

New York State Department of Transportation

General Bridge Inspection Report

Inspection Date: October 06, 2021

Structure Information

BIN: 3342250

Feature Carried: COUNTY ROAD 25A

Feature Crossed: KINDERHOOK CREEK

Orientation: 1 - NORTH

Region: 08 - POUGHKEEPSIE

County: COLUMBIA

Political Unit: Town of STUYVESANT

Approximate Year Built: 1899

Primary Owner: 30 - County

Primary Maintenance Responsibility: 30 - County

General Type Main Span: 3 - Steel, 10 - Truss - Thru

This Bridge is not a Ramp

Number of Spans: 1

Postings

Posted Load Matches Inventory: Yes

Posted Load in field: Not Posted

Posted Vertical Clearances Match Inventory: N/A

Inventory On: Not Posted

Inventory Under: Not Posted

Number of Flags Issued

Red PIA: 0

Red: 0

Yellow: 3

Safety PIA: 0

New York State Inspection Overview

General Recommendation: 4

Federal NBI Ratings

NBI Deck Condition: 6

NBI Superstructure Condition: 4

NBI Substructure Condition: 5

NBI Channel Condition: 6

NBI Culvert Condition: N

Action Items

Non-Structural Condition Observations noted: YES

Vulnerability Reviews Recommended: NO

Diving Inspection Requested: NO

Further Investigation Requested: YES

Inspector & Reviewer Signature Information

Inspection Signature: Rajesh Narasimhan, P.E. 092918-1

Date: December 02, 2021

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

Date: December 03, 2021

Processed by: Osman Y. Hag-Elsafi, P.E. 082139-1

Date: January 04, 2022

Report Printed: January 04, 2022 11:37:58 AM

Special Emphasis Inspection

Special Emphasis Detail	"Other" Special Emphasis Detail Description	Hands-On Insp Performed	Hands-On Inspection Note
Non-redundant or Fracture-Critical Structures		Yes	100% hands-on inspection performed at all special emphasis items, see report for details, 10/6/2021, Rajesh Narasimhan, PE # 092918.
Details vulnerable to fatigue cracks		Yes	100% hands-on inspection performed at all special emphasis items, see report for details, 10/6/2021, Rajesh Narasimhan, PE # 092918.
Other (Unique & unusual features)	Hanger rods and rivets in tension zone	Yes	100% hands-on inspection performed at all special emphasis items, see report for details, 10/6/2021, Rajesh Narasimhan, PE # 092918.

Additional Information

Further Investigation

Further Investigation Type	Remarks
Level 1 Load Rating Needed	Bridge cannot be load rated with DOT's BrR software. L1LR is needed due to significant deterioration

Overloads Observed

No overload vehicles observed during this inspection.

Notes to Next Inspector

2021: The BIN plate is located on the begin abutment stem at the center with faded letterings. Inspection access was by using a bucket truck with bridge closure above deck and using rigging (by Harcon) below deck. Care must be taken while inspecting truss/arch top of deck due to presence of a big wasp/hornets nest at U6U7 Arch at right adjacent to U7.

2020 Access: Walking, Bucket truck with bridge closure, Rigging for the first 4 panels, Harcon tracker for the remaining bridge.

2019 Field visits as follows:

10/23/19 - Underside of bridge inspected through rigging.

11/21/19 - Top side of bridge inspected with bucket van and bridge closure.

2018 Field visits as follows:

11/14/18 – Bucket truck and topside inspection.

12/12/18 – UB30 access attempt but not obtainable.

12/20/18 – Extension Ladder and hip boot access below bridge. Access limited to the begin and end sides due to icy conditions. Extension ladder was used due to rigging contractor not able to rig bridge, extension ladder is not recommended for inspection. Recommended means of access for the underside of superstructure is rigging, and this should be scheduled during warm weather and low flow.

Bridge needs to be closed for topside bucket truck work between 9am to 3pm. Local Authorities need to be notified.

Robert Lopez – non-emergency 911: 518-828-1263;

Bernie Kelleher - Hwy Dept: 518-828-7011;

Fire Dept: 518-828-3344;

Exub Crane Schools: 518-758-6996;

Columbia County Police Dept: 518-828-3344;

NYS Police Dept: 518-851-3111;

CO ARL Transportation: 518-672-4451x3501

When reopened call non-emergency 911 to notify.

Improvements Observed

2021: None.

2020: None

2019: No improvements.

Pedestrian Fence Height

None

Snow Fence

None

Bin Plate Condition

Damaged

Scour Critical Rating

5 - Bridge foundations determined to be stable for assessed or calculated scour condition. Scour is determined to be within the limits of footing or piles by assessment (i.e., bridge foundations are on rock formations that have been determined to resist scour within the service life of the bridge), by calculations or by installation of properly designed countermeasures.

Field Notes

Staff Present During Inspection

Name	Title	Organization
Brandon Lehman	Rigging Personnel	Harcon
Daniel Rivie	Assistant Team Leader	WSP
Eric Graham	Rigging Personnel	Harcon
Jose Ozalle	WZTC	BEI
Lee Althouse	Rigging Personnel	Harcon
Nesly Beauharnais	WZTC	BEI

General Equipment Required for Inspection*

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

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

Detailed Time & Weather Conditions

Field Date	Arrival	Departure	Temp (F)	Weather Conditions
10/05/2021	08:30 AM	02:00 PM	54	Overcast
10/06/2021	09:45 AM	05:15 PM	61	Mostly Cloudy

Inspection Times (hours)

Time required for travel, inspection and report preparation	40
Lane closure usage	4.5
Railroad flagging time	No

Element Quantities

Element Assessment Summary Table

Element	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
29 - Steel Deck with Concrete Filled Grid	3560	SQUARE_FOOT		3382	178		0
113 - Steel Stringer	414	ft		414			0
136 - Other Truss	414	ft		385	25	4	0
141 - Steel Arch	414	ft		310	104		0
152 - Steel Floor Beam	675	ft	502		169	4	0
161 - Steel Pin and Pin & Hanger Assembly or both	78	each	27	51			0
217 - Masonry Abutment	60	ft			60		0
302 - Compression Joint Seal	21	ft				21	0
306 - Other Joint	21	ft		21			0
311 - Movable Bearing	2	each		2			0
313 - Fixed Bearing	2	each			2		0
330 - Metal Bridge Railing	414	ft	368		46		0
510 - Wearing Surfaces	3146	SQUARE_FOOT		2989	157		0
515 - Steel Protective Coating	21404	SQUARE_FOOT	3560	11807	3359	2678	0
800 - Erosion or Scour	222	ft		142	80		0
801 - Stream Hydraulics	1	each			1		0
810 - Sidewalk	1035	SQUARE_FOOT					1035
811 - Curb	414	ft		414			0
830 - Secondary Members	1	each			1		0
850 - Backwall	60	ft		60			0
851 - Abutment Pedestal	4	each		2	2		0
853 - Wingwall	162	ft			162		0

Element Assessment by Span

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
Span Number : 1							
BA217 - Masonry Abutment	30	ft			30		0
BA302 - Compression Joint Seal	21	ft				21	0
BA311 - Movable Bearing	2	each		2			0
515 - Steel Protective Coating	16	SQUARE_FOOT			16		0
BA800 - Erosion or Scour	30	ft			30		0
BA850 - Backwall	30	ft		30			0

BIN: 3342250 Bridge Inspection Report
Inspection Date: October 06, 2021

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
BA851 - Abutment Pedestal	2	each		2			0
BW800 - Erosion or Scour	90	ft		40	50		0
BW853 - Wingwall	90	ft			90		0
EA217 - Masonry Abutment	30	ft			30		0
EA306 - Other Joint	21	ft		21			0
EA313 - Fixed Bearing	2	each			2		0
515 - Steel Protective Coating	16	SQUAR E_FOO T			8	8	0
EA800 - Erosion or Scour	30	ft		30			0
EA850 - Backwall	30	ft		30			0
EA851 - Abutment Pedestal	2	each			2		0
EW800 - Erosion or Scour	72	ft		72			0
EW853 - Wingwall	72	ft			72		0
29 - Steel Deck with Concrete Filled Grid	3560	SQUAR E_FOO T		3382	178		0
510 - Wearing Surfaces	3146	SQUAR E_FOO T		2989	157		0
515 - Steel Protective Coating	3560	SQUAR E_FOO T	3560				0
113 - Steel Stringer	414	ft		414			0
515 - Steel Protective Coating	965	SQUAR E_FOO T		868	97		0
136 - Other Truss	414	ft		385	25	4	0
515 - Steel Protective Coating	6400	SQUAR E_FOO T		3840	1280	1280	0
141 - Steel Arch	414	ft		310	104		0
515 - Steel Protective Coating	6400	SQUAR E_FOO T		4160	1280	960	0
152 - Steel Floor Beam	675	ft	502		169	4	0
515 - Steel Protective Coating	3390	SQUAR E_FOO T		2373	678	339	0
161 - Steel Pin and Pin & Hanger Assembly or both	78	each	27	51			0
515 - Steel Protective Coating	57	SQUAR E_FOO T		26		31	0
330 - Metal Bridge Railing	414	ft	368		46		0
515 - Steel Protective Coating	600	SQUAR E_FOO T		540		60	0
801 - Stream Hydraulics	1	each			1		0
810 - Sidewalk	1035	SQUAR E_FOO T					1035
811 - Curb	414	ft		414			0
830 - Secondary Members	1	each			1		0

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

Inspection Notes

General Notes

2021: This structure is composed of a historic pinned truss (Pratt Truss) that has been rehabilitated with the addition of a steel arch. The original steel truss was built in 1899 and has undergone many modifications. In 1992, a steel arch was installed at each truss to act as a second structural system. The truss and arch function together. The panel points on the original truss have been used for the numbering convention (floorbeam FB0 to FB11) and the newer arch floorbeams are labeled as X.5.

At the even numbered panel points, four 1" diameter hanger rods are used which extend and connect to the arch above. At the odd numbered panel points, two 1.5" diameter hanger rods are used which are bolted to the double channel truss vertical members above the bottom chord. At the new floorbeams, FB0 and the half-numbered panel points (X.5), two 1.5" diameter hanger rods are used which extend and connect to the arch above. In addition to the newer arch system, retrofit plates and hangers have been added to the original bottom chords and pinned connections.

Historically channel cross sections readings are not taken due to the streambed consisting of bedrock.

Yellow flags 8B2105W020 to 22 have been issued during this inspection.

Further Investigation is recommended during this inspection similar to the recommendation suggested in 2020. This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A level one load rating is strongly recommended to assess significant deterioration which has occurred since the 1992 rehab.

Element Condition Notes

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: 29 - Steel Deck with Concrete Filled Grid	3560	0	3382	178	0	0
Common Referenced Photo(s): 1, 2, 3, 4 Referenced Sketch(es): None						
2021: The top of deck has transverse cracking at the floorbeams. These cracks are up to 1/4" W with the start of edge spalling of up to 1" D (Photos 1 & 3). The cracks are also damp. Near the center of the bridge at end, there are longitudinal map cracks of up to 1/8" W for approximately 6' L (Photo 2). The underside of the deck is in fair condition with the cracks do not appear to be leaking to the steel below (Photo 4).						
	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: 29 - Steel Deck with Concrete Filled Grid-510 - Wearing Surfaces	3146	0	2989	157	0	0
Common Referenced Photo(s): 1, 2, 3, 4 Referenced Sketch(es): None						
2021: See "NBE 29 - Steel Deck with Concrete Filled Grid" condition notes for details. Overall the wearing surface is in fair condition.						
	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: 113 - Steel Stringer-515 - Steel Protective Coating	965	0	868	97	0	0
Common Referenced Photo(s): 5 Referenced Sketch(es): None						
2021: The paint on the sidewalk stringers is starting to fail with worse near floorbeam connections and the sidewalk deck sleepers.						

Span 1: 136 - Other Truss	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	414	0	385	25	4	0

Common
Referenced Photo(s): 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23
Referenced Sketch(es): None

2021: Yellow flag 8B2105W020 has been reissued superseding YF 8B20VLW042, for section losses/perforations to the Right Truss L1U1 at L1. See flag report for details.

Yellow flag 8B2105W021 has been reissued superseding YF 8B20VLW043 for section losses to the bottom chord channel webs at pin locations. See flag report for details (Photo 6)

Hanger Rods:
The 1.5" diameter rods (at odd panel points) have section losses at their bottom, located just above the bottom flange of the floorbeam. Overall, the section loss is estimated to be 15% to 20% at this time (Photo 7). The even panel points (four 1" diameter rods) have less than 5% section losses (Photo 8).

Verticals:
The following locations, below deck, have section losses to the vertical members at the panel points (at the bottom chord).
Left Truss, L1U1 at L1: Inboard (right) channel web has a perforation that is 5" L below the pin (Photo 9). Right Truss, L5U5 at L5: Inboard (left) channel web has a perforation that is approximately 1" L above the pin (Photo 10). Right Truss, L7U7 at L7: Inboard (left) channel web has a perforation that is approximately 3" L above the pin.

Access to these locations are extremely difficult due to tight access and the close configuration of all the steel members. The overall section loss to these inboard member locations is estimated to be 50%-60%. The outboard members are in better condition. Overall, combined vertical member loss is estimated to be 30%.

At L8 of Right truss, the original floorbeams had connection angles to the top of the top flange for the inboard and outboard channels. The inboard connection angle is no longer connected to the floorbeam due to pack rust. No flag issued since these connections are bypassed due to the newer rod/hanger system.

Above deck, Left Truss at U2L2 spacer welds (4' above roadway) are cracked through (crack propagation not possible). Right Truss at L4U4 spacer welds (4' above roadway) are cracked through (crack propagation not possible) (Photos 11 & 12). Right Truss L7U7 (above roadway) is deformed on the inside channel. The channel appears to be pushed away from the roadway. This is not a new condition, no other signs of distress observed (Photo 13). The lacing bars are up to 5' above the roadway are welded to the inboard and outboard channels. On the begin side of the outboard channel the fourth lacing bar weld is cracked through (no propagation possible) (Photo 14).

Diagonal Members:
At the right truss, L9M10, the inboard member is bent upwards 1". No significant changes from previous inspection (Photo 15). At the right truss, M10U11, the inboard member has pitting up to 0.15" D at the pin. Section loss is estimated at 5% overall (Photo 16). At Right truss, U11L12, (6' above the roadway) the inboard channel bottom flange is bent up to 1" over a 1.5' length (Photo 17).

Bottom Chord:
Many bottom chord locations have been replaced or retrofitted in the past. These locations are in good condition.

Left truss, L4L5 at L5 the eye beams around the pin, both the begin and end sides have section loss. Access was difficult but it is estimated that the section loss to the member is 10%, with the overall section loss to the bottom chord less than 10% at this time (Photo 18).

Right truss, L3L4 at L3 (2019 inspection stated this at L4) the outboard eye beams around the pin has section loss. Access was difficult but it is estimated that the section loss to the member is 10%, with the overall section loss to the bottom chord less than 10% at this time.

Right truss, L4L5 at L5 the outboard (right side) eye beam has section loss near the pin connection. Access was difficult but it is estimated that the section loss to the member is 10%, with the overall section loss to the bottom chord less than 10% at this time (Photo 19).

(Note continued....)

Span 1: 136 - Other Truss	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	414	0	385	25	4	0

Common
Referenced Photo(s): None
Referenced Sketch(es): None

(Note continued....)

Right truss, at L5L6 at L5 the inboard eye beam on the begin side has section loss near the pin connection, 10%. The outboard and inboard eye beam on the end side has section loss near the pin connection, 15%. Access was difficult but the overall section loss to the bottom chord is 15% at this time (Photo 20).

Right truss, at L6L7 at L7 the inboard (right side) and outboard (left side) on the begin and end eye beam, have section loss near the pin connection, 15%.

Right truss, at L8L7 at L7 the outboard (left side) on the begin and end eye beam, have section loss near the pin connection, 10%.

Right truss, at L8L9 at L9 the outboard and inboard on the begin and end eye beam, have section loss near the pin connection, 10%.

Right truss, at L9L10 and L10L11 at L10 the inboard on the begin and end channel beams have section loss near the pin connection, 15% (Photo 21).

Right truss, at L10L11 at floorbeam FB10.5 the bottom half of the inboard channel has pitting up to 1/16" with section loss up to 5% overall to the web.

Top Chord:
Left truss at U1, bolt is unthreaded by 1/8" on the inside face and extends out on outside face. The top plate of the top chords of both trusses are slightly scalloped due to pack rust up to 1/2" (Photo 22). Left truss at U11, the top plate of the top chord is bent up to 1" D due to pack rust. Right truss at U11 the top plate of the top chord plate contains 3 loose bolts on the inboard side and is bent up to 1.2" due to pack rust (Photo 23).

This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A Level One load rating is strongly recommended to assess the significant deterioration which has occurred since the 1992 rehabilitation.

Span 1: 136 - Other Truss-515 - Steel Protective Coating	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	6400	0	3840	1280	1280	0

Common
Referenced Photo(s): 4, 21, 24
Referenced Sketch(es): None

2021: The paint below deck has failed at each panel point (Photo 4). Above deck, the paint has failed or is starting to fail at top chord and at any connection point (Photos 21 & 24). See "NBE 136 - Other Truss" condition note for details. The remaining paint is faded and chalky.

Span 1: 141 - Steel Arch	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	414	0	310	104	0	0

Common
Referenced Photo(s): 25, 26, 27, 28, 29
Referenced Sketch(es): None

2021: See below for deteriorations above and below deck.

Hanger Rods:
Below deck, at floorbeam FB0 and all half-numbered panel points (FBX.5) have been retrofitted with 1.5" diameter rods that are bolted to plates under the bottom flanges of the floorbeam. The rods have section losses at the bottom (at the bottom of the floorbeam flange). Access to the rods to measure was difficult due to floorbeam web stiffeners on both sides of them. Overall the section loss is estimated to be 15-20%. Corrosion is active (Photos 25, 26, and 27).

Above deck, at Left Arch, the hangers at panel points 4.5, 6.5, and 7.5 all have the hanger rods pressed against lacing bars of the middle chord and have section losses/wear of up to 1/16" over a 1" H area. The section loss is 5% overall (Photo 28).

At Right Arch, the hangers at panel points 4.5 and 6.5 all have the hanger rods pressed against lacing bars of the middle chord and have section losses/wear of up to 1/16" over a 1" H area. The section loss is 5% overall (Photo 29).

This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A Level One load rating is strongly recommended to assess the significant deterioration which has occurred since the 1992 rehabilitation.

Span 1: 141 - Steel Arch-515 - Steel Protective Coating	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	6400	0	4160	1280	960	0
Common						
Referenced Photo(s): 21, 25						
Referenced Sketch(es): None						

2021: The paint below deck has failed at each panel point (especially at the hanger rods) (Photos 21 & 25). Above deck the paint is starting to fail at top chord and at any connection point. See "NBE 141 - Steel Arch" condition note for details. The remaining paint is faded and chalky.

Span 1: 152 - Steel Floor Beam	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	675	502	0	169	4	0
Common						
Referenced Photo(s): 30, 31, 32, 33, 34, 35						
Referenced Sketch(es): None						

2021: Yellow flag 8B2105W022 has been issued for section losses to Floorbeam FB0 web, right side (Photo 30). See flag report for details.

The left and right side of the floorbeams have paint loss due to the start of corrosion. Floorbeam FB6.5 the lower web on the right side, approximately 1' from the hanger rod, has heavy section loss to the bottom 6" of the web. The overall section loss to the web (full height) is less than 20% (Photo 31). Floorbeam FB10.5 the lower web on the right side, approximately 1' from the hanger rod, has a 7" H x 11" L area with section loss that includes a 2" H x 1" L perforation. The overall section loss to the web (full height) is 25% (Photo 32).

Sidewalk:

The right side of the floorbeams have cantilevered brackets that are bolted or riveted, the newer floorbeams have bolted connections while original floorbeam connections are riveted. Overall, the floorbeam brackets are in fair condition except near the connection with the main floorbeams. See below:

At floorbeam FB1, the web of the sidewalk bracket contains a 7.5" L x 0.75" H perforation at the top (slight increase in perforation size). Floorbeam FB1.5 web of the sidewalk bracket contains a 3" L x 1" H perforation at the top (Photo 33). Floorbeam FB2.5 web of the sidewalk bracket also contains a 2" L x 1.25" H perforation at the top (Photo 34). Floorbeam FB3.5 web of the sidewalk bracket contains heavy section loss at the top, no perforation during this inspection. Floorbeam FB5 web of the sidewalk bracket contains a 2.5" L x 1" H perforation at the top and perforation on the end side of the top flange over a 3' length, these holes are up to 2" L and there is approximately 4 of them. Overall section loss is estimated to be 30% (Photo 35). Floorbeam FB6 web of the sidewalk bracket contains a 4" L x 1" H perforation at the top. Overall section loss is estimated to be 30%.

This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A Level One load rating is strongly recommended to assess the significant deterioration which has occurred since the 1992 rehabilitation.

Span 1: 152 - Steel Floor Beam-515 - Steel Protective Coating	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	3390	0	2373	678	339	0
Common						
Referenced Photo(s): 4						
Referenced Sketch(es): None						

2021: See "NBE 152 - Steel Floor Beam" condition note for details.

Span 1: 161 - Steel Pin and Pin & Hanger Assembly or both Common Referenced Photo(s): 24, 36, 37, 38, 39, 40, 41, 42, 43 Referenced Sketch(es): None	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	78	27	51	0	0	0
2021: Below deck - the original pin assemblies below deck have pack rust between the members (bottom chord, diagonal, vertical members) on both trusses. Due to paint failure the corrosion and rust is now active (Photos 36 & 37). At the Left Truss, L1 (begin side) has a cracked spacer. At the Right Truss, L1 has a cracked spacer (Photo 38). At the Right Truss, L5 (begin face) has a cracked spacer on the left side of the hanger rod (Photo 39). No signs of distress were observed to the assembly at the above locations. Above deck, the pins at mid-height have fine rust powder around the pinned connections at M4 and M6 at both left and right trusses and M10 at left truss. This indicates the steel members are grinding against each other (Photos 24 & 40). The upper truss connection pins, at both the left and right trusses, are not completely tightened and the nuts are not fully engaged at U1 and U11 and at the left truss, U7 outboard nut. This is an old and stable condition, no changes from previous inspection (Photos 41 & 42). At the Left Truss, U11 the inside pin collar/spacer is falling out. Pin is in good condition and no movement noted on the pin nuts (Photo 43). This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A Level One load rating is strongly recommended to assess the significant deterioration which has occurred since the 1992 rehabilitation.						
Span 1: 161 - Steel Pin and Pin & Hanger Assembly or both-515 - Steel Protective Coating Common Referenced Photo(s): 36, 39 Referenced Sketch(es): None	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	57	0	26	0	31	0
2021: The pins below deck all have paint failure, see "NBE 161 - Steel Pin and Pin & Hanger Assembly or both" condition note for details. The pins above deck are in better condition.						
Span 1: BA217 - Masonry Abutment Condition State 3 Note Referenced Photo(s): 44 Referenced Sketch(es): None	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	30	0	0	30	0	0
2021: In general, the masonry abutment is in good condition except near the bottom. The abutment is founded on bedrock and the interface between the bedrock and stone masonry is missing mortar creating a void up to 7' L x 3" H x 2' D. Due to high water and high current during this inspection, the dimensions of void is from last inspection. Comparing photos, the void is still present and appears to have no change from previous inspection. No signs of distress were noted. Abutment stem is stable.						
Span 1: EA217 - Masonry Abutment Condition State 3 Note Referenced Photo(s): 45 Referenced Sketch(es): None	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	30	0	0	30	0	0
2021: In general, the masonry abutment is in good condition except for the bottom half. The bottom half of the abutment is missing mortar and has active efflorescence staining /leakage. In addition, there are several cracked stones. Upper portion of the abutment is in better condition. Overall the abutment stem is stable.						
Span 1: BA302 - Compression Joint Seal Condition State 4 Note Referenced Photo(s): 46 Referenced Sketch(es): None	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	21	0	0	0	21	0
2021: The joint seal is depressed below the top of the deck and steel armor up to 3". The seal is covered with dirt and debris. The left side of the seal is also torn. Based on the condition of the floorbeam below (right side) there is active leakage. The						

concrete headers have several longitudinal cracks (1/32" to 1/16" W).

Span 1: BA311 - Movable Bearing-515 - Steel Protective Coating	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	16	0	0	16	0	0
Condition State 3 Note <i>Referenced Photo(s):</i> 47 <i>Referenced Sketch(es):</i> None						
2021: The paint system is starting to fail around the bottom of the bearing with rust staining/bleeding and the start of minor corrosion.						
Span 1: EA313 - Fixed Bearing	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	2	0	0	2	0	0
Condition State 3 Note <i>Referenced Photo(s):</i> 48, 49 <i>Referenced Sketch(es):</i> None						
2021: The paint system is starting to fail around the bottom of the bearing with rust staining/bleeding and the start of minor corrosion.						
Span 1: EA313 - Fixed Bearing-515 - Steel Protective Coating	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	16	0	0	8	8	0
Common <i>Referenced Photo(s):</i> 48, 49 <i>Referenced Sketch(es):</i> None						
2021: Paint system is starting to or has failed, there is active corrosion to the bearings.						
Span 1: 330 - Metal Bridge Railing	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	414	368	0	46	0	0
Common <i>Referenced Photo(s):</i> 50 <i>Referenced Sketch(es):</i> None						
2021: The bridge railing posts are located between the bridge deck and the truss shield plates. The posts are bolted to the top flange of the floorbeams. Below deck, the posts have paint failure with active corrosion to the bases (up to 10% at this time). Above deck, the railing is in good condition.						
Span 1: 330 - Metal Bridge Railing-515 - Steel Protective Coating	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	600	0	540	0	60	0
Common <i>Referenced Photo(s):</i> 50 <i>Referenced Sketch(es):</i> None						
2021: See "BME 330 - Metal Bridge Railing" condition note for details.						
Span 1: BA800 - Erosion or Scour Span 1: BW800 - Erosion or Scour	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	30	0	0	30	0	0
	90	0	40	50	0	0
Condition State 3 Note <i>Referenced Photo(s):</i> 44, 51 <i>Referenced Sketch(es):</i> None						
2021: The base of the masonry abutment and wingwall have old erosion where the shale outcrop has eroded creating voids.						

Span 1: 801 - Stream Hydraulics	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	1	0	0	1	0	0
Condition State 3 Note Referenced Photo(s): 52, 53, 54 Referenced Sketch(es): 2, 3						
2021: See Stream Hydraulics Defect History Sketch for details.						
Span 1: 810 - Sidewalk	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	1035	0	0	0	0	1035
Common Referenced Photo(s): 55 Referenced Sketch(es): None						
2021: The steel grate has areas of pack rust between the grid bars. Remaining deck is in fair condition.						
Span 1: 830 - Secondary Members	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	1	0	0	1	0	0
Condition State 3 Note Referenced Photo(s): 23, 56, 57, 58, 59, 60, 61, 62, 63 Referenced Sketch(es): None						
2021: Above deck, the upper wind bracing angles at panels 1 and 2 are bent. No change from previous inspection. The angle connecting the end portal to the left and right truss/arch at U11 and right truss/arch at U1 is starting to corrode causing small perforations (Photos 56 and 57). The angle connecting the end portal to the left and right truss/arch at U1 and right truss/arch at U11 has pack rust of up to 1" thick (Photos 23 & 58). The rivets adjacent to the pack rust appears to be solid and the portal is sturdy when pushed by hand with no movement noticed. The cotter pin for the connection of the sway bracing is not fully inserted at U3, left side and U5 right side. No change from previous inspection (Photos 59 & 60). Below deck, the lower lateral bracing connected to the original floorbeams pass through cutouts in the web of the newer floorbeams. The connection of the lateral bracing to the original floorbeams have paint failure with corrosion. The worse location is at floorbeam FB6 end right side (Photo 61). On the original parts of the bottom chord, the lacing bars are corroded. No significant changes. Steel Shield Plates: There are steel plates that cover the bottom chords (both left and right) at the top of the roadway level. These steel plates are considered a secondary member. These plates are starting to corrode (with the start of perforations). On the underside the bolts that connect the steel plate to the deck are corroded up to 85% (Photos 62 & 63).						
Span 1: EA851 - Abutment Pedestal	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	2	0	0	2	0	0
Condition State 3 Note Referenced Photo(s): 64, 65 Referenced Sketch(es): None						
2021: Both pedestals have cracks full height x 1/8" W on the inboard sides of the trusses. No change since last inspection.						
Span 1: BW853 - Wingwall	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	90	0	0	90	0	0
Condition State 3 Note Referenced Photo(s): 44 Referenced Sketch(es): None						
2021: In general, the masonry wingwalls are in good condition except near the bottom. The abutment is founded on bedrock and the interface between the bedrock and stone masonry is missing mortar creating a void up to 2' H x 6" D for most of its length. No signs of distress. Walls are, overall in, stable condition.						

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: EW853 - Wingwall	72	0	0	72	0	0
Condition State 3 Note						
Referenced Photo(s): 66						
Referenced Sketch(es): None						
2021: In general, the masonry abutment is in good condition except for the bottom portion. The bottom portion has missing mortar and has active efflorescence staining/leakage. Upper portion of the abutment is in better condition. A clear photo could not be taken during this inspection due to heavy and high velocity flow adjacent to the wingwall.						

Non-Structural Condition Observations

Category: APPROACH - Other -Pavement Quantity: 15 Unit: sqft

Referenced Element(s): NONE

Referenced Photo(s): 46,67

Referenced Sketch(es): NONE

2021: Overall, the approach pavement is in good condition except at the concrete header interface at the begin joint (Photo 46). The asphalt has a 2" gap between the concrete header and asphalt approach, ride quality is not affected at this time.

At the end approach the asphalt is cracked and unraveling at the bridge interface (Photo 67). In addition, there is a full width crack up to 1/4" W approximately 2' from the bridge deck.

Category: APPROACH - Settlement Quantity: 15 Unit: sqft

Referenced Element(s): NONE

Referenced Photo(s): 67

Referenced Sketch(es): NONE

2021: At the end approach, the asphalt is up to 1" lower than the bridge deck on the right side. No significant change since previous inspection.

Category: APPROACH - Railing Quantity: 3 Unit: ea

Referenced Element(s): NONE

Referenced Photo(s): 68,69,70

Referenced Sketch(es): NONE

2021: At the begin left there is impact damage to the approach guide railing (Photo 68). There are 5 posts that are bent and disconnected. No change since previous inspection.

The begin right railing has scrapes due to the tight turn onto the bridge (Photo 69). The posts are in good condition.

The end right sidewalk railing (near the bridge) has a broken weld at the post and the bottom part of the railing is disconnected and loose. No safety flag warranted since the railing is still functional and this bridge receives little pedestrian traffic (Photo 70).

Category: OTHER -Trolley channel Quantity: 2 Unit: ea

Referenced Element(s): NONE

Referenced Photo(s): 4

Referenced Sketch(es): NONE

2021: The trolley channels below the bottom chords of the trusses used for rigging exhibit a buildup of pack rust and corrosion on the top and bottom flanges.

Inspection Photographs

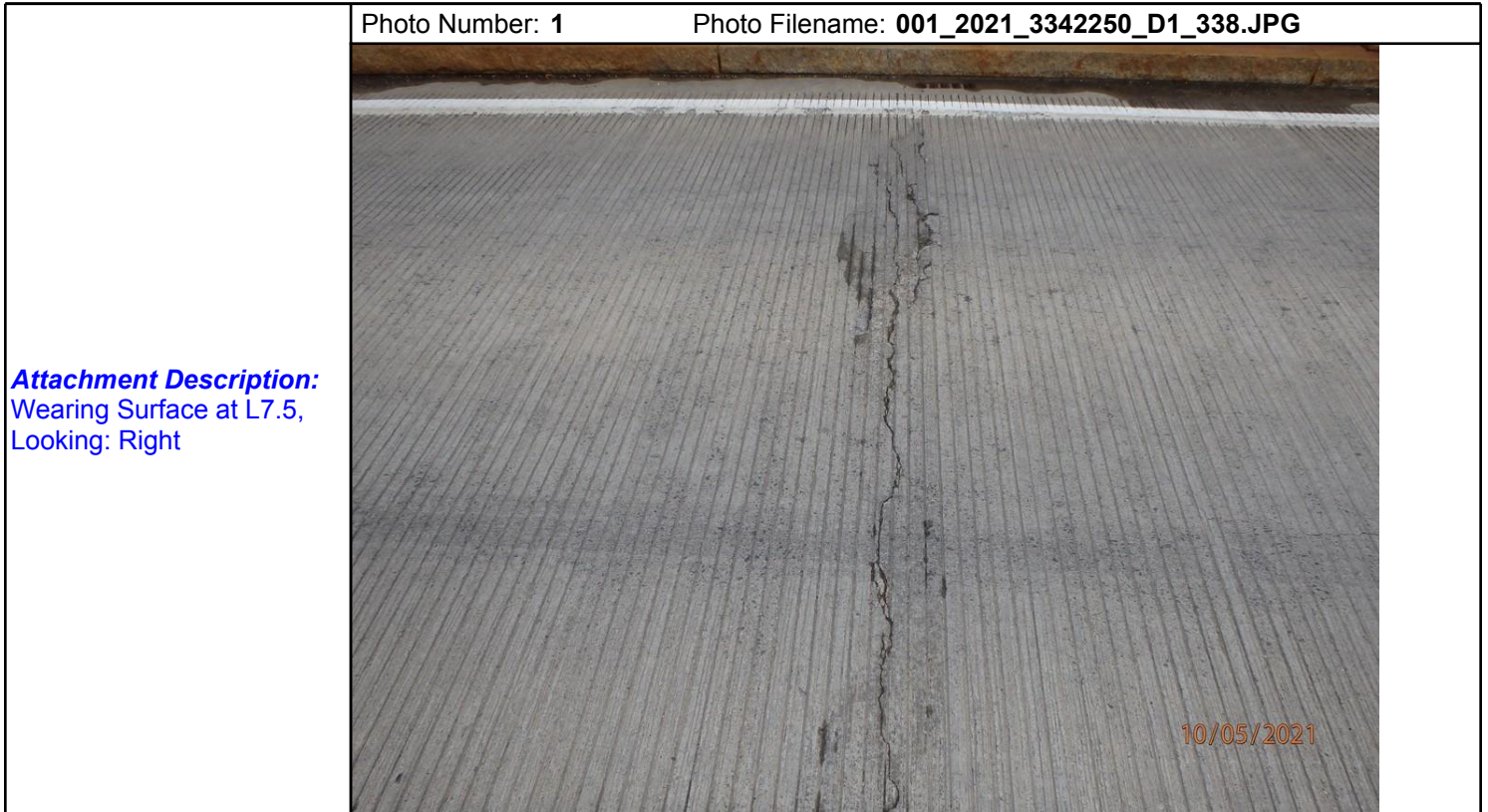


Photo Number: 3

Photo Filename: 003_2021_3342250_D1_287.JPG

Attachment Description:
Wearing Surface from End,
Looking: Begin



Photo Number: 4

Photo Filename: 004_2021_3342250_D2_125.JPG

Attachment Description:
Underside of Deck, Looking:
End



Photo Number: 5

Photo Filename: 005_2021_3342250_D2_336.JPG

Attachment Description:
Right Elevation, Looking:
Begin Left



Photo Number: 6

Photo Filename: 006_2021_3342250_D2_65.JPG

Attachment Description:
Right Truss at L1, Outboard
(Right Channel), Begin
Face, Looking: End Left



Photo Number: 7

Photo Filename: 007_2021_3342250_D2_139.JPG

Attachment Description:
Right Truss, Floorbeam
FB3, End Face Hanger
Rod, Looking: Begin



Photo Number: 8

Photo Filename: 008_2021_3342250_D2_298.JPG

Attachment Description:
Right Truss, Floorbeam
FB10, End Face Hanger
Rod, Looking: Up & Begin



Photo Number: 9

Photo Filename: 009_2021_3342250_D2_32.JPG

Attachment Description:
Left Truss, at L1, Begin
Face, Inboard Channel,
Looking: End



Photo Number: 10

Photo Filename: 010_2021_3342250_D2_198.JPG

Attachment Description:
Right Truss at L5, L5U5
Begin Face (General
Configuration), Looking: Up
& End

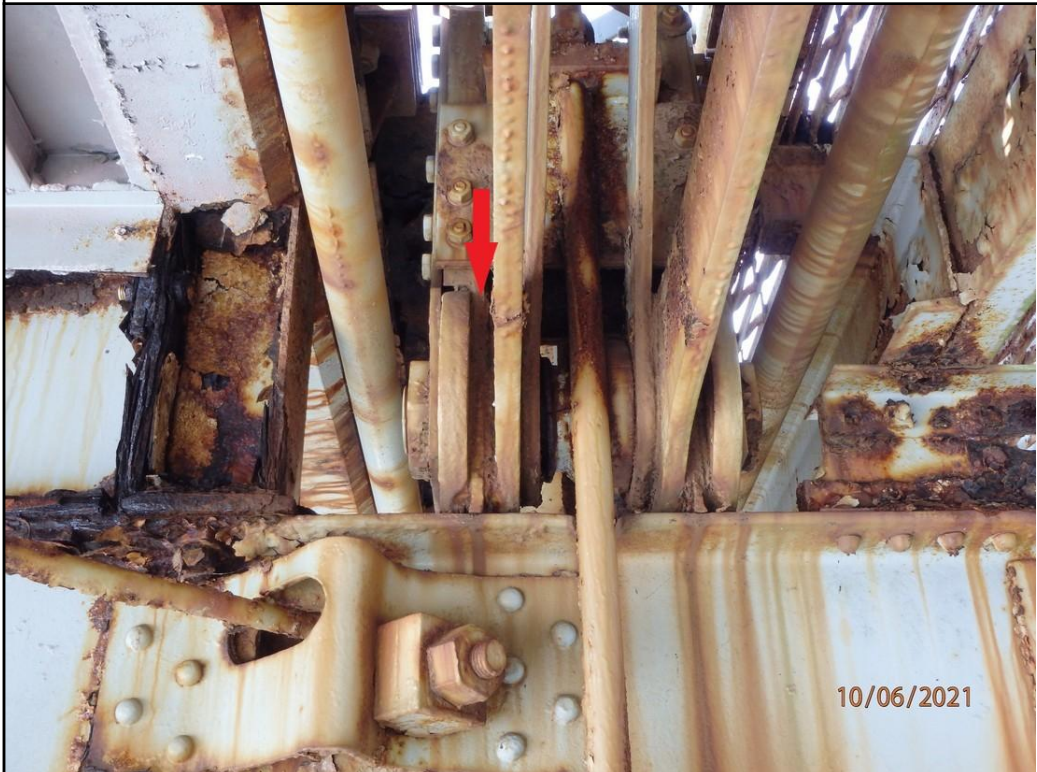


Photo Number: 11

Photo Filename: 011_2021_3342250_D1_124.JPG

Attachment Description:
Right Truss, L4U4 End
Face, Looking: Begin Left



Photo Number: 12

Photo Filename: 012_2021_3342250_D1_130.JPG

Attachment Description:
Right Truss, L4U4 End
Face (Close up of cracked
weld), Looking: Begin Left



Photo Number: 13

Photo Filename: 013_2021_3342250_D1_106.JPG

Attachment Description:
Right Truss U7L7 Begin
Face, Looking: End



Photo Number: 14

Photo Filename: 014_2021_3342250_D1_110.JPG

Attachment Description:
Right Truss U7L7 Right
Face, Looking: Left



Photo Number: 15

Photo Filename: 015_2021_3342250_D1_264.JPG

Attachment Description:
Right Truss, L9M10,
Looking: Begin Right



Photo Number: 16

Photo Filename: 016_2021_3342250_D1_253.JPG

Attachment Description:
Right Truss, M10U11,
Looking: Begin Right





Photo Number: 19

Photo Filename: 019_2021_3342250_D2_195.JPG

Attachment Description:
Right Truss, L4L5 at L5,
Looking: End Right



Photo Number: 20

Photo Filename: 020_2021_3342250_D2_208.JPG

Attachment Description:
Right Truss L5L6 at L5,
Looking: Begin Right



Photo Number: 21

Photo Filename: 021_2021_3342250_D2_289.JPG

Attachment Description:
Right Truss at L10, Looking:
End Right



Photo Number: 22

Photo Filename: 022_2021_3342250_D1_234.JPG

Attachment Description:
Left Truss at U8U9,
Looking: End Left



Photo Number: 23

Photo Filename: 023_2021_3342250_D1_277.JPG

Attachment Description:
Right Truss at U11,
Looking: End Right



Photo Number: 24

Photo Filename: 024_2021_3342250_D1_204.JPG

Attachment Description:
Left Truss at M6, Looking:
Up & End Left

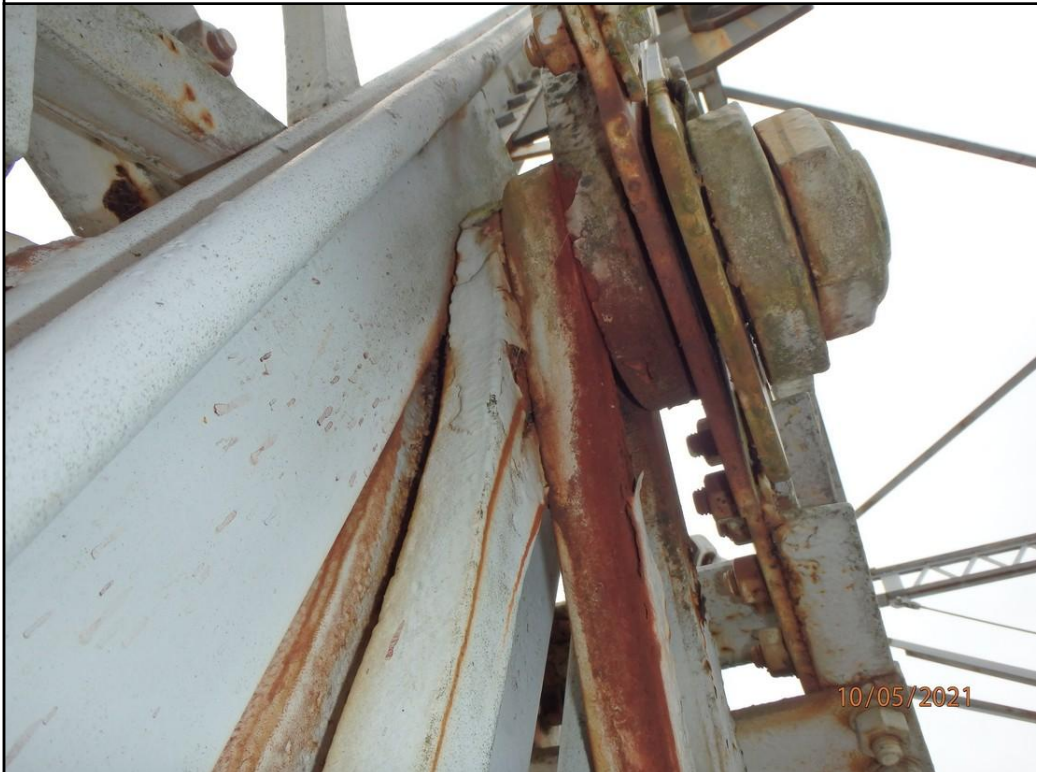


Photo Number: 25

Photo Filename: 025_2021_3342250_D2_90.JPG

Attachment Description:
Left Arch at Floorbeam FB
0.5, End Face Hanger,
Looking: Begin



Photo Number: 26

Photo Filename: 026_2021_3342250_D2_112.JPG

Attachment Description:
Right Arch at Floorbeam FB
1.5, End Face Hanger,
Looking: Begin Right



Photo Number: 27

Photo Filename: 027_2021_3342250_D2_251.JPG

Attachment Description:
Right Arch at Floorbeam FB
7.5, Begin Face Hanger,
Looking: End



Photo Number: 28

Photo Filename: 028_2021_3342250_D1_222.JPG

Attachment Description:
Left Arch at Panel Point 7.5,
Looking: End Left



Photo Number: 29

Photo Filename: 029_2021_3342250_D1_195.JPG

Attachment Description:
Right Arch at Panel Point
4.5, Looking: Down & Begin
Right



Photo Number: 30

Photo Filename: 030_2021_3342250_D2_5.JPG

Attachment Description:
Floorbeam FB0, Right Side,
Looking: Begin Right



Photo Number: 31 Photo Filename: 031_2021_3342250_D2_244.JPG

Attachment Description:
Floorbeam FB6.5 End Right
Side, Looking: Begin Left



Photo Number: 32 Photo Filename: 032_2021_3342250_D2_300.JPG

Attachment Description:
Right Side Floorbeam
FB10.5 Begin Face,
Looking: End



Photo Number: 33

Photo Filename: 033_2021_3342250_D2_102.JPG

Attachment Description:
Right Sidewalk Floorbeam
FB1.5, Begin Face,
Looking: End Right



Photo Number: 34

Photo Filename: 034_2021_3342250_D2_119.JPG

Attachment Description:
Right Sidewalk Floorbeam
FB2.5, Begin Side, Looking:
End Right



Photo Number: 35

Photo Filename: 035_2021_3342250_D2_210.JPG

Attachment Description:
Right Sidewalk Floorbeam
FB5 End Face, Looking:
Begin Right



Photo Number: 36

Photo Filename: 036_2021_3342250_D2_110.JPG

Attachment Description:
Left Truss, L1 End Face,
Looking: Begin



Photo Number: 37

Photo Filename: 037_2021_3342250_D2_171.JPG

Attachment Description:
Right Truss, L5 Begin Face,
Looking: Up & End



Photo Number: 38

Photo Filename: 038_2021_3342250_D2_53.JPG

Attachment Description:
Right Truss, L1 Begin Face,
Looking: End



Photo Number: 39

Photo Filename: 039_2021_3342250_D2_179.JPG

Attachment Description:
Right Truss, L5 Begin Face,
Looking: Up & End

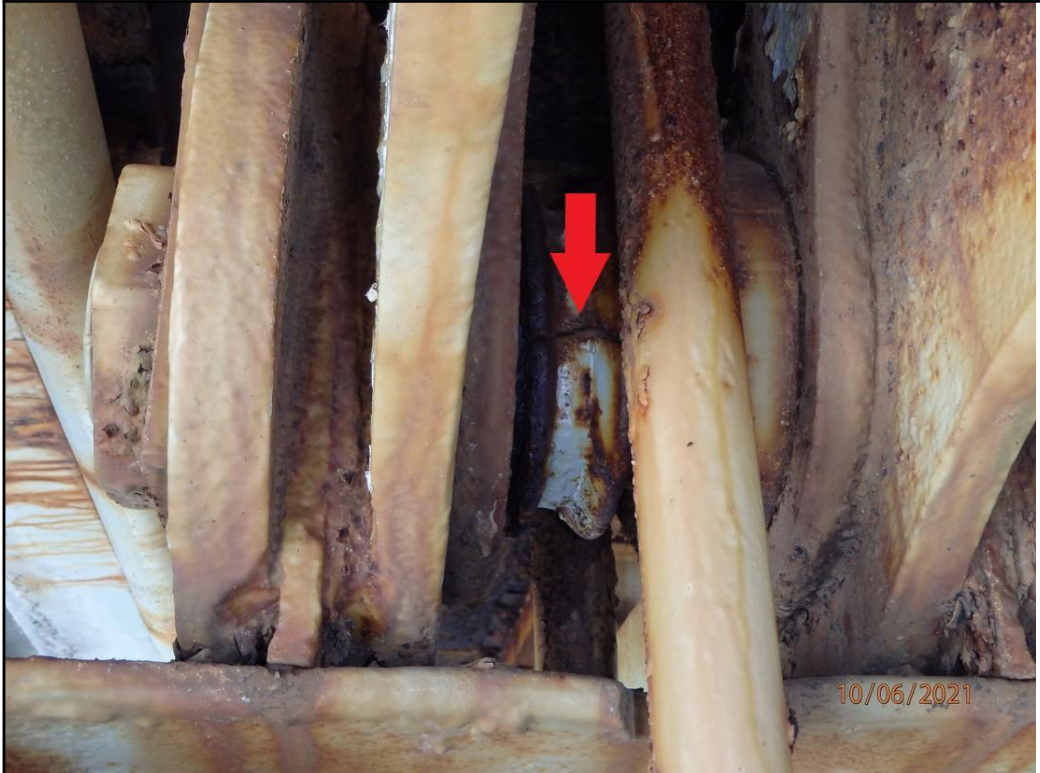


Photo Number: 40

Photo Filename: 040_2021_3342250_D1_239.JPG

Attachment Description:
Left Truss M10 Begin Face,
Looking: End Left



Photo Number: 41

Photo Filename: 041_2021_3342250_D1_291.JPG

Attachment Description:
Left Truss U11, Looking:
Begin Left



Photo Number: 42

Photo Filename: 042_2021_3342250_D1_213.JPG

Attachment Description:
Left Truss, U7, Outboard
Nut/Pin, Looking: Begin
Right



Photo Number: 43

Photo Filename: 043_2021_3342250_D1_274.JPG

Attachment Description:
Left Truss, U11 Collar,
Looking: Up & End



Photo Number: 44

Photo Filename: 044_2021_3342250_D2_136.JPG

Attachment Description:
Begin Abutment Stem,
Looking: Begin



Photo Number: 45

Photo Filename: 045_2021_3342250_D2_259.JPG

Attachment Description:
End Abutment Stem,
Looking: End



Photo Number: 46

Photo Filename: 046_2021_3342250_D1_158.JPG

Attachment Description:
Begin Abutment Joint,
Looking: Right



Photo Number: 47

Photo Filename: 047_2021_3342250_D2_18.JPG

Attachment Description:
Left Truss Begin Abutment
Bearing, Looking: Begin



Photo Number: 48

Photo Filename: 048_2021_3342250_D2_331.JPG

Attachment Description:
Left Truss End Abutment
Bearing, Looking: End Left



Photo Number: 49

Photo Filename: 049_2021_3342250_D2_333.JPG

Attachment Description:
Right Truss End Abutment
Bearing, Looking: End



Photo Number: 50

Photo Filename: 050_2021_3342250_D2_283.JPG

Attachment Description:
Right Truss End Face at L9
(showing hanger and rail
post), Looking: Up & Begin
Left



Photo Number: 51

Photo Filename: 051_2021_3342250_D2_155.JPG

Attachment Description:
Begin Abutment Stem and
Begin Right Wingwall,
Looking: Begin Right



Photo Number: 52

Photo Filename: 052_2021_3342250_D1_113.JPG

Attachment Description:
Right Channel, Looking:
Upstream/End Right

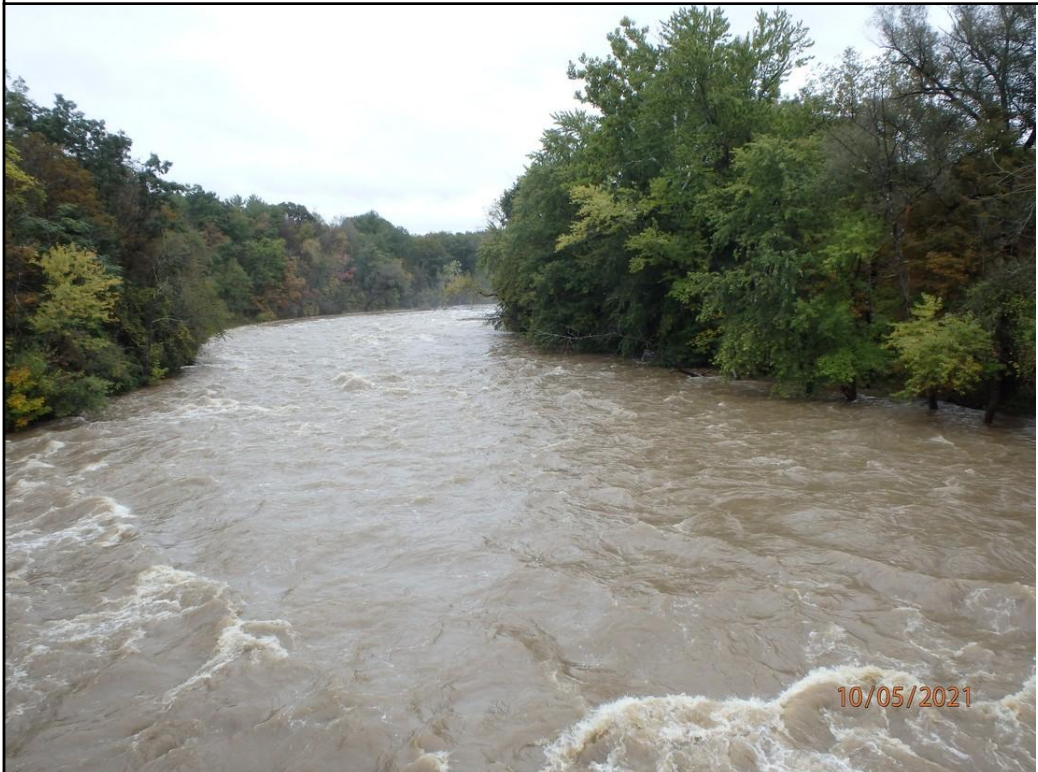


Photo Number: 53

Photo Filename: 053_2021_3342250_D2_166.JPG

Attachment Description:
Left Channel, Looking:
Downstream/Left



Photo Number: 54

Photo Filename: 054_2021_3342250_D2_229.JPG

Attachment Description:
End Left Retaining
Wall/Bank, Looking: End
Left

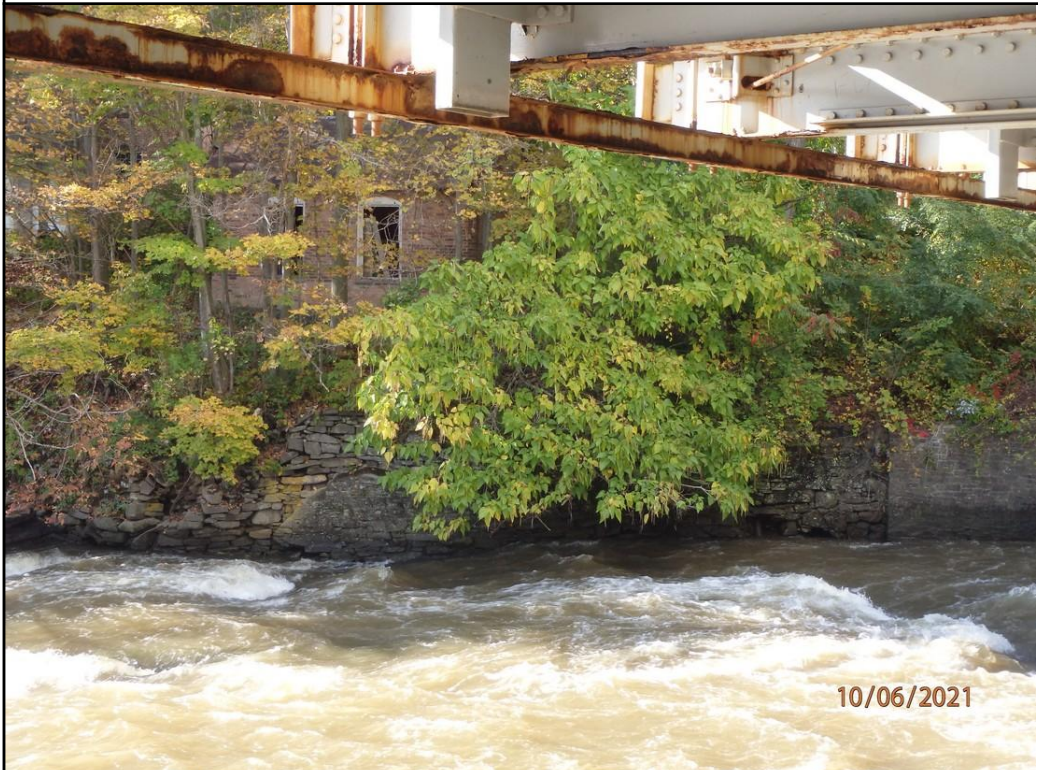


Photo Number: 55

Photo Filename: 055_2021_3342250_D1_99.JPG

Attachment Description:
Sidewalk, Looking: Begin



Photo Number: 56

Photo Filename: 056_2021_3342250_D1_309.JPG

Attachment Description:
Left Truss End Portal
(U11L12) at End
Connection Angle
Perforation, Looking: Begin
Left



Photo Number: 57

Photo Filename: 057_2021_3342250_D1_323.JPG

Attachment Description:
Right Truss End Portal
(U11L12) at End
Connection Angle Pack
Rust, Looking: End Right



Photo Number: 58

Photo Filename: 058_2021_3342250_D1_347.JPG

Attachment Description:
Left Truss Begin Portal
(L0U1) at Begin Connection
Angle Pack Rust, Looking:
Begin Left



Photo Number: 59

Photo Filename: 059_2021_3342250_D1_184.JPG

Attachment Description:
Left Truss at U3 Begin Face
– Cotter Pin for Sway
Bracing, Looking: End Left



Photo Number: 60

Photo Filename: 060_2021_3342250_D1_189.JPG

Attachment Description:
Right Truss at U5 Begin
Face – Cotter Pin for Sway
Bracing, Looking: End Right



Photo Number: 61

Photo Filename: 061_2021_3342250_D2_242.JPG

Attachment Description:
Right Truss at End Face of
Floorbeam FB6 – Lateral
Bracing Rod, Looking:
Begin Left



Photo Number: 62

Photo Filename: 062_2021_3342250_D1_101.JPG

Attachment Description:
Right Truss Steel Shield
Plate between Floorbeam
FB7.5 and 8, Looking:
Down & Begin



Photo Number: 63

Photo Filename: 063_2021_3342250_D2_163.JPG

Attachment Description:
Left Truss Steel Shield
between Floorbeam FB4
and 4.5, Looking: Up & End



Photo Number: 64

Photo Filename: 064_2021_3342250_D2_327.JPG

Attachment Description:
Left Truss End Abutment
Pedestal, Looking: End Left



Photo Number: 65

Photo Filename: 065_2021_3342250_D2_328.JPG

Attachment Description:
Right Truss End Abutment
Pedestal, Looking: End
Right



Photo Number: 66

Photo Filename: 066_2021_3342250_D2_1.JPG

Attachment Description:
Right Elevation Showing
End Right Wingwall,
Looking: End Left



Photo Number: 67

Photo Filename: 067_2021_3342250_D1_76.JPG

Attachment Description:
End Approach, Looking:
Left



Photo Number: 68

Photo Filename: 068_2021_3342250_D1_161.JPG

Attachment Description:
Begin Left Approach
Railing, Looking: Left



Photo Number: 69

Photo Filename: 069_2021_3342250_D1_165.JPG

Attachment Description:
Begin Right Approach
Railing, Looking: End Left



Photo Number: 70

Photo Filename: 071_2021_3342250_D1_73.JPG

Attachment Description:
End Right Approach
Sidewalk Railing, Looking:
Right



Inspection Sketches

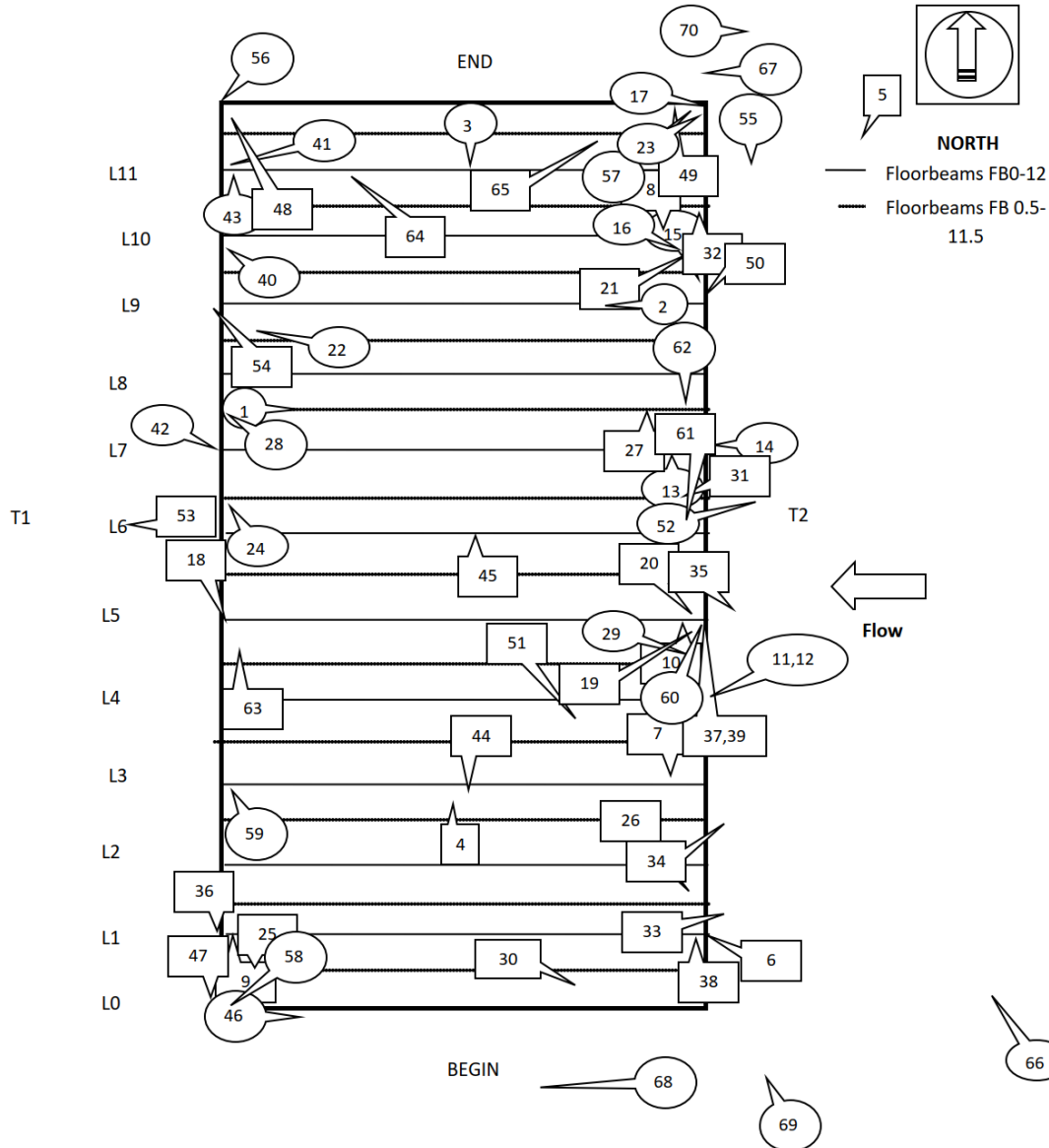
Sketch Number: 1

Sketch Filename: 21_Photo Location Plan.png

BD 186

NYS DEPT. OF TRANSPORTATION

R/C – BIN:	8/1-3342250	DATE:	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
LEGEND:	PHOTO ABOVE DECK LEVEL XX	PHOTO BELOW DECK LEVEL	XX
PHOTO LOCATION PLAN			



Sketch Description: Photo Location Plan

Sketch Number: 2

Sketch Filename: 21_Stream Hydraulics Defect History Sketch, 1 of 2.png

**Agency Defined Element 801 - Stream Hydraulics
Defect History**

BIN: 3342250

ADE 801 DEFECTS		CONDITION STATES (CS)				
		Baseline	Previous Inspection Assessments			Current Inspection
		NA	12/20/2018	11/21/2019	11/2/2020	10/6/2021
6120	Channel Alignment	2	2	2	3	3
6130	Channel Scour	2	2	2	2	1
6140	Waterway Opening	1	1	1	1	1
6150	Scour Protection	NA	NA	NA	NA	NA
6160	Bank Protection	3	3	3	3	3
6165	Bank Erosion	3	3	2	3	3
6180	Debris Near Bridge	2	2	2	2	2
6190	Countermeasures	2	2	2	2	NA
ADE 801 - Controlling Condition State =						3

Inspector's Comment (comment required for each defect assessed CS-3 or CS-4):

The latest HVA was conducted on 3/29/17, with a vulnerability rating of "Medium". Stream channel is bedrock, no cross section reading taken. Falls are located just downstream of the bridge (Photo 53). There is a fall upstream of the bridge as well.

Channel Alignment: During this inspection, the water flow was very high with very high velocity due to the thunderstorms the previous day. The upstream channel makes a s-turn and the flow is directed towards the begin right bank with majority of the flow runs along the begin abutment (Photo 52). The flow was abutment to abutment and the stream bed was not visible as it was in the previous inspections. Rates CS3.

Channel Scour: Stream bed is bed rock. Rates CS1.

Waterway Opening: Rates CS1.

Scour Protection: Not applicable.

Bank Protection: At the end left, the retaining wall (not considered the wingwall) which is made up of stone masonry, has missing stones near the water elevation that is starting to fail. The wall still retains the embankment. The remaining bank protection is in good condition (Photo 54). Rates CS3.

(updated 6/1/2017)

Sketch Description: Stream Hydraulics Defect History Sketch, 1 of 2

Sketch Number: 3

Sketch Filename: 21_Stream Hydraulics Defect History Sketch, 2 of 2.png

Continuation of Stream Hydraulic Defect Inspector's Comments:

Bank Erosion: The begin right bank exhibits signs of erosion with exposed tree roots and trees slouching into the stream. Rates CS3.

Debris Near Bridge: The downstream channel exhibits some fallen trees and wood debris near the falls (Photo 53). There were huge tree logs lodged parallel to the begin abutment as well prior to the falls. The waterway opening is adequate as the debris is light in relation with the channel width (Photo 53). Rates CS2.

Countermeasures: Not applicable.

Sketch Description: Stream Hydraulics Defect History Sketch, 2 of 2

New York State Department of Transportation Yellow Flag 8B2105W020

By: Rajesh Narasimhan
Flag Date: October 06, 2021

Superseding Information:
This flag supersedes: YF 8B20VLW042

Structure Information

BIN: 3342250
Feature Carried: COUNTY ROAD 25A
Feature Crossed: KINDERHOOK CREEK
Orientation: 1 - NORTH
Posted Load Matches Inventory: Yes
Posted Load in field : Not Posted for Load
Primary Owner: 30 - County
Primary Maintenance Responsibility: 30 - County
Typical or Main Span Type: 3 - Steel, 10 - Truss - Thru
This Bridge is not a Ramp
Number of Spans: 1

Region: 08 - POUGHKEEPSIE
County: COLUMBIA
Political Unit: Town of STUYVESANT
Approximate Year Built: 1899

Verbal Notification Information

Person Notified: Not Contacted
Date:
Of:

Signature Information

Signature: Rajesh Narasimhan, P.E. 092918-1
Date: October 13, 2021
Reviewed By: Robert Seeley
Date: October 14, 2021

Attachments: 9

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

Flagged Elements

Parent Element	Element	Total Quantity	Unit
<i>Span Number : 1</i>			
	136 - Other Truss	414	ft

Flagged Condition Description

Yellow Flag 8B2105W020 issued (supersedes YF 8B20VLW042)

Subject: Section losses to Right Truss (T2) Member L1U1 at L1

2021: This is a historic pinned truss that has been rehabilitated with the addition of a suspended arch (Photo 1). The truss and arch function together. The original truss supports the original floorbeams and the arch supports the new floorbeams located between the original floorbeams. The panel points on the original truss have been used for the numbering convention, therefore the new floorbeams are labeled as X.5. This bridge is not posted for load.

At the right truss at L1 (Floorbeam FB1), the inboard (Left) channel for L1U1 at L1 has perforation to the channel web that is 5" L x 1.5" H and is located above the pin and at the top flange of the bottom chord. The channel at this location has the flanges cut away to fit around the top of the bottom chord member. The web section loss at this location (Left channel) has over 90% section loss. The right channel is in better condition. Overall, the section loss to this member is over 50% (no significant changes since last inspection in 2020) (Photos 2 to 5).

A Yellow flag is reissued since the existing pin connections have been retrofitted with two 1.5" diameter rods that are bolted to the floorbeam and to the existing vertical members above the floorbeams. The rods at the right truss (T1) have minor section losses at this time (approximately 15%). At this time no signs of distress were observed.

For information purposes only: The following locations also have section losses to the vertical members at the panel points (at the bottom chord). See below (no significant changes since last inspection in 2020):

Left Truss (T1), L1U1 at L1: Inboard (Right) channel web has a perforation that is 5" L below the pin.

Right Truss (T2), L5U5 at L5: Inboard (Left) channel web has a perforation that is approximately 1" L above the pin (Photo 6).

Right Truss (T2), L7U7 at L7: Inboard (Left) channel web has a perforation that is approximately 3" L above the pin.

Access to these locations are extremely difficult due to tight access and the close configuration of all the steel members. The maximum localized section loss at these locations is estimated to be 50%-60%. The outboard member is in better condition. Overall, the vertical member section loss is estimated to be 30%. At this time no signs of distress were observed.

This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A Level One load rating is strongly recommended to assess the significant deterioration which has occurred since the 1992 rehab.

Flag Photographs

Photo Number: 1

Photo Filename: 001_2021_3342250_YF 8B2105W020_D2_338.JPG



Attachment Description: Right Elevation, General Configuration, Looking: Begin Left

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 2

Photo Filename: 002_2021_3342250_YF 8B2105W020_D2_99.JPG



Attachment Description: Right Truss at L1, L1U1 End Side, General Configuration, Looking: Begin Right

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 3

Photo Filename: 003_2021_3342250_YF 8B2105W020_D2_69.JPG



Attachment Description: Right Truss at L1, L1U1 Begin Side, General Configuration, Looking: End

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 4

Photo Filename: 004_2021_3342250_YF 8B2105W020_D2_79.JPG



Attachment Description: Right Truss at L1, L1U1 Begin Side, Looking: End

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 5

Photo Filename: 005_2021_3342250_YF 8B2105W020_D2_86.JPG



Attachment Description: Right Truss at L1, L1U1 Inboard (Left) Vertical Channel Web, Looking: Right

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 6

Photo Filename: 006_2021_3342250_YF 8B2105W020_D2_196.JPG



Attachment Description: Right Truss at L5, L5U5 Begin Side, General Configuration, Looking: Up & End

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 7

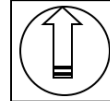
Photo Filename: 007_YF 8B2105W020_Flag Location Plan.png

BD 186

NYS DEPT. OF TRANSPORTATION

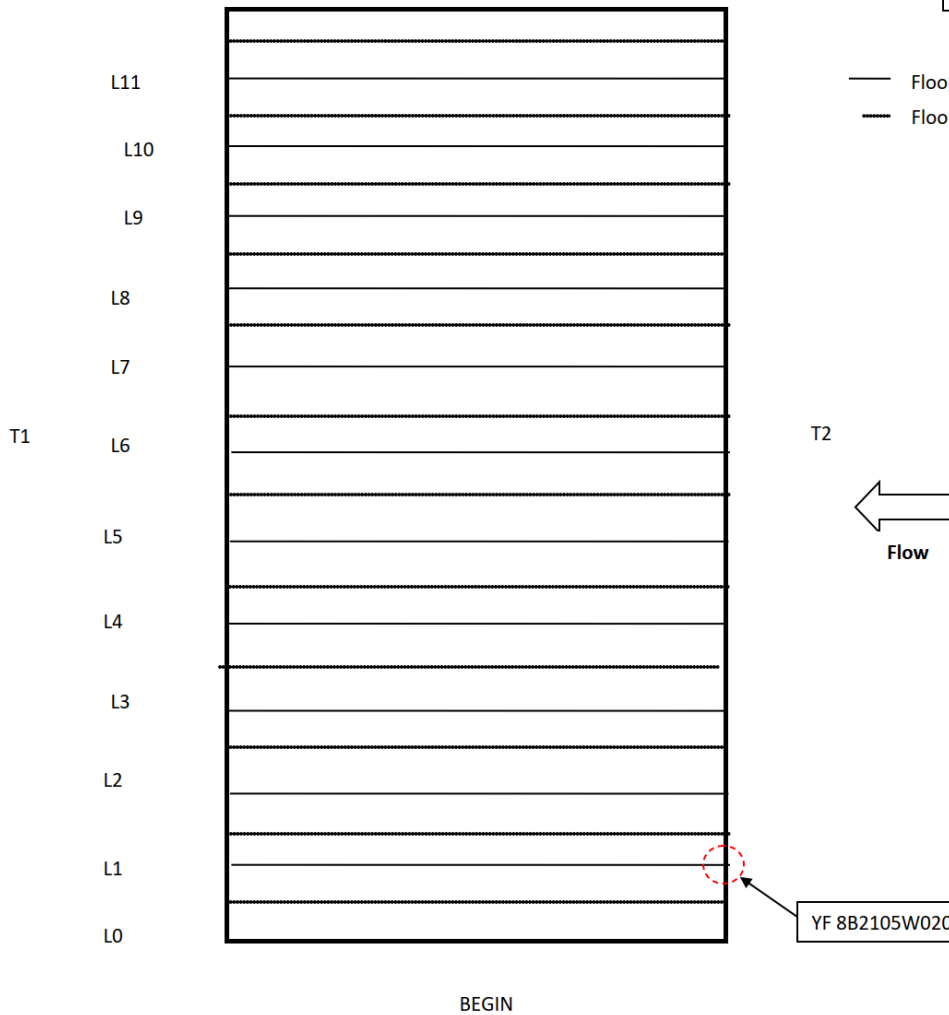
R/C – BIN:	8/1-3342250	DATE:	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
FLAG LOCATION PLAN			

END



NORTH

— Floorbeams FB0-12
 — Floorbeams FB 0.5-11.5



Attachment Description: Flag Location Plan

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

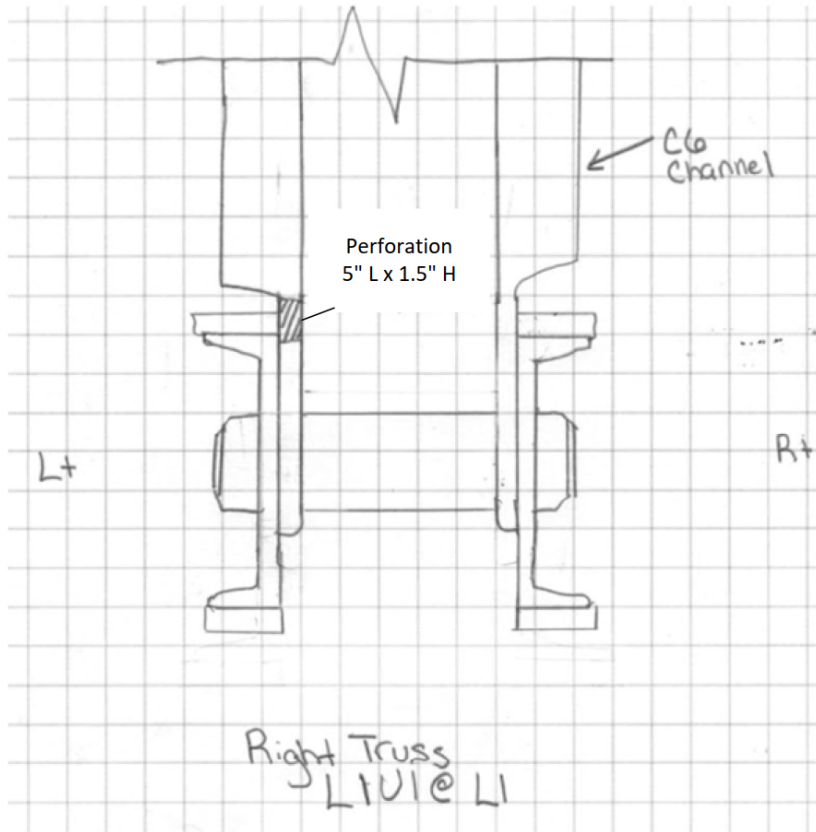
Photo Number: 8

Photo Filename: 008_YF 8B2105W020_Right Truss, L1U1 at L1

BD 186

NYS DEPT. OF TRANSPORTATION

R/C – BIN:	8/3-3342250	DATE	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
SKETCH OF RIGHT TRUSS, L1U1 @L1			



Attachment Description: Right Truss, L1U1 at L1 Sketch

Yellow Flag 8B2105W020

BIN 3342250

Flag Date: October 06, 2021

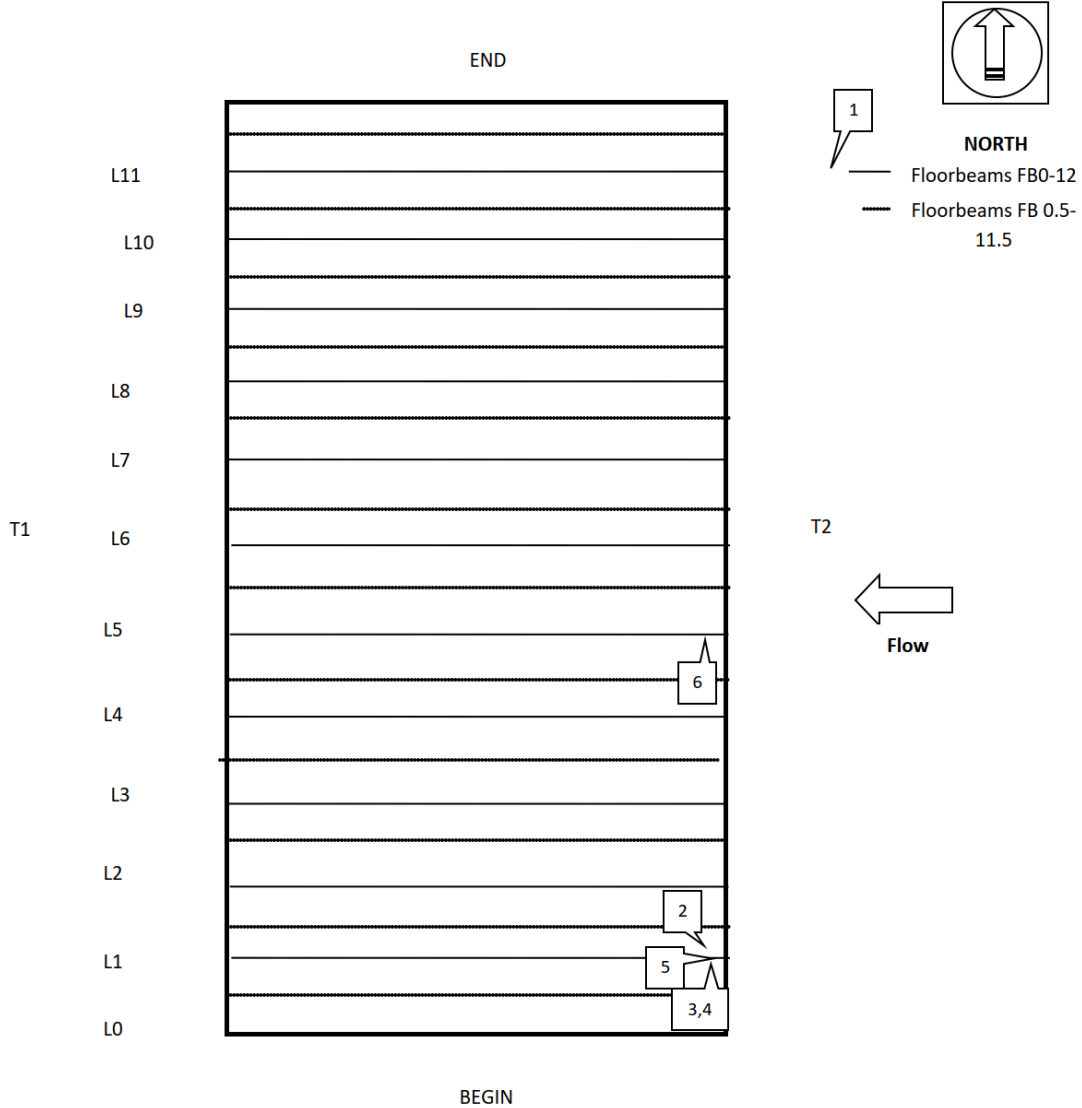
Photo Number: 9

Photo Filename: 009_YF 8B2105W020_Flag Photo Location Plan.png

BD 186

NYS DEPT. OF TRANSPORTATION

R/C – BIN:	8/1-3342250	DATE:	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
LEGEND:	PHOTO ABOVE DECK LEVEL 	PHOTO BELOW DECK LEVEL	
FLAG PHOTO LOCATION PLAN			



Attachment Description: Flag Photo Location Plan

New York State Department of Transportation Yellow Flag 8B2105W021

By: Rajesh Narasimhan
Flag Date: October 06, 2021

Superseding Information:
This flag supersedes: YF 8B20VLW043

Structure Information

BIN: 3342250

Feature Carried: COUNTY ROAD 25A

Feature Crossed: KINDERHOOK CREEK

Orientation: 1 - NORTH

Posted Load Matches Inventory: Yes

Posted Load in field : Not Posted for Load

Primary Owner: 30 - County

Primary Maintenance Responsibility: 30 - County

Typical or Main Span Type: 3 - Steel, 10 - Truss - Thru

This Bridge is not a Ramp

Number of Spans: 1

Region: 08 - POUGHKEEPSIE

County: COLUMBIA

Political Unit: Town of STUYVESANT

Approximate Year Built: 1899

Verbal Notification Information

Person Notified: Not Contacted

Date:

Of:

Signature Information

Signature: Rajesh Narasimhan, P.E. 092918-1

Date: October 13, 2021

Reviewed By: Robert Seeley

Date: October 14, 2021

Attachments: 11

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Flagged Elements

Parent Element	Element	Total Quantity	Unit
<i>Span Number : 1</i>			
	136 - Other Truss	414	ft

Flagged Condition Description

Yellow Flag 8B2105W021 issued (supersedes YF 8B20VLW043)

Subject: Section losses to Bottom Chords Channel Webs

2021: This is a historic pinned truss that has been rehabilitated with the addition of a suspended arch (Photo 1). The truss and arch function together. The original truss supports the original floorbeams and the arch supports the new floorbeams located between the original floorbeams. The panel points on the original truss have been used for the numbering convention, therefore the new floorbeams are labeled as X.5. This bridge is not posted for load.

During the 1992 rehabilitation, when the steel arch was installed at each truss, retrofit plates were also added to the original bottom chords and pinned connection at certain locations. There are three locations where retrofits were not done and now have section losses. These are at the original truss members at the pin connections. Following are the locations and deteriorations:

Left Truss at L1 (Floorbeam FB1): The inboard (right) channel web for L0L1 at L1 has a perforation that is 5" L x ¾" H above the bottom flange. Overall section loss is estimated at 10% for the entire member. The inboard (right) vertical member attached to the bottom chord is fully corroded along its bottom adjacent to the perforation to the bottom chord member (Photos 2 to 4).

Right Truss at L1 (Floorbeam FB1): The outboard (right) channels for L0L1 at L1 has a perforation that is 7" L x 1¼" H below the pin in the lower web. In addition to the begin of the pin, in the lower web, there is another perforation that is 2¼" L x 5/8" H. To the end of the pin, there is a perforation that is 1½" L x 5/8" H. The overall section loss is estimated at 10% for the entire member (Photo 5).

Left Truss at L11 (Floorbeam FB11): Both channels for L10L11 at L11 have perforations to the lower channel webs. The outboard (left) channel perforation is 6" L x 1" H. The inboard (right) channel perforation is 3.5" L x 1¾" H with heavy section loss to the remaining web, especially around the pin. Overall section loss is estimated at 30% for the entire member (Photos 6 to 8).

NOTE: All existing pin connections have been retrofitted with two 1.5" diameter rods that are bolted to the floorbeams below the bottom chord and to the existing vertical members above the floorbeams. These rods have section losses of approximately 15% to 30%. Also, at these locations, plates have been added to the top and bottom flanges of the channels that acts as batten plates to the bottom chord channels.

No significant changes from the previous inspection. No distress observed.

This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A Level One load rating is strongly recommended to assess the significant deterioration which has occurred since the 1992 rehab.

Flag Photographs

Photo Number: 1

Photo Filename: 001_2021_3342250_YF 8B2105W021_D2_338.JPG



Attachment Description: Right Elevation, General Configuration, Looking: Begin Left

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 2

Photo Filename: 002_2021_3342250_YF 8B2105W021_D2_35.JPG



Attachment Description: Left Truss at L1, Inboard (Right) Channel, Begin Side, Looking: End Left

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 3

Photo Filename: 003_2021_3342250_YF 8B2105W021_D2_48.JPG



Attachment Description: Left Truss at L1, Inboard (Right) Channel, Begin Side Web Perforation, Looking: End Left

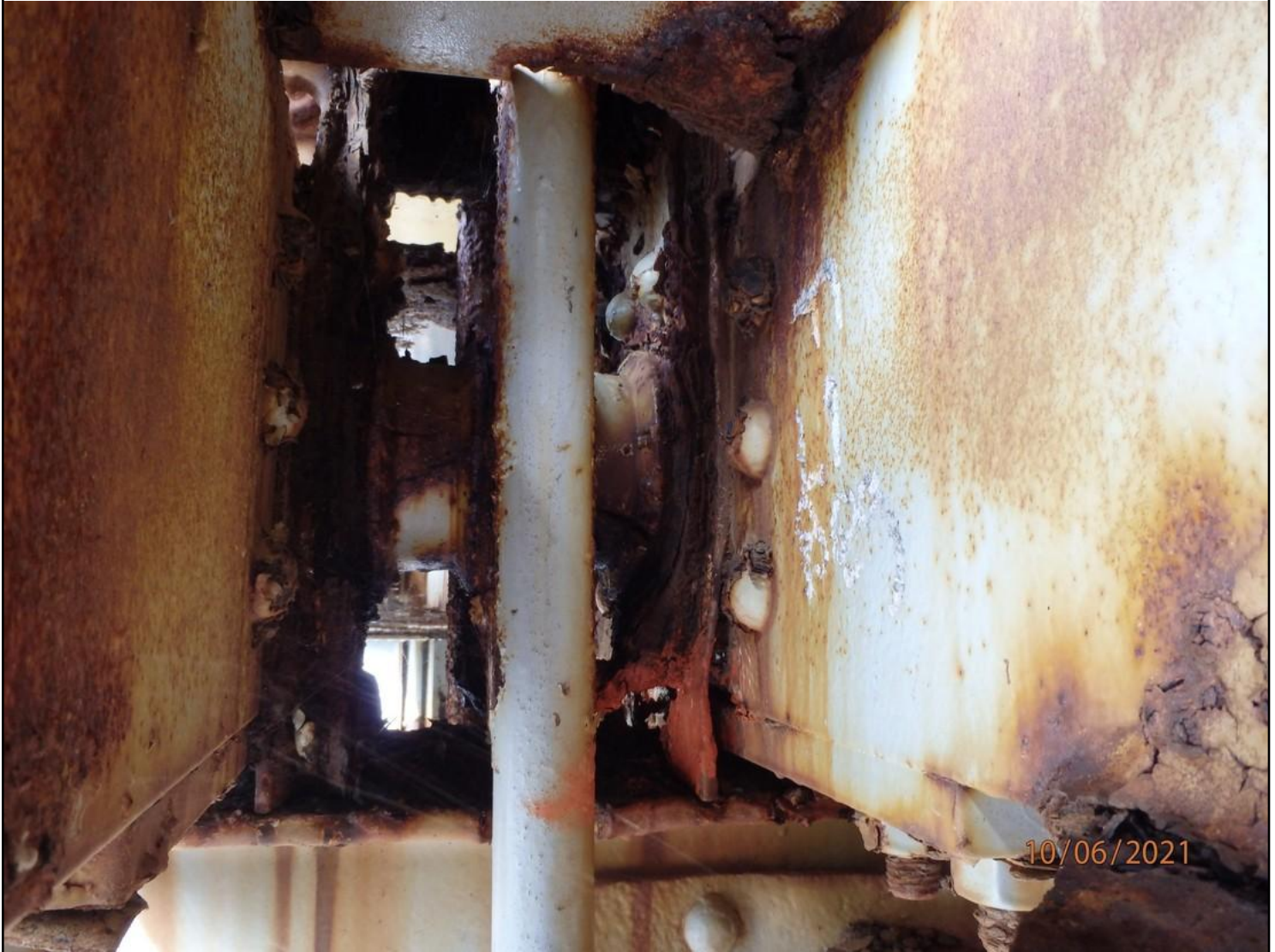
Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 4

Photo Filename: 004_2021_3342250_YF 8B2105W021_D2_30.JPG



Attachment Description: Left Truss at L1, Inboard (Right) Channel Left Face, Begin Side Web Perforation, Looking:
End

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 5

Photo Filename: 005_2021_3342250_YF 8B2105W021_D2_61.JPG



Attachment Description: Right Truss at L1, Outboard (Right) Channel, Begin Side, Looking: End Left

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 6

Photo Filename: 006_2021_3342250_YF 8B2105W021_D2_319.JPG



Attachment Description: Left Truss at L11, End Side, Looking: Begin Left

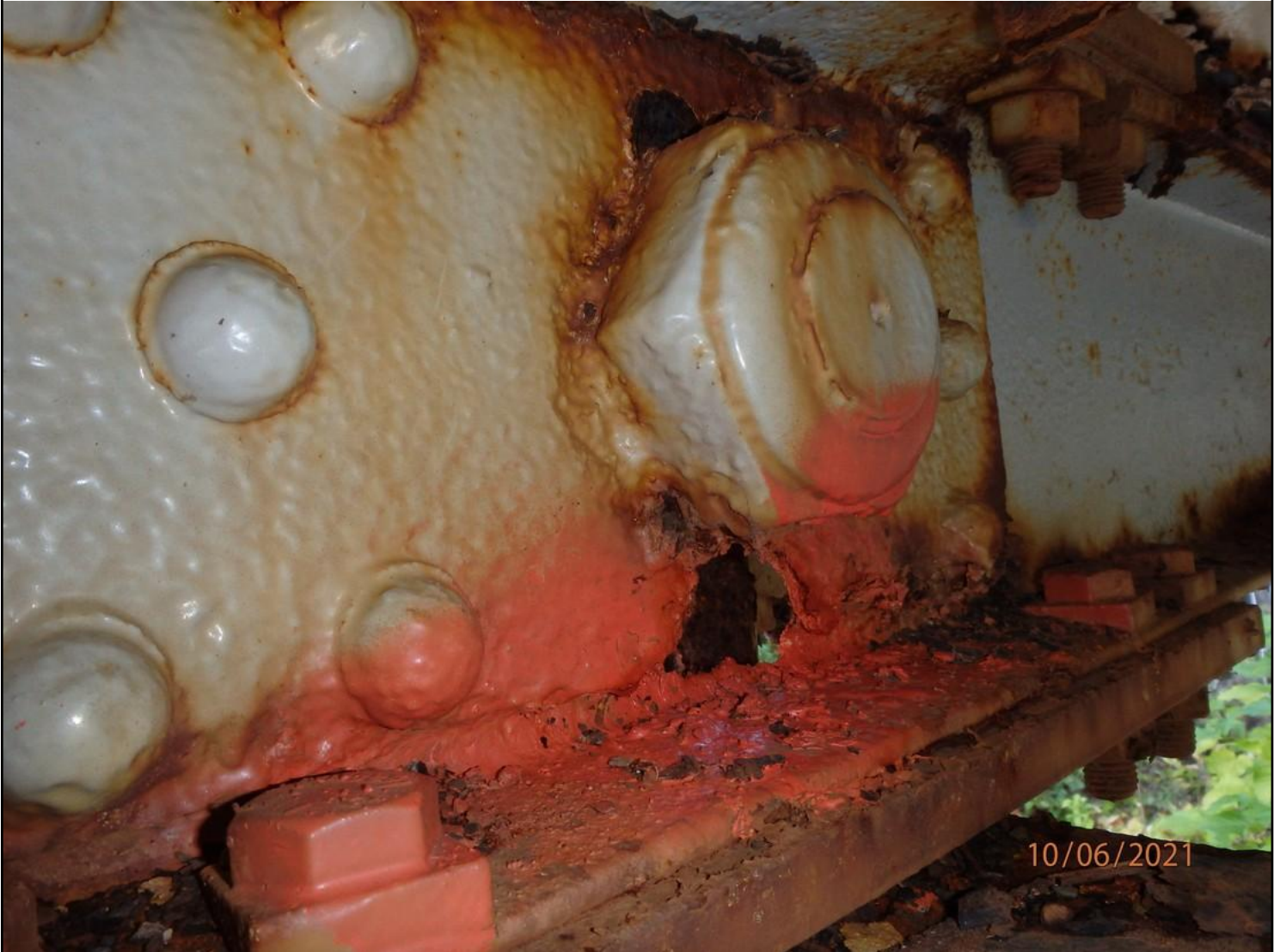
Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 7

Photo Filename: 007_2021_3342250_YF 8B2105W021_D2_305.JPG



Attachment Description: Left Truss at L11, Inboard (Right) Channel Right Face, Begin Side, Looking: End Left

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 8

Photo Filename: 008_2021_3342250_YF 8B2105W021_D2_315.JPG



Attachment Description: Left Truss at L11, Both Channel Web Perforation, Begin Side, Looking: End

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 9

Photo Filename: 009_2021_3342250_YF 8B2105W021_D2_318.JPG



Attachment Description: Left Truss at L11, Outboard (Left) Channel Left Face, Begin Side, Looking: End Right

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 10

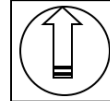
Photo Filename: 010_YF 8B2105W021_Flag Location Plan.png

BD 186

NYS DEPT. OF TRANSPORTATION

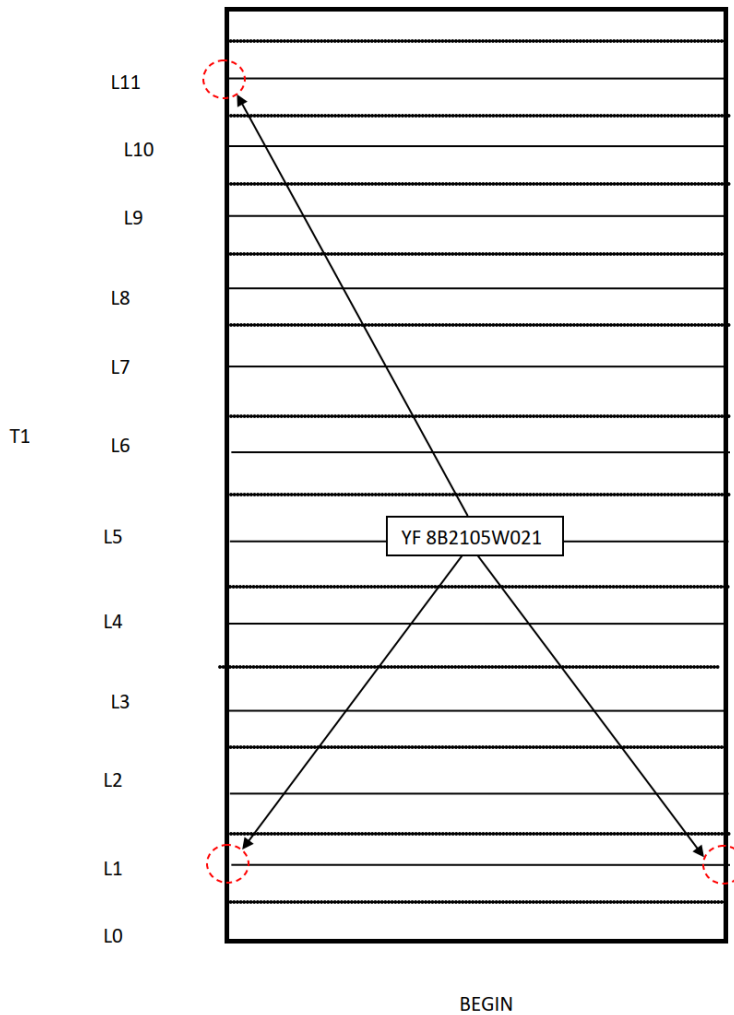
R/C – BIN:	8/1-3342250	DATE:	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
FLAG LOCATION PLAN			

END

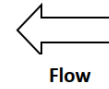


NORTH

— Floorbeams FB0-12
 — Floorbeams FB 0.5-11.5



T2



Flow

BEGIN

Attachment Description: Flag Location Plan

Yellow Flag 8B2105W021

BIN 3342250

Flag Date: October 06, 2021

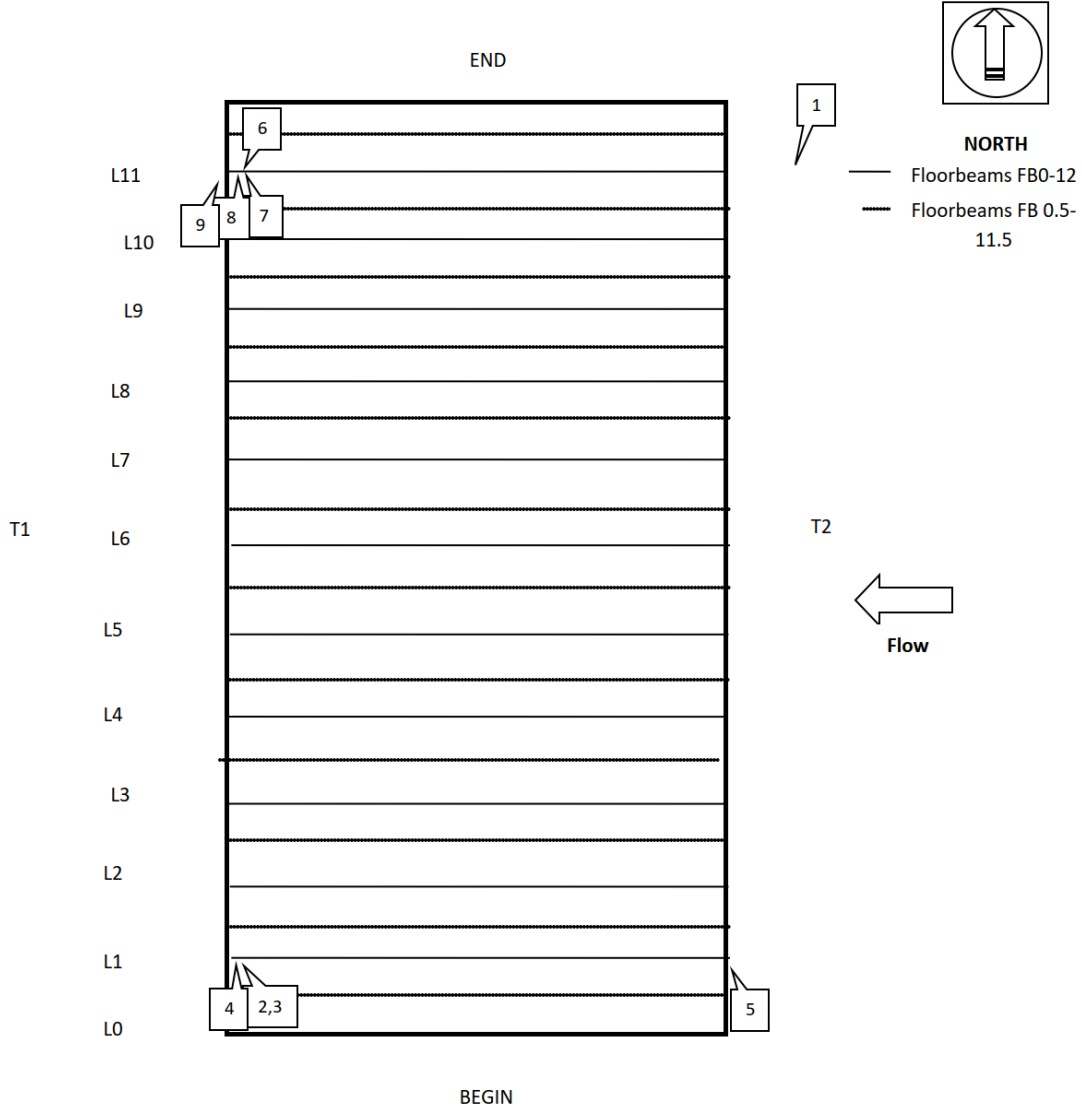
Photo Number: 11

Photo Filename: 011_YF 8B2105W021_Flag Photo Location Plan.png

BD 186

NYS DEPT. OF TRANSPORTATION

R/C – BIN:	8/1-3342250	DATE:	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
LEGEND:	PHOTO ABOVE DECK LEVEL 	PHOTO BELOW DECK LEVEL	
FLAG PHOTO LOCATION PLAN			



Attachment Description: Flag Photo Location Plan

New York State Department of Transportation Yellow Flag 8B2105W022

By: Rajesh Narasimhan
Flag Date: October 06, 2021

Superseding Information:
This flag supersedes: YF 8B20VLW044

Structure Information

BIN: 3342250

Feature Carried: COUNTY ROAD 25A

Feature Crossed: KINDERHOOK CREEK

Orientation: 1 - NORTH

Posted Load Matches Inventory: Yes

Posted Load in field : Not Posted for Load

Primary Owner: 30 - County

Primary Maintenance Responsibility: 30 - County

Typical or Main Span Type: 3 - Steel, 10 - Truss - Thru

This Bridge is not a Ramp

Number of Spans: 1

Region: 08 - POUGHKEEPSIE

County: COLUMBIA

Political Unit: Town of STUYVESANT

Approximate Year Built: 1899

Verbal Notification Information

Person Notified: Not Contacted

Date:

Of:

Signature Information

Signature: Rajesh Narasimhan, P.E. 092918-1

Date: October 13, 2021

Reviewed By: Robert Seeley

Date: October 14, 2021

Attachments: 5

Yellow Flag 8B2105W022

BIN 3342250

Flag Date: October 06, 2021

Flagged Elements

Parent Element	Element	Total Quantity	Unit
<i>Span Number : 1</i>			
	152 - Steel Floor Beam	675	ft

Flagged Condition Description

Yellow Flag 8B2105W022 issued (supersedes YF 8B20VLW044)

Subject: Section losses to Floorbeam FB0 Web at Right

2021: This is a historic pinned truss that has been rehabilitated with the addition of a suspended arch (Photo 1). The truss and arch function together. The original truss supports the original floorbeams and the arch supports the new floorbeams located between the original floorbeams. The panel points on the original truss have been used for the numbering convention, therefore the new floorbeams are labeled as X.5. This bridge is not posted for load.

At the begin floorbeam (FB0) at right side, there is heavy corrosion and section losses with perforations to the webs of both floorbeams, approximately 2' from the hanger rods (from the inside of the rods, directly under the deck). There are two floorbeams welded together with the top floorbeam being called a 'sleeper' floorbeam. Both webs are approx. 0.3" thick which was field measured during the previous inspection in a clean non-corroded area with D-meter readings taken on both the top and bottom floorbeams (it was difficult to access during this inspection due to how close the rigging pick could get with set up being hard with high water level and velocity). The top 'sleeper' floorbeam, has a perforation on the lower web for a 14" L x 2" H. The section losses calculated with the hole is approximately 50%. The bottom floorbeam has section loss readings at 50%, with a 1/2" diameter hole in the lower portion of the web. No significant changes in section losses since the last inspection in 2020.

NOTE: All existing pin connections have been retrofitted with two 1.5" diameter rods that are bolted to the floorbeam and to the existing vertical members above the floorbeams. These rods have section losses of 15% to 30%.

A yellow flag is issued due to the nature of this bridge and its configuration. This section loss at the floorbeam has gotten worse over the past several inspections. At this time no distress to the floorbeam or hanger rods was observed.

This hybrid bridge is not able to be load rated with NYSDOT's BrR software. A Level One load rating is strongly recommended to assess the significant deterioration which has occurred since the 1992 rehab.

Flag Photographs

Photo Number: 1

Photo Filename: 001_2021_3342250_YF 8B2105W022_D2_338.JPG



Attachment Description: Right Elevation, General Configuration, Looking: Begin Left

Yellow Flag 8B2105W022

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 2

Photo Filename: 002_2021_3342250_YF 8B2105W022_D2_5.JPG



Attachment Description: Floorbeam FB0 at Right, Looking: Begin Right

Yellow Flag 8B2105W022

BIN 3342250

Flag Date: October 06, 2021

Photo Number: 3

Photo Filename: 003_2021_3342250_YF 8B2105W022_D2_14.JPG



Attachment Description: Floorbeam FB0 at Right at Hanger Rod Connection, Section Loss to Rod, Looking: Begin

Yellow Flag 8B2105W022

BIN 3342250

Flag Date: October 06, 2021

Photo Number: **4**

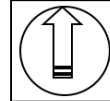
Photo Filename: **004_YF 8B2105W022_Flag Location Plan.png**

BD 186

NYS DEPT. OF TRANSPORTATION

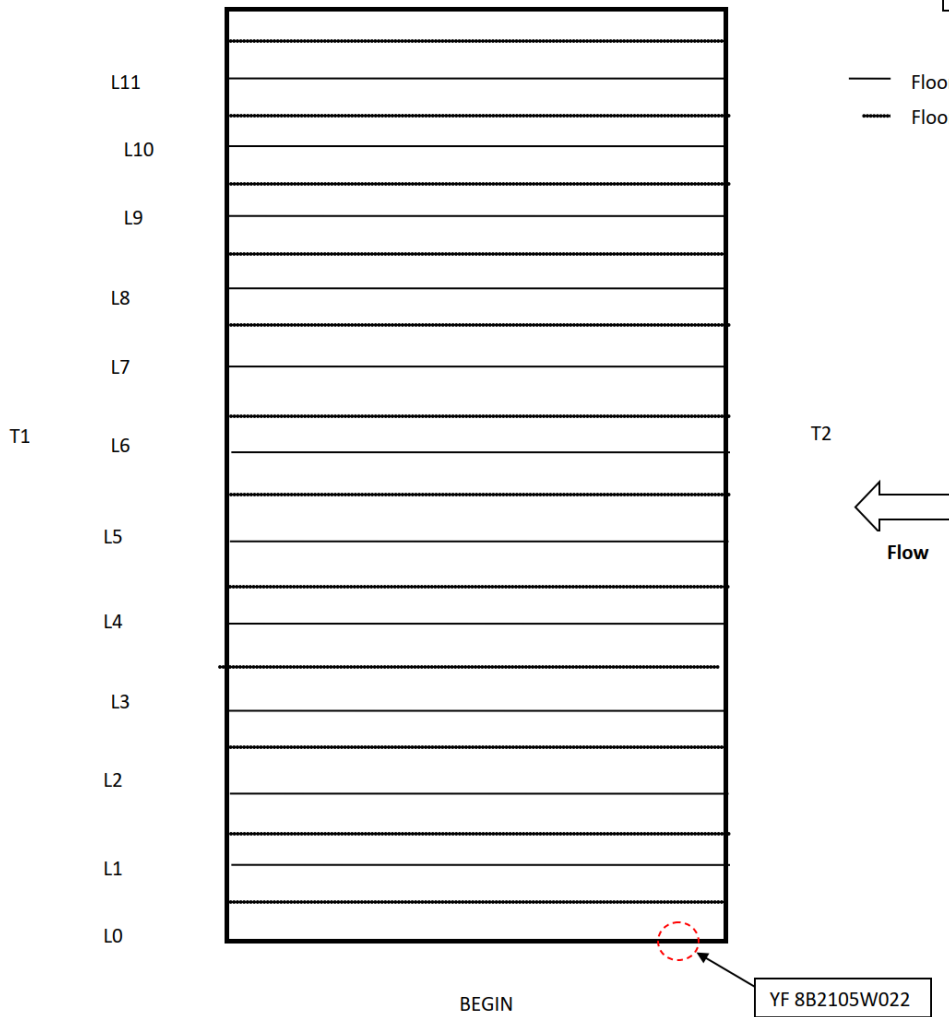
R/C – BIN:	8/1-3342250	DATE:	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
FLAG LOCATION PLAN			

END



NORTH

— Floorbeams FB0-12
 — Floorbeams FB 0.5-11.5



Attachment Description: Flag Location Plan

Yellow Flag 8B2105W022

BIN 3342250

Flag Date: October 06, 2021

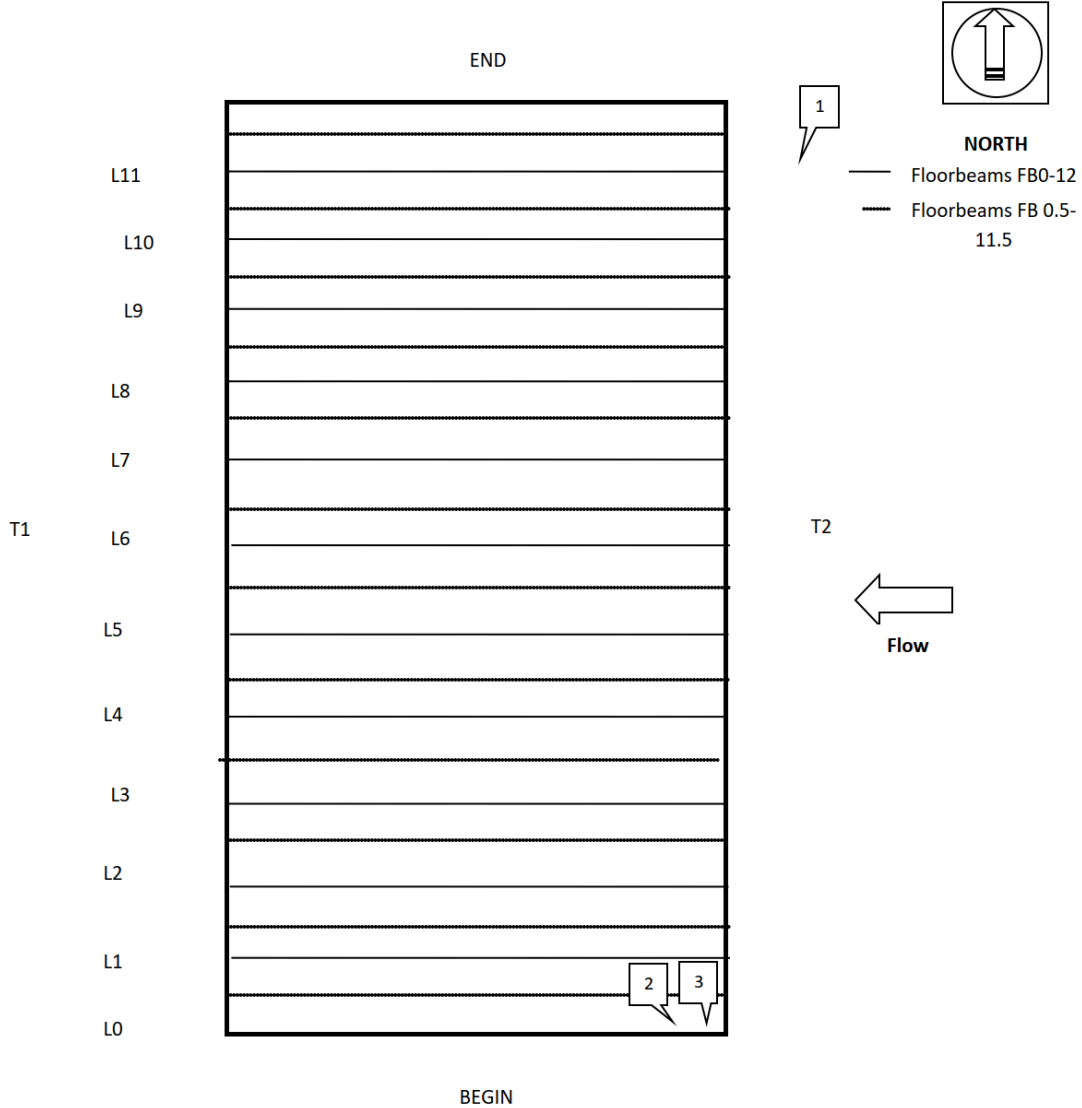
Photo Number: 5

Photo Filename: 005_YF 8B2105W022_Flag Photo Location Plan.png

BD 186

NYS DEPT. OF TRANSPORTATION

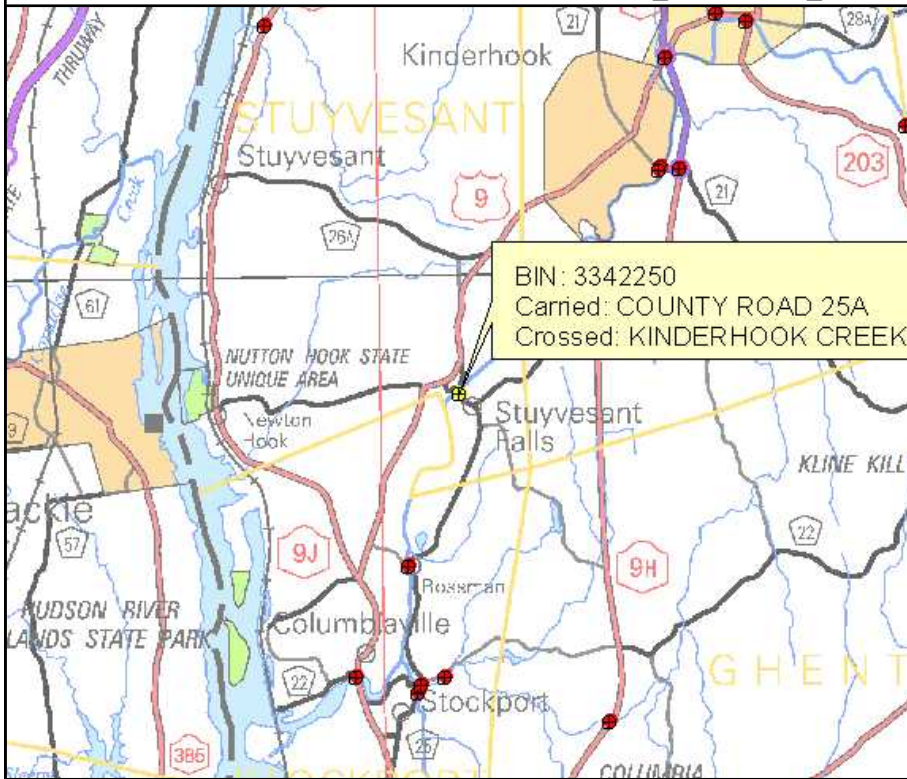
R/C – BIN:	8/1-3342250	DATE:	10/6/2021
FEATURE CARRIED:	COUNTY ROAD 25A		
FEATURE CROSSED:	KINDERHOOK CREEK		
LEGEND:	PHOTO ABOVE DECK LEVEL 	PHOTO BELOW DECK LEVEL	
FLAG PHOTO LOCATION PLAN			



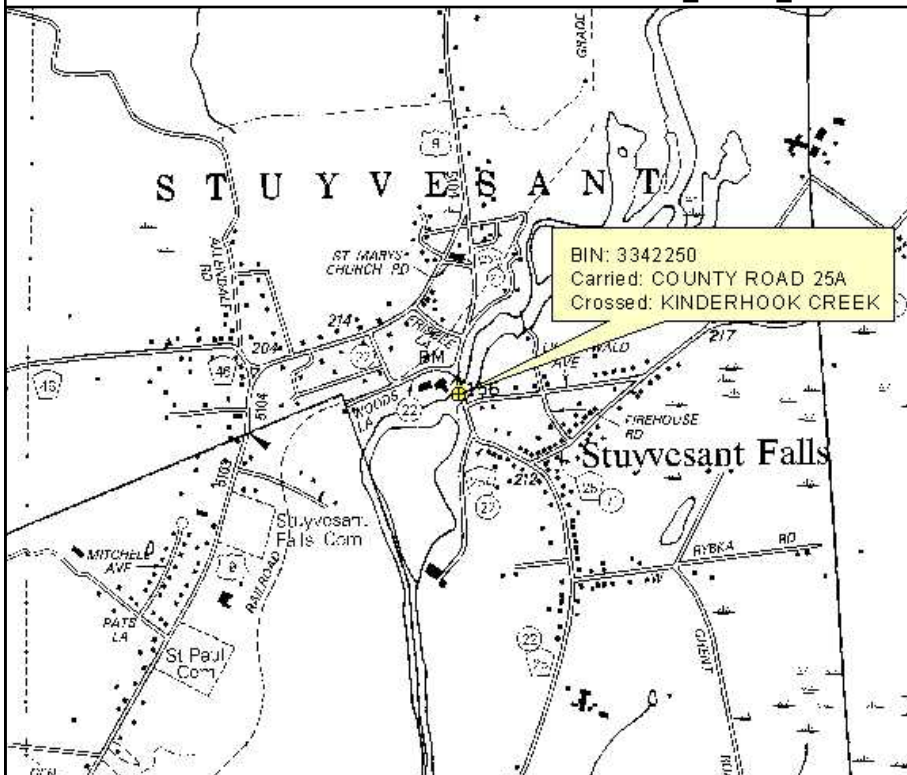
Attachment Description: Flag Photo Location Plan

Standard Photographs

3342250_LOCATION_MAP.JPG



3342250_QUAD_MAP.JPG



AbutmentBegin.JPG



AbutmentEnd.JPG



ApproachBegin.JPG



ApproachEnd.JPG



ElevationLeft.JPG



ElevationRight.JPG



FeatureCrossedLeft.JPG



FeatureCrossedRight.JPG



Framing.JPG



TopOfDeck.JPG

