

STRUCTURES INSPECTION FIELD REPORT

2-DIST
01

B.I.N.
0FK

ROUTINE INSPECTION

BR. DEPT. NO.
A-13-015

CITY/TOWN ASHFIELD	8-STRUCTURE NO. A13015-0FK-MUN-NBI	11-Kilo. POINT 000.000	41-STATUS P:POSTED	90-ROUTINE INSP. DATE MAR 21, 2025
07-FACILITY CARRIED HWY BELDNGVIL RD	MEMORIAL NAME/LOCAL NAME Br.No. 15 Leon Hall	27-YR BUILT 1940	106-YR REBUILT 0000	YR REHAB'D (NON 106) 0000
06-FEATURES INTERSECTED WATER BEAR RIVER	26-FUNCTIONAL CLASS Rural Local	DIST. BRIDGE INSPECTION ENGINEER <i>Michael P. McCabe</i> M. P.E. McCabe		
43-STRUCTURE TYPE 302 : Steel Stringer/Girder	22-OWNER Town Agency	21-MAINTAINER Town Agency	TEAM LEADER M. Estrada <i>Mark J. Estrada</i>	PROJ MGR Michael Baker Intl Inc <i>[Signature]</i>
107-DECK TYPE 1 : Concrete Cast-in-Place	WEATHER Cloudy	TEMP. (air) 2°C	TEAM MEMBERS R. YOUSSEF	

ITEM 58	5	
DECK		DEF
1. Wearing Surface	7	-
2. Deck Condition	5	M-P
3. Stay in Place Forms	N	-
4. Curbs	4	S-P
5. Median	N	-
6. Sidewalks	N	-
7. Parapets	N	-
8. Railing	5	M-P
9. Anti Missile Fence	N	-
10. Drainage System	6	-
11. Lighting Standards	N	-
12. Utilities	N	-
13. Deck Joints	N	-
14.	N	-
15.	N	-
16.	N	-
CURB REVEAL (In millimeters)	E 270	W 200

APPROACHES		DEF
a. Appr. Pavement Condition	6	M-P
b. Appr. Roadway Settlement	6	M-P
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge)	(Y/N)	N
		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59	5	
SUPERSTRUCTURE		DEF
1. Stringers	N	-
2. Floorbeams	N	-
3. Floor System Bracing	N	-
4. Girders or Beams	5	S-P
5. Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6. Pin & Hangers	N	-
7. Conn Plt's, Gussets & Angles	N	-
8. Cover Plates	N	-
9. Bearing Devices	5	M-P
10. Diaphragms/Cross Frames	7	-
11. Rivets & Bolts	7	-
12. Welds	N	-
13. Member Alignment	7	-
14. Paint/Coating	5	M-P
15.	N	-

Year Painted **X**

COLLISION DAMAGE: Please explain
None (X) Minor () Moderate () Severe ()

LOAD DEFLECTION: Please explain
None (X) Minor () Moderate () Severe ()

LOAD VIBRATION: Please explain
None (X) Minor () Moderate () Severe ()

Any Fracture Critical Member: (Y/N) **N**

Any Cracks: (Y/N) **N**

ITEM 60	6			
SUBSTRUCTURE		DEF		
1. Abutments	Dive	Cur	6	
a. Pedestals	N	7		-
b. Bridge Seats	N	7		-
c. Backwalls	N	7		-
d. Breastwall	N	6		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	4		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	7		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain **Y**

COLLISION DAMAGE:
None (X) Minor () Moderate () Severe ()

SCOUR: Please explain
None (X) Minor () Moderate () Severe ()

I-60 (Dive Report): **N** I-60 (This Report): **6**

93B-U/W (DIVE) Insp **00/00/0000**

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ITEM 61				7
CHANNEL & CHANNEL PROTECTION				
	Dive	Cur	DEF	
1.Channel Scour	N	7	-	
2.Embankment Erosion	N	6	-	
3.Debris	N	7	-	
4.Vegetation	N	7	-	
5.Utilities	N	N	-	
6.Rip-Rap/Slope Protection	N	7	-	
7.Aggradation	N	7	-	
8.Fender System	N	N	-	
STREAM FLOW VELOCITY: Tidal () High () Moderate (X) Low () None ()				
ITEM 61 (Dive Report): <input type="checkbox"/> N ITEM 61 (This Report): <input type="checkbox"/> 7				
93b-U/W INSP. DATE: <input type="text" value="00/00/0000"/>				

ITEM 36 TRAFFIC SAFETY				
	36	COND	DEF	
A. Bridge Railing	0	5	M-P	
B. Transitions	0	5	M-P	
C. Approach Guardrail	0	5	M-P	
D. Approach Guardrail Ends	0	0	M-P	
WEIGHT POSTING <i>Not Applicable</i> <input type="checkbox"/>				
	H	3	3S2	Single
Actual Posting	18	21	33	N
Recommended Posting	18	21	33	N
Waived Date: <input type="text" value="00/00/0000"/> EJDMT Date: <input type="text" value="00/00/0000"/>				
	At bridge		Other Advance	
	N	S	N	S
Signs In Place (Y=Yes,N=No, NR=NotRequired)	Y	Y	Y	Y
Legibility/ Visibility	8/8	6/5	8/8	8/8
CLEARANCE POSTING				
Not	E		W	
	ft	in	ft	in
Actual Field Measurement	0	0	0	0
Posted Clearance	0	0	0	0
	At bridge		Advance	
	E	W	E	W
Signs In Place (Y=Yes,N=No, NR=Not Required)	/	/	/	/
Legibility/ Visibility	/	/	/	/

ACCESSIBILITY (Y/N/P)		
	Needed	Used
Lift Bucket	N	N
Ladder	P	Y
Boat	N	N
Waders	P	Y
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	N	N
RR Flagger	N	N
Police	N	N
Other:	N	N
TOTAL HOURS		71
PLANS (Y/N): <input type="checkbox"/> Y		
(V.C.R.) (Y/N): <input type="checkbox"/> N		
TAPE#: _____		
List of field tests performed: Visual, Hands on and D-Meter		

RATING
Rating Report (Y/N): <input type="checkbox"/> Y
Date: <input type="text" value="06/01/2018"/>
Inspection data at time of existing rating I 58: 6 I 59: 6 I 60: 6 Date :03/13/2017

Recommend for Rating or Rerating (Y/N): <input type="checkbox"/> N	If YES please give priority: HIGH () MEDIUM () LOW ()
REASON: _____	

CONDITION RATING GUIDE			(For Items 58, 59, 60 and 61)
CODE	CONDITION	DEFECTS	
N	NOT APPLICABLE		
G 9	EXCELLENT	Excellent condition.	
G 8	VERY GOOD	No problem noted.	
G 7	GOOD	Some minor problems.	
F 6	SATISFACTORY	Structural elements show some minor deterioration.	
F 5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.	
P 4	POOR	Advanced section loss, deterioration, spalling or scour.	
P 3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.	
C 2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.	
C 1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put it back in light service.	
0	FAILED	Out of service - beyond corrective action.	

DEFICIENCY REPORTING GUIDE	
DEFICIENCY:	A defect in a structure that requires corrective action.
CATEGORIES OF DEFICIENCIES:	
M= Minor Deficiency	Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.
S= Severe/Major Deficiency	Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.
C-S= Critical Structural Deficiency	A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.
C-H= Critical Hazard Deficiency	A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.
URGENCY OF REPAIR:	
I = Immediate-	[Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].
A = ASAP-	[Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].
P = Prioritize-	[Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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REMARKS

BRIDGE ORIENTATION

BIN 0FK is oriented from south to north and elevations are east to west. The Bear River flows from west to east. The orientation is consistent with the plans, previous inspection reports, and the 2018 Rating Report.

GENERAL REMARKS

Structure A-13-015 (0FK) carries Beldingville Road over the Bear River in the town of Ashfield (**Sketch 1**). The bridge is a simple single-span structure comprised of four (4) rolled-shaped steel beams (24 WF 94 per plans), with Cast-in-Place concrete deck overlaid with an asphalt wearing surface. The beams are designated as Beam 1 through 4 and the bays are designated as Bay 1 through 3 from east to west, downstream to upstream. The substructure consists of two (2) reinforced concrete abutments labeled South Abutment and North Abutment (**Sketch 2 and Photos 1-8**).

Work Access

The underside of deck, superstructure, and substructure elements were inspected during the daytime hours on foot. Waders and a 24' extension ladder were utilized to inspect the underside.

Channel Profiles

Channel profile measurements were taken on the upstream and downstream fasciae of the bridge from the top of the rail base to the ground (**Sketch 3**).

Weight Posting

The bridge has two (2) At-Bridge and two (2) Advanced weight posting signs posted for 18 tons on two axles, 21 tons on three axles, and 33 tons on five axles, with the exception of the Advanced weight posting sign at the South Approach, which is incorrectly posted as 18 tons on two axles, 21 tons on three axles, and 31 tons on five axles (**Photo 9**). The At-Bridge weight posting sign at the South Approach is tilted to the east away from the roadway (**Photo 10**).

ITEM 58 - DECK

Item 58.1 - Wearing Surface

There are random gouges up to 3'-8" long x 3" wide x 1/4" deep and moderate sand accumulation. The South Deck End has isolated potholes, patches, and cracks (**Photo 11**). See the following for specific locations and conditions:

- Southwest corner: 2'-6" long x 4'-0" wide area of alligator cracks open up to 1/4" wide.
- Near the centerline of the roadway at the South Deck: 9" long x 3'-0" wide x 2" deep pothole, 10" long x 1'-4" wide x 3/4" deep pothole, and adjacent patches with cracks up to 1'-4" long x 3'-4" wide.
- Along the West Curb, near the South Deck End, at the drain pipe: 2'-0" long x 1'-2" wide x 5" deep pothole (**Photo 12**).

Item 58.2 - Deck Condition

The underside of the deck has scattered hairline map cracks, some with efflorescence throughout the underside of deck. There are several spalls, some with exposed and corroded rebar, delaminations, and scale in the bays and overhangs. See the following for specific locations and conditions:

- East Deck Overhang, south end (from south to north): 6'-0" long x 6" wide x 3" deep spall with exposed rebar, 2'-4" long x 6" wide x full height delamination, and 2'-0" long x 6" wide x 2" deep spall with exposed rebar (**Photo 13**).

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REMARKS

- Bay 1, Panel 2: 7'-0" long x 4" wide delamination.
- Bay 3, Panel 1: 4'-0" long x 3'-0" wide area of spalls with exposed rebar up to 1" deep and a 3'-0" long x 1'-0" wide x 1/2" deep spall / delamination along Beam 3.
- Bay 3, Panel 2: Two (2) spalls up to 1'-0" long x 7" wide x up to 1" deep along Beam 3, 5'-0" long x 1'-6" wide x up to 2" deep spall with exposed rebar with heavy rust and negligible section loss along leaking drain pipe, and scattered spalls with exposed rebar up to full length x 6" wide x 1/2" deep (**Photo 14**).
- Bay 3, Panel 4: 6'-0" long x 1'-6" wide x 1" deep spall with exposed and corroded rebar.
- West Deck Overhang, south end: 7'-0" long x 6" wide x up to 5" deep spall with exposed rebar (**Photo 15**).

Item 58.4 - Curbs

The curbs have spalls, some with exposed and debonded rebar and hairline map cracks with efflorescence. See the following for specific locations and conditions:

East Curb

- Adjacent to 5th post from south end: 3'-0" long x 2" wide x 6" high x 1" deep spall.
- Between 6th and 7th post from south end: 4'-0" long x 6" wide x full height x 1" deep spall.

West Curb

- South end: 9'-0" long x full width x full height x 3" deep spall with exposed and debonded rebar (**Photo 12**).
- Near midspan: 18'-0" long x full width x full height x 2" deep spall with exposed rebar.
- Near north end: 8'-0" long x full width x full height x 1" deep spall with exposed rebar.

Item 58.8 - Railing

The horizontal rails have scattered areas of minor splits, checks, and rot. The posts have rust and isolated damage. Select locations of noted advanced rot to the rails have been replaced since the previous Routine Inspection report (**3/6/23**). See the following for specific locations and conditions:

East Railing

- The previously noted several rotted rails have been repaired.
- 7th post from south end: 2'-6" long tear at the bottom of west face (**Photo 16**).

West Railing

- The previously noted rotted rails at the north end have been repaired.
- 1st post from south end: 2" long tear at bottom of east face.
- 3rd post from south end: Sloppy weld at bottom of east face.
- 7th post from south end: Crack at bottom of east face and warped at bottom of west face (**Photo 17**).

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REMARKS

Item 58.10 - Drainage System

Select locations of noted short deck drain pipes have been repaired since the last Routine Inspection report (3/6/23). See the following for specific locations and conditions:

- The deck drain pipe in Bay 3 adjacent to the 1st Diaphragm from the South Abutment is short and leaking onto Beam 4 (**Photo 14**).
- The previously noted remaining short deck drain pipes in Bay 3 have been repaired (**Photo 19**).

APPROACHES

Approaches a - Appr. Pavement Condition

There are gouges, up to 2" alligator cracks, an isolated pothole, and moderate sand accumulation. See the following for specific locations and conditions:

South Approach (Photo 11)

- There are random gouges up to 3'-8" long x 3" wide x 1/4" deep.
- Near the bridge, near centerline of roadway: 1'-0" long x 1'-0" wide x 3/4" deep pothole.
- Near the bridge: 16'-0" long x 9'-0" wide area of alligator cracks open up to 2" wide.

North Approach

- Near north end of East Railing: 2'-0" long x 5'-0" wide area of alligator cracks open up to 1/4" wide.

Approaches b - Appr. Roadway Settlement

There is heaving near the bridge. See the following for specific locations and conditions:

South Approach

- Near the southwest corner of the bridge: Pavement is gradually heaved up to 3" higher than the bridge pavement.

North Approach

- Near the northwest corner of the bridge: Pavement is heaved up to 3" higher than the bridge pavement.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams

The beam properties vary from 24 WF 94 beams specified in the design plans (**Sketch 4**).

The beams have scattered areas of light rust throughout the bridge. There is up to 7'-0" long x up to 1/2" thick pack rust between the deck and the fasciae beam top flanges at the south end.

There is heavy rust with section loss throughout Beam 4 (**Sketches 5 - 7 and Photos 14, 15, 18, & 19**).

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REMARKS

Item 59.9 - Bearing Devices

The bearings have missing / deteriorated paint with rust, and the corner bearings have moderate delamination. See the following for specific locations and conditions:

South Abutment (Fixed Bearings)

- Beam 1 Bearing: Up to 1/4" thick pack rust between masonry and sole plates.
- Beam 3 Bearing: West side anchor bolt has two (2) square washers.
- Beam 4 Bearing: Both anchor bolt nuts have up to 100% section loss and the west anchor bolt has 7/16" diameter remaining.

North Abutment (Expansion Bearings)

- The bearings are in expansion mode up to 1/2" at 2° Celsius.
- Beam 1 Bearing: West side anchor bolt nut is backed off 3" (tight) and wrapped with barbed wire (**Photo 20**).

Item 59.10 - Diaphragms/Cross Frames

The diaphragms have isolated delaminations up to 1 sq. ft.

The 1st diaphragm from the south end in Bay 1 has an up to 3'-4" wide x up to 5" high x full length (underside) delamination with a 6" wide x 2" high x 3" deep spall at the bottom southeast corner.

Item 59.11 - Rivets & Bolts

Beam 4, West Elevation, the diaphragm connection hardware near the south end has heavy rust (**Photo 15**).

Item 59.14 - Paint/Coating

At Beam 4, below the drain pipes and at the south end, the paint has failed (**Photos 14 & 15**). At the remainder of the structure, the paint is chalky with areas of light rust (**Photo 8**).

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments

Item 60.1.a - Pedestals

At the North Abutment, Pedestals 1 - 3 have random hairline cracks.

Item 60.1.b - Bridge Seats

At the South Abutment, the bridge seat is damp full width x full length.

Item 60.1.c - Backwalls

South Abutment

- The backwall is damp throughout, mostly noticeably at the east end.
- Below Bay 3: 4'-0" wide x 3" high x 2" deep spall at the top and adjacent 3'-0" wide x 1'-6" high area of hairline map cracks.

Item 60.1.d - Breastwall

The abutment breastwalls have spalls, some with exposed rebar, cracks, delaminations, and scale. See the following for specific locations and conditions:

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REMARKS

South Abutment (Photo 21)

- There are random spalls with exposed rebar up to 8" wide x full height x 3/4" deep with heavy rust with negligible section loss.
- The upper interior sections of the abutment columns have heavy scale.
- East end: 3" wide x 6" high x up to 2" deep spall.
- Below Bay 1 - Bay 2: 9'-0" wide x up to 6" high delamination with 3'-9" wide x 5'-6" high x up to 1-1/2" deep spall with exposed rebar and horizontal cracks up to 1/8" wide with rust and dampness.
- Below Beam 4: 2'-8" wide x 6" high delamination with 1/16" wide crack with efflorescence, rust, and dampness.

North Abutment

- There are scattered hairline cracks up to 2'-0" long.
- The upper interior section of the east column has heavy scale.
- West end: 9" wide x 9" high x 3" deep spall and 2'-0" wide x 2'-0" high area of hairline map cracks with efflorescence.

Item 60.1.e - Wingwalls

- The Southeast Wingwall has heavy vegetation and vine growth and an isolated 5" wide x 6" high x 1" deep spall at the top of the west end.
- The Southwest Wingwall is undermined 4'-4" wide x 1'-5" high x 2'-0" deep (**Photo 22**).
- The Northeast Wingwall is undermined 4'-3" wide x 7" high x 1'-1" deep.

Item 60.1.f - Slope Paving/Rip-Rap

Below the South Abutment Cap Beam, fill has been removed resulting in a full width x 1'-6" high x up to 3'-5" deep void with 6'-0" long x 2'-6" wide x 9" deep erosion near the centerline of the abutment (**Photo 21**).

Below the North Abutment Cap Beam, fill has been removed resulting in a full width x 1'-1" high x 2'-10" deep void.

Item 60.1.h - Footings

The footings are hidden by design.

SubStructure Undermining Notes

There is 4'-4" wide x 1'-5" high x 2'-0" deep undermining at the Southwest Wingwall (**Photo 22**) and 4'-3" wide x 7" high x 1'-1" deep undermining at the Northeast Wingwall.

ITEM 61 - CHANNEL AND CHANNEL PROTECTION

Item 61.2 - Embankment Erosion

South Face of Southwest Wingwall, there is 3'-6" long x 7'-0" wide x 2'-6" deep erosion and adjacent 6'-0" long x 8'-0" wide x 2'-0" deep erosion (**Photo 23**).

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REMARKS

Near the Northeast Wingwall, there is 15'-0" long x 15'-0" wide x 2'-0" deep erosion.

Item 61.4 - Vegetation

The channel embankments are well vegetated.

There is heavy vine growth below the embankments and upstream of the bridge along the Left Bank.

Item 61.6 - Rip-Rap/Slope Protection

There is a 5'-0" long x 14'-0" wide area of missing rip rap below the bridge at the top of the Right Bank (**Photo 21**).

TRAFFIC SAFETY

Item 36a - Bridge Railing

The bridge railings consist of two timber rails, mounted on steel I-posts which are cast into the concrete rail bases. Refer to Item 58.8 - Railing.

Item 36b - Transitions

The Northwest Transition consists of single steel W-beam panels with a steel terminal end, not attached to the bridge railing, mounted on steel posts with no blockouts, spaced at 6'-0". The Northwest Transition W-beam has 7'-0" long minor impact damage.

The remaining transitions consist of two (2) timber rails mounted on concrete posts, spaced at 8'-0". Several of the posts are tipped and/or loose, and have edge spalls up to 2" wide x 2'-0" high x 1" deep, some with exposed rebar, cracks, and tilted connection bolts to the rails. The timber rails have checks, splits, and rot.

The Northeast Transition is missing both timber rails (**Photo 24**).

Item 36c - Approach Guardrail

The Northwest Approach Guardrail consists of single steel W-beam panels, mounted on steel posts with steel blockouts, spaced at 6'-0".

The remaining approach guardrails end in the transition area (**Photos 4 & 6**).

Item 36d - Approach Guardrail Ends

The Northwest Approach Guardrail is continuous along Beldingville Road.

The remaining approaches have no guardrail ends in place (**Photos 4 & 6**).

Sketch / Photo Log

- Sketch 1 : Location Map.
- Sketch 2 : Framing Plan.
- Sketch 3 : Channel Profile Measurements.
- Sketch 4 : Beam Cross Section Sketch.
- Sketch 5 : Beam 4 Section Loss - East Elevation, South End.
- Sketch 6 : Beam 4 Section Loss - East Elevation, Midspan.
- Sketch 7 : Beam 4 Section Loss - East Elevation, North End.
- Photo 1 : East Elevation of bridge, looking west.
- Photo 2 : West Elevation of bridge, looking east.
- Photo 3 : Bridge from South Approach, looking north.
- Photo 4 : South Approach from bridge, looking south.

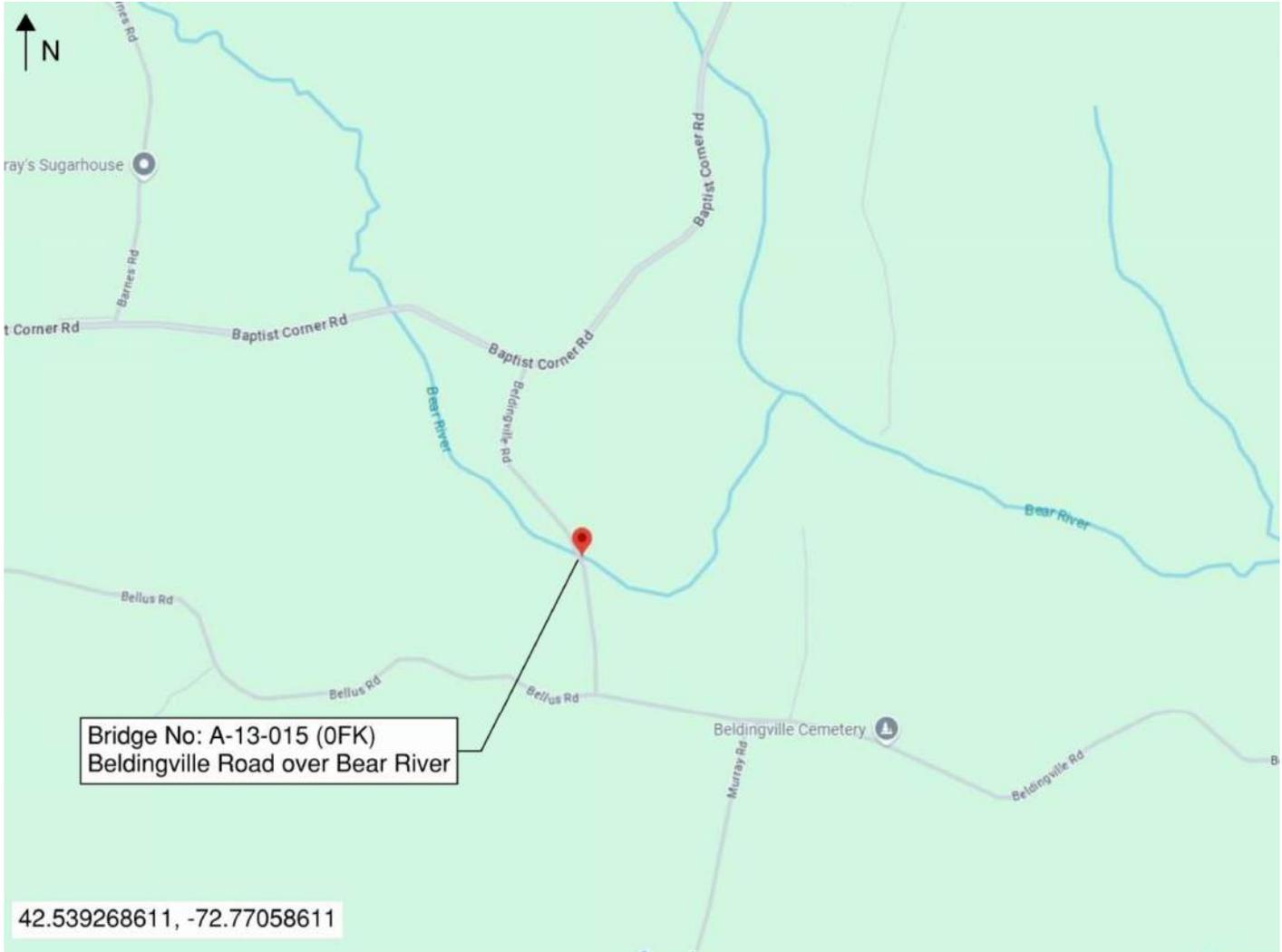
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REMARKS

- Photo 5 : Bridge from North Approach, looking south.
- Photo 6 : North Approach from bridge, looking north.
- Photo 7 : Typical Topside, looking south.
- Photo 8 : Typical Underside, looking north.
- Photo 9 : South Approach Advanced weight posting sign, looking north.
- Photo 10 : South Approach At-Bridge weight posting sign, looking north, rotated away from the roadway.
- Photo 11 : Wearing Surface, at South Deck End and South Approach, with gouges, potholes, patches, and map cracks.
- Photo 12 : Wearing Surface near South Deck End along West Curb with potholes at drain pipe, West Curb at south end with spall with exposed and debonded rebar.
- Photo 13 : East Deck Overhang at south end with spalls with exposed rebar and delamination.
- Photo 14 : Bay 3 Panel 2 with spalls with exposed rebar with moderate section loss and leaking drain pipe, and Beam 4, East Elevation north of 1st Diaphragm from the South Abutment with rust and section loss.
- Photo 15 : West Deck Overhang at south end with spall with exposed rebar, and Beam 4 West Elevation at the south end with rust and section loss.
- Photo 16 : East Railing at 7th post from south end.
- Photo 17 : West Railing at 7th post from south end.
- Photo 18 : Beam 4 East Elevation at south end with rust and section loss.
- Photo 19 : Beam 4 East Elevation at midspan with rust and section loss.
- Photo 20 : Beam 4 Bearing at North Abutment with backed off anchor bolt nut and wrapped with barbed wire.
- Photo 21 : South Abutment with spalls with exposed rebar, delaminations, scale, cracks with efflorescence, rust, and dampness, and void below Cap Beam, and Right Bank with missing rip rap.
- Photo 22 : Southwest Wingwall with undermining.
- Photo 23 : Embankment at South Face of Southwest Wingwall with erosion.
- Photo 24 : Northeast transition with missing rails.

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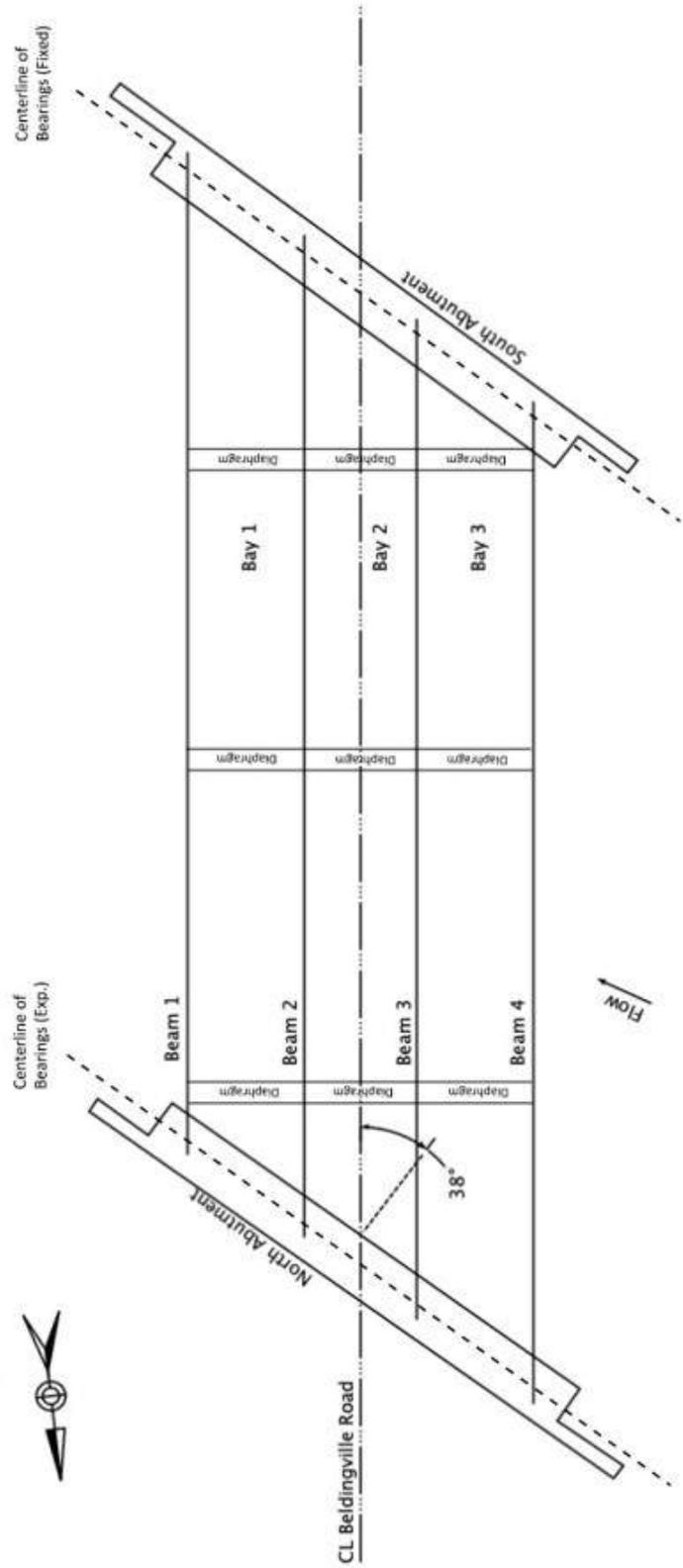
SKETCHES



Sketch 1: Location Map.

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SKETCHES



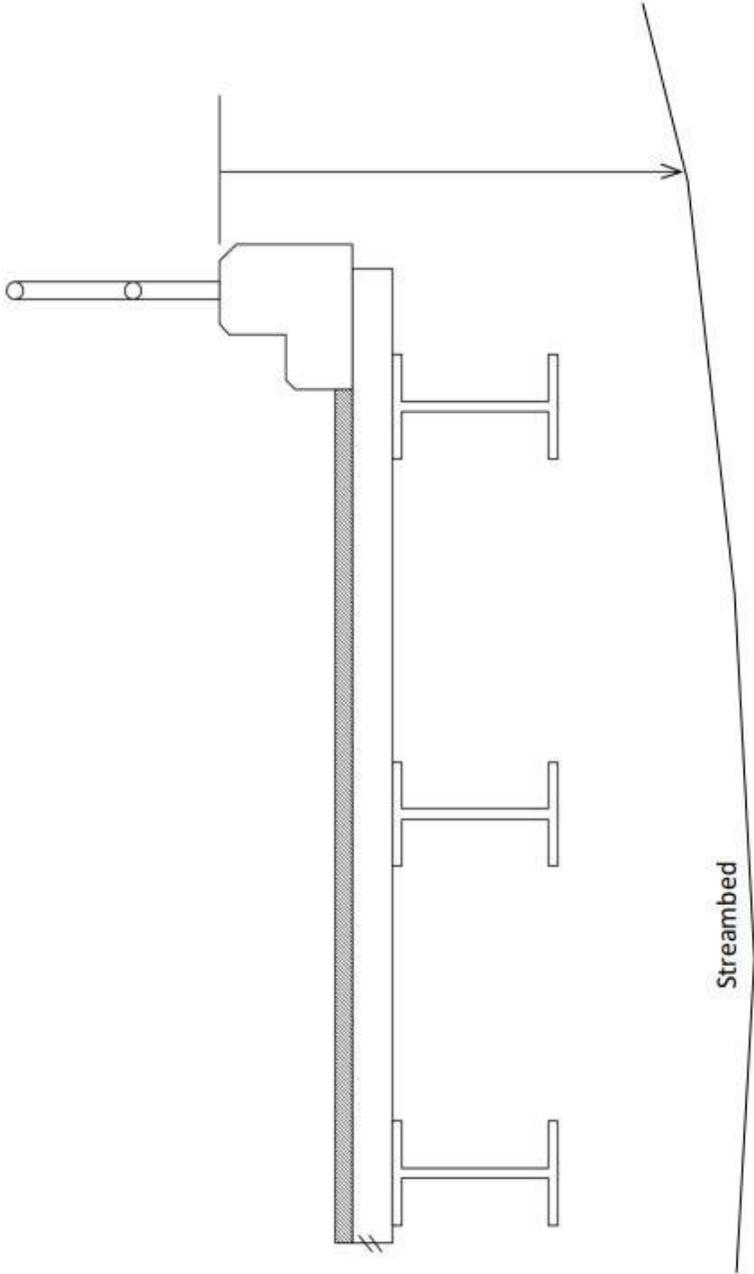
Sketch 2: Framing Plan.

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SKETCHES

BIN OFK - Channel Profile Readings										
	West Fascia					East Fascia				
DATE	S. Abut.	1/4 span	1/2 span	3/4 span	N. Abut.	S. Abut.	1/4 span	1/2 span	3/4 span	N. Abut.
3/21/2025	7.1'	9.8'	14.0'	10.3'	4.8'	7.0'	9.5'	15.6'	12.8'	6.8'

NOTES:
* All readings taken from streambed to top of railbase in decimal feet.

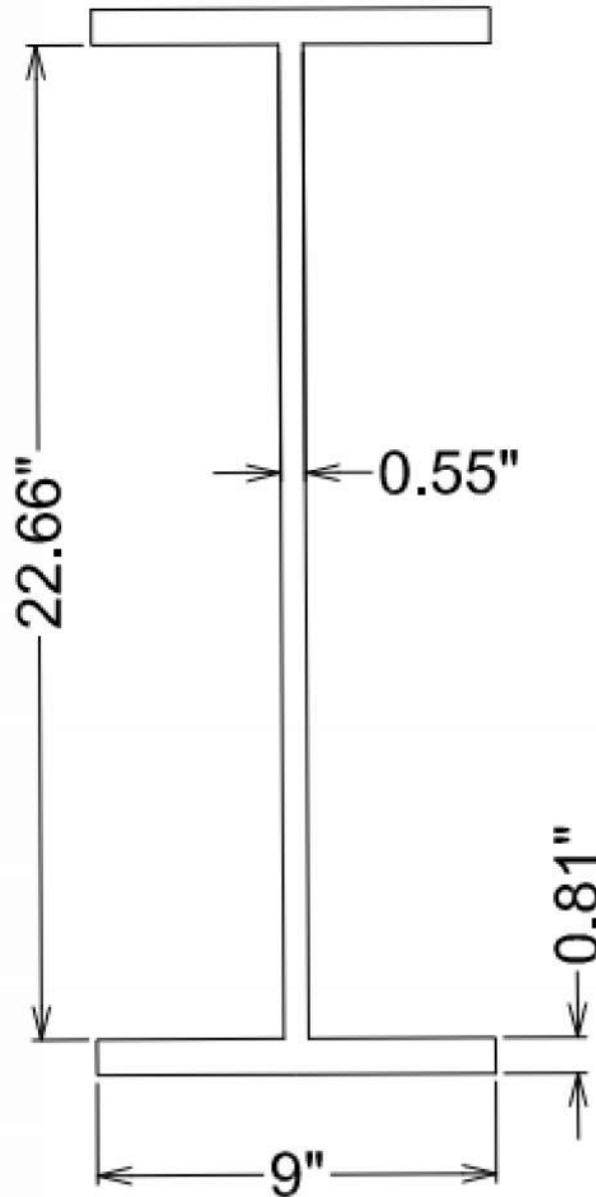


Sketch 3: Channel Profile Measurements.

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SKETCHES

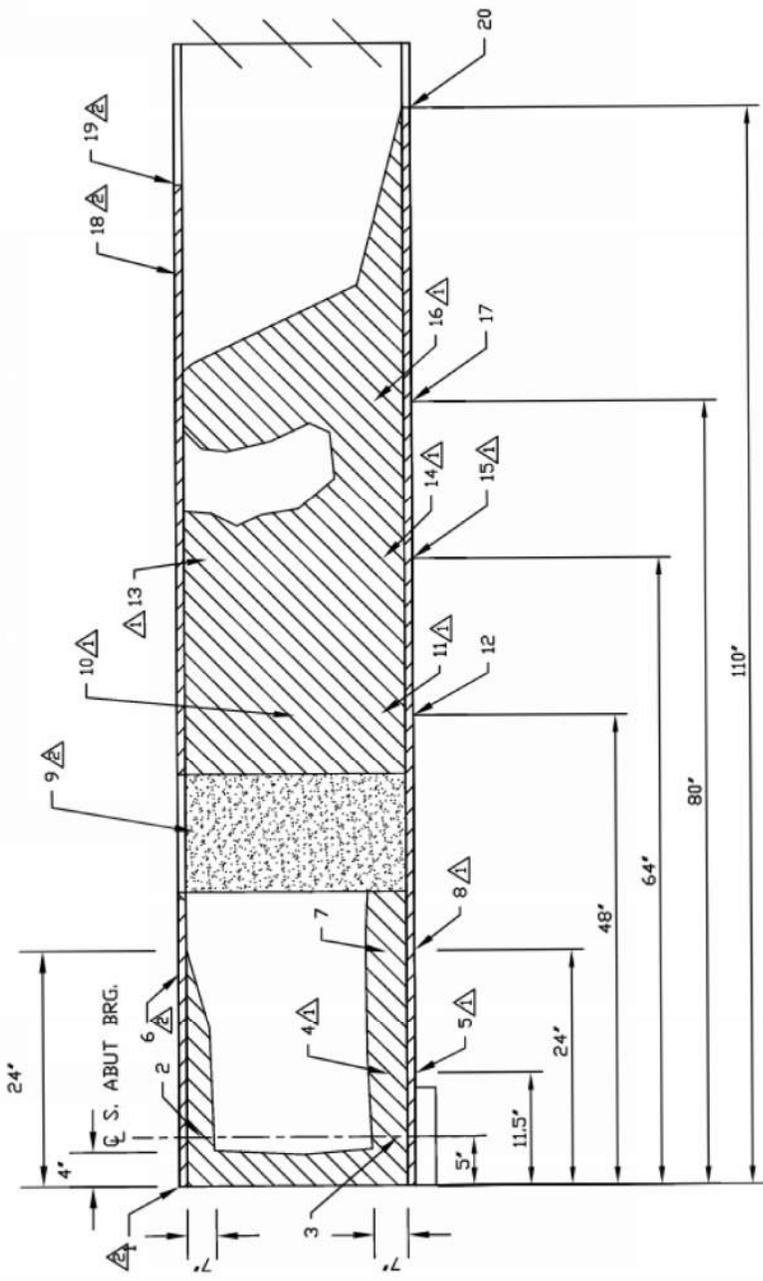
Field Measured Original Section



Sketch 4: Beam Cross Section Sketch.

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SKETCHES



BEAM 4 AT SOUTH ABUTMENT
EAST ELEVATION
(N.T.S.)

DEFECTS (NOTE, MEASURED AT EAST ELEVATION UNLESS OTHERWISE NOTED):

- 1. WEST LEG TOP FLANGE: 110'L x FW x 0.44 REMAINING
- 2. 0.41' REMAINING
- 3. 0.21' REMAINING
- 4. 0.28' REMAINING
- 5. 3.5'L x FW x 0.20' REMAINING
- 6. 30'L x FW x 0.75' REMAINING
- 7. 0.32' REMAINING
- 8. 0.30' REMAINING
- 9. WEST ELEVATION: DIAPHRAGM CONNECTION HARDWARE HAS HEAVY RUST
- 10. 0.42' REMAINING
- 11. 0.23' REMAINING (UP TO 4"H)
- 12. 0.61' REMAINING
- 13. 0.38' REMAINING (INCLUDES 86"L x 5"H AVERAGE AT WEST ELEVATION)
- 14. 0.42' REMAINING (UP TO 4"H)
- 15. 0.54' REMAINING
- 16. 0.49' REMAINING
- 17. 0.62' REMAINING
- 18. 56"L x FW x 0.70' REMAINING
- 19. NEGLIGIBLE LOSS
- 20. NEGLIGIBLE LOSS

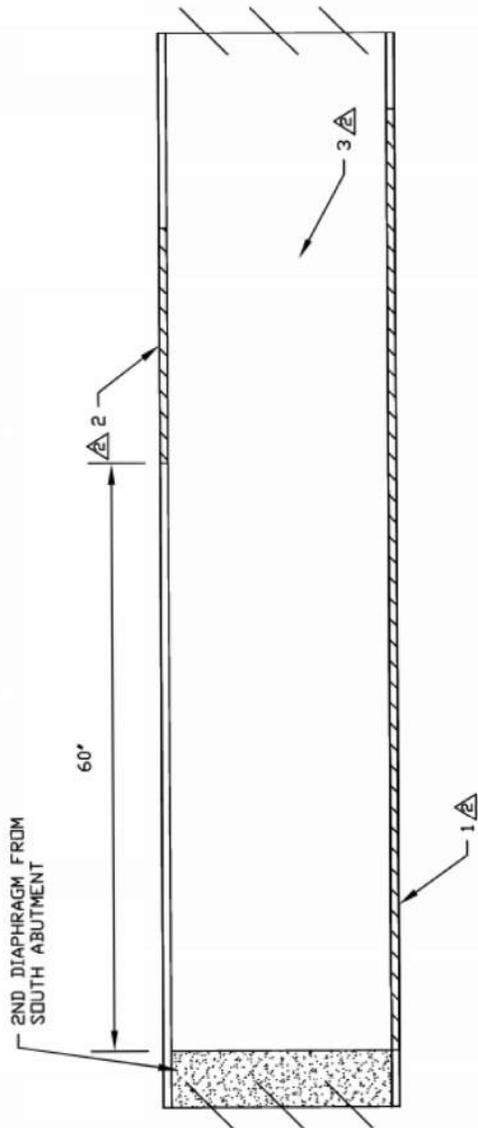
SECTION PROPERTIES:
 ORIGINAL SECTION (PLANS) = 24WF94
 ORIGINAL FLANGE (FIELD) = 0.81'
 ORIGINAL WEB (FIELD) = 0.55'

LEGEND:
 = SECTION LOSS
 = CONCRETE DIAPHRAGM
 = CHANGE FROM PREVIOUS REPORT (3/23)
 = NOT PREVIOUSLY REPORTED (3/25)

Sketch 5: Beam 4 Section Loss - East Elevation, South End.

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SKETCHES



BEAM 4 AT MID-SPAN
EAST ELEVATION
(N.T.S.)

DEFECTS (NOTE, MEASURED AT EAST ELEVATION UNLESS OTHERWISE NOTED):
 1. 8'-0"L x FULL LEG WIDTH x 0.80" REMAINING
 2. 2'-0"L x FULL LEG WIDTH x 0.72" REMAINING
 3. NEGLIGIBLE LOSS

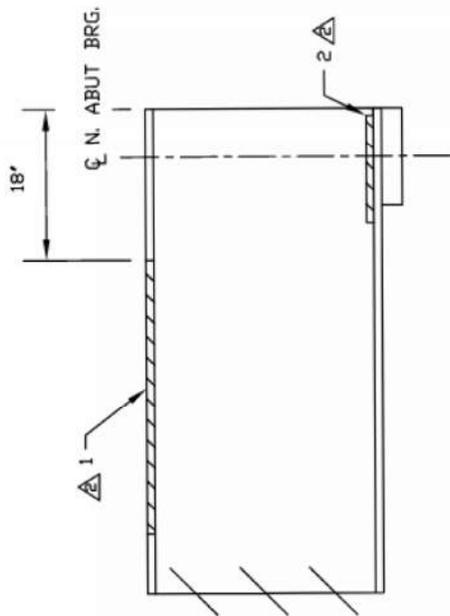
SECTION PROPERTIES:
 ORIGINAL SECTION (PLANS) = 24WF94
 ORIGINAL FLANGE (FIELD) = 0.81"
 ORIGINAL WEB (FIELD) = 0.55"

LEGEND:
 [Hatched] = SECTION LOSS
 [Concrete] = CONCRETE DIAPHRAGM
 1/A = CHANGE FROM PREVIOUS REPORT (3/23)
 2/A = NOT PREVIOUSLY REPORTED (3/25)

Sketch 6: Beam 4 Section Loss - East Elevation, Midspan.

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SKETCHES



**BEAM 4 AT NORTH ABUTMENT
EAST ELEVATION
(N.T.S.)**

DEFECTS (NOTE, MEASURED AT EAST ELEVATION UNLESS OTHERWISE NOTED):

- △ 1.** 2'-4" L x F W x 0.75' REMAINING
- △ 2.** WEST ELEVATION: 0'-11" L x 3/4" H x 0.75' REMAINING

SECTION PROPERTIES:
 ORIGINAL SECTION (PLANS) = 24WF94
 ORIGINAL FLANGE (FIELD) = 0.81"
 ORIGINAL WEB (FIELD) = 0.55"

- LEGEND:**
- = SECTION LOSS
 - = CONCRETE DIAPHRAGM
 - △ 1** = CHANGE FROM PREVIOUS REPORT (3/23)
 - △ 2** = NOT PREVIOUSLY REPORTED (3/25)

Sketch 7: Beam 4 Section Loss - East Elevation, North End.

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PHOTOS

Photo 1: East Elevation of bridge, looking west.



Photo 2: West Elevation of bridge, looking east.

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PHOTOS

Photo 3: Bridge from South Approach, looking north.



Photo 4: South Approach from bridge, looking south.

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PHOTOS

Photo 5: Bridge from North Approach, looking south.



Photo 6: North Approach from bridge, looking north.

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PHOTOS

Photo 7: Typical Topside, looking south.



Photo 8: Typical Underside, looking north.

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PHOTOS



Photo 9: South Approach Advanced weight posting sign, looking north.



Photo 10: South Approach At-Bridge weight posting sign, looking north, rotated away from the roadway.

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PHOTOS

Photo 11: Wearing Surface, at South Deck End and South Approach, with gouges, potholes, patches, and map cracks.



Photo 12: Wearing Surface near South Deck End along West Curb with potholes at drain pipe, West Curb at south end with spall with exposed and debonded rebar.

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PHOTOS

Photo 13: East Deck Overhang at south end with spalls with exposed rebar and delamination.



Photo 14: Bay 3 Panel 2 with spalls with exposed rebar with moderate section loss and leaking drain pipe, and Beam 4, East Elevation north of 1st Diaphragm from the South Abutment with rust and section loss.

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PHOTOS

Photo 15: West Deck Overhang at south end with spall with exposed rebar, and Beam 4 West Elevation at the south end with rust and section loss.



Photo 16: East Railing at 7th post from south end.

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PHOTOS

Photo 17: West Railing at 7th post from south end.



Photo 18: Beam 4 East Elevation at south end with rust and section loss.

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PHOTOS

Photo 19: Beam 4 East Elevation at midspan with rust and section loss.



Photo 20: Beam 4 Bearing at North Abutment with backed off anchor bolt nut and wrapped with barbed wire.

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PHOTOS

Photo 21: South Abutment with spalls with exposed rebar, delaminations, scale, cracks with efflorescence, rust, and dampness, and void below Cap Beam, and Right Bank with missing rip rap.



Photo 22: Southwest Wingwall with undermining.

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PHOTOS

Photo 23: Embankment at South Face of Southwest Wingwall with erosion.



Photo 24: Northeast transition with missing rails.