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**September 16, 2021**

**Engineering Design Services for Bridge Replacement/Rehabilitation of  
Bridge No.023001 Washburn Road over Jim Brook and  
Bridge No. 023006 Old Canton Road over Rattlesnake Brook**

**TOWN OF CANTON  
ADDENDUM NO. 5**

**The following documents are hereby added to the RFP for informational purposes:**

- 1. Old Canton Road Bridge #023006 Local Bridges Application**
- 2. Washburn Road Bridge #023001 Local Bridge Application**
- 3. Old Canton Road Bridge #023006 Inspection Report**
- 4. Washburn Road Bridge #023001 Inspection Report**



# TOWN OF CANTON<sub>CT</sub>

INSPECTION TYPE: ROUTINE AND IN-DEPTH

## **BRIDGE NO. 023001**

Town of Canton

Washburn Road

Over

Jim Brook

Full Inspection

January 15, 2019

Inspected by: WSP



### **EXECUTIVE SUMMARY**

Bridge No. 023001 carries Washburn Road over Jim Brook in the town of Canton. The bridge is a reinforced concrete rigid frame with a span length of 16.0 feet, curb to curb roadway width of 25.0 feet and out to out width of 28.0 feet. The structure was built in 1973 and carries two lanes of traffic. The most recent ADT data was performed in 2013 and it indicated that approximately 5,000 vehicles per day travel over the bridge. The bridge has no skew angle or flare.

#### **Overlay**

The overlay is in overall good condition. The bituminous concrete overlay in the eastbound lane over the bridge has an area of pavement bleeding. The remainder of the overlay has no significant defects.

#### **Frame Slab**

The reinforced concrete rigid frame slab is in overall serious condition. The rigid frame slab has scattered longitudinal cracks, a few rust stains, hollow areas and spalls with exposed rebar. The exposed longitudinal rebar has section losses up to 50% of the original diameter.

#### **Frame Legs**

The reinforced concrete rigid frame legs are in overall fair condition. The frame legs have small scattered spalls with exposed rebar, are laterally misaligned and both footings for each leg is exposed for the full length.

#### **Channel and Channel Protection**

The channel is in overall fair condition. The channel banks have moderate to heavy erosion and undercutting. The upstream side of the bridge has a fallen tree that is leaning on the north fascia.

#### **Recommendations**

Based on the in-depth inspection performed, immediate repairs are not required if future replacement or major rehabilitation of the structure is planned for the coming years.

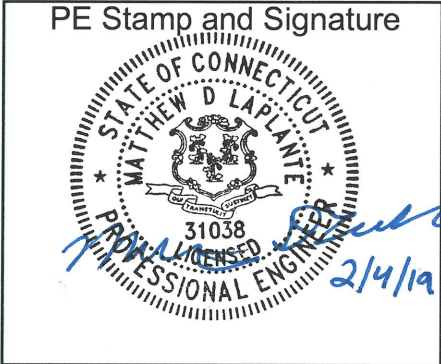
Bridge No. 023001 has been investigated for rehabilitation versus replacement considering required repairs, future life span, structure age, and cost. Approximately 20% of the slab underside will require patching of spalls, with numerous locations requiring new reinforcement to be installed. Considering this reinforcement is the tension reinforcement of the slab, more invasive repairs may be required to ensure proper splicing of new reinforcement and adequate strength is achieved. Furthermore,

considering the locations of the spalls, it is likely that rebar rust will continue resulting in reduced lifespan of the repair. Galvanic anodes could be utilized to reduce this concern.

Additionally, there is exposed reinforcement on the culvert stems which will require variable depth patching. Each corner of the existing culvert exhibits erosion and roadway settlement. It is suggested that these locations be filled and the roadway regraded as part of the structure rehabilitation. It is suggested that the metal beam rails also be replaced. The roadway should be milled and pavement over the structure and within the approaches.

The anticipated construction costs for rehabilitation and replacement are as follows;

- Structure Rehabilitation: \$240,000.00
- Structure Replacement: \$655,000.00



**INSPECTION REPORT**

Bridge No. 023001  
Town: Canton  
Feature Carried: Washburn Road  
Feature Intersected: Jim Brook  
Type: In-Depth Inspection  
Date: January 15, 2019  
Weather: 30°F, Fair  
Start: 8:30 AM  
End: 12:00 PM  
Team Leader: Matthew LaPlante, PE  
Assistant Team Leader: George Gerard, PE

**Overlay (Rating 7-Good):**

The bituminous concrete overlay in the eastbound lane over the bridge has an area of pavement bleeding (Photo 7).

The remainder of the overlay has no significant defects.

Refer to Sketch 1 for details.

**Approach Pavement (Rating 6-Satisfactory):**

The bituminous concrete approach roadways have minor settlement at the edges of the frame slab (Photos 3 to 6).

The east approach roadway in the eastbound lane has an area of minor settlement measuring 2.0' long x 3.0' wide with an adjacent 2.0' in diameter bituminous concrete patch (Photo 8).

Refer to Sketch 1 for details.

**Railing & Approach Guide Rail (Rating 6-Satisfactory):**

The approach guide rail system consists of metal w-beams that are doubled over the bridge. The system has minor scrapes, dents and light rust throughout (Photos 9 & 10).

### **Approach Embankment (Rating 4-Poor):**

The approach roadway embankments are settled at all four (4) corners of the bridge, which has exposed the backside of the rigid frame slab and legs. The settled areas have bituminous concrete to prevent further erosion (Photos 11, 13 to 15).

Refer to Sketch 4 for details.

### **Frame Slab (Rating 3-Serious):**

The rigid frame slab has scattered longitudinal cracks, a few rust stains, hollow areas and spalls with exposed rebar (Photos 16 to 31). The most significant spalls with exposed rebar are in Segments 2, 4 and 5 (Photos 18, 19, 22 to 25). The exposed longitudinal rebar has section losses up to 50% of the original diameter (Photos 18 & 22 to 25).

The segments along the joints have a few minor edge spalls throughout, most likely from original construction. The joint between Segments 1 and 2 has leakage and efflorescence stains (Photos 16 & 17).

Refer to Sketches 2 and 4.

### **Frame Legs (Rating 5-Fair):**

The reinforced concrete rigid frame legs have small scattered spalls with exposed rebar. The segments are laterally misaligned up to 1-1/8". Both footings for each frame leg are exposed for the full length with no undermining or notable scour issues (Photos 32 to 35).

Refer to Sketch 3.

### **Stone Retaining Walls (Rating 4-Poor):**

The stone retaining walls at the four corners of the bridge have shifted stones, missing stones and voids throughout. The northwest corner has a large void up to 3.5' deep that exposes that backside of the rigid frame leg (Photos 11 & 12).

Refer to Sketch 4.

## **CHANNEL NOTES:**

The upstream channel has an island that splits the channel into two (2) branches (Photo 36). The west branch carries most the flow. The branches converge just before the bridge with satisfactory alignment. The downstream channel has a straight alignment with a bend to the west away from the bridge (Photo 37).

Refer to Sketch 5.

### **Channel Scour (Rating 7-Good):**

The channel has no significant signs of scour.

### **Bank Erosion (Rating 5-Fair):**

The channel banks have moderate to heavy erosion and undercutting up to 2.0' high that has exposed tree roots (Photos 36 & 37).

Refer to Sketch 5.

### **Debris (Rating 5-Fair):**

The channel has scattered tree debris throughout the channel. The upstream side of the bridge has a fallen tree that is leaning on the north fascia (Photos 1, 34 & 36).

Refer to Sketch 5.

### **Vegetation (Rating 6-Satisfactory):**

The channel banks have moderate to heavy vegetation that assists with protecting the banks (Photos 36 & 37).

Refer to Sketch 5.

**Speed Limit:** 30 MPH

**Character of Traffic:** Moderate volume, residential.

**Additional Notes/Comments:** Inspection was performed with waders.



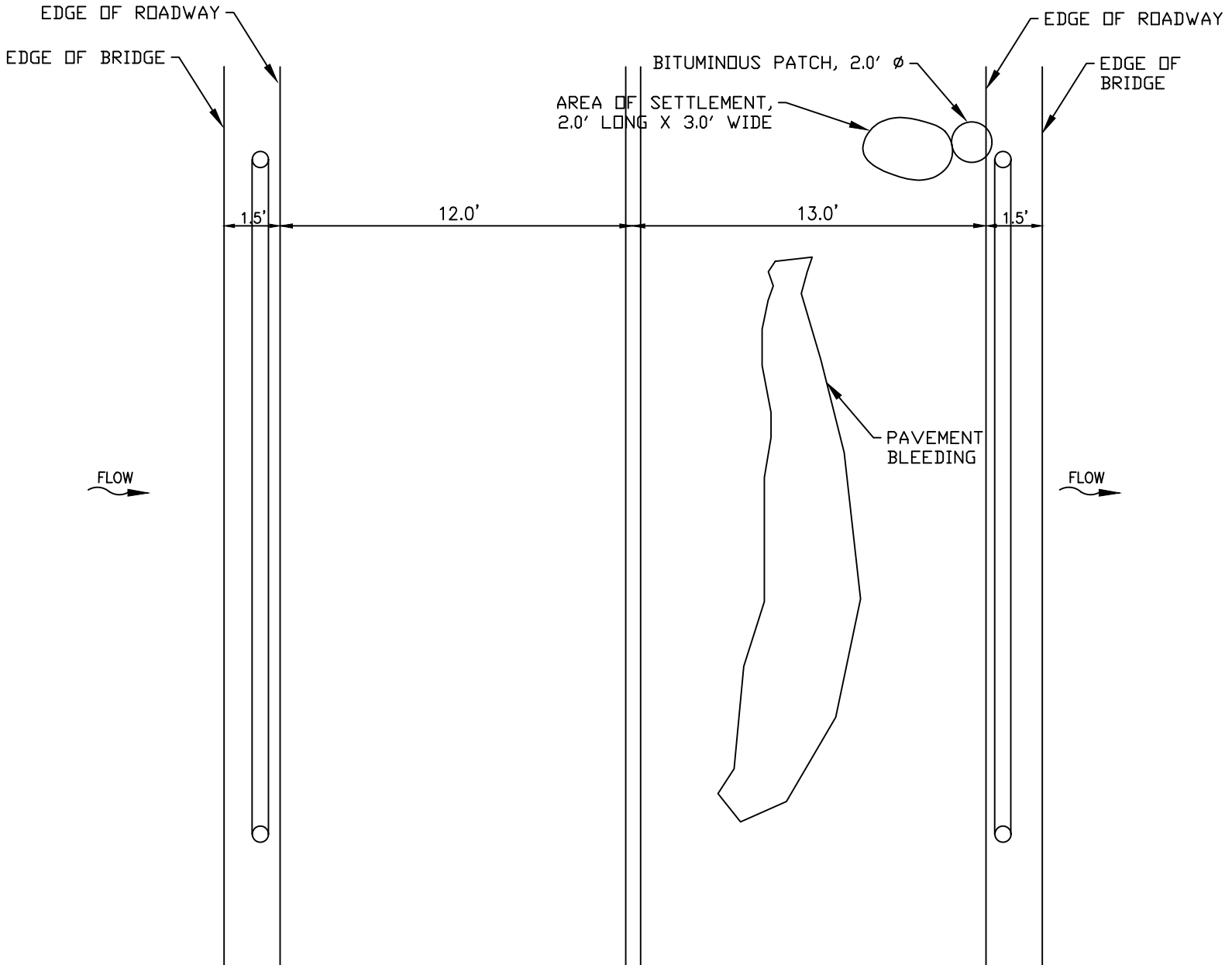


WSP USA Inc.  
 500 WINDING BROOK DR.  
 GLASTONBURY, CT 06033  
 TEL: +1 860-659-0444

TOWN OF CANTON BRIDGE NO. 023001

DATE: 01/15/2019 SKETCH: 1 OF 5

CREW: MATTHEW LAPLANTE AND GEORGE GERARD



TOPSIDE

GENERAL NOTES:

- 1.) RAILS HAVE MINOR DENTS AND SCRAPES WITH LIGHT RUST
- 2.) APPROACH ROADWAYS HAVE MINOR SETTLEMENT AT THE ENDS OF THE BRIDGE

NOT TO SCALE

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



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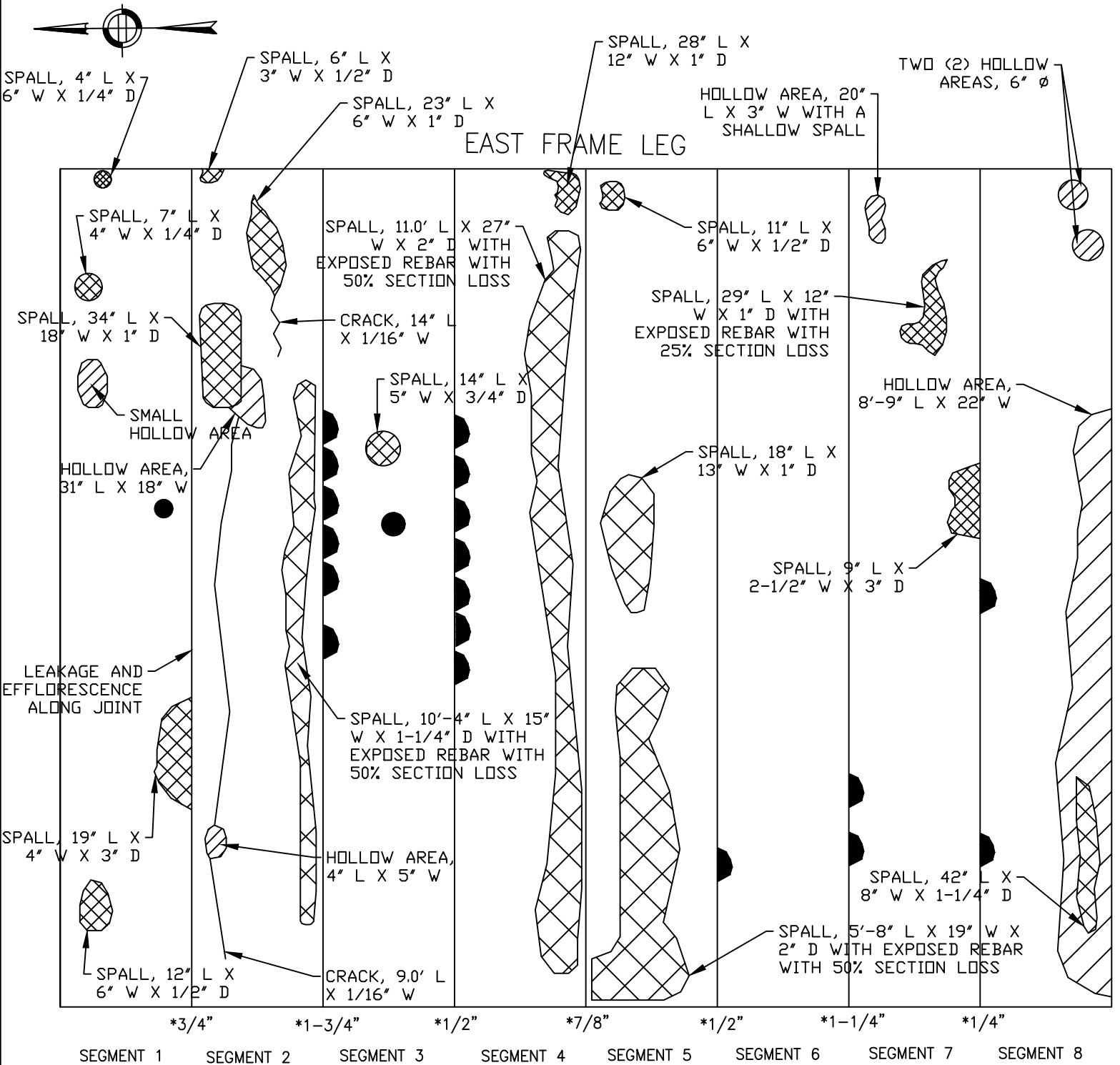
TOWN OF CANTON

BRIDGE NO. 023001

DATE: 01/15/2019

SKETCH: 2 OF 5

CREW: MATTHEW LAPLANTE AND GEORGE GERARD



- MINOR SPALL
- ▨ HOLLOW AREA
- ⊗ SPALL
- \* JOINT DIFFERENTIAL

## UNDERSIDE OF RIGID FRAME SLAB

**GENERAL NOTES:**

1.) THE UNDERSIDE OF THE SLAB HAS SCATTERED MINOR POPOUTS WITH EXPOSED REBAR

NOT TO SCALE

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



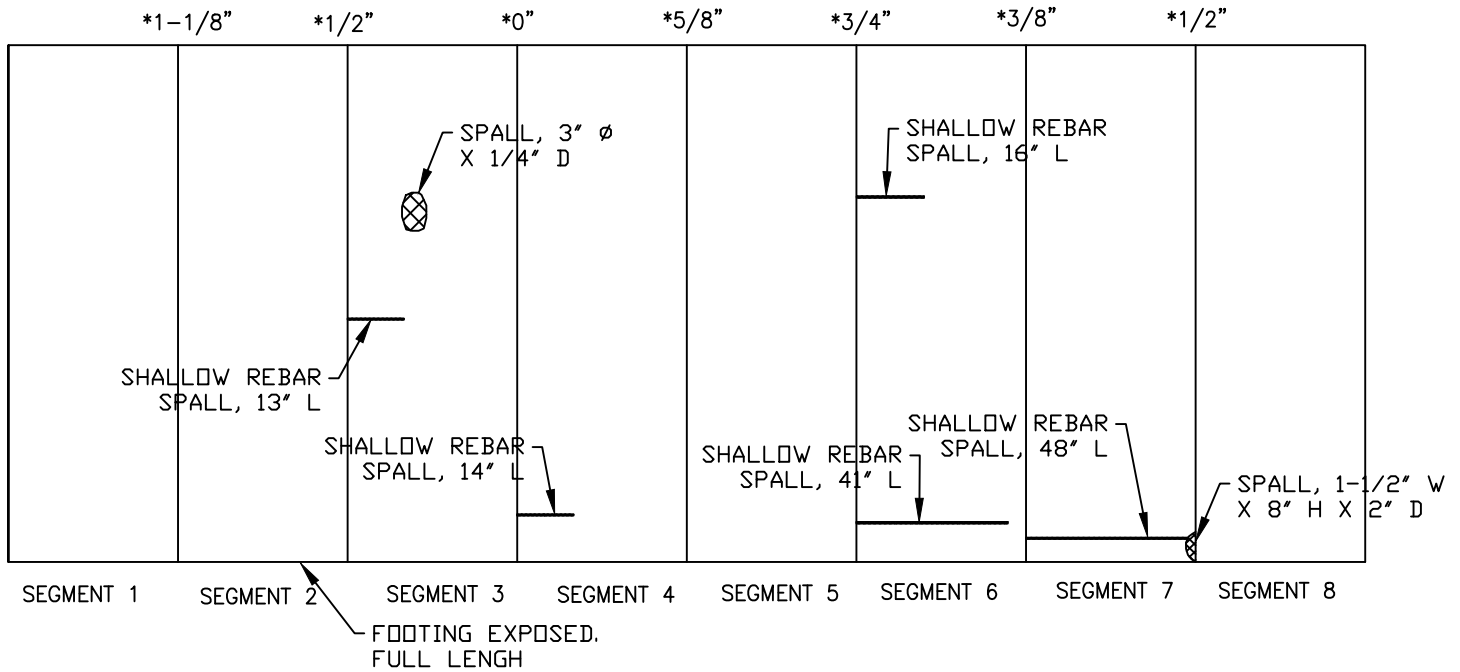
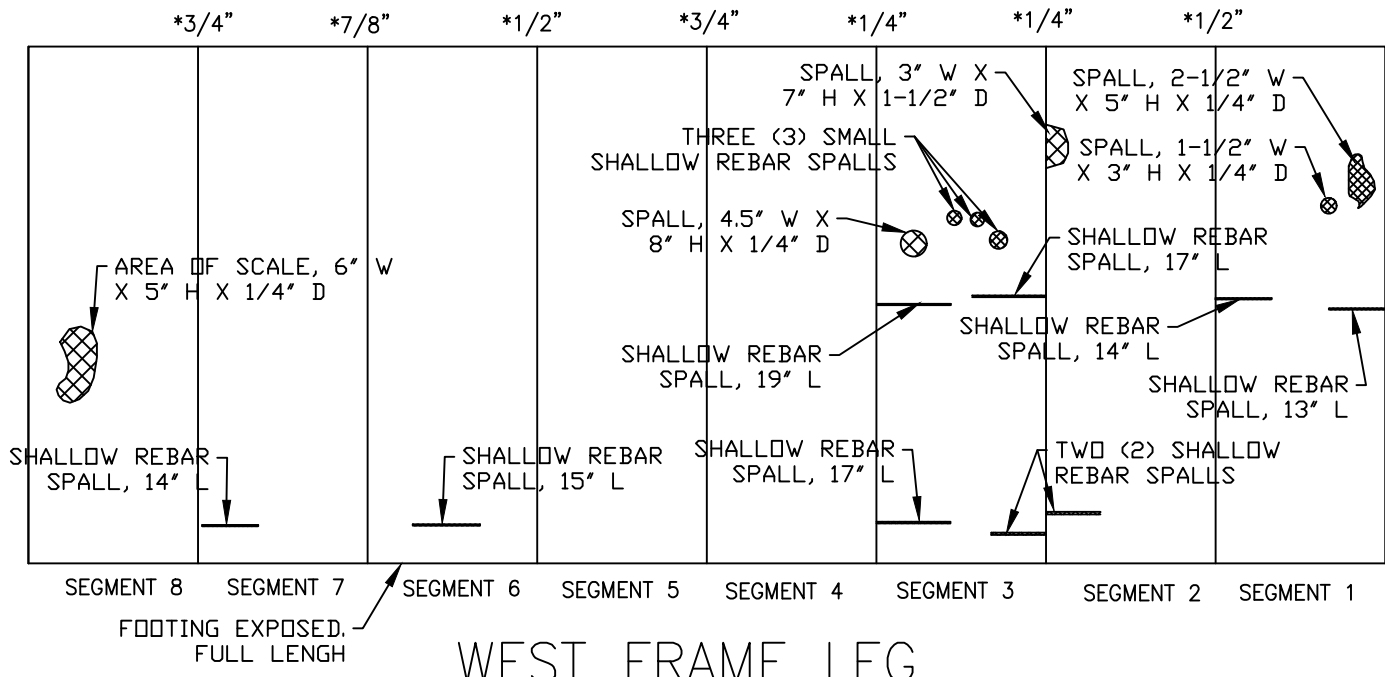
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TEL: +1 860-659-0444

TOWN OF CANTON BRIDGE NO. 023001

DATE: 01/15/2019

SKETCH: 3 OF 5

CREW: MATTHEW LAPLANTE AND GEORGE GERARD



- MINOR SPALL
- ⊘ HOLLOW AREA
- ⊗ SPALL
- JOINT
- \* DIFFERENTIAL

NOT TO SCALE

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



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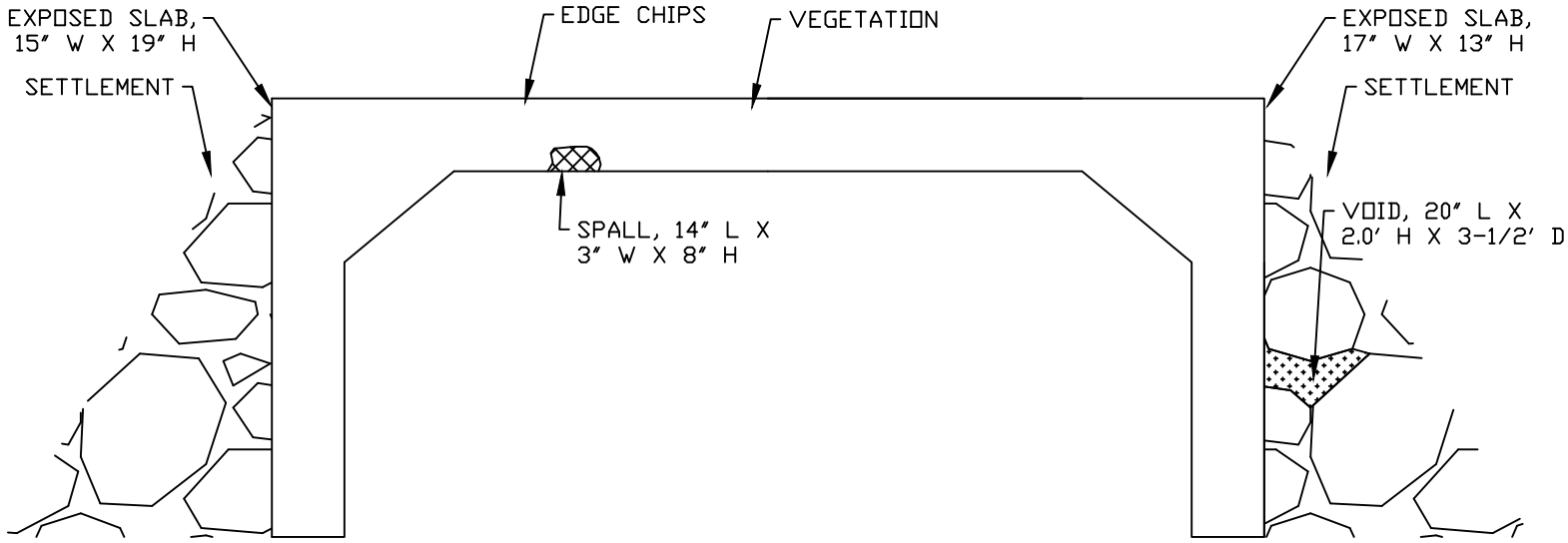
TOWN OF CANTON

BRIDGE NO. 023001

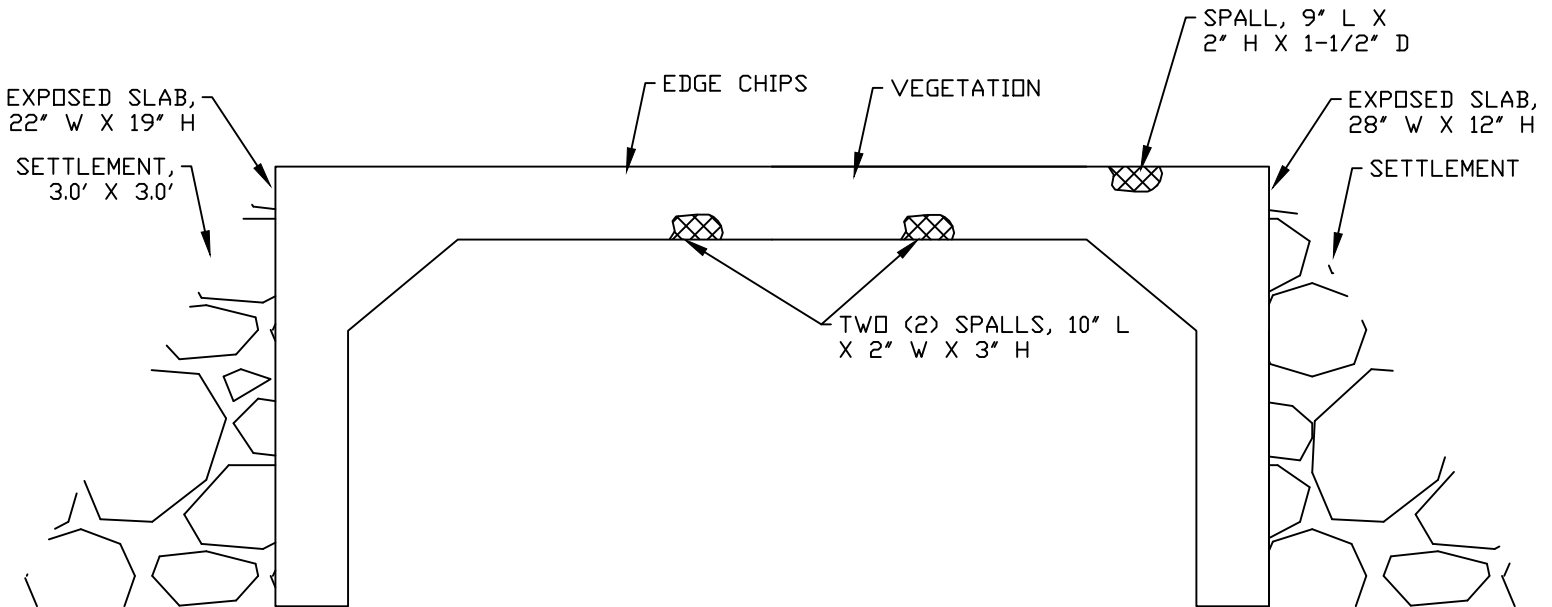
DATE: 01/15/2019

SKETCH: 4 OF 5

CREW: MATTHEW LAPLANTE AND GEORGE GERARD



NORTH ELEVATION



SOUTH ELEVATION

- MINOR SPALL
- HOLLOW AREA
- SPALL
- VOID
- \* JOINT DIFFERENTIAL

GENERAL NOTES:

1.) THE EXTERIOR FACE OF THE SLAB HAS SCATTERED MINOR POPOUTS WITH EXPOSED REBAR

NOT TO SCALE

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



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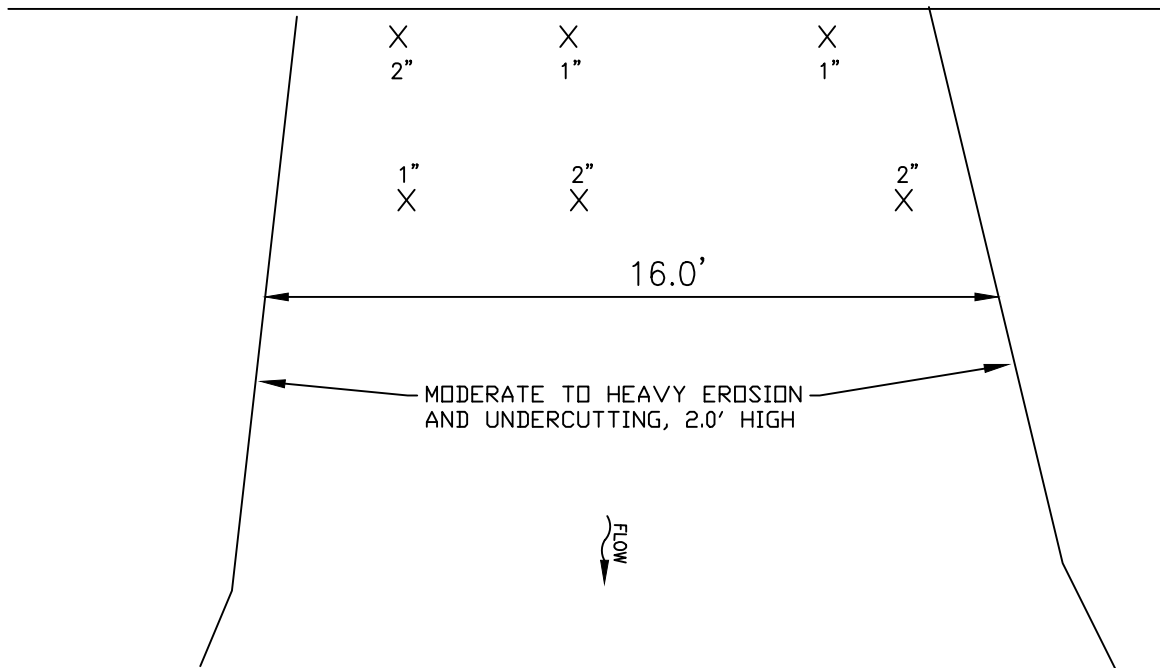
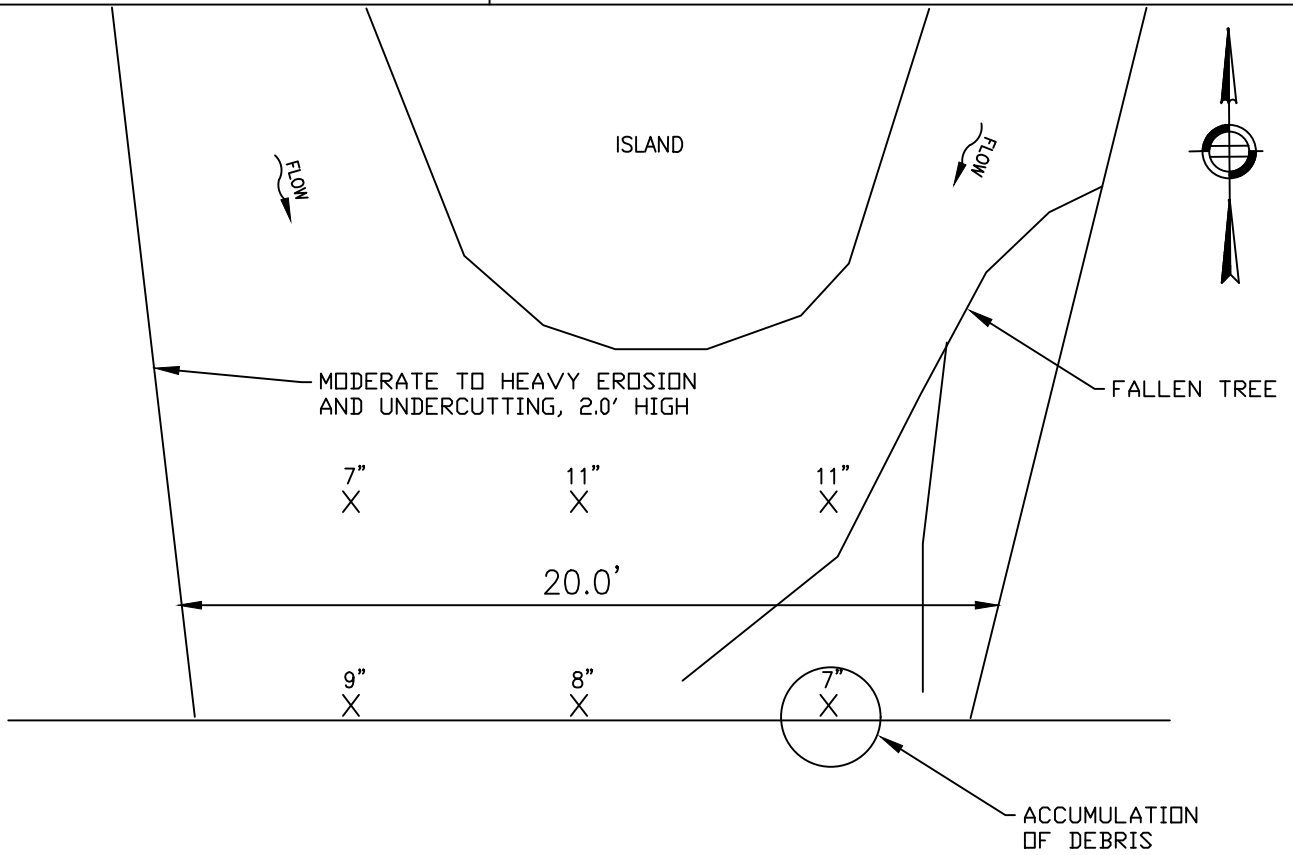
TOWN OF CANTON

BRIDGE NO. 023001

DATE: 01/15/2019

SKETCH: 5 OF 5

CREW: MATTHEW LAPLANTE AND GEORGE GERARD



LEGEND:

X - CHANNEL DEPTH MEASUREMENT

GENERAL NOTES:

1.) CHANNEL BANKS HAVE MODERATE TO HEAVY VEGETATION

NOT TO SCALE

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:

**Bridge: 023001**  
**Photo: 1**

**1/15/2019**

**North elevation, looking south.**



**Bridge: 023001**  
**Photo: 2**

**1/15/2019**



**South elevation, looking north.**

**Bridge: 023001**  
**Photo: 3**

**1/15/2019**

**Bridge from west approach, looking east.**





**Bridge: 023001**  
**Photo: 4**

**1/15/2019**



**West approach from bridge, looking west.**

**Bridge: 023001**  
**Photo: 5**

**1/15/2019**

**Bridge from east approach, looking west.**



**Bridge: 023001**  
**Photo: 6**

**1/15/2019**

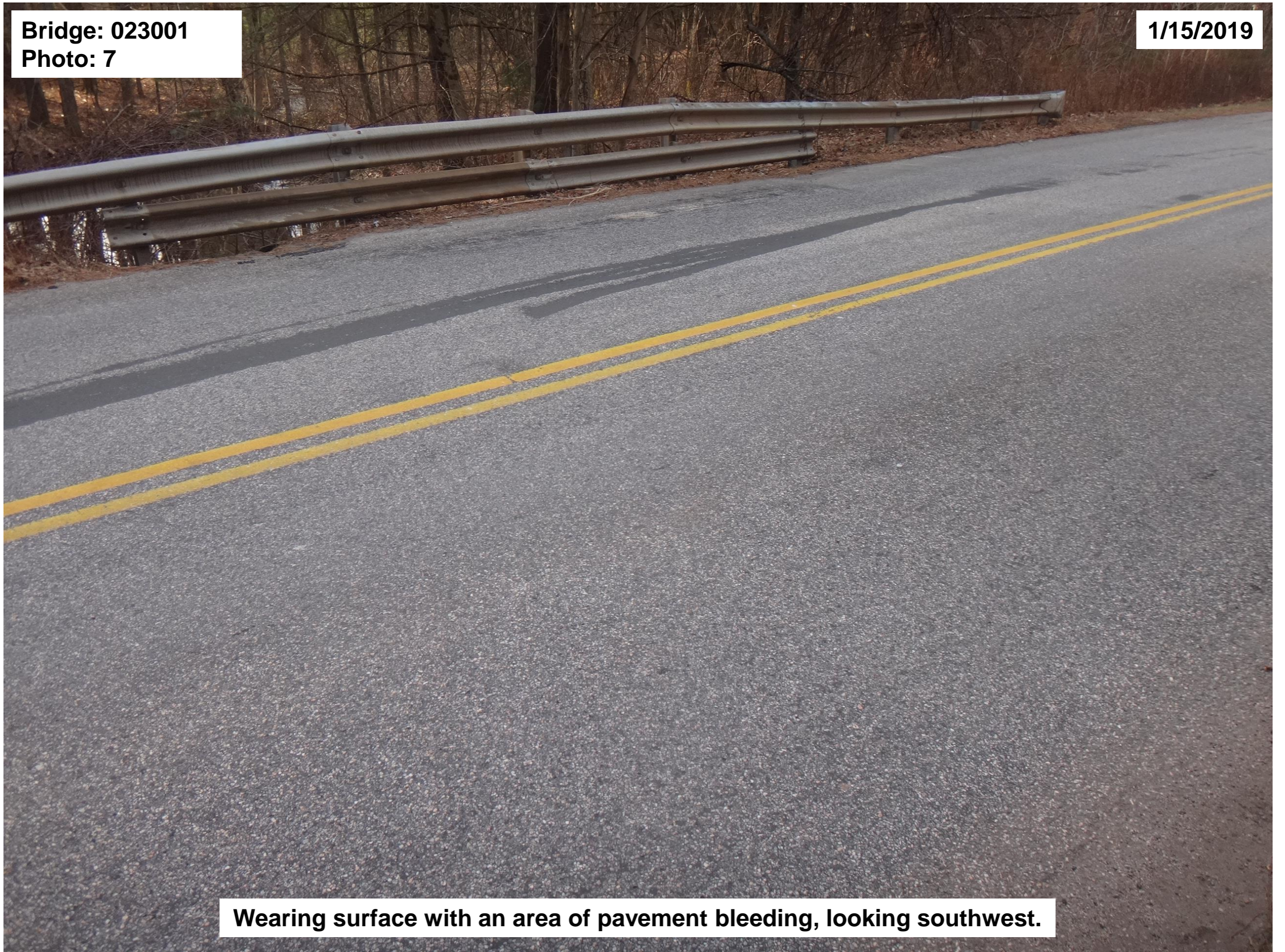
**East approach from bridge, looking east.**



**Bridge: 023001**  
**Photo: 7**

**1/15/2019**

**Wearing surface with an area of pavement bleeding, looking southwest.**



**Bridge: 023001**  
**Photo: 8**

**1/15/2019**

**Southeast corner of the bridge with minor settlement and bituminous patch, looking west.**



**Bridge: 023001**  
**Photo: 9**

**1/15/2019**



**North bridge rail with minor scrapes, dents and light rust, looking north.**

**Bridge: 023001**  
**Photo: 10**

**1/15/2019**



**South bridge rail with minor scrapes, dents and light rust, looking southwest.**

**Bridge: 023001**  
**Photo: 11**

**1/15/2019**



**Northwest retaining wall with shifted stones and a void, looking southwest.**



Bridge: 023001  
Photo: 12

1/15/2019

Close-up of void at the northwest retaining wall, looking southwest.



**Bridge: 023001**  
**Photo: 13**

**1/15/2019**



**Northeast corner with settlement and bituminous concrete, looking south.**

Bridge: 023001  
Photo: 14

1/15/2019



Southwest corner with settlement and bituminous concrete, looking north.

**Bridge: 023001**  
**Photo: 15**

**1/15/2019**

**Southeast corner with settlement, looking north.**



**Bridge: 023001**  
**Photo: 16**

**1/15/2019**

**West half of Segment 1 with a spall and efflorescence, looking west.**



**Bridge: 023001**  
**Photo: 17**

**1/15/2019**

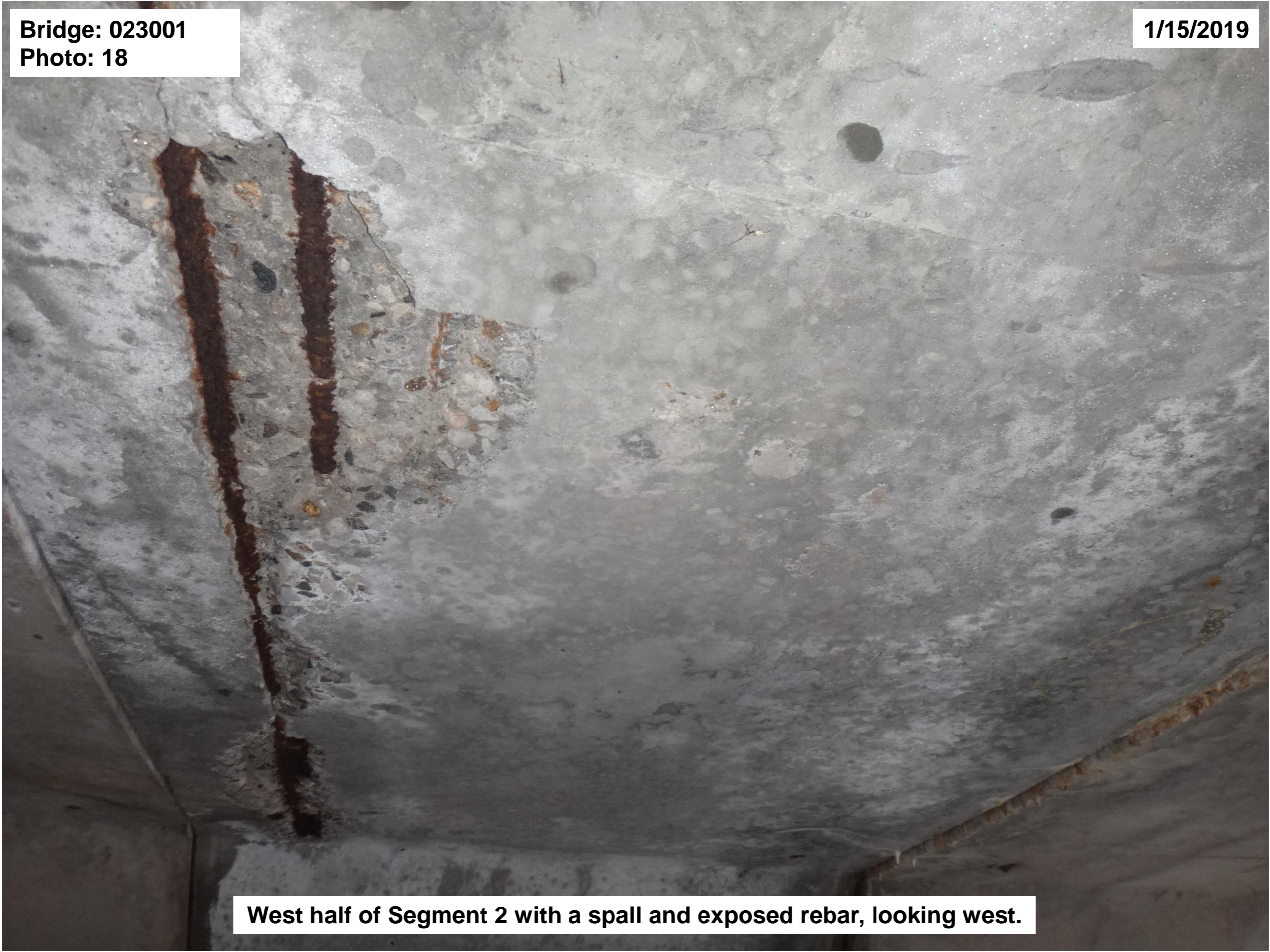


**East half of Segment 1 with a hollow area and leakage stains, looking east.**

Bridge: 023001  
Photo: 18

1/15/2019

West half of Segment 2 with a spall and exposed rebar, looking west.



Bridge: 023001  
Photo: 19

1/15/2019

A photograph showing the underside of a concrete bridge segment. The concrete surface is heavily textured and shows signs of weathering, including several dark, circular spots that appear to be water stains or mold. A prominent feature is a large, elongated spall in the lower right quadrant, where the concrete has chipped away, revealing two parallel steel rebar rods. The rebar is heavily rusted, appearing as a dark brown color. The overall scene is dimly lit, suggesting an interior or shaded area of the bridge structure.

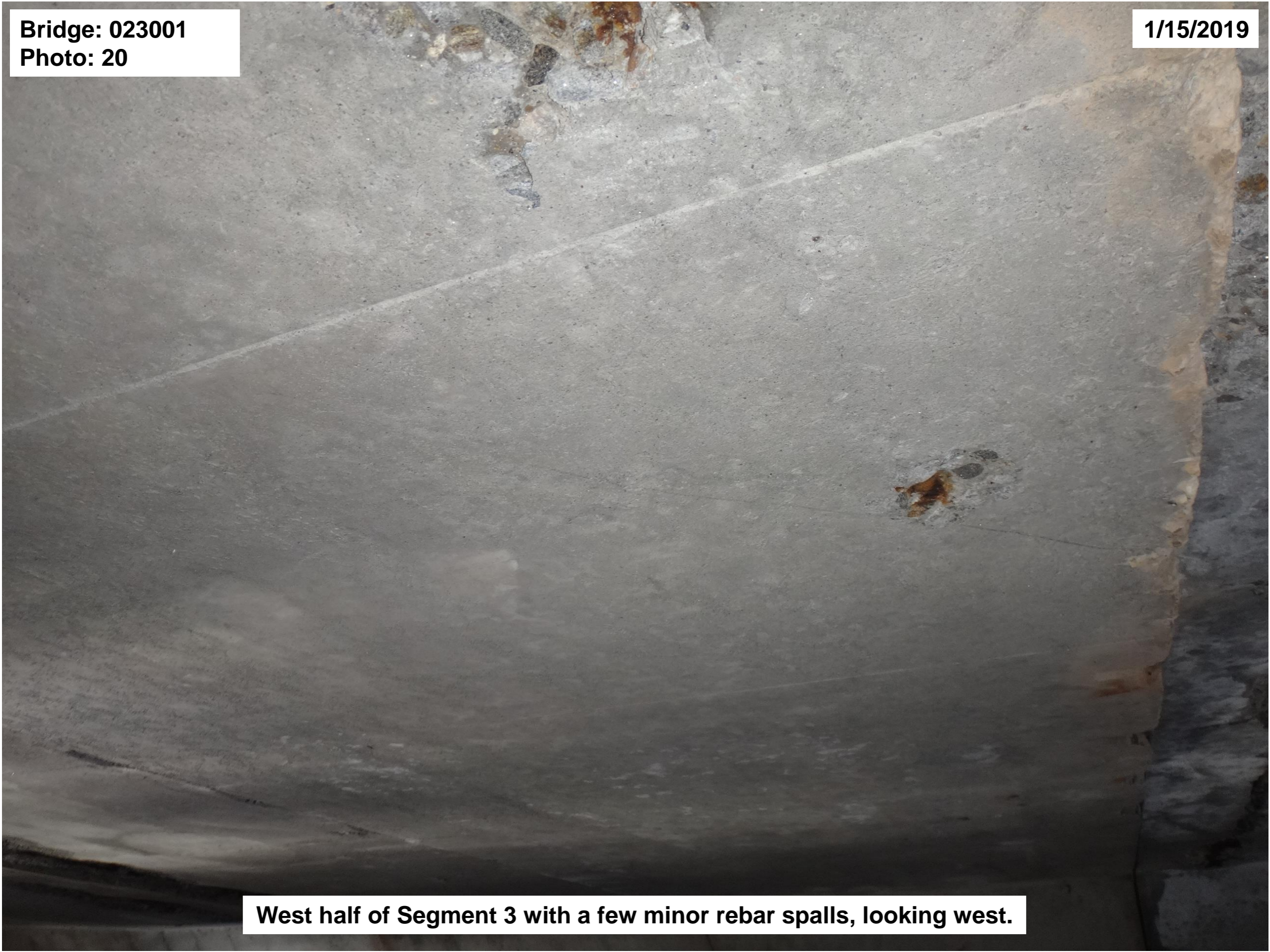
East half of Segment 2 with a spall and exposed rebar, looking east.



**Bridge: 023001**  
**Photo: 20**

**1/15/2019**

**West half of Segment 3 with a few minor rebar spalls, looking west.**



**Bridge: 023001**  
**Photo: 21**

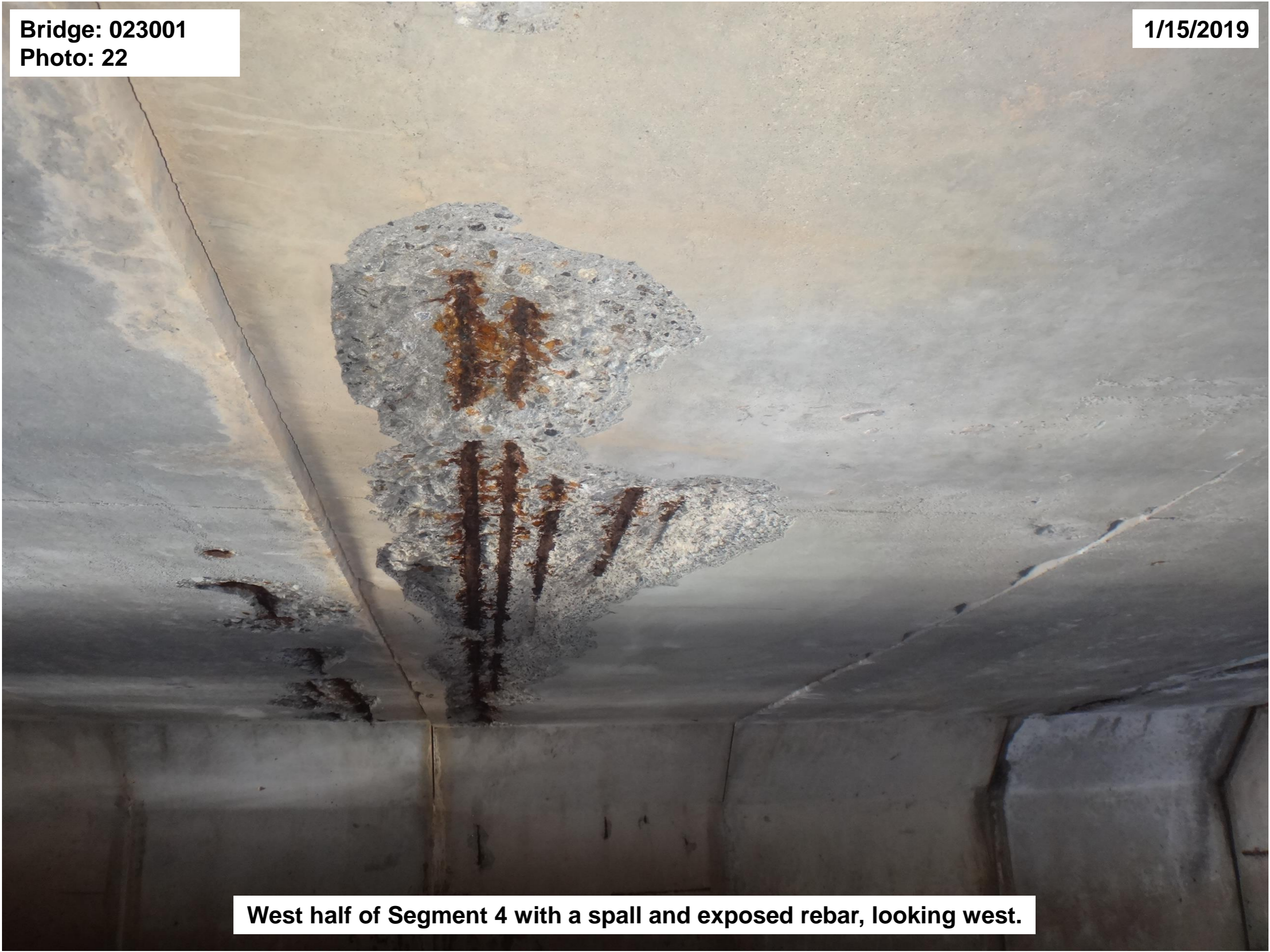
**1/15/2019**

**East half of Segment 3 with a few spalls and exposed rebar, looking east.**

Bridge: 023001  
Photo: 22

1/15/2019

West half of Segment 4 with a spall and exposed rebar, looking west.



Bridge: 023001  
Photo: 23

1/15/2019



West half of Segment 4 with a spall and exposed rebar (close-up), looking west.

Bridge: 023001  
Photo: 24

1/15/2019

East half of Segment 4 with a spall with exposed rebar, looking east.



Bridge: 023001  
Photo: 25

1/15/2019

West half of Segment 5 with a few spalls and exposed rebar, looking west.



**Bridge: 023001**  
**Photo: 26**

**1/15/2019**

**East half of Segment 5 with a few spalls and exposed rebar, looking east.**



Bridge: 023001  
Photo: 27

1/15/2019

West half of Segment 7 with a spall and exposed rebar, looking west.





Bridge: 023001  
Photo: 28

1/15/2019



East half of Segment 7 with a spall and exposed rebar, looking east.

**Bridge: 023001**  
**Photo: 29**

**1/15/2019**

**Segment 6, looking west.**



**Bridge: 023001**  
**Photo: 30**

**1/15/2019**

**West half of Segment 8 with a hollow area and a spall, looking west.**



Bridge: 023001  
Photo: 31

1/15/2019

East half of Segment 8 with a few cracks, hollow area and a spall, looking east.



Bridge: 023001  
Photo: 32

1/15/2019



West frame leg with a few shallow rebar spalls and exposed footing, looking northwest.

Bridge: 023001  
Photo: 33

1/15/2019



West frame leg with a few shallow rebar spalls and exposed footing, looking southwest.

**Bridge: 023001**  
**Photo: 34**

**1/15/2019**



**East frame leg with a few shallow rebar spalls and exposed footing, looking southeast.**

**Bridge: 023001**  
**Photo: 35**

**1/15/2019**



**East leg with a few shallow rebar spalls and exposed footing, looking northeast.**



**Bridge: 023001**  
**Photo: 36**

**1/15/2019**

**Upstream channel, looking north.**



**Bridge: 023001**  
**Photo: 37**

**1/15/2019**

**Downstream channel, looking south.**



**TOWN OF CANTON  
BRIDGE NO. 023001  
WASHBURN ROAD OVER JIM BROOK  
ROUTINE AND IN-DEPTH INSPECTION  
BRIDGE REPLACEMENT ESTIMATE  
February 2019**

ITEM DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	TOTAL
PROPOSED STRUCTURE		LS	1	\$ 153,600.00	\$ 153,600.00
DEMOLITION OF EXISTING STRUCTURE		LS	1	\$ 31,360.00	\$ 31,360.00
MILL AND PAVE		LS	1	\$ 24,000.00	\$ 24,000.00
INSTALLATION OF APPROACH SLABS		LS	1	\$ 45,629.63	\$ 45,629.63
INSTALLATION OF PROPOSED RETAINING WALLS		LS	1	\$ 57,600.00	\$ 57,600.00
INSTALLATION OF PROPOSED METAL BEAM RAIL		LS	1	\$ 4,800.00	\$ 4,800.00
LANE STRIPING		LS	1	\$ 400.00	\$ 400.00
MODIFIED RIPRAP		LS	1	\$ 2,962.96	\$ 2,962.96
<b>SUBTOTAL</b>					<b>\$320,352.59</b>
MINOR ITEM ALLOWANCE @25% (TYPE STUDY DESIGN PHASE)				25.0%	\$80,088.15
<b>TOTAL</b>					<b>\$400,440.74</b>
0201001	CLEARING & GRUBBING (2% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$9,152.93	\$9,152.93
0971001	MAINTENANCE & PROTECTION OF TRAFFIC (3% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$13,729.40	\$13,729.40
0975003	MOBILIZATION (6.5% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$29,747.03	\$29,747.03
0980001	CONSTRUCTION STAKING (1% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$4,576.47	\$4,576.47
<b>TOTAL CONTRACT ITEMS</b>					<b>\$457,646.56</b>
INCIDENTALS (15% OF TOTAL CONTRACT ITEMS)				15.0%	\$68,646.98
<b>TOTAL CONTRACT ITEMS PLUS INCIDENTALS</b>					<b>\$526,293.54</b>
CONSTRUCTION CONTINGENCIES (20% OF TOTAL CONTRACT ITEMS)				20.0%	\$105,258.71
INFLATION @ 3.5% x INFLATION ADJUSTMENT FACTOR				3.9%	\$20,354.40
<b>TOTAL CONSTRUCTION COST</b>					<b>\$651,906.66</b>
<b>SAY</b>					<b>\$655,000.00</b>

**TOWN OF CANTON  
BRIDGE NO. 023001  
WASHBURN ROAD OVER JIM BROOK  
ROUTINE AND IN-DEPTH INSPECTION  
BRIDGE REHABILITATION ESTIMATE  
February 2019**

ITEM DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	TOTAL
REPAIR/REHAB CULVERT		LS	1	\$ 89,600.00	\$ 89,600.00
REMOVE METAL BEAM RAIL		LS	1	\$ 1,500.00	\$ 1,500.00
INSTALL NEW METAL BEAM RAIL		LS	1	\$ 6,000.00	\$ 6,000.00
NEW BIT CURB		LS	1	\$ 400.00	\$ 400.00
MILL AND PAVE		LS	1	\$ 12,480.00	\$ 12,480.00
REPLACE BRIDGE BIT WEARING SURFACE AND WATERPROOFING MEMBRANE		LS	1	\$ 4,032.00	\$ 4,032.00
LANE STRIPING		LS	1	\$ 400.00	\$ 400.00
MODIFIED RIPRAP		LS	1	\$ 2,962.96	\$ 2,962.96
PERVIOUS STRUCTURE BACKFILL		LS	1	\$ 400.00	\$ 400.00
<b>SUBTOTAL</b>					<b>\$117,774.96</b>
MINOR ITEM ALLOWANCE @25% (TYPE STUDY DESIGN PHASE)				25.0%	\$29,443.74
<b>TOTAL</b>					<b>\$147,218.70</b>
0201001	CLEARING & GRUBBING (2% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$3,365.00	\$3,365.00
0971001	MAINTENANCE & PROTECTION OF TRAFFIC (3% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$5,047.50	\$5,047.50
0975003	MOBILIZATION (6.5% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$10,936.25	\$10,936.25
0980001	CONSTRUCTION STAKING (1% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$1,682.50	\$1,682.50
<b>TOTAL CONTRACT ITEMS</b>					<b>\$168,249.95</b>
INCIDENTALS (15% OF TOTAL CONTRACT ITEMS)				15.0%	\$25,237.49
<b>TOTAL CONTRACT ITEMS PLUS INCIDENTALS</b>					<b>\$193,487.44</b>
CONSTRUCTION CONTINGENCIES (20% OF TOTAL CONTRACT ITEMS)				20.0%	\$38,697.49
INFLATION @ 3.5% x INFLATION ADJUSTMENT FACTOR				3.9%	\$7,483.13
<b>TOTAL CONSTRUCTION COST</b>					<b>\$239,668.05</b>
<b>SAY</b>					<b>\$240,000.00</b>



# TOWN OF CANTON<sub>CT</sub>

INSPECTION TYPE: ROUTINE AND IN-DEPTH

## **BRIDGE NO. 023006**

Town of Canton

Old Canton Road

Over

Rattlesnake Brook

Full Inspection

March 27, 2019

Inspected by: WSP



**EXECUTIVE SUMMARY**

Bridge No. 023006 carries Old Canton Road over Rattlesnake Brook in the town of Canton. The bridge superstructure consists of eight (8) steel multi-beams with a span length of 18'-2" long, structure length of 22'-0", curb to curb roadway width of 25'-6" and out-to-out width of 25'-10.5".

**Topside**

The bituminous concrete overlay is in overall good condition. The approach roadways are in overall fair condition due to the potholes, areas of settlement and bituminous patches at the West Abutment joint. These conditions are caused by deterioration of the abutment backwall.

The bridge railings are in overall poor condition and are heavily rusted with holes throughout, most notably at the north rail.

**Deck**

The deck is in overall satisfactory condition. The deck has a few hollow areas and spalls along the top flanges of the beams, most notably at Beams 1 and 8.

**Beams**

The rolled steel beams are in overall poor condition. The beams have areas of heavy corrosion with section loss and holes, specifically at the beam ends.

**Abutments**

The abutments are in overall satisfactory condition. The reinforced concrete abutments have a few spalls, mostly along the top edge. The East Abutment has a full height vertical crack.

**Backwall**

The backwalls are in overall critical condition. The backwall at the West Abutment is severely deteriorated and settled with numerous voids along the top. The bituminous patch material is falling through. The most significant deterioration is at the south half of the backwall.

The backwall at the East Abutment has cinder blocks with washed out fill material.

**Wingwall**

The southwest wingwall has a full height vertical crack with shifting.

## Channel and Channel Protection

The upstream channel does not have a straight alignment and is angled towards the West Abutment causing aggradation along the east bank. The bridge does not have adequate freeboard (distance between the water and beams) causing overtopping of the bridge during heavier flows.

## Recommendations

Based on the recent in-depth inspection performed, immediate repair of the west abutment backwall is recommended. It is recommended that the west approach be excavated adjacent to the west abutment and a new backwall be installed by means of cast-in-place concrete, precast concrete units, or steel plates (or other acceptable rigid means). A new expansion joint will be required between the newly constructed backwall and bridge deck to avoid further water exposure to the girder ends. Further investigation is required to determine if modifications to the existing bridge deck are required to create a consistent and satisfactory joint edge.

Bridge No. 023006 has been investigated for rehabilitation compared to replacement considering required repairs, future life span, structure age, and cost. The backwalls at the abutments exhibit severe deterioration, to the point of complete failure. The beams have heavy section loss and holes at the beam ends. Furthermore, the minimal under-bridge clearance restricts the repairs that can be done from beneath the superstructure as well as reduces the hydraulic capacity of the structure causing frequent overtopping.

In addition to the poor structural condition of the bridge, the existing bridge railing does not meet current design standards, and there is no existing approach guide rail. Due to the above noted deficiencies, this structure is not being considered for rehabilitation, it is recommended that the structure be replaced at the earliest availability of the Town.

Further structural evaluation is recommended to determine the load carrying capacity (load rating) of the structure as it awaits replacement to determine if load posting is required.

The anticipated construction costs for immediate backwall repair and replacement are as follows:

- Immediate West Abutment Backwall Repair: \$30,000.00
- Structure Replacement: \$675,000.00



**INSPECTION REPORT**

Bridge No. 023006  
Town: Canton  
Feature Carried: Old Canton Road  
Feature Intersected: Rattlesnake Brook  
Type: In-Depth Inspection  
Date: March 27, 2019  
Weather: 47°F, Fair  
Start: 8:30 AM  
End: 1:00 PM  
Team Leader: Matthew LaPlante, PE  
Assistant Team Leader: Ethan Lacaire

**Overlay (Rating 7-Good):**

The bituminous concrete overlay is in overall good condition with no significant defects. The edge of the deck is exposed at the end 18" at each side of the bridge.

Refer to Sketch 1 for details.

**Approach Pavement (Rating 5-Fair):**

Both approaches have partially sealed cracks and worn pavement at the wheel lines (Photos 3 to 6).

The approach at the West Abutment joint has potholes, areas of settlement and patches (Photos 7, 8 & 10).

Refer to Sketch 1 for details.

**Pourable Joint Seal (Rating 4-Poor)**

The West Abutment joint has a few areas of settlement up to 1-1/2" deep, three (3) bituminous patches and a pothole/void measuring 6" long x 15" wide x up to 4" deep (Photos 7 & 8).

The East Abutment joint seal is 40% deteriorated (Photo 9)

Refer to Sketch 1 for details.



### **Railing (Rating 4-Poor):**

The railings are heavily rusted with several holes throughout, especially at the post connections. The bottoms of the rail posts are heavily rusted with a few holes. The worst conditions are at the north bridge rail (Photos 11 & 12).

The bridge does not have an approach railings.

Refer to Sketch 1 for details.

### **Approach Embankment (Rating 6-Satisfactory):**

The northwest approach embankment at the edge of the roadway has an area of erosion measuring 24" long x 14" wide x 5" deep (Photo 13).

The northwest embankment at the drainage pipes has a void measuring up to 16" deep (Photo 37).

Refer to Sketches 1 and 5 for details.

### **Reinforced Concrete Deck (Rating 6-Satisfactory):**

The south edge of the deck has a few spalls measuring up to 18" long x 4" high x 2" deep (Photo 14).

Bay 2 at the East Abutment has a spall along the top flange of Beam 3 measuring 12" long x 10" wide x 1" deep (Photo 15).

The underside of the reinforced concrete deck has a few spalls and hollow areas along the top flanges of Beams 1 and 8 (Photo 16).

Refer to Sketches 1 and 2 for details.

### **Steel Beams (Rating 4-Poor):**

The rolled steel beams have areas of heavy corrosion with section loss and holes, specifically at the beam ends (Photos 17 to 22).

The web at the West Abutment has holes at the follow locations: Beams 2, 3, 4 and 6 (Photos 19 to 21).

Refer to Sketches 2 and 3 for details.

### **Reinforced Concrete Abutment (Rating 6-Satisfactory):**

The reinforced concrete abutments have a few spalls throughout (Photos 23 to 28).

The East Abutment has crack measuring full height x 1/8" wide with an adjacent area of hollow concrete (Photo 27).

The West Abutment has an area of undermining at the concrete apron (Photo 23).

Refer to Sketch 4 for details.

### **Reinforced Concrete Backwall (Rating 2-Critical)**

The backwall at the West Abutment is severely deteriorated and settled with numerous voids along the top. The bituminous concrete patch material is falling through (Photos 29 to 31).

The backwall at the East Abutment has cinder block supports in all bays with washed out fill material (Photo 32).

Refer to Sketch 4 for details.

### **Reinforced Concrete Wingwalls (Rating 5-Fair):**

The southwest wingwall has a crack measuring full height x 3/4" wide and is shifted 1" (Photo 33).

Refer to Sketch 5 for details.

### **CHANNEL NOTES:**

The upstream channel does not have a straight alignment and is angled towards the West Abutment causing aggradation along the east bank (Photo 34). The downstream channel has a straight alignment and becomes narrow due to a resident's retaining wall (Photo 35).

The bridge does not have adequate freeboard (distance between the water and beams) causing overtopping of the bridge during heavier flows.

Refer to Sketch 5 for details.

### **Channel Scour (Rating 7-Good):**

The channel has no significant signs of scour.

Refer to Sketch 5 for details.

### **Bank Erosion (Rating 7-Good):**

The channel has no significant bank erosion.

Refer to Sketch 5 for details.

**Debris (Rating 7-Good):**

The channel has no significant debris.

Refer to Sketch 5 for details.

**Vegetation (Rating 6-Satisfactory):**

The upstream channel has moderate to heavy vegetation growth, some overhanging the channel (Photo 34).

Refer to Sketch 5 details.

**Aggradation (Rating 5-Fair):**

The upstream channel has an area of aggradation measuring 8.0' long x 4.0' wide x 2.5' high along the east bank and a vegetated island at the center of the channel (Photo 34).

The downstream channel has an area of aggradation along the east bank measuring 15.0' long x up to 9.0' wide x up to 3.0' high (Photo 36).

Refer to Sketch 5 for details.

**Speed Limit:** 30 MPH

**Character of Traffic:** Moderate volume, residential.

**Additional Notes/Comments:** Inspection was performed with waders with very low clearance. The bridge can only be inspected when the water level is low.



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500 WINDING BROOK DR.  
GLASTONBURY, CT 06033  
TEL: +1 860-659-0444

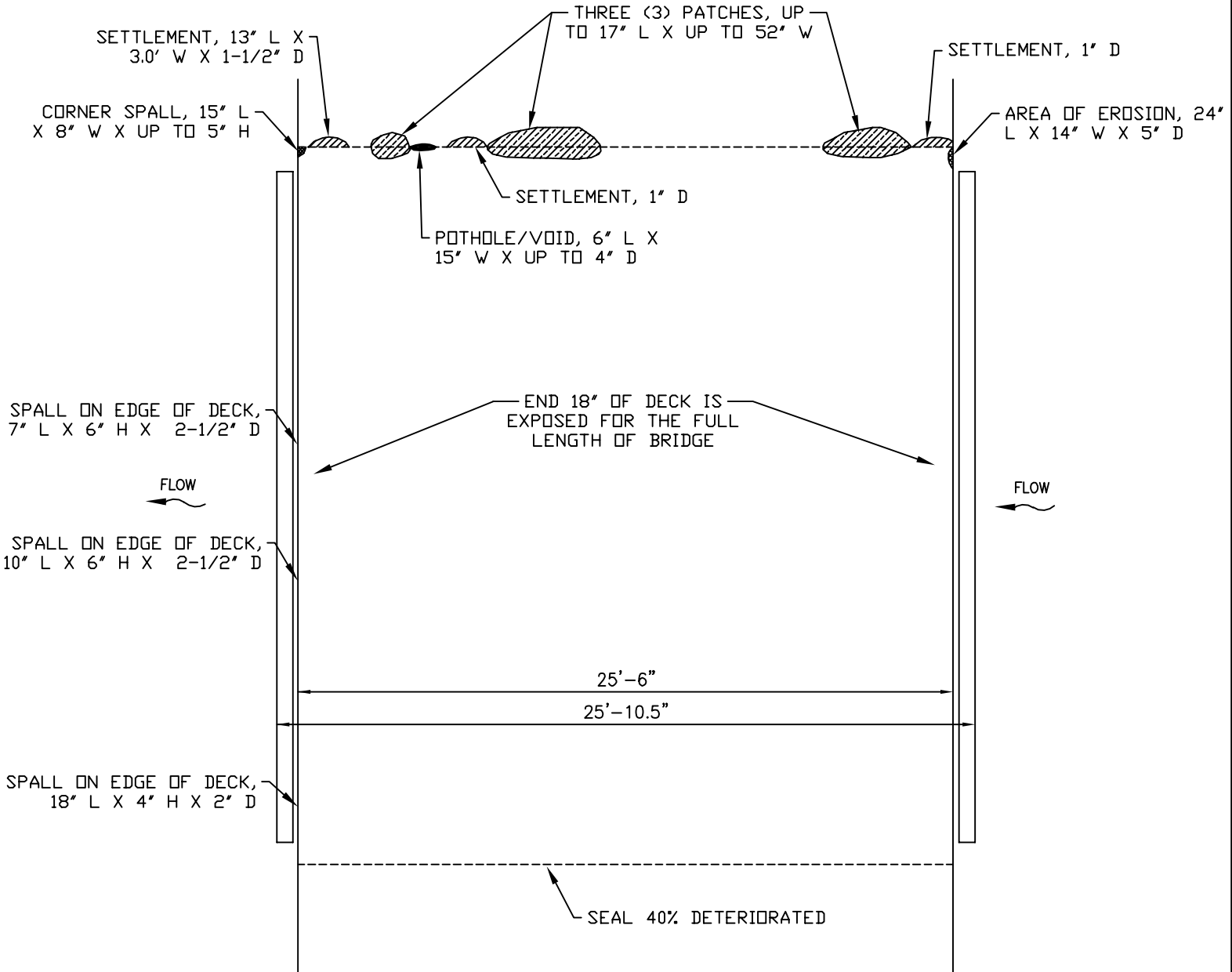
TOWN OF CANTON

BRIDGE NO. 023006

DATE: 03/27/2019

SKETCH: 1 OF 5

CREW: MATTHEW LAPLANTE AND ETHAN LACAIRE



GENERAL NOTES:

- 1.) THE BOTTOM OF THE RAIL POSTS ARE HEAVILY RUSTED WITH A FEW HOLES (WORSE CONDITIONS AT NORTH RAIL).
- 2.) THE RAILINGS ARE HEAVILY RUSTED WITH SEVERAL HOLES THROUGHOUT, ESPECIALLY AT THE POST CONNECTIONS (WORSE CONDITIONS AT NORTH RAIL).
- 3.) BOTH APPROACHES HAVE PARTIALLY SEALED CRACKS AND WORN PAVEMENT AT THE WHEEL LINES.

TOPSIDE

- POTHOLE
- SETTLEMENT
- SPALL
- PATCH

NOT TO SCALE

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



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TOWN OF CANTON

BRIDGE NO. 023006

DATE: 03/27/2019

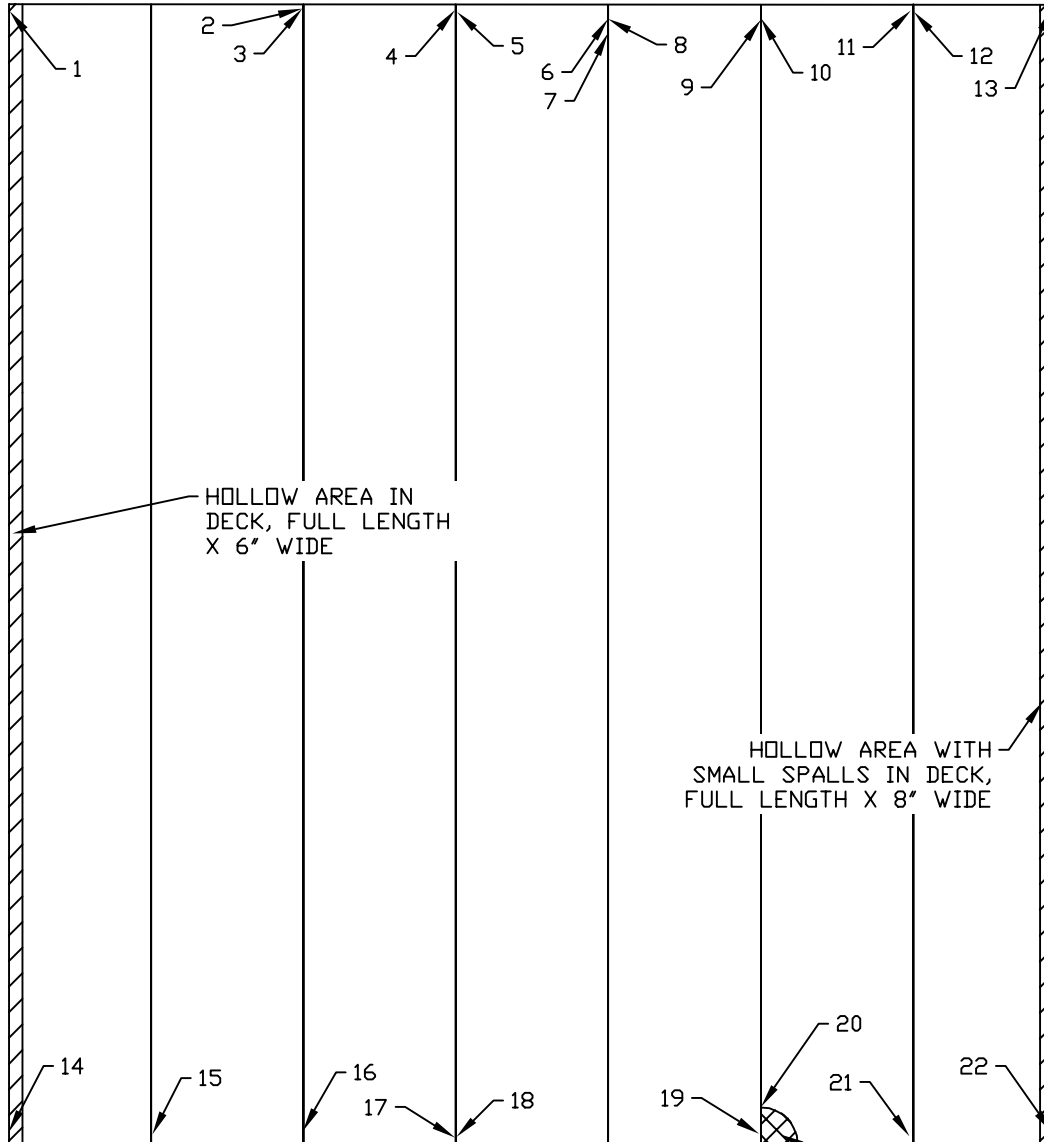
SKETCH: 2 OF 5

CREW: MATTHEW LAPLANTE AND ETHAN LACAIRE

WEST ABUTMENT





BEAM 8 BEAM 7 BEAM 6 BEAM 5 BEAM 4 BEAM 3 BEAM 2 BEAM 1



EAST ABUTMENT

SPALL, 12" LONG X 10" WIDE X 1" DEEP

-  HOLLOW AREA
-  SPALL

UNDERSIDE

NOT TO SCALE

GENERAL NOTES:

- 1.) REFER TO SHEET 3 FOR BEAM END SECTION LOSSES.
- 2.) THE BOTTOM FLANGES AND WEBS AT BOTH ABUTMENTS HAVE HEAVY RUST.

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



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TOWN OF CANTON

BRIDGE NO. 023006

DATE: 03/27/2019

SKETCH: 3 OF 5

CREW: MATTHEW LAPLANTE AND ETHAN LACAIRE

BEAM END SECTION LOSS NOTES:

WEST ABUTMENT:

1. SECTION LOSS IN WEB, END 5'-6" X FULL HEIGHT X UP TO 1/8" DEEP.
2. HOLE IN UPPER WEB, 3" LONG X 8" HIGH.
3. SECTION LOSS IN BOTTOM WEB (BOTH SIDES), 20" LONG X 5" HIGH X 1/8" DEEP.
4. HEAVY DEBRIS WITH SECTION LOSS TO WEB UP TO 1/8" DEEP.
5. SECTION LOSS IN WEB, 14" LONG X FULL HEIGHT X 1/8" DEEP.
6. SECTION LOSS IN BOTTOM WEB, 2.0' LONG X 2" HIGH X UP TO 1/8" DEEP.
7. HOLE IN UPPER WEB, 4-1/2" LONG X 6" HIGH WITH HEAVY DEBRIS.
8. SECTION LOSS IN BOTTOM WEB, 3.0' LONG X 4" HIGH (AVE.) X UP TO 1/8" DEEP.
9. HOLE IN UPPER WEB, 2" LONG X 5" HIGH WITH ADJACENT 1/8" DEEP SECTION LOSS.
10. HEAVY DEBRIS WITH 1/8" DEEP SECTION LOSS IN WEB.
11. HOLE IN WEB, 1" LONG X 4" HIGH.
12. SECTION LOSS IN BOTTOM WEB, 2.0' LONG X UP TO 4" HIGH X 1/8" DEEP.
13. SECTION LOSS IN WEB, 5.0' LONG X FULL HEIGHT X 1/8" TO 3/16" DEEP.

EAST ABUTMENT:

14. SECTION LOSS IN WEB, END 5'-6" X FULL HEIGHT X UP TO 1/8" DEEP.
15. SECTION LOSS IN WEB, 20" LONG X 3" HIGH X 1/8" DEEP.
16. SECTION LOSS IN WEB, 30" LONG X UP TO 4" HIGH X 1/8" DEEP.
17. SECTION LOSS IN WEB, 2.0' LONG X 4" HIGH X 1/8" DEEP.
18. SECTION LOSS IN WEB, 2.0' LONG X 3" HIGH X 1/8" DEEP.
19. SECTION LOSS IN WEB, 2.0' LONG X 3" HIGH X 1/8" DEEP.
20. SECTION LOSS IN WEB, 3.0' LONG X UP TO FULL HEIGHT X 1/8" DEEP.
21. SECTION LOSS IN WEB, 12" LONG X 2" HIGH X 1/8" DEEP.
22. SECTION LOSS IN WEB, END 5'-6" X FULL HEIGHT X UP TO 1/8" DEEP.

REVISION 1

DATE:

CREW:

REVISION 3

DATE:

CREW:

REVISION 2

DATE:

CREW:

REVISION 4

DATE:

CREW:



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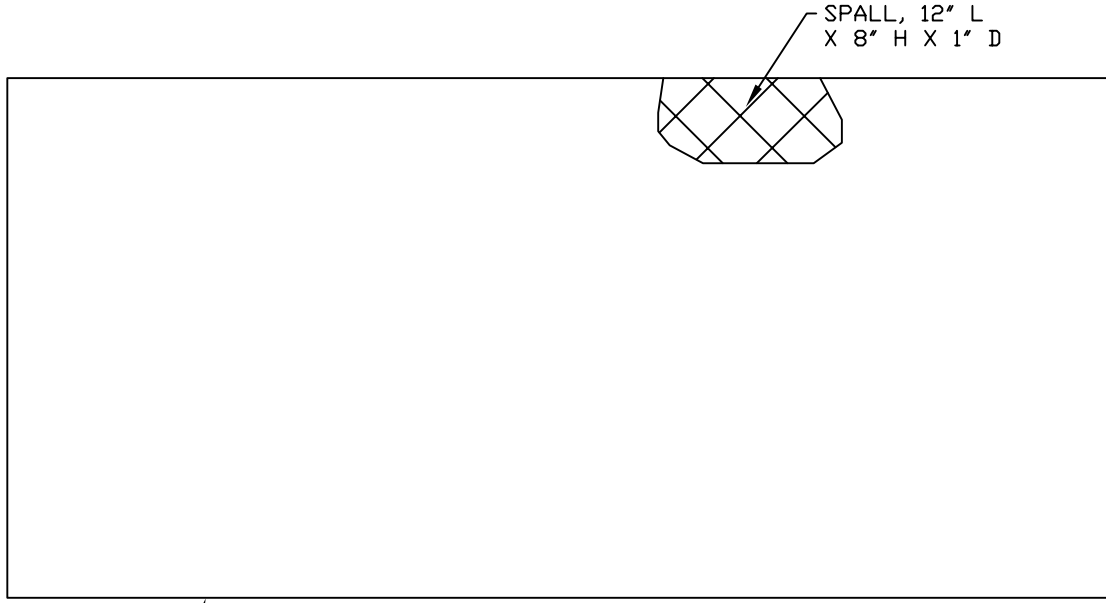
TOWN OF CANTON

BRIDGE NO. 023006

DATE: 03/27/2019

SKETCH: 4 OF 5

CREW: MATTHEW LAPLANTE AND ETHAN LACAIRE



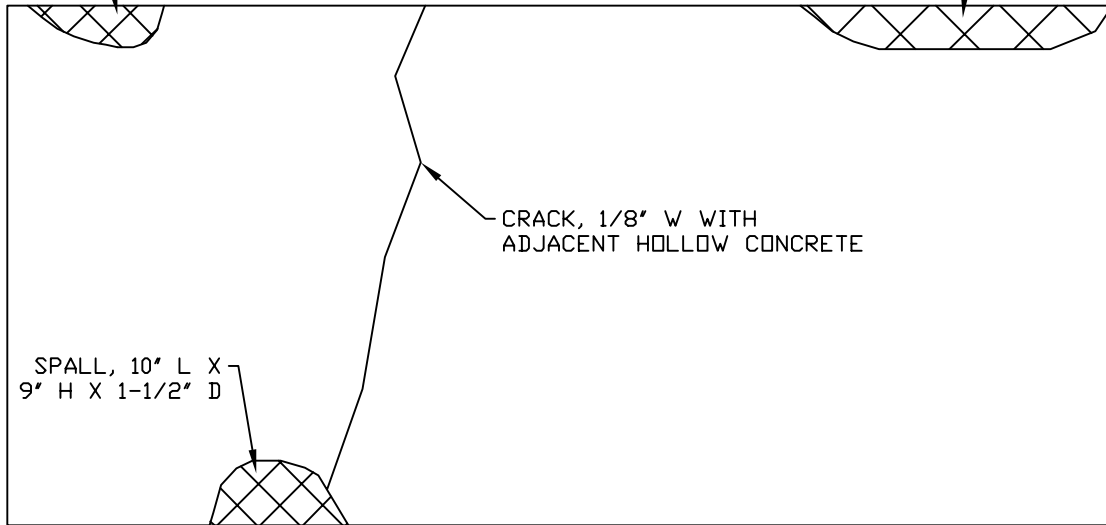
SPALL, 12" L  
X 8" H X 1" D

CONCRETE APRON IS  
UNDERMINED

WEST ABUTMENT

SPALL, 20" L X 4" H X  
4" D (TOP FACE)

SPALL, 2.5' L X 5" H X  
UP TO 6" D (TOP FACE)



CRACK, 1/8" W WITH  
ADJACENT HOLLOW CONCRETE

SPALL, 10" L X  
9" H X 1-1/2" D

EAST ABUTMENT

GENERAL NOTES:

- 1.) THE BACKWALL AT THE WEST ABUTMENT IS SEVERELY DETERIORATED AND SETTLED WITH NUMEROUS VOIDS ALONG THE TOP. THE BITUMINOUS CONCRETE PATCH MATERIAL IS FALLING THROUGH.
- 2.) THE BACKWALL AT THE EAST ABUTMENT HAS CINDER BLOCK SUPPORTS IN ALL BAYS WITH WASHED OUT FILL MATERIAL.

- HOLLOW AREA
- SPALL

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



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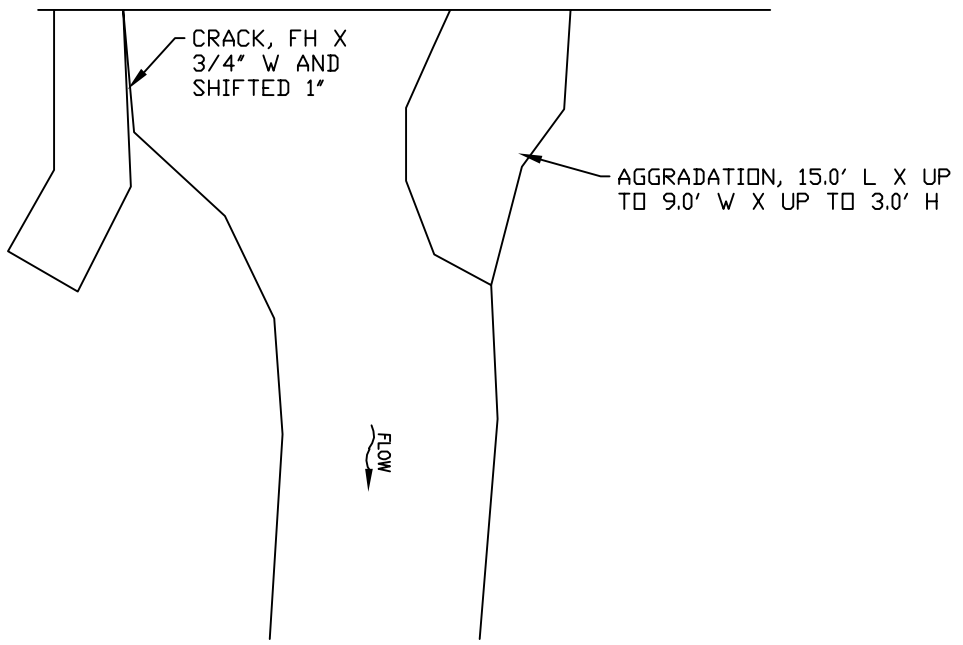
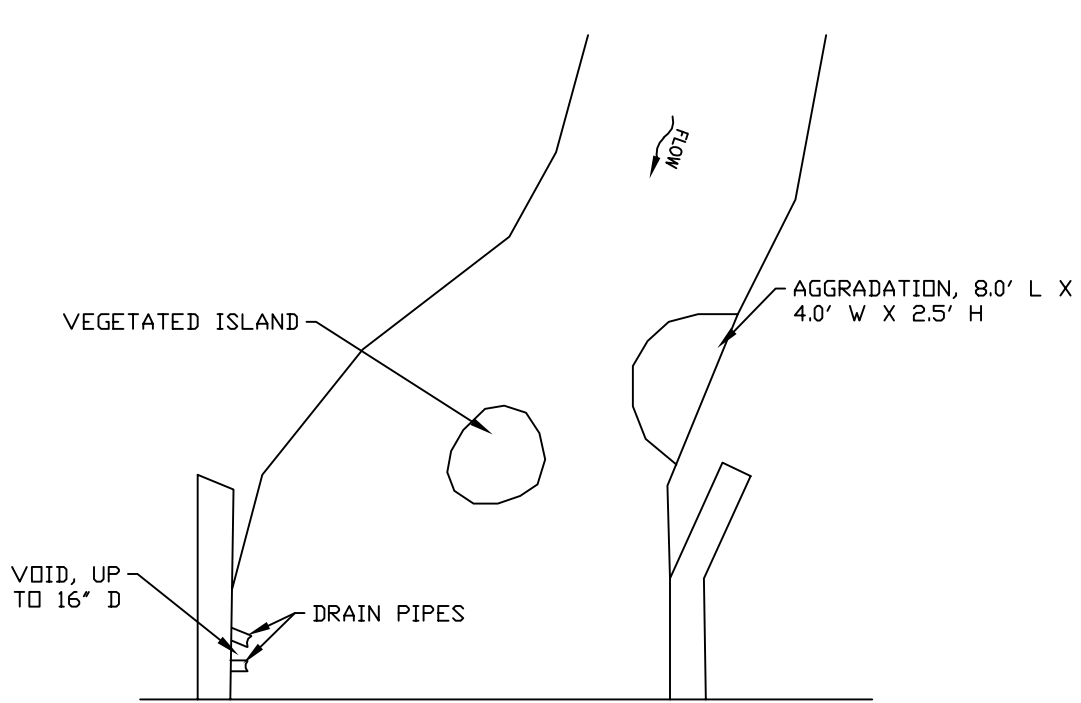
TOWN OF CANTON

BRIDGE NO. 023006

DATE: 03/27/2019

SKETCH: 5 OF 5

CREW: MATTHEW LAPLANTE AND ETHAN LACAIRE



CHANNEL



GENERAL NOTES:

1.) THE UPSTREAM CHANNEL HAS MODERATE TO HEAVY VEGETATION GROWTH, SOME OVERHANGING THE CHANNEL.

NOT TO SCALE

REVISION 1	DATE:	CREW:	REVISION 3	DATE:	CREW:
REVISION 2	DATE:	CREW:	REVISION 4	DATE:	CREW:



Bridge: 023006

Photo: 1

3/27/2019

South elevation, looking north.



**Bridge: 023006**  
**Photo: 2**

**3/27/2019**



**North elevation, looking south.**

Bridge: 023006  
Photo: 3

3/27/2019



Bridge from west approach, looking east.

**Bridge: 023006**  
**Photo: 4**

**3/27/2019**



**West approach from bridge, looking west.**

**Bridge: 023006**  
**Photo: 5**

**3/27/2019**



**Bridge from east approach, looking west.**

**Bridge: 023006**  
**Photo: 6**

**3/27/2019**

**East approach from bridge, looking east.**



Bridge: 023006  
Photo: 7

3/27/2019



West Abutment joint with patches, looking south.

**Bridge: 023006**  
**Photo: 8**

**3/27/2019**



**West Abutment joint at the south end with patches, settlement and a void, looking south.**



**Bridge: 023006**  
**Photo: 9**

**3/27/2019**



**East Abutment joint with a deteriorated seal, looking north.**

Bridge: 023006  
Photo: 10

3/27/2019



Southwest corner of the bridge with spalls on the deck and deteriorated joint, looking northeast.

**Bridge: 023006**  
**Photo: 11**

**3/27/2019**

**North rail with heavy rust and holes, looking northeast.**



**Bridge: 023006**  
**Photo: 12**

**3/27/2019**



**Close-up of the north rail with heavy rust and holes, looking northeast.**

Bridge: 023006  
Photo: 13

3/27/2019



Northwest corner of the bridge with an area of erosion, looking northeast.

Bridge: 023006  
Photo: 14

3/27/2019

South face of the deck with a few spalls, looking northeast.



Bridge: 023006  
Photo: 15

3/27/2019



Deck in Bay 2 at Beam 3 at the East Abutment with a spall and section loss to the beam, looking east.

Bridge: 023006  
Photo: 16

3/27/2019



Deck in Bay 7 from the West Abutment with a hollow area along the beam, looking east.



Bridge: 023006  
Photo: 17

3/27/2019



South face of Beam 1 at the West Abutment with heavy rust and section loss, looking northwest.

Bridge: 023006  
Photo: 18

3/27/2019



South face of Beam 1 at the East Abutment with section loss and spalls/hollow at deck, looking northwest.

Bridge: 023006  
Photo: 19

3/27/2019



South face of Beam 3 at the West Abutment with section loss and a hole, looking north.

Bridge: 023006  
Photo: 20

3/27/2019



South face of Beam 4 at the West Abutment with section loss and a hole, looking north.

Bridge: 023006  
Photo: 21

3/27/2019



South face of Beam 6 at the West Abutment with section loss and a hole, looking north.

Bridge: 023006  
Photo: 22

3/27/2019



North face of Beam 8 at the East Abutment with heavy rust and section loss, looking south.

**Bridge: 023006**  
**Photo: 23**

**3/27/2019**



**Typical view of the West Abutment, looking west.**

Bridge: 023006  
Photo: 24

3/27/2019



Typical view of the East Abutment, looking east.



Bridge: 023006  
Photo: 25

3/27/2019

West Abutment below Beam 5 with a spall, looking west.



Bridge: 023006  
Photo: 26


3/27/2019

East Abutment below Beam 1 with a spall, looking east.



Bridge: 023006  
Photo: 27

3/27/2019

A photograph showing a concrete abutment structure. The concrete is light-colored and shows signs of weathering, including a prominent vertical crack and a large, irregular spall where the surface has broken away, revealing a darker, aggregate-rich interior. The structure is situated near a body of water, with a dark, reflective surface visible at the bottom. Above the concrete, there are wooden beams and other structural elements, possibly part of a bridge deck or support system. The overall scene is dimly lit, suggesting an overcast day or a shaded area.

East Abutment below Bay 2 with a spall and a crack, looking east.

Bridge: 023006  
Photo: 28

3/27/2019

East Abutment near the south end with a spall, looking southeast.



Bridge: 023006  
Photo: 29

3/27/2019



West Abutment backwall in Bay 1 with severe deterioration, settlement and voids, looking west.

Bridge: 023006  
Photo: 30

3/27/2019



West Abutment backwall in Bay 5 with severe deterioration and bituminous patch material, looking west.

Bridge: 023006  
Photo: 31

3/27/2019



West Abutment backwall in Bay 6 with severe deterioration, settlement and bituminous patch material, looking west.

Bridge: 023006  
Photo: 32

3/27/2019



East Abutment backwall in Bay 6 with cinder block supports with washed out fill material, looking east.



**Bridge: 023006**  
**Photo: 33**

**3/27/2019**

**Southwest wingwall with a crack and a shifted section, looking west.**



**Bridge: 023006**  
**Photo: 34**

**3/27/2019**

**Upstream channel, looking north.**



Bridge: 023006  
Photo: 35

3/27/2019



Downstream channel, looking south.

**Bridge: 023006**  
**Photo: 36**

**3/27/2019**

**Southeast corner with an area of aggradation, looking northeast.**



Bridge: 023006  
Photo: 37

3/27/2019

Northwest corner with drainage pipes and a void, looking southwest.



**TOWN OF CANTON  
 BRIDGE NO. 023006  
 OLD CANTON RD OVER RATTLESNAKE BROOK  
 ROUTINE AND IN-DEPTH INSPECTION  
 IMMEDIATE BRIDGE REPAIR ESTIMATE  
 MAY 2019**

ITEM DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	TOTAL
EARTH EXCAVATION		LS	1	\$ 450.00	\$ 450.00
CLASS 'F' CONCRETE		LS	1	\$ 6,900.00	\$ 6,900.00
DEFORMED STEEL BARS		LS	1	\$ 388.13	\$ 388.13
MILL AND PAVE		LS	1	\$ 931.50	\$ 931.50
PERVIOUS STRUCTURE BACKFILL		LS	1	\$ 337.50	\$ 337.50
REPLACE BRIDGE JOINT		LS	1	\$ 5,951.25	\$ 5,951.25
<b>SUBTOTAL</b>					<b>\$14,958.38</b>
MINOR ITEM ALLOWANCE @25% (TYPE STUDY DESIGN PHASE)				25.0%	\$3,739.59
<b>TOTAL</b>					<b>\$18,697.97</b>
0201001	CLEARING & GRUBBING (0% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$0.00	\$0.00
0971001	MAINTENANCE & PROTECTION OF TRAFFIC (3% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$619.82	\$619.82
0975003	MOBILIZATION (6.5% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$1,342.95	\$1,342.95
0980001	CONSTRUCTION STAKING (0% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$0.00	\$0.00
<b>TOTAL CONTRACT ITEMS</b>					<b>\$20,660.74</b>
INCIDENTALS (15% OF TOTAL CONTRACT ITEMS)				15.0%	\$3,099.11
<b>TOTAL CONTRACT ITEMS PLUS INCIDENTALS</b>					<b>\$23,759.85</b>
CONSTRUCTION CONTINGENCIES (20% OF TOTAL CONTRACT ITEMS)				20.0%	\$4,751.97
INFLATION @ 3.5% x INFLATION ADJUSTMENT FACTOR				3.9%	\$918.91
<b>TOTAL CONSTRUCTION COST</b>					<b>\$29,430.73</b>
<b>SAY</b>					<b>\$30,000.00</b>

**TOWN OF CANTON  
BRIDGE NO. 023006  
OLD CANTON RD OVER RATTLESNAKE BROOK  
ROUTINE AND IN-DEPTH INSPECTION  
BRIDGE REPLACEMENT ESTIMATE  
MAY 2019**

ITEM DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	TOTAL
PROPOSED STRUCTURE		LS	1	\$ 158,400.00	\$ 158,400.00
DEMOLITION OF EXISTING STRUCTURE		LS	1	\$ 32,964.75	\$ 32,964.75
MILL AND PAVE		LS	1	\$ 28,000.00	\$ 28,000.00
INSTALLATION OF APPROACH SLABS		LS	1	\$ 45,629.63	\$ 45,629.63
INSTALLATION OF PROPOSED RETAINING WALLS		LS	1	\$ 57,600.00	\$ 57,600.00
INSTALLATION OF PROPOSED METAL BEAM RAIL		LS	1	\$ 4,800.00	\$ 4,800.00
LANE STRIPING		LS	1	\$ 400.00	\$ 400.00
MODIFIED RIPRAP		LS	1	\$ 2,370.37	\$ 2,370.37
<b>SUBTOTAL</b>					<b>\$330,164.75</b>
MINOR ITEM ALLOWANCE @25% (TYPE STUDY DESIGN PHASE)				25.0%	\$82,541.19
<b>TOTAL</b>					<b>\$412,705.94</b>
0201001	CLEARING & GRUBBING (2% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$9,433.28	\$9,433.28
0971001	MAINTENANCE & PROTECTION OF TRAFFIC (3% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$14,149.92	\$14,149.92
0975003	MOBILIZATION (6.5% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$30,658.16	\$30,658.16
0980001	CONSTRUCTION STAKING (1% OF TOTAL CONTRACT ITEMS)	L.S.	1	\$4,716.64	\$4,716.64
<b>TOTAL CONTRACT ITEMS</b>					<b>\$471,663.93</b>
INCIDENTALS (15% OF TOTAL CONTRACT ITEMS)				15.0%	\$70,749.59
<b>TOTAL CONTRACT ITEMS PLUS INCIDENTALS</b>					<b>\$542,413.52</b>
CONSTRUCTION CONTINGENCIES (20% OF TOTAL CONTRACT ITEMS)				20.0%	\$108,482.70
INFLATION @ 3.5% x INFLATION ADJUSTMENT FACTOR				3.9%	\$20,977.84
<b>TOTAL CONSTRUCTION COST</b>					<b>\$671,874.06</b>
<b>SAY</b>					<b>\$675,000.00</b>



# CONNECTICUT DEPARTMENT OF TRANSPORTATION



## LOCAL BRIDGE PROGRAM

### PRELIMINARY APPLICATION

Preliminary application is hereby made by the Town/City/Borough of Canton for possible inclusion in the Local Bridge Program for Fiscal Year **2019** for the following structure:

Bridge Location: Old Canton Road over Rattlesnake Brook

Bridge Number: 023006 Structure Length: 18.2 feet Curb-to-Curb Width: 25.5 feet

Sufficiency Rating: 29.64 % Priority Rating: 26.75 %

Evaluation & Rating Performed by:  State Forces  Others

If Others, Name of Professional Engineer: Matt LaPlante & George Gerard

Connecticut Professional Engineers License Number: 31038 & 32495

Engineering Firm: WSP USA

Engineer's Address: 500 Winding Brook Drive Glastonbury, CT 06033

Engineer's E-mail Address: matt.laplante@wsp.com

Description of Existing Condition of Structure: *(attach description)*

Description of Project Scope: A *(note Bridge Repair Code as per Figure 5-1 of the current Local Bridge Program Manual; attach narrative/preliminary plans & specifications).*

Name of Municipal Official to Contact: Glenn Cusano

Title: Project Administrator Telephone: (860) 693-9863 Ext: 2406 Fax: \_\_\_\_\_

Mailing Address: 50 River Road Collinsville, CT 06022

E-mail: gcusano@townofcantonct.org

#### Anticipated Schedule:

(MM/DD/YYYY)

Public Meeting Conducted: 02/01/2021

Design Completion: 07/01/2021

Property Acquisition Completion: 04/01/2021

Utilities Coordination Completion: 04/01/2021

Construction Advertising: 08/01/2021

Supplemental Application Submission: 07/01/2021

Start of Construction: 10/01/2021

Completion of Construction: 11/30/2022



**Local Bridge Program – FY 2019 Preliminary Application**

Bridge Number 023006, Town/City/Borough of Canton

**Preliminary Cost Figures:**

Preliminary Engineering Fees (Include Breakdown of Fees)	\$ <u>233,000.00</u>
Rights-of-Way Cost (If applicable)	\$ <u>20,000.00</u>
Municipally Owned Utility Relocation Cost	\$ <u>10,000.00</u>
Estimated Construction Costs (Include Detailed Estimate)	\$ <u>990,000.00</u>
Construction Engineering (Inspection, Materials Testing)	\$ <u>248,068.00</u>
Contingencies (10% of Construction Costs Only)	\$ <u>99,000.00</u>
Total Estimated Project Cost	\$ <u>1,600,068.00</u>

**Financial Aid Data:**

**NOTE: funding limited to Eligible Bridges** as published at [www.ct.gov/dot/localbridge](http://www.ct.gov/dot/localbridge) or those found to be eligible in accordance with Section 2.3 – Priority Lists of the current Local Bridge Program Manual.

**Federal Reimbursement:**  
Total Estimated Project Cost multiplied by 80%:  
Federal Aid Request \$ \_\_\_\_\_

**State Local Bridge Project Grant:** (Cannot be combined with Federal reimbursement)  
Total Estimated Project Cost multiplied by 50%:  
Project Grant Request: \$ 800,034.00

Other Source of State or Federal funding received/applied for: \$ 0.00, State/Federal N/A  
Funding program: N/A

I hereby certify that the above is accurate and true, to the best of my knowledge and belief. I also certify that this form has not been modified in any way from that distributed by the Department of Transportation for FY 2019.

Signature: [Handwritten Signature] Date: 6/25/2020

Name: Robert H. Skinner Title: Chief Administrative Officer  
(Must be signed by Chief Elected Official, Town Manager, or other Officer Duly Authorized)

Return **original signed applications** to: Mr. Francisco T. Fadul, P.E.  
Project Engineer for the Local Bridge Program  
Connecticut Department of Transportation  
2800 Berlin Turnpike, P.O. Box 317546  
Newington, Connecticut 06131-7546



# CONNECTICUT DEPARTMENT OF TRANSPORTATION



## LOCAL BRIDGE PROGRAM

### PRELIMINARY APPLICATION

Preliminary application is hereby made by the Town/City/Borough of Canton for possible inclusion in the Local Bridge Program for Fiscal Year **2019** for the following structure:

Bridge Location: Washburn Road over Jim Brook

Bridge Number: 023001 Structure Length: 16.0 feet Curb-to-Curb Width: 25.0 feet

Sufficiency Rating: 34.84 % Priority Rating: 31.88 %

Evaluation & Rating Performed by:  State Forces  Others

If Others, Name of Professional Engineer: Matt LaPlante & George Gerard

Connecticut Professional Engineers License Number: 31038 & 32495

Engineering Firm: WSP USA

Engineer's Address: 500 Winding Brook Drive Glastonbury, CT 06033

Engineer's E-mail Address: matt.laplante@wsp.com

Description of Existing Condition of Structure: *(attach description)*

Description of Project Scope: A *(note Bridge Repair Code as per Figure 5-1 of the current Local Bridge Program Manual; attach narrative/preliminary plans & specifications).*

Name of Municipal Official to Contact: Glenn Cusano

Title: Project Administrator Telephone: (860) 693-9863 Ext: 2406 Fax: \_\_\_\_\_

Mailing Address: 50 River Road Collinsville, CT 06022

E-mail: gcusano@townofcantonct.org

#### Anticipated Schedule:

(MM/DD/YYYY)

Public Meeting Conducted: 02/01/2021

Design Completion: 07/01/2021

Property Acquisition Completion: \_\_\_\_\_

Utilities Coordination Completion: 04/01/2021

Construction Advertising: 08/01/2021

Supplemental Application Submission: 07/01/2021

Start of Construction: 10/01/2021

Completion of Construction: 11/30/2022

**Local Bridge Program – FY2019 Preliminary Application**

Bridge Number 023001, Town/City/Borough of Canton

**Preliminary Cost Figures:**

Preliminary Engineering Fees (Include Breakdown of Fees)	\$ <u>233,000.00</u>
Rights-of-Way Cost (If applicable)	\$ <u>0.00</u>
Municipally Owned Utility Relocation Cost	\$ <u>10,000.00</u>
Estimated Construction Costs (Include Detailed Estimate)	\$ <u>1,095,000.00</u>
Construction Engineering (Inspection, Materials Testing)	\$ <u>248,068.00</u>
Contingencies (10% of Construction Costs Only)	\$ <u>109,500.00</u>
Total Estimated Project Cost	\$ <u>1,695,568.00</u>

**Financial Aid Data:**

**NOTE: funding limited to Eligible Bridges** as published at [www.ct.gov/dot/localbridge](http://www.ct.gov/dot/localbridge) or those found to be eligible in accordance with Section 2.3 – Priority Lists of the current Local Bridge Program Manual.

**Federal Reimbursement:**  
Total Estimated Project Cost multiplied by 80%:  
Federal Aid Request \$ \_\_\_\_\_

**State Local Bridge Project Grant:** (Cannot be combined with Federal reimbursement)  
Total Estimated Project Cost multiplied by 50%:  
Project Grant Request: \$ 847,784.00

Other Source of State or Federal funding received/applied for: \$ 0.00, State/Federal N/A  
Funding program: N/A

I hereby certify that the above is accurate and true, to the best of my knowledge and belief. I also certify that this form has not been modified in any way from that distributed by the Department of Transportation for FY 2019.

Signature: [Handwritten Signature] Date: 6/2/2020

Name: Robert H. Skinner Title: Chief Administrative Officer  
(Must be signed by Chief Elected Official, Town Manager, or other Officer Duly Authorized)

Return **original signed applications** to: Mr. Francisco T. Fadul, P.E.  
Project Engineer for the Local Bridge Program  
Connecticut Department of Transportation  
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Newington, Connecticut 06131-7546