

STRUCTURES INSPECTION FIELD REPORT

2-DIST  
01

B.I.N.  
OFL

ROUTINE INSPECTION

BR. DEPT. NO.  
A-13-023

CITY/TOWN <b>ASHFIELD</b>	8-STRUCTURE NO. <b>A13023-OFL-MUN-NBI</b>	11-Kilo. POINT <b>000.000</b>	41-STATUS <b>A:OPEN</b>	90-ROUTINE INSP. DATE <b>MAR 31, 2025</b>
07-FACILITY CARRIED <b>HWY BULLITT RD</b>	MEMORIAL NAME/LOCAL NAME <b>Br No 3 Geofield</b>	27-YR BUILT <b>1938</b>	106-YR REBUILT <b>0000</b>	YR REHAB'D (NON 106) <b>0000</b>
06-FEATURES INTERSECTED <b>WATER SOUTH RIVER</b>	26-FUNCTIONAL CLASS <b>Rural Local</b>	DIST. BRIDGE INSPECTION ENGINEER <b>M. P.E. McCabe</b> <i>Michael P.E. McCabe</i>		
43-STRUCTURE TYPE <b>302 : Steel Stringer/Girder</b>	22-OWNER <b>Town Agency</b>	21-MAINTAINER <b>Town Agency</b>	TEAM LEADER M. Estrada <i>Mano O Estrada</i>	PROJ MGR <b>Michael Baker Intl Inc</b> <i>[Signature]</i>
107-DECK TYPE <b>1 : Concrete Cast-in-Place</b>	WEATHER <b>Cloudy</b>	TEMP. (air) <b>10°C</b>	TEAM MEMBERS <b>Y. ROUILLARD</b>	

<b>ITEM 58</b>	<b>5</b>	
<b>DECK</b>		<b>DEF</b>
1. Wearing Surface	7	M-P
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	N	-
11. Lighting Standards	N	-
12. Utilities	N	-
13. Deck Joints	N	-
14.	N	-
15.	N	-
16.	N	-
<b>CURB REVEAL</b> (In millimeters)	E 160	W 150

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

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

<b>ITEM 59</b>	<b>5</b>	
<b>SUPERSTRUCTURE</b>		<b>DEF</b>
1. Stringers	N	-
2. Floorbeams	N	-
3. Floor System Bracing	N	-
4. Girders or Beams	5	M-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	6	-
8. Cover Plates	N	-
9. Bearing Devices	4	S-A
10. Diaphragms/Cross Frames	6	-
11. Rivets & Bolts	6	-
12. Welds	N	-
13. Member Alignment	7	-
14. Paint/Coating	4	S-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**

<b>ITEM 60</b>	<b>6</b>			
<b>SUBSTRUCTURE</b>		<b>DEF</b>		
1. Abutments	Dive	Cur	<b>6</b>	<b>DEF</b>
a. Pedestals	N	4		S-A
b. Bridge Seats	N	7		-
c. Backwalls	N	6		-
d. Breastwalls	N	6		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	N		-
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			<b>N</b>	<b>DEF</b>
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			<b>N</b>	<b>DEF</b>
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 **N**

**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**

<b>CITY/TOWN</b> ASHFIELD	<b>B.I.N.</b> 0FL	<b>BR. DEPT. NO.</b> A-13-023	<b>8.-STRUCTURE NO.</b> A13023-0FL-MUN-NBI	<b>INSPECTION DATE</b> MAR 31, 2025
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**ITEM 61** 6

**CHANNEL & CHANNEL PROTECTION**

	Dive	Cur	DEF
1.Channel Scour	N	7	-
2.Embankment Erosion	N	6	M-P
3.Debris	N	7	-
4.Vegetation	N	7	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	7	-
7.Aggradation	N	6	M-P
8.Fender System	N	N	-

**STREAM FLOW VELOCITY:**  
Tidal ( ) High ( ) Moderate (X) Low ( ) None ( )

ITEM 61 (Dive Report):  N  ITEM 61 (This Report):  6

93b-U/W INSP. DATE:

**ITEM 36 TRAFFIC SAFETY**

	36	COND	DEF
A. Bridge Railing	0	5	M-P
B. Transitions	0	7	-
C. Approach Guardrail	0	6	M-P
D. Approach Guardrail Ends	0	7	-

**WEIGHT POSTING** Not Applicable  X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date:  EJDMT Date:

At bridge		Other Advance	
N	S	N	S
/	/	/	/

Signs In Place (Y=Yes, N=No, NR=Not Required)  
Legibility/Visibility

**CLEARANCE POSTING** Not  X

	E		W		meter
	ft	in	ft	in	
Actual Field Measurement		0		0	
Posted Clearance		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	Y	Y
Boat	N	N
Waders	Y	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):**  Y

**(V.C.R.) (Y/N):**  N

**TAPE#:** \_\_\_\_\_

**List of field tests performed:**  
Visual, Hands on and D-Meter

**RATING**

Rating Report (Y/N):  Y

Date:

Inspection data at time of existing rating  
I 58: 5 I 59: 6 I 60: 7 Date :03/06/2017

**Recommend for Rating or Rerating (Y/N):**  Y If YES please give priority:  
HIGH ( ) MEDIUM ( ) LOW (X)

**REASON:** Section loss and added dead load since previous rating.

**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 OFL is oriented from south to north and elevations are west and east. The South River flows from west to east. The orientation is consistent with the plans, previous inspections reports and the 2018 Rating Report.

### GENERAL REMARKS

Structure A-13-023 (OFL) carries Bullitt Road over the South River in the town of Ashfield (**Sketch 1**). The bridge is a single-span structure comprised of six (6) rolled-shaped steel beams (30WF108 per plans) with a Cast-in-Place concrete deck overlaid with an asphaltic wearing surface. The beams are designated as Beams 1 through 6 and the bays are designated as Bays 1 through 5 from west to east, upstream to downstream. 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**).

### ITEM 58 - DECK

#### Item 58.1 - Wearing Surface

The wearing surface has an isolated 10" long x 1'-4" wide area of map cracks in the Northbound Lane near the North Deck End. There is moderate sand/debris accumulation along the west and east edges of the roadway.

#### Item 58.2 - Deck Condition

There is typically efflorescence along the beam top flanges and scattered hairline map, longitudinal, and transverse cracks, some with efflorescence. There are scattered spalls, some with exposed rebar with minor section loss, and scale in the bays and overhangs. The underside of the deck at the North Abutment is partially concealed from view by damp timber formwork left in place. See the following for specific locations and conditions.

- There are scattered areas of scale up to 1 square foot x 1/4" deep.
- West Deck Overhang, near South Abutment: 18'-0" long x full width x up to 2" deep spall with exposed rebar with laminated rust (**Photo 9**).
- West Deck Overhang, at mid-span (from south to north): 10" diameter x 1-1/2" deep spall with exposed rebar with laminated rust, 3'-0" long x full width x 2-1/2" deep spall with exposed rebar with laminated rust, and 1'-0" long x 8" wide x 2" deep with exposed rebar.
- Bay 2, between South Abutment and Diaphragm 2: 1'-0" long x 6" wide x 1" deep scale.
- Bay 2, between Diaphragm 2 and Diaphragm 3: 1'-4" diameter x up to 2" deep scale (**Photo 8**).
- Bay 2, just north of Diaphragm 3: 1'-6" long x 3'-0" wide x up to 1" deep scale.
- Bay 2, just south of Diaphragm 4: 8" diameter x 1/2" deep scale.
- Bay 4, above Diaphragm 3: 8" diameter x 1" deep spall.
- Bay 4, just north of Diaphragm 4: 1'-0" long x 6" wide x 1/2" deep scale.
- Bay 5, just south of Diaphragm 2: 8" diameter delamination.
- Bay 5, between Diaphragm 2 and Diaphragm 3: 8" diameter x 1" deep spall with exposed rebar and active leakage.
- East Deck Overhang, just south of Diaphragm 2: 2'-6" long x full width x up to 2" deep spall with exposed rebar (one longitudinal and five transverse).

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- East Deck Overhang, at mid-span: 1'-8" long x 8" wide x 1-1/2" deep spall with exposed rebar (one longitudinal and two transverse).

### **Item 58.4 - Curbs**

The curbs have spalls and scale, some with exposed rebar. See the following for specific locations and conditions.

#### West Curb:

- At mid-span: 4'-4" long x 7" high x up to 1-1/2" deep spall (**Photo 10**).
- Near mid-span: 14'-0" long x 7" high up to 6" deep spall with exposed rebar (**Photo 10**).
- At the north end: 2'-0" long x 5" high x 6" deep corner spall (**Photo 10**).

#### East Curb:

- There is 49'-0" long x 8" high x 6" deep scale with exposed rebar (**Photo 11**).

### **Item 58.8 - Railing**

The rails and posts have chipped and flaking paint with light to moderate rust throughout, and isolated posts base plate anchor bolt nuts have severe section loss. Select locations of broken base plate welds have been repaired since the previous Routine Inspection Report (3/1/23). The rail bases have hairline map and horizontal cracks throughout, some with efflorescence (**Photos 10 & 11**). The rail bases have isolated spalls and scale, some with exposed rebar. See the following for specific locations and conditions.

#### West Railing:

- The previously noted broken base plate weld at the third post from the south has been repaired.
- Rail base, top face, near mid-span: Up to 13'-0" long x up to 1'-6" wide x up to 1-1/2" deep scale (**Photo 10**).
- Rail base, top face, at the north end: 3'-0" long x 11-1/2" high (east face) x full width (top face) edge spall with exposed rebar (**Photo 10**).

#### East Railing:

- Rail base, west face, near the south end: 12'-0" long x up to 7" high x up to 5" deep edge spall.
- The previously noted broken base plate welds at the third, fourth and fifth posts from the south have been repaired.
- Rail base, top face, at the north end: 19'-0" long x 1'-0" high (west face) x full width (top face) edge spall with exposed rebar (**Photo 11**).

## **APPROACHES**

### **Approaches a - Appr. Pavement Condition**

The South Approach Pavement has isolated transverse cracks up 11'-0" long x up to 1/4" wide adjacent to the deck end and an isolated full roadway width x 1" wide transverse crack approximately 20'-0" from the deck end (**Photo 4**).

The North Approach Pavement has a 19'-7" long x up to 3/4" wide transverse crack near the deck end and an adjacent 19'-0" long x up to 1/2" wide x up to 1" deep transverse crack (**Photo 6**).

### **Approaches b - Appr. Roadway Settlement**

The North Approach Pavement has settled 4'-0" long x full roadway width x up to 1" near the deck end (**Photo 6**).

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## REMARKS

### ITEM 59 - SUPERSTRUCTURE

#### Item 59.4 - Girders or Beams

The beams have scattered light to moderate rust throughout.

Beam 1, Beam 2, Beam 5 and Beam 6 have section loss down to 0.22" remaining to the webs at the abutments and down to 0.38" remaining to the bottom flanges at mid-span (**Sketches 4 – 7 and Photos 12 – 15**).

The north ends of Beam 3 and Beam 4 have moderate to heavy rust up to 3'-0" long.

#### Item 59.7 - Conn Plt's, Gussets & Angles

The connection plates have light rust.

#### Item 59.9 - Bearing Devices

**DEF=S/A:**

The bearing anchor bolt nuts typically have rose budding with up to 100% section loss. The anchor bolts typically have heavy rust with scattered locations of up to 100% section loss. There are isolated missing anchor bolts and nuts. The bearing masonry plates and sole plates typically have heavy rust. There are several locations of pack rust up to 1/2" thick. The South Abutment pedestals typically have spalls up to full width x full height x 2" deep that are undermining the edges of the bearing masonry plates. The North Abutment pedestals typically have spalls up to 1'-2" wide x full height x 2" deep that are undermining the edges of the bearing masonry plates.

#### South Abutment:

- Beam 1 Bearing: Up to 1/4" thick pack rust between masonry plate and sole plate.
- Beam 2 Bearing: 3/8" pack rust between masonry plate and sole plate, and the masonry plate is undermined full length x 1" deep at the west face, full width x 1" deep at the north face, and full width x 1" deep at the east face.
- Beam 3 Bearing: 1/4" thick pack rust between masonry plate and sole plate, and the masonry plate is undermined 1'-1 1/2" wide x 1" deep at the north face, 1-1/2" long x 1" deep at the east face, and 1/2" long x 2" deep at the southeast corner.
- Beam 4 Bearing: 1/2" pack rust between masonry plate and sole plate, and the masonry plate is undermined 7-1/4" long x 1" deep at the northwest corner, full width x 2" deep average at the north face, and 5" long x 1-1/2" deep at the east face.
- Beam 5 Bearing: 1/8" thick pack rust between masonry plate and sole plate, and the masonry plate is undermined 11" long x 1/2" deep at the west face, 1'-1" wide x 2" deep at the north face, and full length x 2-1/2" deep at the east face (**Photo 16**).
- Beam 6 Bearing: 1/4" pack rust between masonry plate and sole plate.

#### North Abutment:

- Beam 1 Bearing: Up to 1/4" thick pack rust between masonry plate and sole plate.
- Beam 2 Bearing: The masonry plate is undermined up to 2" long x 4" deep at the southwest corner.
- Beam 3 Bearing: Missing anchor bolt and nut at the east face and the masonry plate is undermined up to 5" long x 1" deep at the west face.
- Beam 4 Bearing: Missing anchor bolt and nut at the west face and the masonry plate is undermined 5-1/4" long x 1-1/2" deep at the west face, 5-3/4" wide x up to 1" deep at the south face, 6" wide x up to 2" deep at the southeast corner, 4-1/2" long x 1-1/2" deep at the east face, and 3" long x 3/4" deep at the northeast corner (**Photo 17**).

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- Beam 5 Bearing: The masonry plate is undermined up to 1-1/2" long x 1-1/2" deep at the northwest corner.
- Beam 6 Bearing: Up to 1/4" thick pack rust between masonry plate and sole plate.

### **Item 59.10 - Diaphragms/Cross Frames**

The diaphragms have light rust.

### **Item 59.11 - Rivets & Bolts**

The rivets have light rust.

### **Item 59.14 - Paint/Coating**

The paint system has failed throughout the entire superstructure (**Photos 8, 9, & 12-17**).

## **ITEM 60 - SUBSTRUCTURE**

### **Item 60.1 - Abutments**

#### **Item 60.1.a - Pedestals**

DEF=S/A:

The South Abutment pedestals typically have spalls up to full width x full height x 2" deep that are undermining the edges of the bearing masonry plates (Photo 16).

The North Abutment pedestals typically have spalls up to 1'-2" wide x full height x 2" deep that are undermining the edges of the bearing masonry plates (Photo 17).

See Item **59.9 - Bearing Devices** for additional comments.

#### **Item 60.1.b - Bridge Seats**

The North Abutment Bridge Seat has minor scale throughout.

#### **Item 60.1.c - Backwalls**

The South Abutment Backwall has isolated vertical hairline cracks. The North Abutment Backwall has isolated spalls, vertical hairline cracks with efflorescence, efflorescence stains, and the top approximately 1' is concealed from view by timber formwork in place in all bays. See the following for specific locations and conditions.

##### South Backwall:

- Below Bay 3 & Bay 5: One (1) full height vertical hairline crack in each bay.

##### North Backwall:

- Below Bay 1 & East Deck Overhang: 6" wide x full height area of efflorescence stains.
- Below Bay 1 through Bay 3: Scattered spalls up to 1'-2" wide x 6" high x 1/2" deep.
- Below Bay 4: One (1) full height vertical hairline crack with efflorescence.
- Below Bay 4 & Bay 5: Isolated spalls up to 1'-6" wide x 9" high x 1/2" deep.

#### **Item 60.1.d - Breastwalls**

The South Abutment Breastwall has isolated vertical hairline cracks and scale. The North Abutment Breastwall has isolated spalls and cracks, some with efflorescence. See the following for specific locations and conditions.

##### South Breastwall:

- Below Beam 2: Full height vertical hairline crack.

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- Below Bay 4, near bottom: 4'-0" long vertical hairline crack.
- Below Bay 5, at top: 3'-4" long vertical hairline crack with efflorescence.
- Below Bay 5, at bottom: 5'-0" long vertical hairline crack.
- Below East Deck Overhang, at bottom: 6'-0" wide x 6" high x up to 1-1/2" deep scale mostly hidden by rocks.

#### North Breastwall:

- Below West Deck Overhang, at top: 10" wide x 1" high x 3-1/2" long (top face) edge spall and an adjacent 10" long diagonal hairline crack with efflorescence.
- Below Bay 2, at top: 2'-2" wide x 3" high x 2" long (top face) edge spall.
- Below Beam 4: Full height x 1/16" wide vertical crack with an up to 2" wide x 3" high x 1" deep spall; note, there is lateral misalignment up to 1/8" x 9" high of the breastwall at the top of the crack (**Photo 18**).
- Below Beam 5: Up to 1'-0" long horizontal hairline cracks with isolated efflorescence.
- Below East Deck Overhang: 1'-0" long diagonal hairline crack.

#### Item 60.1.e - Wingwalls

The wingwalls have isolated spalls and isolated hairline cracks with efflorescence. See the following for specific locations and conditions.

#### Southeast Wingwall:

- At top, near the abutment: Minor edge spall.

#### Northwest Wingwall:

- There are scattered vertical and diagonal hairline cracks with efflorescence up to 2'-6" long.
- At the west end: 3'-0" long x 9" high x 6" wide (top face) x 1-1/2" deep spall.
- At the center of the wall, at top: 2'-0" long x 3" high x 5" wide (top face) x 1/2" deep spall.

#### Northeast Wingwall:

- There is an isolated 5'-0" long vertical hairline crack with efflorescence.

#### Item 60.1.h - Footings

The footings are hidden by design.

### ITEM 61 - CHANNEL AND CHANNEL PROTECTION

#### Item 61.2 - Embankment Erosion

The Left Bank has 50'-0" long x 10'-0" wide x 1'-0" deep erosion in front of the Northwest Wingwall and 20'-0" long x 28'-0" wide x 10'-0" deep erosion at the east end of the Northeast Wingwall (**Photo 19**).

#### Item 61.4 - Vegetation

The channel embankments are well vegetated.

#### Item 61.6 - Rip-Rap/Slope Protection

There is Rip-Rap in place in front of the Southeast and Northeast Wingwalls with no deficiencies noted.

#### Item 61.7 - Aggradation

There is 8'-0" diameter x 1'-0" high aggradation in the channel along the Left Bank approximately 20'-0" downstream.

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## REMARKS

### TRAFFIC SAFETY

#### Item 36a - Bridge Railing

The bridge railings consist of two (2) steel pipe rails, mounted through steel I-posts bolted to the reinforced concrete rail base. See **Item 58.8 - Railing** for additional comments.

#### Item 36b - Transitions

The southwest corner of the bridge has no transition in place. The Southeast, Northwest, and Northeast Transitions consist of single steel W-beam rail panels, not connected into the bridge railings, mounted on steel posts with plastic blockouts, spaced at 6'. The Northwest Approach Guardrail Transition has one (1) loose connection bolt at the end treatment near the North Deck End.

#### Item 36c - Approach Guardrail

The southwest corner of the bridge has no approach guardrail in place. The Southeast, Northwest and Northeast Approach Guardrails consist of single steel W-beam rail panels, mounted on steel posts with plastic blockouts, spaced at 6'. The approach guardrails have areas of minor impact damage, light rust, an isolated loose post, and a broken blockout. See the following for specific locations and conditions.

##### Southeast Approach Guardrail:

- The railing has up to 21'-0" long minor impact damage with light rust between the 4<sup>th</sup> and 7<sup>th</sup> Posts from the South Abutment.

##### Northwest Approach Guardrail:

- There is a loose post at the 9<sup>th</sup> Post from the North Abutment.

##### Northeast Approach Guardrail:

- There is a broken blockout and bent flange at the 2<sup>nd</sup> Post from the North Abutment.
- The railing has a 1'-0" long x 6" high x 2" deep dent with light rust between the 2<sup>nd</sup> and 3<sup>rd</sup> Posts from the North Abutment.

#### Item 36d - Approach Guardrail Ends

The southwest corner has no approach guardrail end in place.

The Southeast Approach Guardrail has a steel terminal end not swept away from traffic.

Both north approach guardrails are continuous along Route 116.

#### Sketch / Photo Log

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

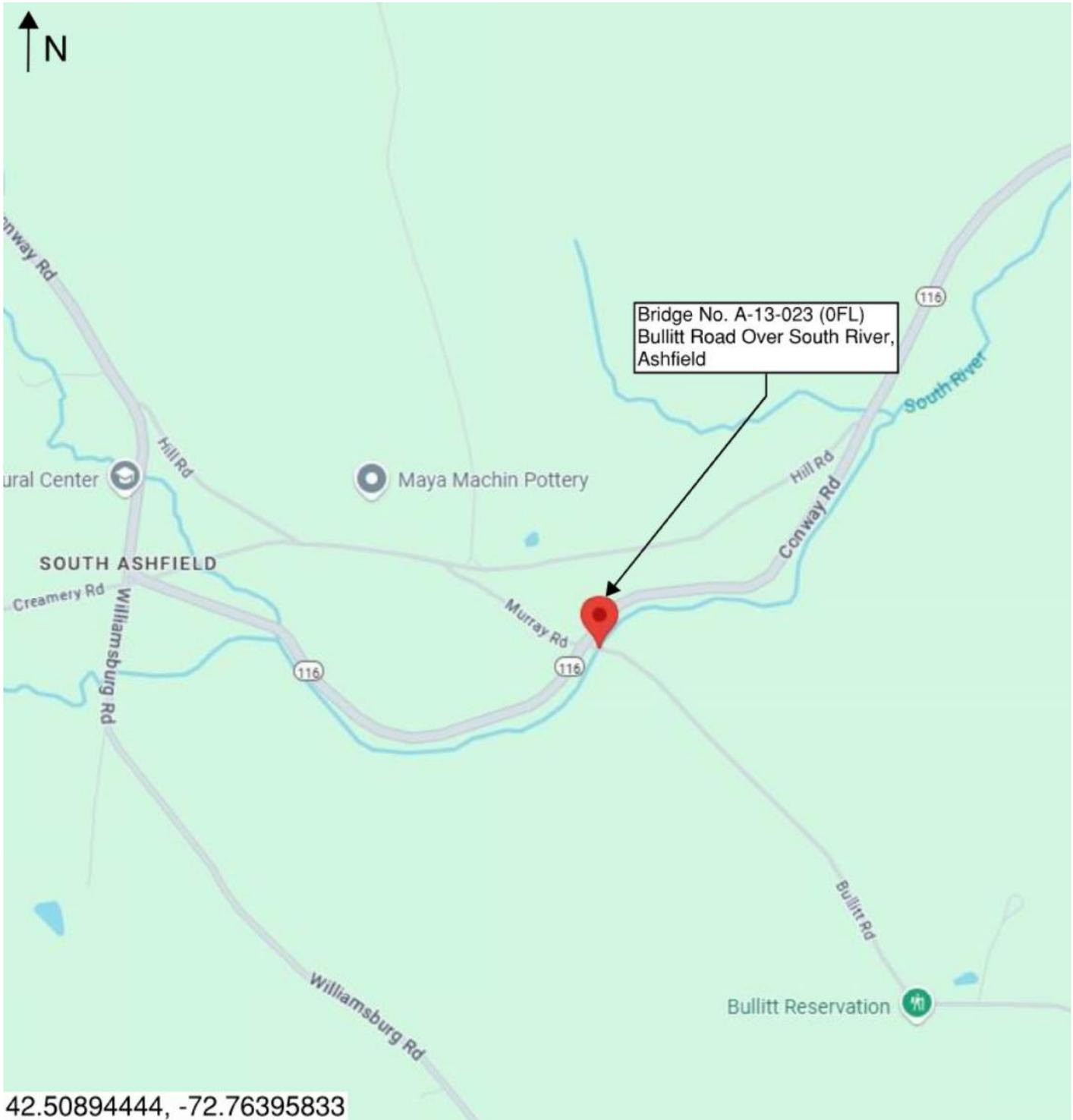
CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>OFL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-OFL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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### REMARKS

- Photo 6 : North Approach from bridge, looking north. Note: settlement and transverse cracks just north of the deck end.
- Photo 7 : Typical Topside, looking northeast.
- Photo 8 : Typical Underside, looking north.
- Photo 9 : West Deck Overhang at Diaphragm 2 with spalls and exposed rebar.
- Photo 10 : West Curb and Railing. Note: cracks with efflorescence, scale, and spalls with exposed rebar.
- Photo 11 : East Curb and Railing. Note: cracks with efflorescence and scale / spalls with exposed rebar.
- Photo 12 : Beam 1 east bottom flange at mid-span with section loss.
- Photo 13 : Beam 2 west face at north end with section loss.
- Photo 14 : Beam 5 west face at north end with section loss. Note: partially hidden by timber formwork.
- Photo 15 : Beam 6 west face at mid-span with section loss.
- Photo 16 : Beam 5 bearing at South Abutment with undermining of masonry plate due to spalled pedestal.
- Photo 17 : Beam 4 bearing at North Abutment with sheared anchor bolt and spalled pedestal.
- Photo 18 : North Abutment Breastwall below Beam 4 with a full height vertical crack and lateral misalignment.
- Photo 19 : Left Bank at the east end of the Northeast Wingwall with erosion.

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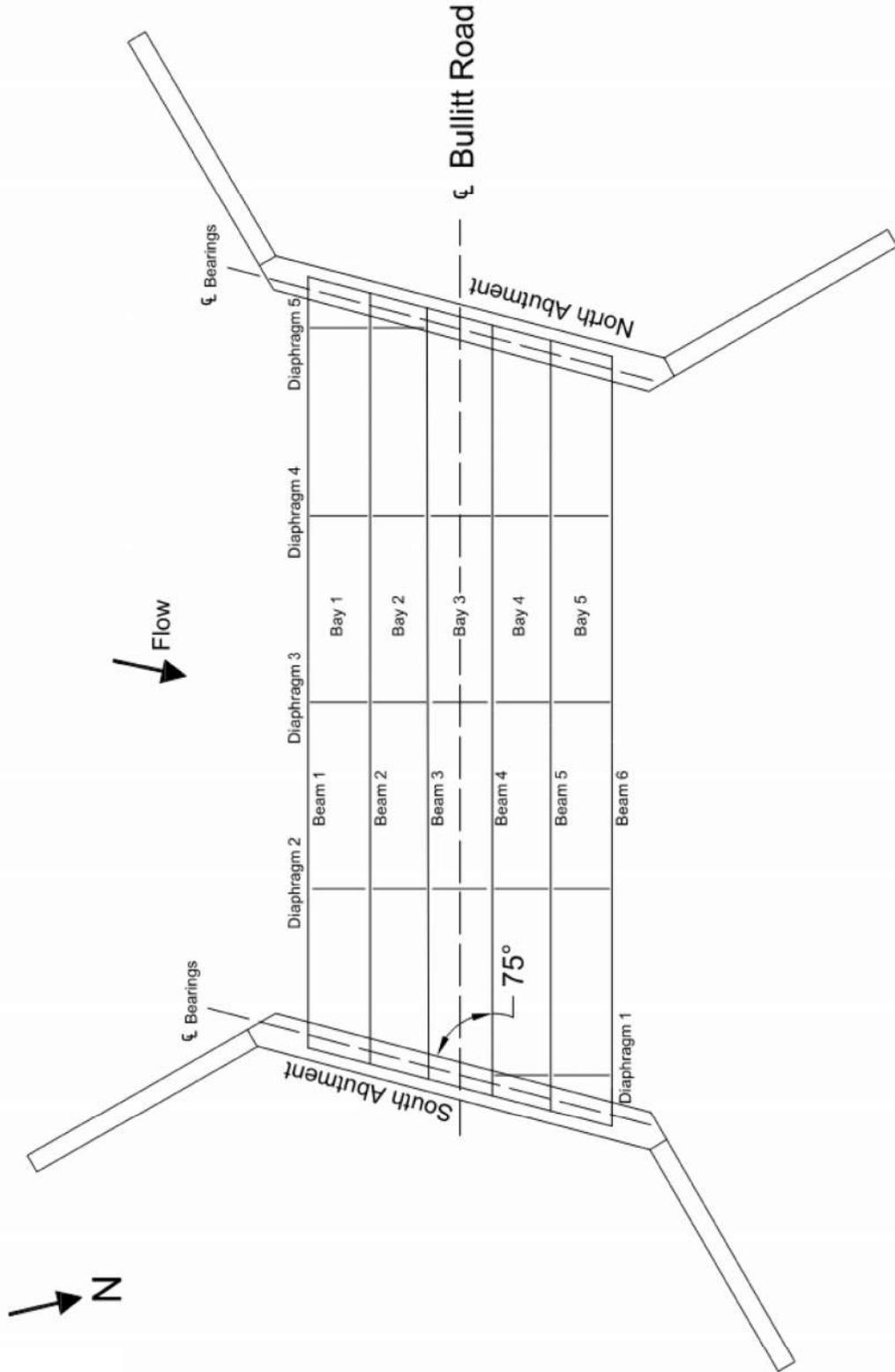
**SKETCHES**



**Sketch 1: Location Map.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>OFL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-OFL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**SKETCHES**



**Sketch 2: Framing Plan.**

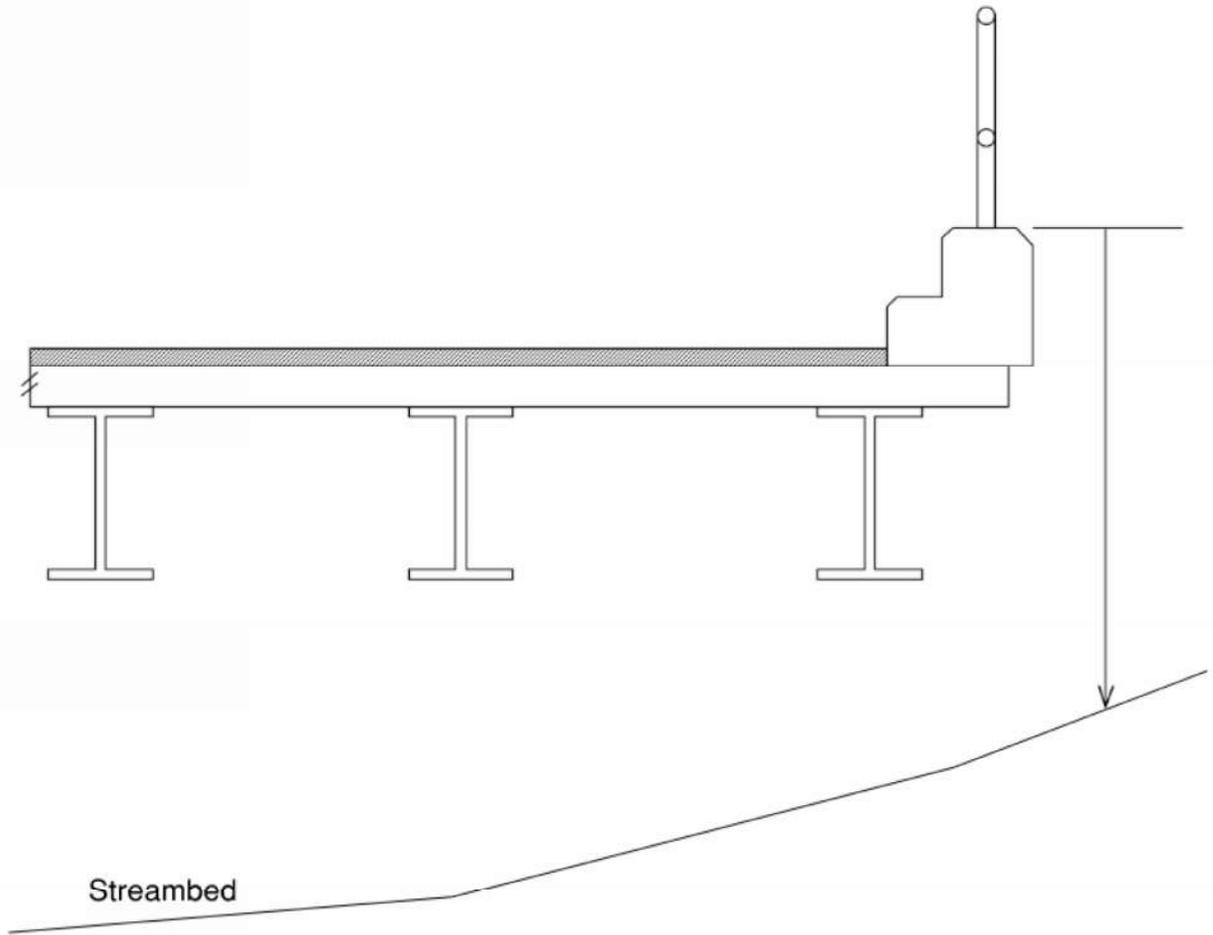
CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>OFL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-OFL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**SKETCHES**

BIN OFL - Channel Profile Readings								
West Fascia								
DATE	Post 1	Post 2	Post 3	Post 4	Post 5	Post 6	Post 7	Post 8
3/31/2025	7.7'	11.2'	13.6'	13.8'	13.3'	13.2'	10.2'	8.0'

BIN OFL - Channel Profile Readings								
East Fascia								
DATE	Post 1	Post 2	Post 3	Post 4	Post 5	Post 6	Post 7	Post 8
3/31/2025	11.8'	13.3'	13.8'	14.7'	13.8'	13.0'	11.2'	10.3'

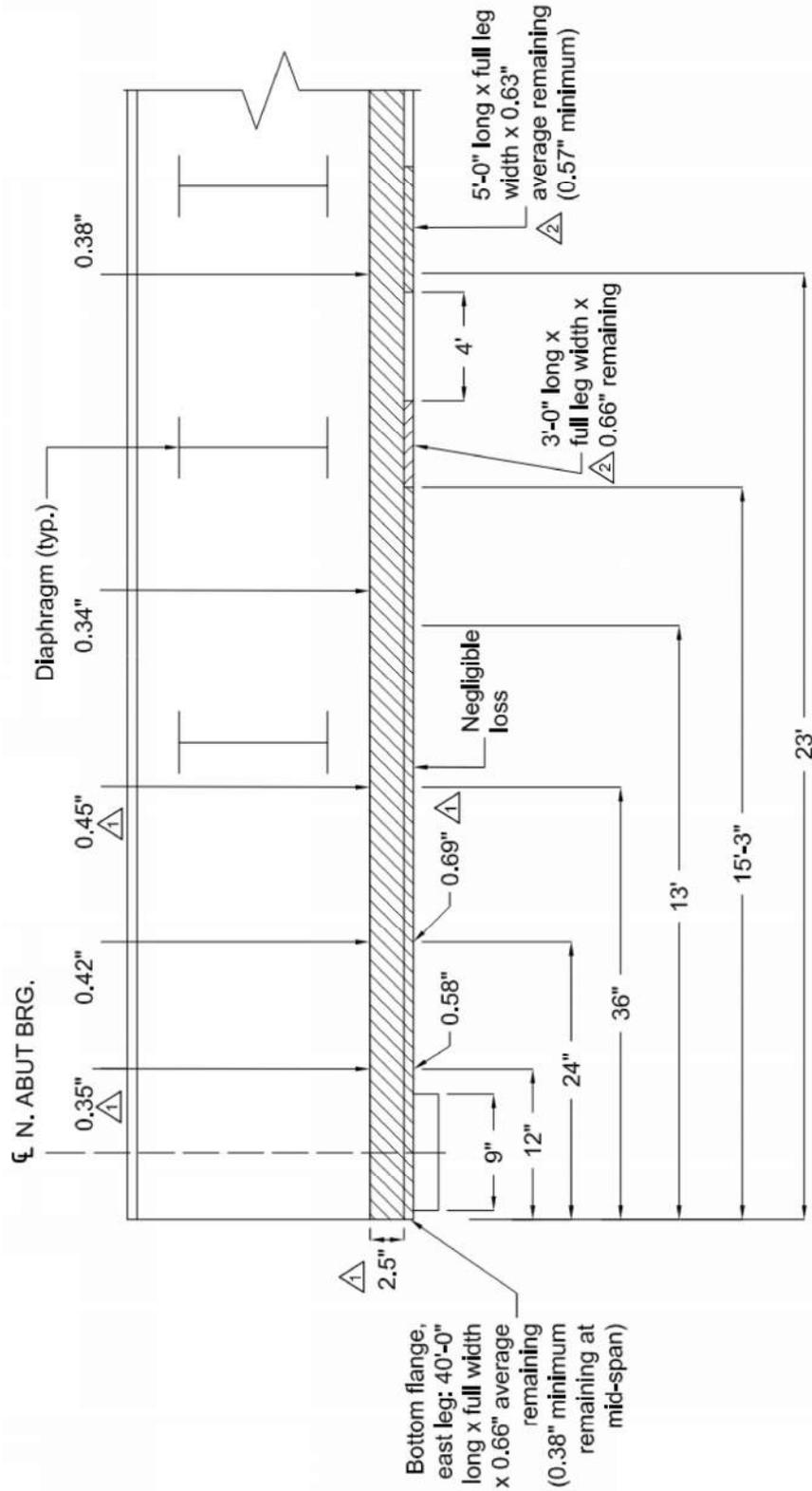
- NOTES:
- \* All readings taken from streambed to top of rail base in decimal feet.
  - \* All posts are numbered from South to North.



**Sketch 3: Channel Profile Measurements.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>0FL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-0FL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**SKETCHES**



**BEAM 1 AT NORTH ABUTMENT  
WEST ELEVATION  
(N.T.S.)**

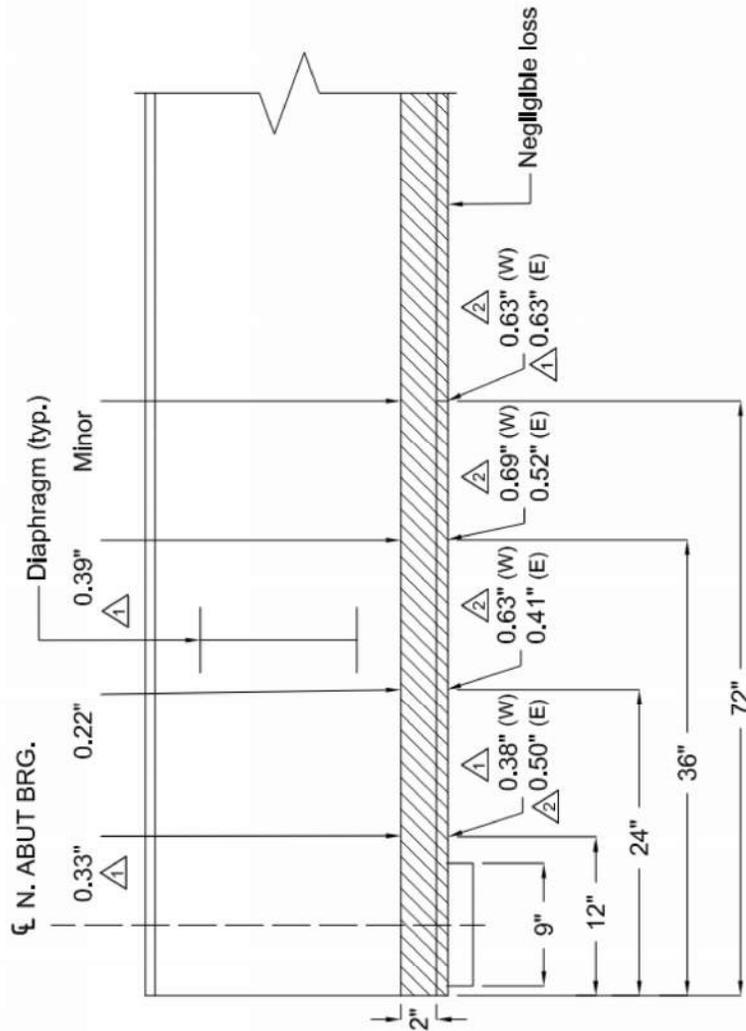
**SECTION PROPERTIES (PLANS):**  
 ORIGINAL SECTION = 30WF108  
 ORIGINAL WEB = 0.548"  
 ORIGINAL FLANGE = 0.76"

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

**Sketch 4: Beam 1 Section Loss.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>0FL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-0FL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**SKETCHES**



BEAM 2 AT NORTH ABUTMENT  
WEST ELEVATION  
(N.T.S.)

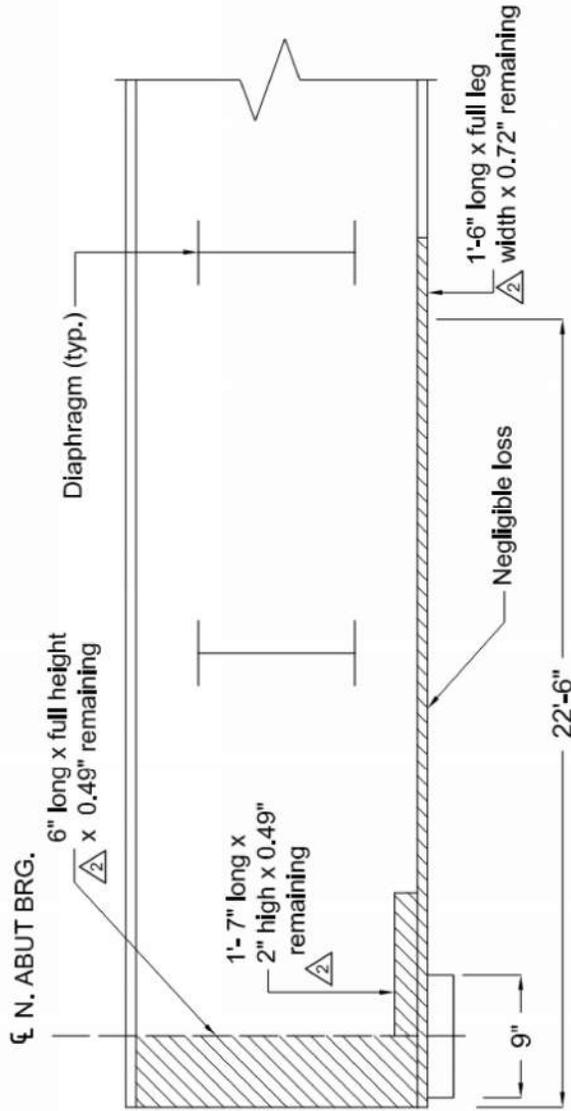
SECTION PROPERTIES (PLANS):  
 ORIGINAL SECTION = 30WF108  
 ORIGINAL WEB = 0.548"  
 ORIGINAL FLANGE = 0.76"

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

**Sketch 5: Beam 2 Section Loss.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>0FL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-0FL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**SKETCHES**



**BEAM 5 AT NORTH ABUTMENT**  
**WEST ELEVATION**  
**(N.T.S.)**

**SECTION PROPERTIES (PLANS):**  
 ORIGINAL SECTION = 30WF108  
 ORIGINAL WEB = 0.548"  
 ORIGINAL FLANGE = 0.76"

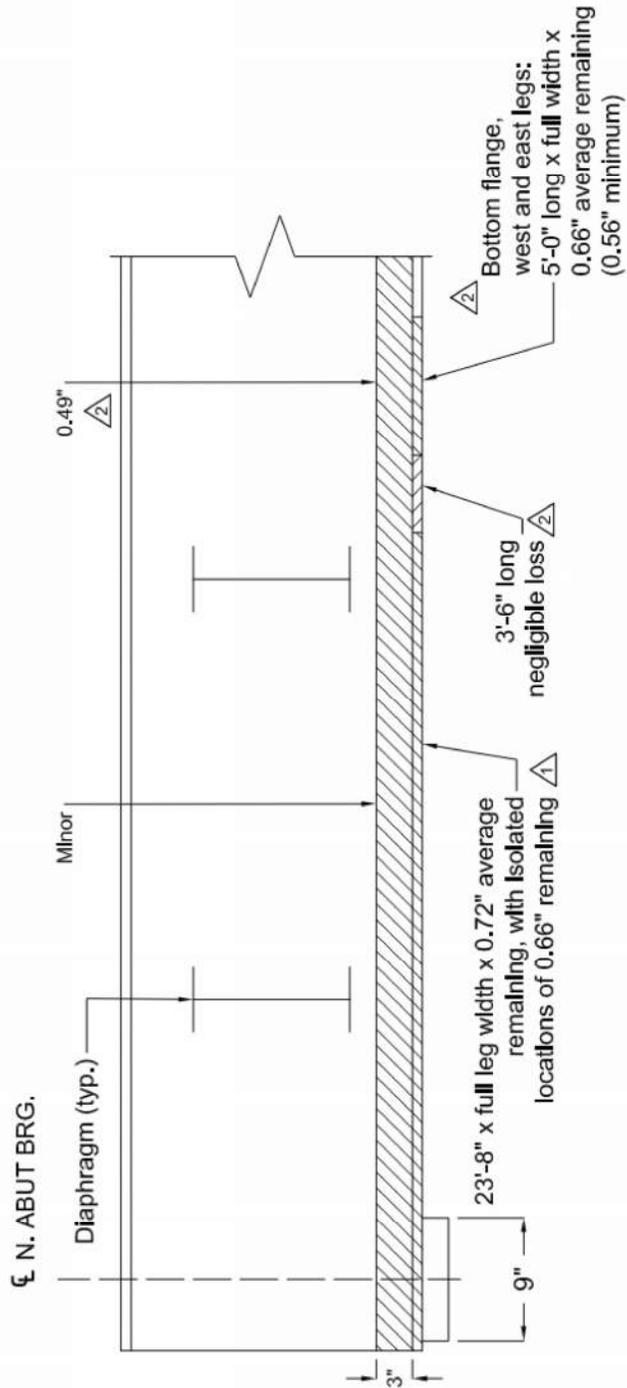
**LEGEND:**

-  = SECTION LOSS
-  = CHANGE FROM PREVIOUS REPORT (3/23)
-  = NOT PREVIOUSLY REPORTED (3/25)

**Sketch 6: Beam 5 Section Loss.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>OFL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-OFL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**SKETCHES**



**BEAM 6 AT NORTH ABUTMENT  
WEST ELEVATION  
(N.T.S.)**

**SECTION PROPERTIES (PLANS):**  
 ORIGINAL SECTION = 30WF108  
 ORIGINAL WEB = 0.548"  
 ORIGINAL FLANGE = 0.76"

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

**Sketch 7: Beam 6 Section Loss.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>0FL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-0FL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**PHOTOS**

**Photo 1: West Elevation of bridge, looking east.**



**Photo 2: East Elevation of bridge, looking west.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>0FL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-0FL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**PHOTOS**

**Photo 3: Bridge from South Approach, looking north.**



**Photo 4: South Approach from bridge, looking south. Note: transverse cracks south of the deck end.**

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**PHOTOS**

**Photo 5:** Bridge from North Approach, looking south.



**Photo 6:** North Approach from bridge, looking north. Note: settlement and transverse cracks just north of the deck end.

CITY/TOWN ASHFIELD	B.I.N. 0FL	BR. DEPT. NO. A-13-023	8.-STRUCTURE NO. A13023-0FL-MUN-NBI	INSPECTION DATE MAR 31, 2025
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**PHOTOS**

Photo 7: Typical Topside, looking northeast.



Photo 8: Typical Underside, looking north.

CITY/TOWN ASHFIELD	B.I.N. OFL	BR. DEPT. NO. A-13-023	8.-STRUCTURE NO. A13023-OFL-MUN-NBI	INSPECTION DATE MAR 31, 2025
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**PHOTOS**

**Photo 9: West Deck Overhang at Diaphragm 2 with spalls and exposed rebar.**



**Photo 10: West Curb and Railing. Note: cracks with efflorescence, scale, and spalls with exposed rebar.**

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**PHOTOS**

**Photo 11: East Curb and Railing. Note: cracks with efflorescence and scale / spalls with exposed rebar.**



**Photo 12: Beam 1 east bottom flange at mid-span with section loss.**

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**PHOTOS**

**Photo 13:** Beam 2 west face at north end with section loss.



**Photo 14:** Beam 5 west face at north end with section loss. Note: partially hidden by timber formwork.

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**PHOTOS**

**Photo 15:** Beam 6 west face at mid-span with section loss.



**Photo 16:** Beam 5 bearing at South Abutment with undermining of masonry plate due to spalled pedestal.

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**PHOTOS**

**Photo 17: Beam 4 bearing at North Abutment with sheared anchor bolt and spalled pedestal.**



**Photo 18: North Abutment Breastwall below Beam 4 with a full height vertical crack and lateral misalignment.**

CITY/TOWN <b>ASHFIELD</b>	B.I.N. <b>0FL</b>	BR. DEPT. NO. <b>A-13-023</b>	8.-STRUCTURE NO. <b>A13023-0FL-MUN-NBI</b>	INSPECTION DATE <b>MAR 31, 2025</b>
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**PHOTOS**

**Photo 19: Left Bank at the east end of the Northeast Wingwall with erosion.**