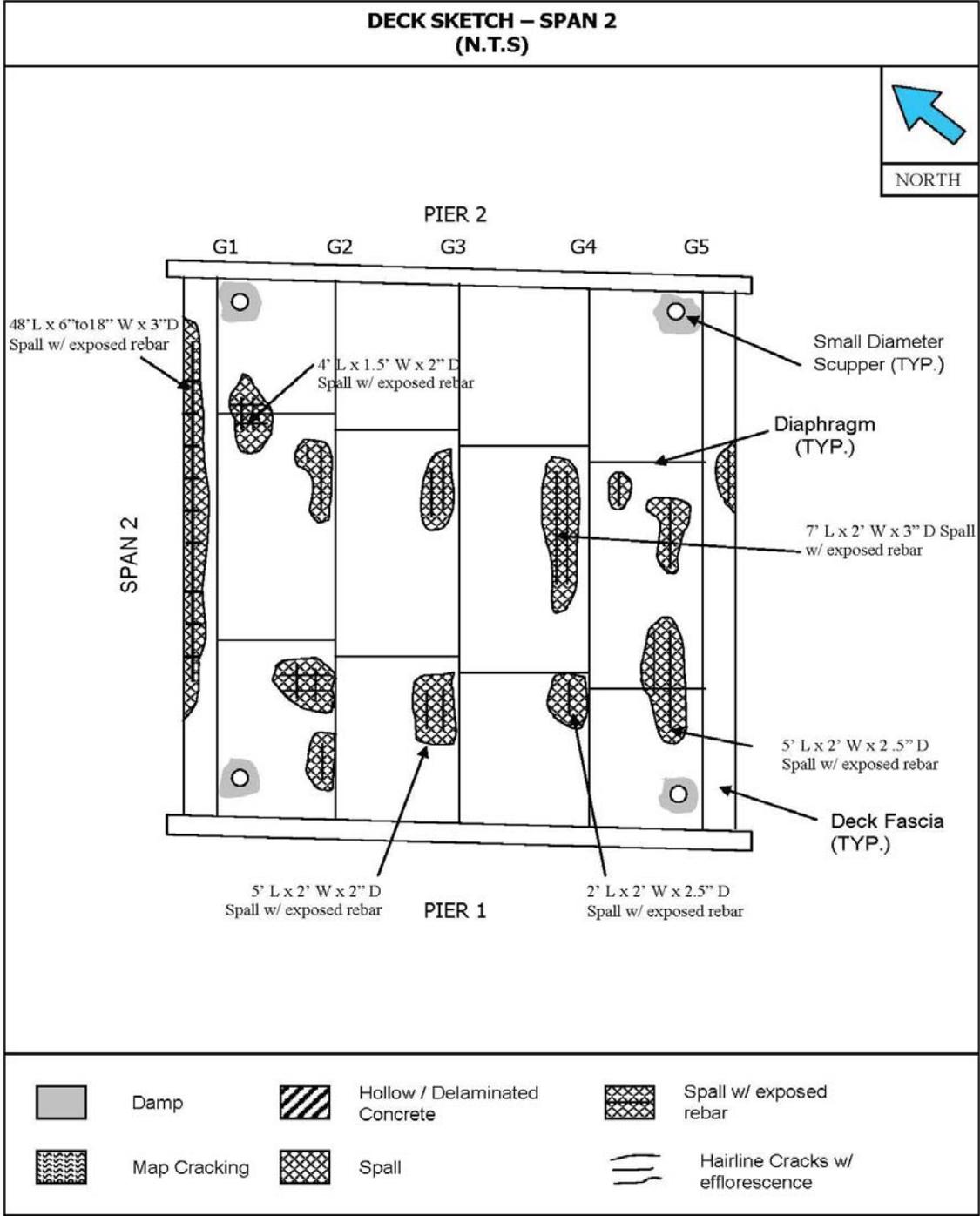
Rating is raised from '1' to "only" '4' due to the deterioration exhibited by the Right Column.

Pier 1, Left Column is in excellent condition and would rate '6'.

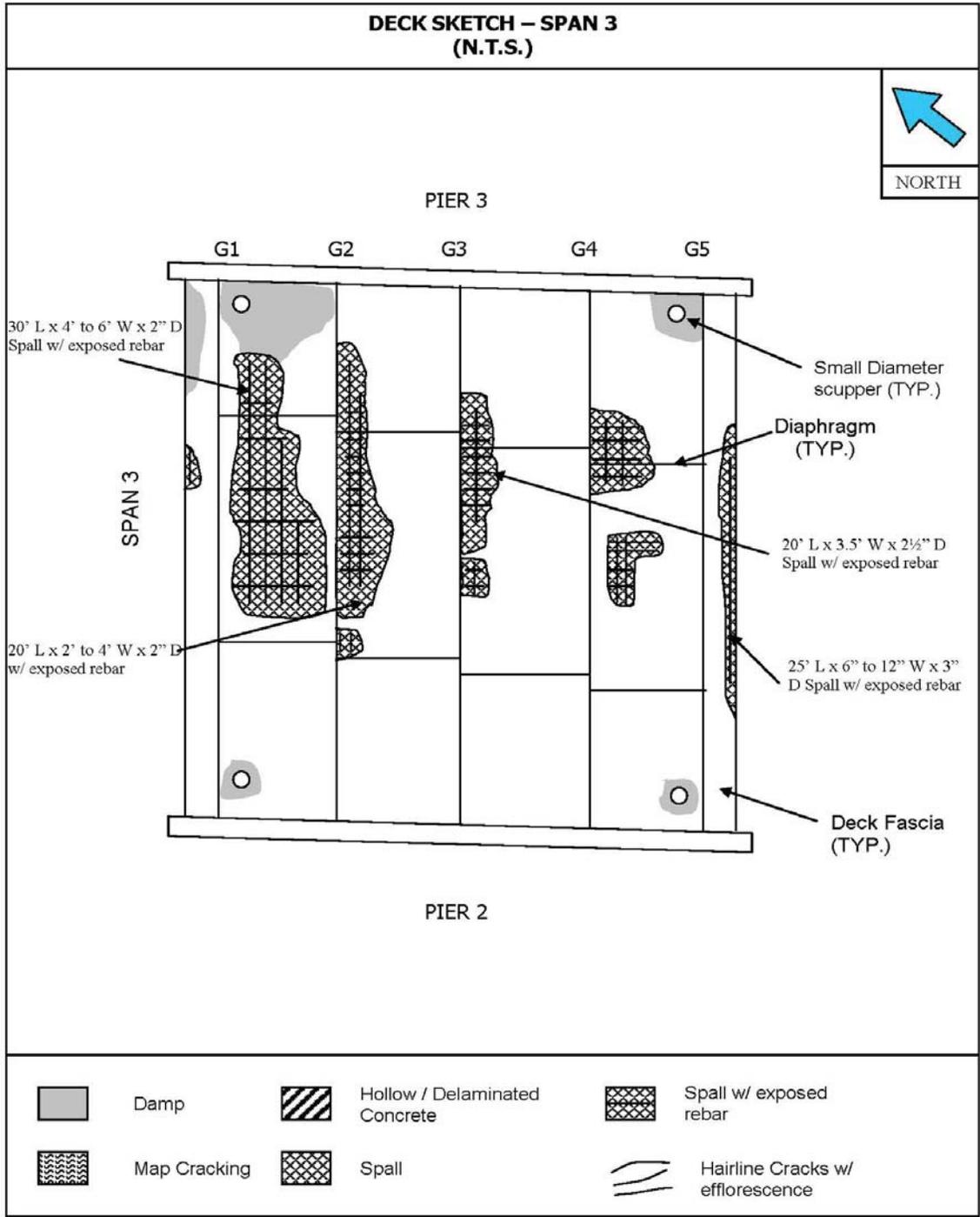
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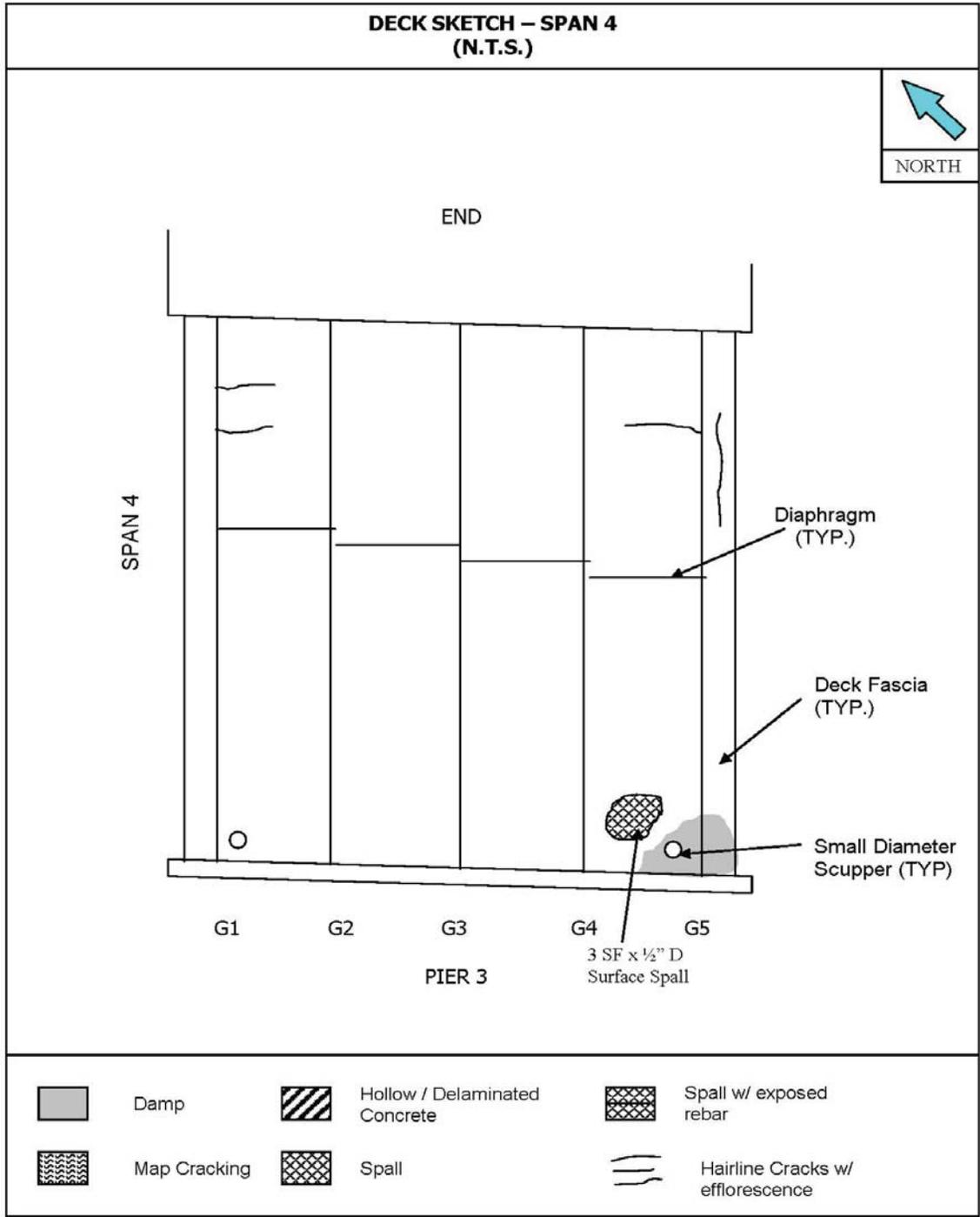
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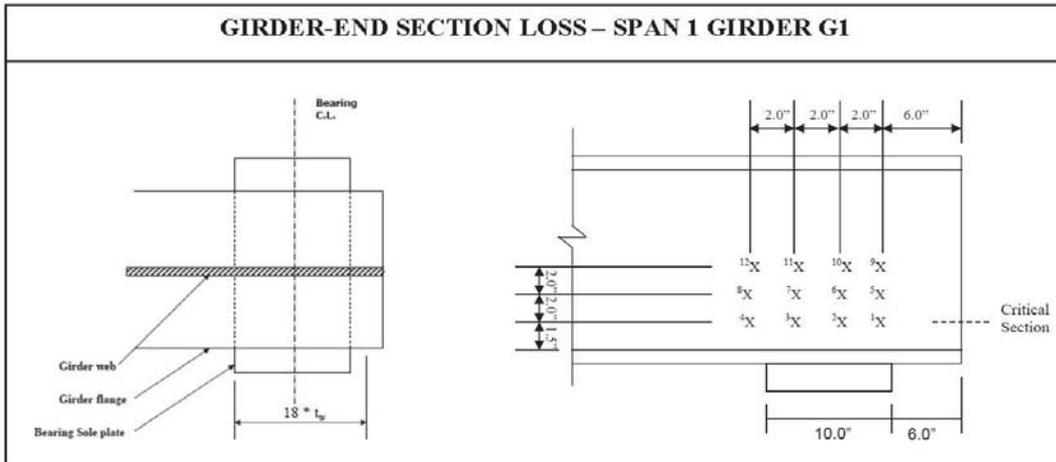
Sketch Type: Deck
File Name: 262.01-12-03-15DeckS3.jpg



Sketch Type: Deck
 File Name: 262.01-12-04-15DeckS4.jpg



Sketch Type: Special Emphasis
File Name: 262.01-17-01-15-G1S1SL.jpg

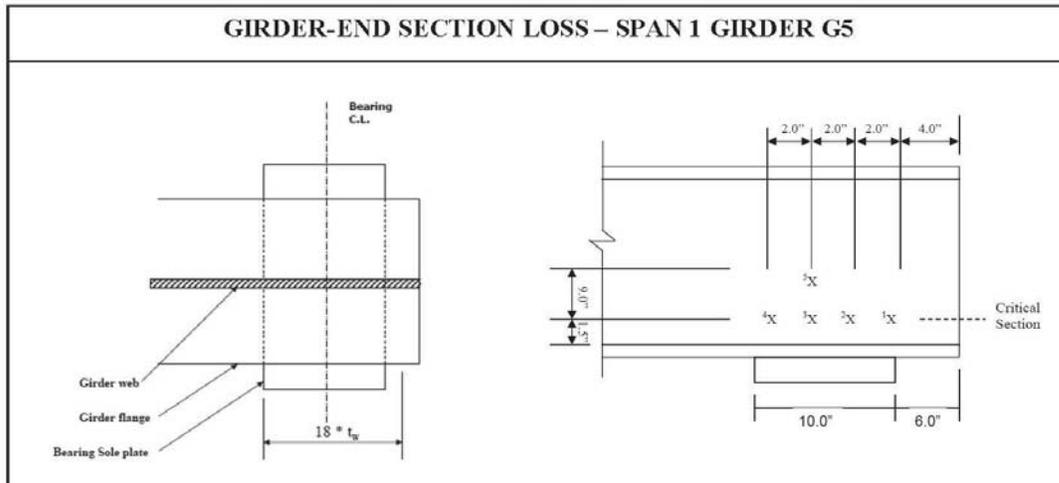


33 WF 130					Web Thickness (in) = 0.580							
Location	Row 1				Row 2				Row 3			
	1	2	3	4	5	6	7	8	9	10	11	12
S1 G1 @ Pier1	0.349	0.382	0.470	0.564	0.580	0.580	0.345	0.272	0.580	*	0.580	*
Average(in)	0.466				0.471				0.580			
% SL	20%				19%				0%			

Span 1, G1 @ Pier 1	Percent Section Loss			
	Identification: SPAN FASCIA GIRDER	2015		
Design Section Per Plan: 33 WF 130; Web: 0.580", Bearing Stiffener: None*				
Computed Avg. SL.	13%			
Computed Avg. SL. for Critical Section (Row 1)	20%			
Notes:				
2015: Changes to section loss. Locations and values of previous readings not available for comparison.				

* Location not accessible due to diaphragm connection bolts.

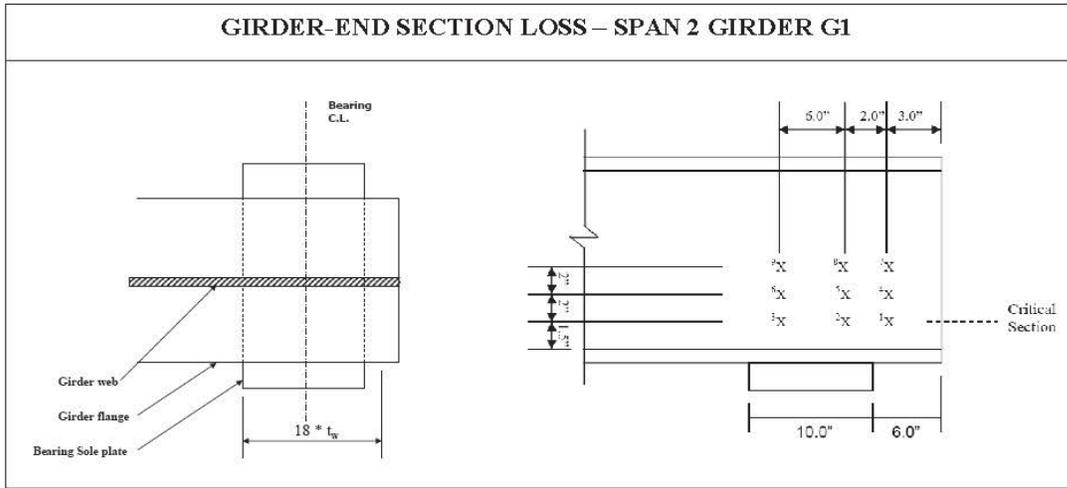
Sketch Type: Special Emphasis
File Name: 262.01-17-03-15-G5S1SL.jpg



33 WF 130		Web Thickness (in.) =			0.580
Location	1	2	3	4	5
S1 G5 @ Pier1	0.465	0.507	0.486	0.394	0.570
Average (in)	0.463			0.570	
% SL	20%			2%	

Span 1, G5 @ Pier 1 Identification: SPAN FASCIA GIRDER Design Section Per Plan: 33 WF 130; Web: 0.580", Bearing Stiffener: None* Computed Avg. SL. for Critical Section (Row 1)	Percent Section Loss			
	2015			
	20%			
Notes:				
2015: Section Loss monitoring started.				

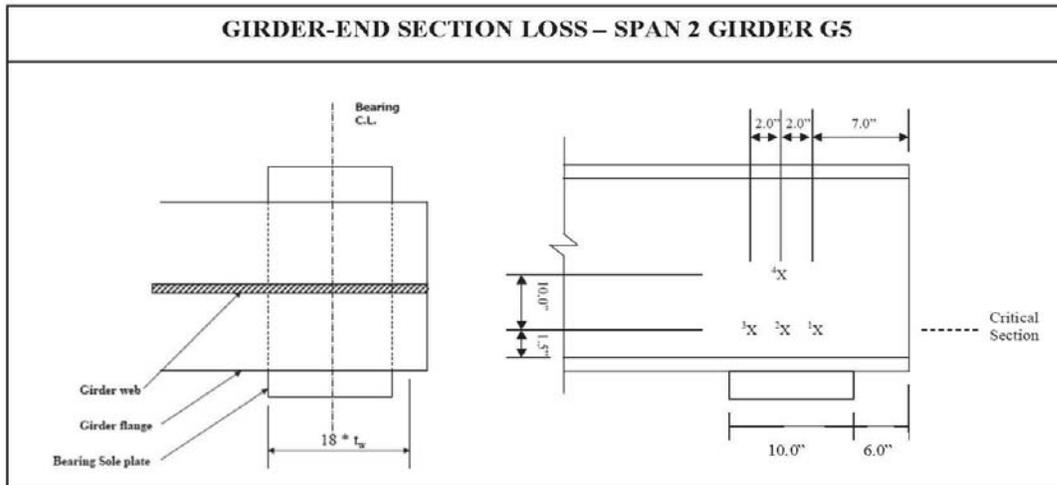
Sketch Type: Special Emphasis
File Name: 262.01-17-02-15-G1S2SL.jpg



33 WF 130				Web Thickness (in) = 0.580					
Location	Row 1			Row 2			Row 3		
	1	2	3	4	5	6	7	8	9
S2 G1 @ Pier1	0.580	0.543	0.442	0.580	0.558	0.479	0.577	0.563	0.520
Average (in)	0.523			0.541			0.553		
% SL	10%			7%			5%		

Span 2, G1 @ Pier 1	Percent Section Loss			
	2015			
Identification: SPAN FASCIA GIRDER				
Design Section Per Plan: 33 WF 130; Web: 0.580", Bearing Stiffener: None*				
Computed Avg. SL.	7%			
Computed Avg. SL. for Critical Section (Row 1)	10%			
Notes:				
2015: Changes to section loss. Locations and values of previous readings not available for comparison.				

Sketch Type: Special Emphasis
File Name: 262.01-17-04-15-G5S2SL.jpg

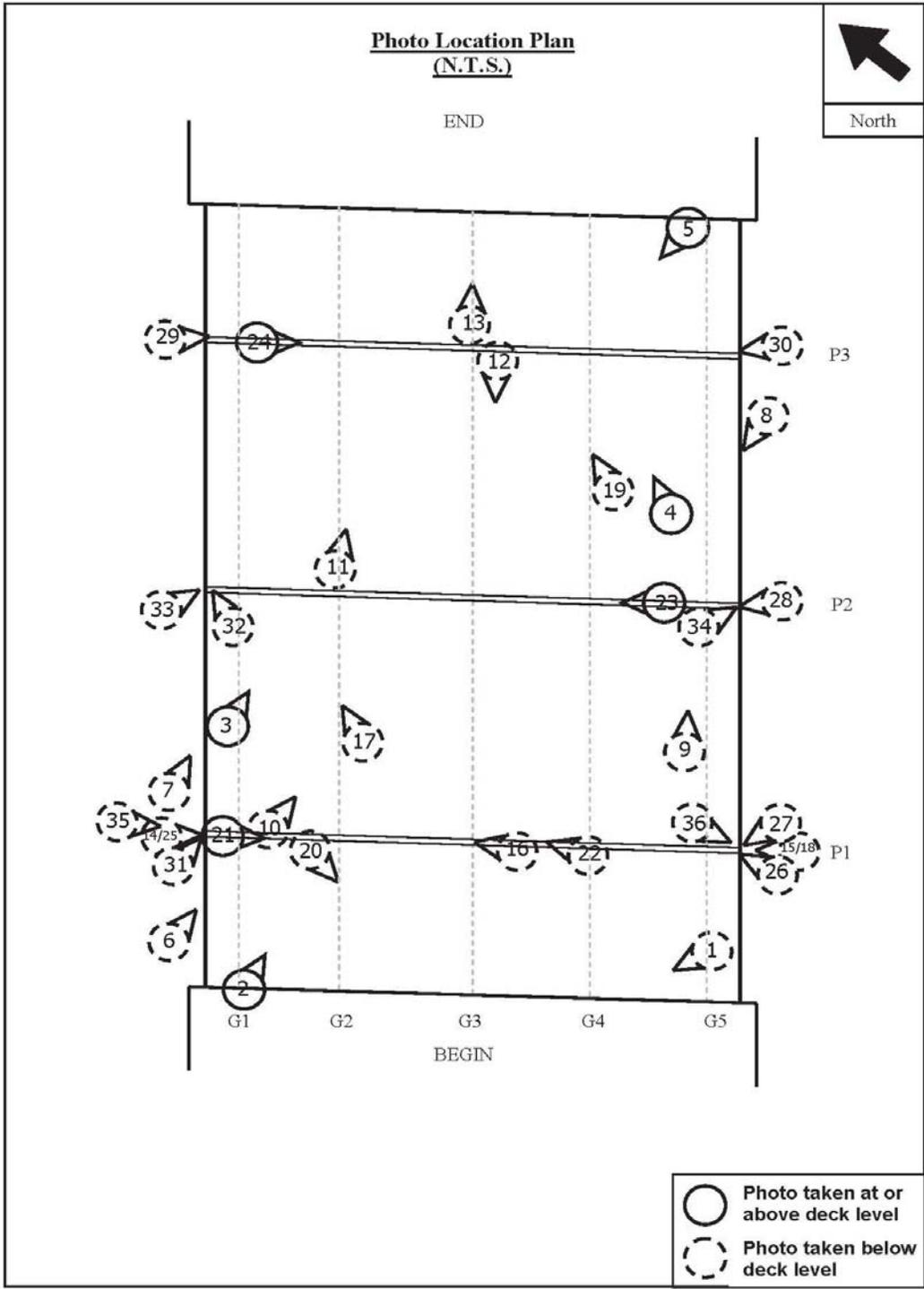


33 WF 130	Web Thickness (in)=			0.580
Location	1	2	3	4
S2 G5 @ P1	0.491	0.466	0.405	0.526
Average (in)	0.454			0.526
% SL	22%			9%

Span 2, G5 @ Pier 1	Percent Section Loss			
	Identification: SPAN FASCIA GIRDER Design Section Per Plan: 33 WF 130; Web: 0.580", Bearing Stiffener: None* Computed Avg. SL for Critical Section (Row 1)	2015		
Notes: 2015: Section Loss monitoring started.	22%			

PHOTOGRAPHS

Sketch Type: Photo Location
File Name: 262.01-15-00-15PhoLoc.jpg



Location:	Photo Name:	Photo #:
Begin Abutment Slope Protection	262.01-349-32-00-15EroBeg.JPG	1

Description(s):

- Settled embankment material and displaced slope protection affecting a 6' Wide x 5' Long area, and exposing up to 8" of the vertical face of the footing for a length of 5'.

Reference:

Form:	Item:	Item Desc:	Rate:
349	32	Erosion or Scour (Begin)	5



Location:	Photo Name:	Photo #:
Span 1, Wearing Surface from Begin Left	262.01-350-19-01-15WSsp2L.JPG	2

Description(s):

- Loss of transverse grooving, with exposed and polished aggregate. Skid resistance is significantly reduced.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	1	4

Location:	Photo Name:	Photo #:
Span 2, Wearing Surface in Left Travel Lane at Midspan	262.01-350-19-02-15WSsp2L.JPG	3

Description(s):

- Several 2 SF areas of uneven asphalt patches. Ride quality is adversely affected.



Reference:

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

Location:	Photo Name:	Photo #:
Span 3, Wearing Surface from Right at Midspan	262.01-350-19-03-15WSsp3E.JPG	4

Description(s):

- Numerous uneven asphalt patches, ranging from 1' to 3' in diameter. Ride quality is adversely affected.



Reference:

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

Location:	Photo Name:	Photo #:
Span 4, Wearing Surface from End Left.	262.01-350-19-04-15WSsp4E.JPG	5

Description(s):

- Loss of transverse grooving, with exposed and polished aggregate. Skid resistance is significantly reduced.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	4	4

Location:	Photo Name:	Photo #:
Span 1, Left Fascia at Midspan	262.01-350-21-01-15FascLt.JPG	6

Description(s):

- 3' Long x 3" High x 3" Deep spall with exposed rebar.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	1	5
350	27	Deck Structural	1	5



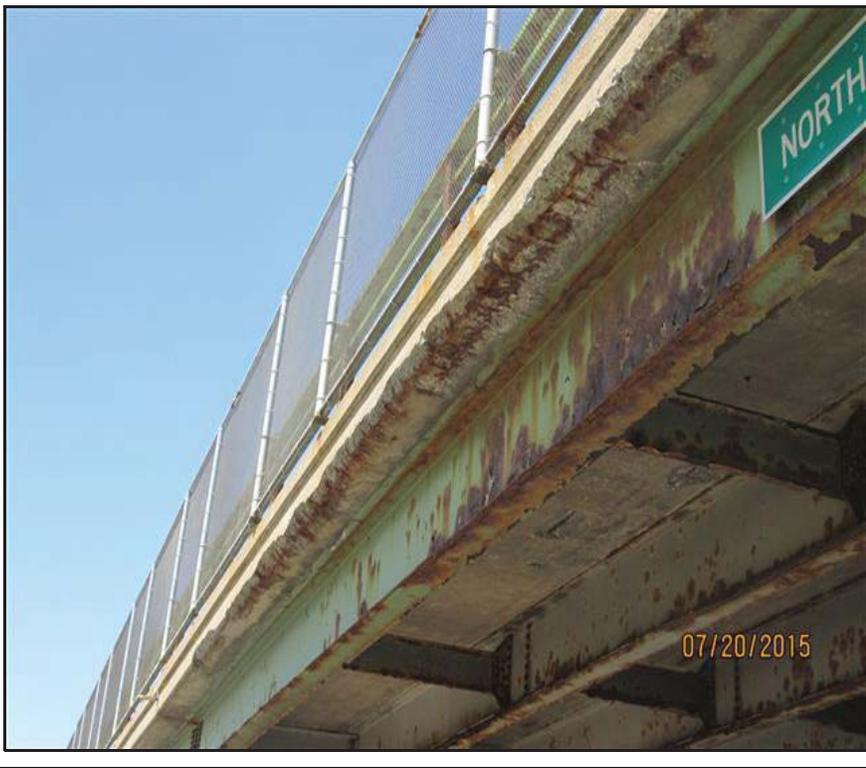
Location:	Photo Name:	Photo #:
Span 2, Left Fascia	262.01-350-21-02-15FascLt.JPG	7

Description(s):

- 48' Long x up to 6" High x 3" Deep spall bottom corner spall, which affects 80% of the total span length.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	2	4
350	27	Deck Structural	2	4



Location:	Photo Name:	Photo #:
Span 3, Right Fascia	262.01-350-21-03-15FascRt.JPG	8

Description(s):

- 25' Long x up to 4" High x 3" Deep bottom corner spall with exposed rebar.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	3	4
350	27	Deck Structural	3	3

Location:	Photo Name:	Photo #:
Span 2, Bay 4 at Midspan from Begin	262.01-350-27-02-15DeckB2.JPG	9

Description(s):

- 4' Long x 3' Wide x 2.5" Deep spall with 1 fully debonded longitudinal reinforcement bar.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	4

Location:	Photo Name:	Photo #:
Span 2 from Begin Left	262.01-350-27-02-15S2B1-3.JPG	10

Description(s):

- Localized areas of spalling with exposed rebar scattered throughout the span, over the I-90 EB travel lanes.
- Paint failure with moderate corrosion and section loss along girder bottom flanges. Rust freckling on girder webs and diaphragms.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	4
350	30	Paint	2	3

Location:	Photo Name:	Photo #:
Span 3 from Begin Left	262.01-350-27-03-15DeckS3.JPG	11

Description(s):

- Large areas of spalling with exposed reinforcement, several of which are fully debonded.
- Paint failure with moderate corrosion and section loss along girder bottom flanges. Rust freckling on girder webs and diaphragms.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	3	3
350	30	Paint	3	3

Location:	Photo Name:	Photo #:
Span 3, Bay 1 from End	262.01-350-27-04-15DeckB1.JPG	12

Description(s):

- 4' Wide x 2.5" Deep spalling with exposed and debonded reinforcement bars.



Reference:

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

Location:	Photo Name:	Photo #:
Span 4 from Begin	262.01-350-27-04-15DeckS4.JPG	13

Description(s):

- The Deck is in good condition, with only minor, isolated deterioration.
- Paint failure, with peeling and light rust scaling along the edges of the girder top and bottom flanges. Rust freckling and minor corrosion on girder webs and diaphragms.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	4	5
350	30	Paint	4	4

Location:	Photo Name:	Photo #:
Span 1, Girder G1 at Pier 1	262.01-350-28-00-15S1G1P1.JPG	14

Description(s):

- Moderate active corrosion and 20% section loss in the lower portion of the web, directly over the bearing.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	5
350	30	Paint	1	4

Location:	Photo Name:	Photo #:
Span 1, Girder G5 at Pier 1	262.01-350-28-01-15S1G5P1.JPG	15

Description(s):

- Moderate active corrosion and 20% web section loss in the critical bearing area.



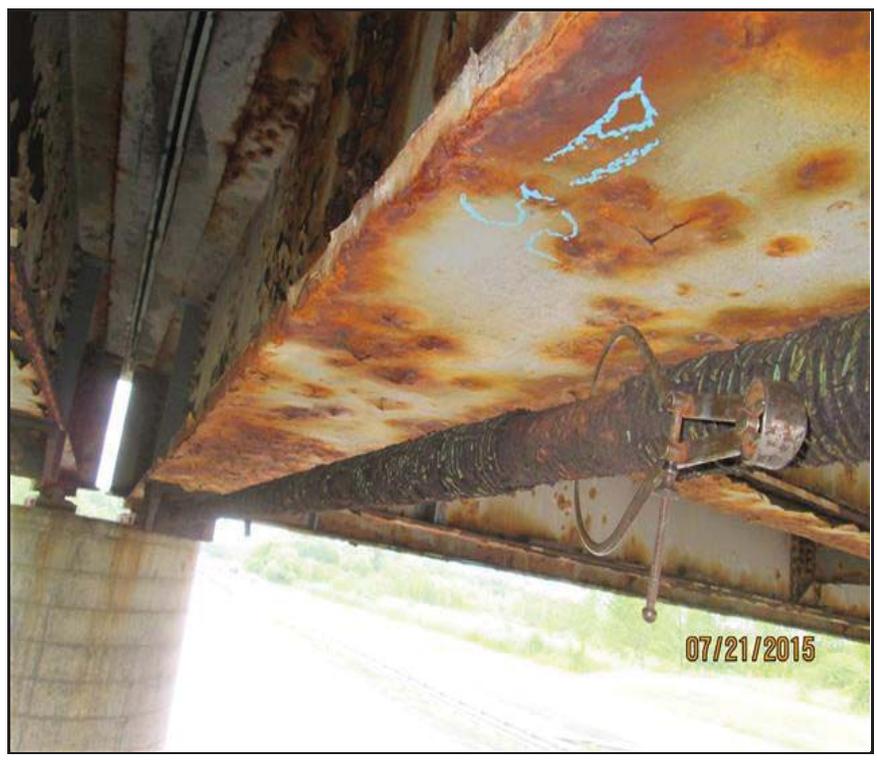
Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	5
350	30	Paint	1	4

Location:	Photo Name:	Photo #:
Span 2, End-Floorbeam at Pier 1 (Typical)	262.01-350-28-02-15P1S2FB.JPG	16

Description(s):

- 1.5" diameter post-tension rod exhibits moderate active surface corrosion. However, there is no measurable section loss.



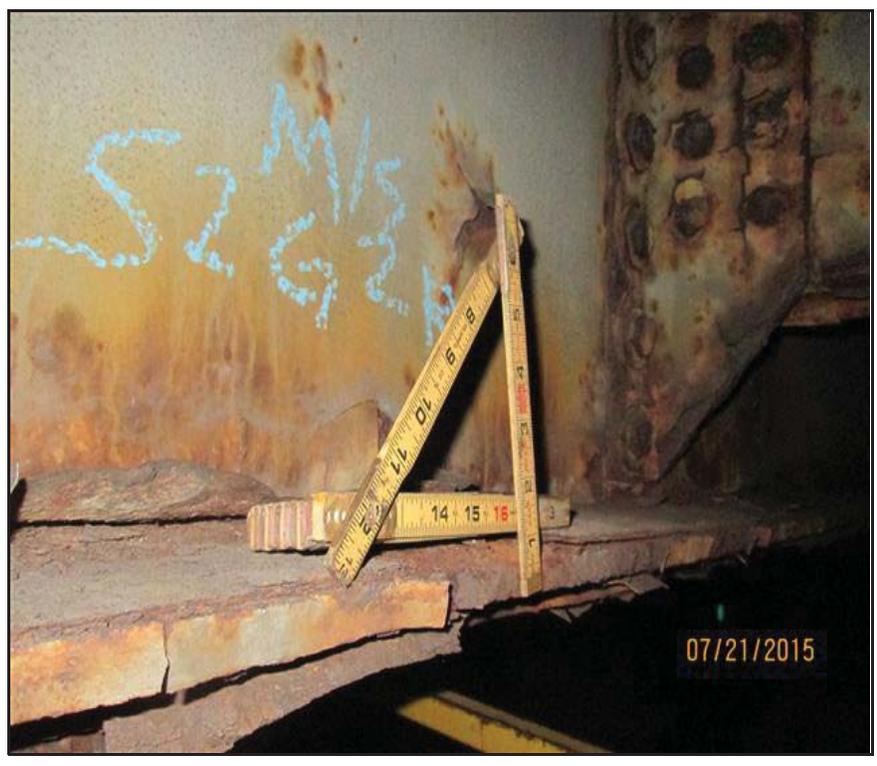
Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1-4	5

Location:	Photo Name:	Photo #:
Span 2, Girder G2 from Right at Midspan (Typical for All 5 Girders)	262.01-350-28-03-15S2G2MS.JPG	17

Description(s):

- 13% section loss on the Bottom Flange.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2	5
350	30	Paint	2	3

Location:	Photo Name:	Photo #:
Span 2, Girder G5 at Pier 1	262.01-350-28-03-15S2G5P1.JPG	18

Description(s):

- Moderate active corrosion and 22% section loss in the lower portion of the web, directly over the bearing.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2	5
350	30	Paint	2	3



Location:	Photo Name:	Photo #:
Span 3, Girder G4 from Right at Midspan (Typical for All 5 Girders)	262.01-350-28-04-15S3G4MS.JPG	19

Description(s):

- 20% section loss on the bottom flange.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	3	5
350	30	Paint	3	3



Location:	Photo Name:	Photo #:
Span 1 from End	262.01-350-30-01-15Paint1.JPG	20

Description(s):

- Paint failure, with peeling and light rust scaling along the edges of the girder top and bottom flanges. Rust freckling and minor corrosion on girder webs and diaphragms.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	30	Paint	1	4



Location:	Photo Name:	Photo #:
Pier 1 Joint from Left	262.01-350-31-00-15JointL.JPG	21

Description(s):

- Joint seal is detached at intermittent locations over the entire bridge width.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	1	4



Location:	Photo Name:	Photo #:
Pier 1, Joint in Girder Bay 3	262.01-350-31-01-15JtBay3.JPG	22

Description(s):

- Span 2 header has a 6' Long x Full Width x 2" Deep spall



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	1	4

Location:	Photo Name:	Photo #:
Pier 2 Joint from Right	262.01-350-31-02-15JointR.JPG	23

Description(s):

- Joint seal exhibits minor fraying. The Span 2 header has a 4' Long x 1/8" Wide transverse crack near the centerline.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	2	4

Location:	Photo Name:	Photo #:
Pier 3 Joint from Left	262.01-350-31-03-15JointL.JPG	24

Description(s):

- Minor edge spalling along the Span 2 header affects the joint seal.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	3	4

Location:	Photo Name:	Photo #:
Pier 1, Bearings under Girders G1	262.01-350-33-01-15BrgsG1.JPG	25

Description(s):

- Bearings have been cleaned and reset since the previous inspection.



Reference:

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

Location:	Photo Name:	Photo #:
Pier 1, Span 1 Bearing under Girder G5	262.01-350-33-01-15Sp1G5R.JPG	26

Description(s):

- Moderate corrosion affecting all bearing components. Bearing is contracted by 3/4" at 70°F.



Reference:

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

Location:	Photo Name:	Photo #:
Pier 1, Span 2 Bearing under Girder G5	262.01-350-33-01-15Sp2G5R.JPG	27

Description(s):

- Heavy corrosion affecting all bearing components. Corrosion restricts proper movement, and the bearing appears "frozen". Bearing is close to the neutral position at 70°F.



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 G5 (Typical)	262.01-350-33-02-15P2S3G5.JPG	28

Description(s):

- Heavy corrosion affects all bearing components. Outer anchor bolt nut has 75% section loss. Corrosion impedes, but does not appear to restrict girder end rotation.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	2	4

Location:	Photo Name:	Photo #:
Pier 3, Span 4 Bearing under Girder G1	262.01-350-33-03-15P3S4G1.JPG	29

Description(s):

- Moderate corrosion affecting all bearing surfaces. Spalling pedestal undermines the masonry plate by up to 1", which represents a 5% loss of contact area.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	3	2
350	34	Pedestals	3	3

Location:	Photo Name:	Photo #:
Pier 3, Span 4 Bearing under Girder G5	262.01-350-33-03-15P3S4G5.JPG	30

Description(s):

- Heavy corrosion on all bearing surfaces. The bearing is contracted, and the sliding plate overhangs the masonry plate by 3/4" at 70°F, which represents a 10% reduction in contact area.



Reference:

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

Location:	Photo Name:	Photo #:
Pier 1, Pedestal beneath Girders G1	262.01-350-34-01-15P1Ped1.JPG	31

Description(s):

- Pedestal has been replaced since previous inspection.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	1	5

Location:	Photo Name:	Photo #:
Pier 2, Pedestal beneath Girders G1 from Begin Right	262.01-350-34-02-15P2P1BR.JPG	32

Description(s):

- 2" Wide x 18" High x up to 5" Deep spalling which continues along the top surface. Top surface spalling is 2" deep, and extends up to, but not under the bearing masonry plate.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	2	3

Location:	Photo Name:	Photo #:
Pier 2, Pedestal beneath Girders G1	262.01-350-34-02-15P2Pd1L.JPG	33

Description(s):

- 2" Wide x 18" High x up to 5" Deep top corner spall which extends up to, but not under the masonry plates.



Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	2	3

Location:	Photo Name:	Photo #:
Pier 2, Pedestal beneath Girders G5 from Begin Left	262.01-350-34-02-15Ped2Lt.JPG	34

Description(s):

- 16" Wide x 6" High x 3" Deep top corner spall, with a 1/16" wide crack extending from the bearing anchor bolt.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	2	3



Location:	Photo Name:	Photo #:
Pier 1, Left Column	262.01-350-38-00-15P1Col1.JPG	35

Description(s):

- Upper 12' portion of the column has been replaced since the previous inspection.

Reference:

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



Location:	Photo Name:	Photo #:
Pier 1, Right Column from Left	262.01-350-38-01-15P1Col2.JPG	36

Description(s):

- 4' High x 2' Wide x 3" Deep spall with exposed rebar surrounded by 35 SF of cracked and delaminated concrete.

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: 7/29/2015

M.P.: 262.01

BIN: 5512790

TEAM LEADER Andrew Lachina

REVIEWED BY Garret Hoffmann



MINIMUM BRIDGE UNDERCLEARANCE
OVERHEAD BRIDGES
SYRACUSE DIVISION
NEW YORK STATE THRUWAY AUTHORITY

MP: 262.01 SHEET 1 OF 1

BIN: 5512790 DATE: 7/29/2015

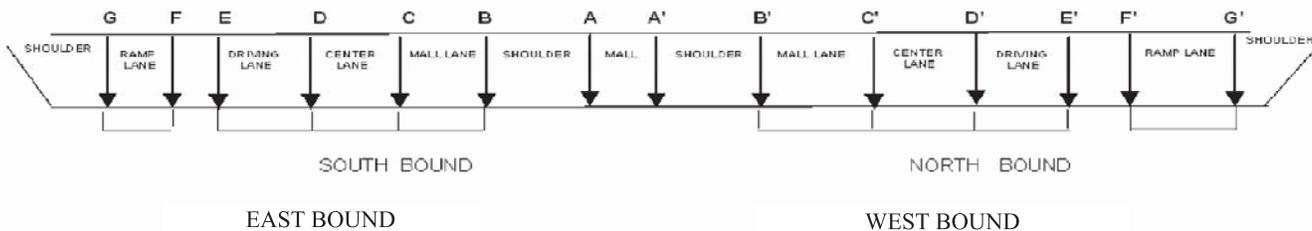
Feature Crossed: 90 IX

Bridge Orientation: Northeast

Date	A	B	C	D	E	F	G	H	A'	B'	C'	D'	E'	F'	G'	H'
06/23/2009		15.10		14.67	14.72					14.91		14.75	14.84			
07/07/2010	15.24	15.08		14.66	14.71				15.10	14.90		14.72	14.83			
07/17/2012	15.25	15.12		14.66	14.72				15.10	14.90		14.73	14.84			
07/23/2014	15.24	15.10		14.69	14.71		14.92		15.10	14.89		14.73	14.84		15.03	
07/29/2015	15.26	15.14		14.73	14.74		14.92		15.12	14.89		14.74	14.87		15.04	

REMARKS: North Main St. Over 90IX
 Readings were taken at the right fascia girder.
 Points G and G' were taken at the face of Guide Rail.

- NOTES:** 1) Circle the appropriate TWY direction on the sketch below
- 2) For 2 lane sections, use points E,D, & B and E',D', & B' to record measurements
 - 3) 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) Dimensions A through H shall be to lowest measurement of each point
 - 6) For riveted construction stringers, Dimensions shall be taken to bottom of the rivet heads.



BRIDGE INVENTORY AND INSPECTION SYSTEM

ACCESS CATEGORY CODING FORM

RC - BIN:

1	2
2	4

 -

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

INSPECT DATE: 7/29/2015

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											X		31	17	2
0	0	3	X		X			X											X		31	17	2
0	0	4	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: 262.01-13-00-15Loadrt.jpg

**NEW YORK STATE THRUWAY AUTHORITY
 BRIDGE INSPECTION FIELD VERIFICATION OF LOAD RATING DATA**

Date: 7/29/2015

MP/BIN: 262.01/5512790

Feature Carried / Crossed: North Main St. / I-90

Dead Load:
 WS Thickness & Material Shown on Plans - 4" Concrete Wearing Surface
 Changes Noted in Field: None

Railing Type Shown on Plans - Left and Right: 4 tube steel panel rail with 8' high pedestrian fence attached.
 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) -
Span 1, Girder G1 Web over Pier 1 Bearing: 20% critical / 13% average
Span 1, Girder G5 Web over Pier 1 Bearing: 20% critical
Span 2, Girder G5 Web over Pier 1 Bearing: 22% critical
Span 2 and Span 3, all 5 girders bottom flange section loss between 15% and 20%

Additional Notes: See primary member notes for girder section loss

Attachments: yes no (please circle)

Team Leader: Andrew M. Lachina

Signature: Andrew M. Lachina Date: 7/29/2015

LEVEL 2 LOAD RATING (VIRTIS: AASHTO LFD)

MILEPOST: 262.01

BIN: 5512790

REGION: 2

COUNTY: MADISON

FEATURE CARRIED: NORTH MAIN STREET

FEATURE CROSSED: 90IX

LEVEL 2 LOAD RATING REVIEW

VIRTIS RUN DATE: 10/13/2014

CHANGES TO INPUT DATA: Composite deck thickness revised due to spalling.
See list of changes on page 2 of VIRTIS
load rating in BIN folder.

LOADING	INVENTORY RATING (TONS)	OPERATING RATING (TONS)
HS-20	32.1 (HS-17)	53.6 (HS-29)
H-20	23.6 (H-23)	39.4 (H-39)

* ANALYSIS METHOD: LOAD FACTOR

CONTROLLING MEMBER FOR RATING

LOCATION: H20: SPANS 1 & 4 HS20: SPAN 3

COMPONENT: H20: INT. GIRDERS G2 - G4; HS20: FASCIA GIRDER G1

FAILURE TYPE: MIDSPAN FLEXURAL CAPACITY**

** - Transverse steel cap beam (ie; end floorbeam) is post tensioned and is not ratable in Virtis,
and may control overall bridge capacity. See Level 1 load rating for cap beam in BIN folder.

EFFECTIVE SPAN LENGTH: 36'

H EQUIVALENT OF LEGAL LOAD: H23

PRIMARY MEMBER RATING: 5

SAFE LOAD CAPACITY: H33

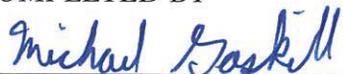
SLC COMPUTATION USED (IN BOLD)				
0.60 HOR	0.70 HOR	0.80 HOR	0.85 HOR	HOR

ACTION TAKEN: NONE REQUIRED X

RECOMMEND LEVEL 1 _____

UNRATABLE _____

COMPLETED BY

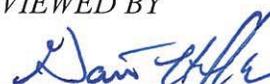


MICHAEL GASKILL

PE # 092560

LOAD RATING ENGINEER

REVIEWED BY



GARRET HOFFMANN

PE # 070686

QUALITY CONTROL ENGINEER