



CATEGORY A3  
REINSPECTION  
COST: 2,054.28

POSTING STATUS: A  
U/W INSPECTION  
REQUIRED

LEHIGH COUNTY BRIDGE NO. 29  
LOCATION: CITY OF ALLENTOWN  
BASIN STREET OVER LITTLE LEHIGH CREEK  
CUSTODIAN: LEHIGH COUNTY

BMS NO. 39730100009029

DATE OF INSPECTION: DECEMBER 1, 2011  
INSPECTOR: BRENT MILLER  
SCOTT KLINE

**Confidential - Structure Safety Inspection Study**

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Prepared for: County of Lehigh  
17 South Seventh Street  
Allentown, PA 18101

Prepared by: STV Incorporated  
205 West Welsh Drive  
Douglassville, PA 19518



*Barry K. Moyer*  
11/2/2012

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# LOCATION MAP



**BMS STRUCTURE NO. 39 7301 0000 9029  
BASIN STREET OVER LITTLE LEHIGH CREEK  
CITY OF ALLENTOWN, LEHIGH COUNTY**

# INSPECTION REPORT

## GENERAL DESCRIPTION

The structure carrying Basin Street over Little Lehigh Creek is a 3 span P/S adjacent box beam bridge with a length of 210 feet. The roadway has a curb to curb width of 52.0 feet. The overall condition is fair, as indicated by the condition ratings given on PennDOT iFORMS.

## EXISTING CONDITIONS AND DEFICIENCIES

RATINGS (Previous inspection rating in parenthesis)

8 (6) APPROACH:

The roadway has been repaved with bituminous within 50' of each end of the bridge. The guiderail treatments are below current standards, but can be considered adequate for the site conditions.

6 (6) DECK:

The bridge has been repaved since the last inspection, including milling off 2" and replacing it in kind. The previous joints have been replaced with asphaltic plug joints. The drains along the left curb are clogged. A few sections of lightly damaged w-beam rail on the left have been replaced in spans 1 and 3, while several curb spalls have been patched, with some cracks/delaminations remaining. On the bottom, light scattered drainage and staining were noted along the beam joints.

5 (5) SUPERSTRUCTURE:

Throughout the beams, there are minor hairline cracks and scattered small patches and spalls. A few of these larger patches that previously had as many as three exposed and deteriorating strands are cracking and starting to delaminate and re-spall. In span 3, B1 has a spall at the pier end with a couple visible strands, while B2 has a few fairly sizeable delaminations across the bottom.

5 (6) SUBSTRUCTURE:

Stains and spots of active drainage are typical at the abutment and pier seats. The near abutment is spalled at the bottom left, with a cracked patch at the top right (at the utility) and a cracked/spalling patch at the top right wing joint. 2" gaps measured at the top of both near wing joints are unchanged. At the far abutment four large, lightly cracked patches are present on the left, with four small delaminations/spalls noted around the middle of the stem.

Pier 1 has a couple patches on the near face, with a few fairly large delaminations and a small spalling patch on the far face. Pier 2 has several small cover spalls and patches (some delaminated) on each face. The upstream nose of both piers has spalls and cracked patches. Also, water depths (7'+) still prohibit probing across the near right 2/3 of pier 2. It should be noted that the design plans show foundation columns set into bedrock under the footings. Most of pier 1 is protected by rip-rap.

EXISTING CONDITIONS AND DEFICIENCIES (Continued)

RATINGS (Previous inspection rating in parenthesis)

4 (5) STREAM CHANNEL:

The creek is well aligned into the bridge, flowing mostly through span 2. The channel is deeper in the middle, with the above noted scour at the near right of pier 2. Trout Creek enters the main channel at the near left (upstream) corner of the bridge, with two gabion spurs partly failing/slumping here. Tree limbs and branches were noted at the upstream noses of the piers, as well as under span 1 (including a root ball and stump).

5 (5) STRUCTURAL EVALUATION (APPRAISAL):

Based on the Superstructure and Substructure ratings.

BRIDGE LOAD RATING

A rating analysis has previously been performed for this bridge. The Operating rating factors were computed using the Load Factor Design Method. The Inventory rating factors were computed using the controlling factors of the Load Factor Design Method and the Allowable Stress Method (Serviceability). These ratings are listed below.

Component	Inventory Rating - Tons				Operating Rating - Tons			
	H20	HS20	ML80	TK527	H20	HS20	ML80	TK527
Interior	34	44	38	43	70	96	77	84

POSTING REVIEW

Existing Posting: None

Proposed Posting: None

## RECOMMENDATIONS

The following items are in need of repair and are prioritized with the most important items first. When applicable, an estimated cost follows the repair.

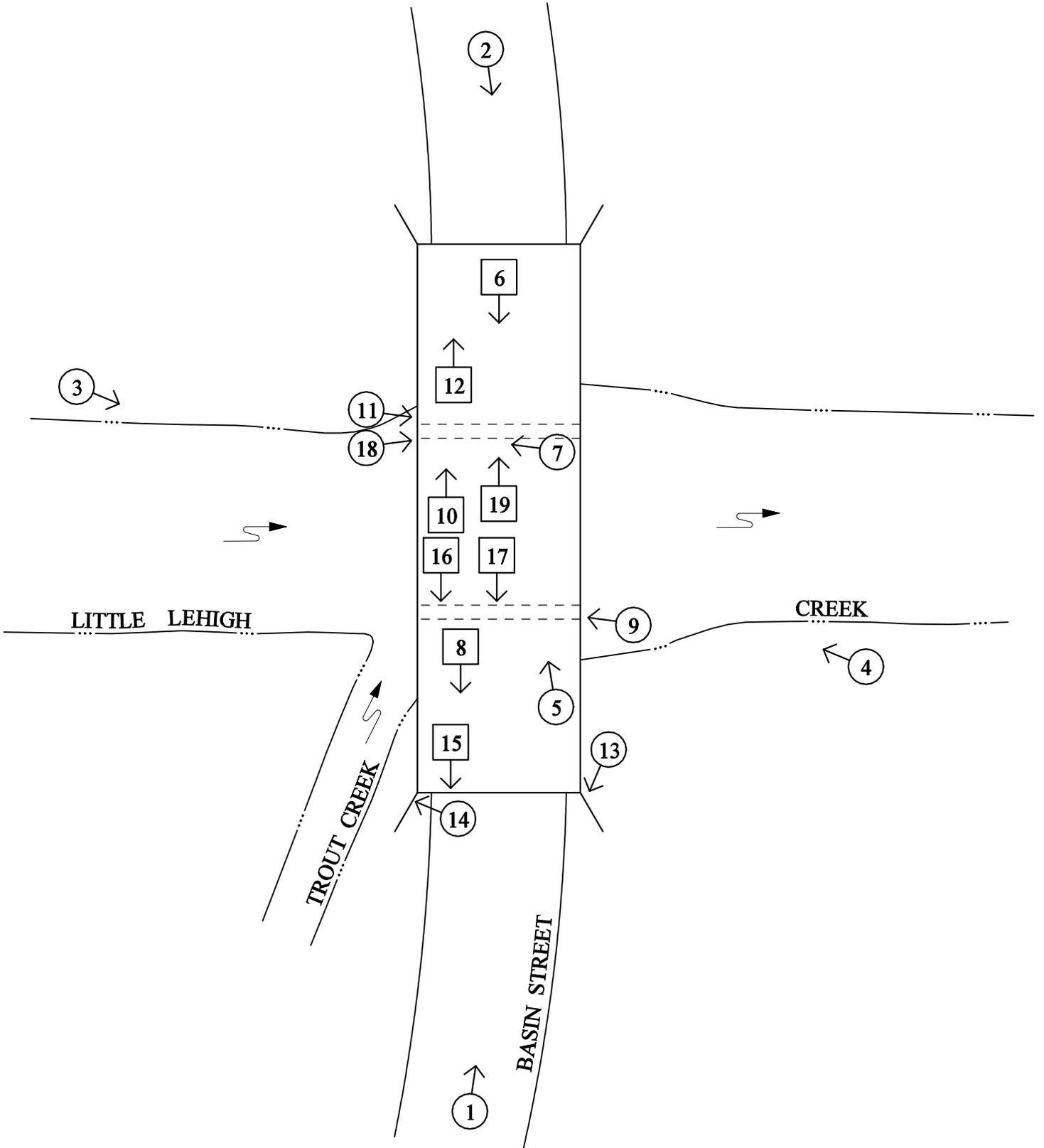
### Short Term

1. Perform an underwater inspection of Pier 2 to find out the extent of scour across the near right and note the condition of the submerged area.
2. Remove the deteriorated concrete from the abutments, piers and beams. Clean all exposed reinforcement and prestressed strands before patching by an approved method. (\$5,000)
3. Backfill the scour and install rock protection at Pier 2. Coordinate this work in the channel with the Department of Environmental Protection for permits. Also remove any debris at/around the bridge. (\$15,000)
4. Update the approach guiderail to meet current standards.
5. Flush the drains across the left curb to promote drainage of the deck.

### Long Term

1. This bridge should be inspected by a qualified bridge inspector or engineer a minimum of once every two years.
2. Continue to monitor the gaps at the near abutment wingwall/stem joints.

# APPENDIX



PHOTOGRAPH IDENTIFICATION AND ORIENTATION

-  AT GRADE PHOTOGRAPH
-  UNDER STRUCTURE PHOTOGRAPH



1. The approach roadway, looking from the near side.



2. The approach roadway, looking from the far side.



3. Elevation view, looking downstream toward the bridge.



4. Elevation view, looking along the downstream side of the bridge.



5. View of the top deck surface, looking from the near right.



6. View underneath span 3, looking toward pier 2.



7. Typical asphaltic plug pier joint replacement.



8. One of two cracked/delaminated patches (previously 1 strand) at B3 in span 1.



9. Web cracking at the pier end of the span 1, right fascia beam.



10. Lightly cracked and spalling patch (previously 3 strands) at midspan B2 in span 2.



11. Spall with two visible strands at the pier end of the span 3, left fascia beam.



12. Cracks/delamination across the bottom of B2 in span 3.



13. Cracked and spalling patch at the near right stem corner.



14. Approximate 2" gap at the near left stem/wingwall joint is unchanged.



15. Spall toward the bottom of the near left abutment stem.



16. Large delamination at the top far left face of pier 1.



17. Large delamination at the top far middle face of pier 1.



18. Typical spalls and cracked patches at the upstream noses of the piers.



19. Typical small patches (spalling) at pier 2.

**5A01** SR ID: 39730100009029      **5A03** BR Key: 23511      **7A01** Inspection Date: December 01, 2011

**1A09** Inspection Status: 2 - Submitted  
**7A02** Team Leader: 710 STV Incorporated Bren Miller  
**7A03** Inspection Type: R - Regular (routine)  
**7A05** Inspected By: 8 - Consulting Firm

**Structure Description**

**5A08** FHWA Facility Carried: BASIN STREET  
**5A07** Features Intersected: LITTLE LEHIGH CREEK  
**5A09** Location: BETWEEN 3RD & 4TH STREET  
**5C01** Roadway Name: BASIN STREET  
**5A06** City / Borough Name: 39/301 - ALLENTOWN

**Structure Type**

**Main**

**6A26** Material Makeup: 4 - P/S  
**6A27** Physical Makeup: 2 - Pretensioned  
**6A28** Span Interaction: 1 - Simple, non-comp  
**6A29** Structural Config: 07 - Box beam - adj

**Approach**

**6A26** Material Makeup:  
**6A27** Physical Makeup:  
**6A28** Span Interaction:  
**6A29** Structural Config:

**5A01** SR ID: 39730100009029 **5A03** BR Key: 23511 **7A01** Inspection Date: December 01, 2011

**Sign Information**

<b>ID01</b>	<b>ID02</b>	<b>ID03</b>	<b>ID06</b>	<b>ID04</b>	<b>ID07</b>	<b>ID05</b>	
Type of Sign	Sign Needed	Sign Message	Near Adv	Bridge Site Near	Far	Far Adv	Comments
0 - Bridge	No						
1 - Bridge Weight Limit	No						
2 - Except Combinations	No						
3 - One Truck at a Time	No						
4 - Vertical Clearance On	No						
5 - Vertical Clearance Under	No						
6 - One Lane Bridge	No						
7 - Narrow Bridge	No						
8 - Hazardous Clearance	No						
9 - Other	No						

**Features Intersected**

<b>6C02</b>	<b>5C03</b>	<b>5B09</b>	<b>5C06</b>	<b>5C29</b>	<b>4A20</b>	<b>4A19</b>	<b>6C18</b>	<b>6C19</b>	<b>6C20</b>	<b>6C21</b>	<b>6C22</b>	<b>6C23</b>	<b>6C24</b>	<b>6B17</b>
SR ID	On/Under	Skew Angle	Dir	NHS	Min Lat CI Left	Right	Tot Hor CI Left	Right	Min Vrt CI Left	Rdwys Right	Vrt CI Over 10ft Left	Right	VT Sign	ADT
-	-	1	72 N/A	-1	-1.0	-1.0	0.0	52.0	-1.0	99.9	-1.0	99.9	0	14,700
		2	-1 N/A	-1	-1.0	-1.0	-1.0	-1.0	-1.0	12.7	-1.0	-1.0		-1

**5A01** SR ID: 39730100009029 **5A03** BR Key: 23511 **7A01** Inspection Date: December 01, 2011

- 6B15** Design Exceptions:
- 6A50** Sup Latent Problem: \_
- 6A51** Sub Latent Problem: \_

**Deck Geometry**

Table Used for Appraisal: 2 - 2C/2D

**Controlling Values**

- 5C10** ADT: 14,700
- 5C27** Bridge Road Width: 52.0
- 4A10** Appraisal: 4 - Tolerable  
Notes: 4 lanes

- 4A11** Underclr Appr: N - Not applicable (NBI)
- 6B13** Controlling Vertical: -1.0 FT  
Controlling Lateral:

**Traffic Safety Features**

Feature Type	Location	Adequacy Rating	Description	Posted Spd Lmt (mph)
1 - Railing		4 - does not meet code 6		-1
<b>Comment:</b> left: 27" ht. structure mounted guiderail (6'-3" spa.) along roadway; few sections of new w-beam in spans 1 & 3; several curb patches - some cracks & delaminations still exist right: 28" ht. concrete along roadway outside both sides: 16" ht. non-standard concrete w/ 2 tier railing - minor cracks				
2 - Transition		4 - does not meet code 6		-1
<b>Comment:</b> left: not required, continued from bridge right: 6' tapered concrete sections between bridge & approach curbs; guiderail behind - 3' spa. @ near (plastic offsets), stiffened @ far (steel offsets)				
3 - Approach Guiderail		4 - does not meet code 6		-1
<b>Comment:</b> left: along curb - 6'-3" post spa., steel offsets, only 12.5 lf @ far right: guiderail behind curbs w/ curb cuts - plastic offsets @ near, steel @ far				
4 - Approach railend		6 - adeq/not standard		-1
<b>Comment:</b> left: cable breakaway @ near; taper/flare @ far (out of clear zone) right: behind curb - boxing glove (out of clear zone) @ near; taper/flare @ far				

**Approach Alignment**

- 4A02** Code: 7 - Above Min Criteria  
Comment: horizontal curve limits sight slightly w/ no speed reduction

**Approach Roadway**

- 6B39** Code: 8 - Very Good  
Pavement: bituminous: new pavement within 50' of each end of bridge  
Drainage: n/a  
Shoulders: n/a

**5A01** SR ID: 39730100009029      **5A03** BR Key: 23511      **7A01** Inspection Date: December 01, 2011

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**Approach Slab**

**6B38** Code: N - N/A

Pavement:

**6B04** Bump at Bridge: No Bump    new pavement across both transitions

**6A39** Relief Joints: 0 - Joints not present

**6A41** Number of Joints: 4

Comment:

**6B02** New Wearing Surface Under Bridge: No

**5A01** SR ID: 39730100009029 **5A03** BR Key: 23511 **7A01** Inspection Date: December 01, 2011

**Deck Wearing Surface**

**Main**

**5B02** Type of Wearing Surface: 6 - Bituminous  
**5B03** Type of Memb. Water-Proof: 0 - None  
**5B04** Deck Corrosion Protection: 0 - None  
**6A33** Thickness: 3.5  
**6A34** Date Recorded: 01/03/2012  
**6B40** Condition Rating: 8 - Very good - no problems noted  
**IC02** Dk WS Notes: bituminous - newly paved (through the approaches @ both ends)

**Approach**

**6A30** Type of Wearing Surface: \_ - Unknown (NBI)  
**6A31** Type of Memb. Water-Proof: \_ - Unknown (NBI)  
**6A32** Deck Corrosion Protection: \_ - Unknown (NBI)  
**6A33** Thickness: 0.0  
**6A34** Date Recorded: 01/01/1901

**Expansion Joints**

**6A41** Number of Expansion Joints: 4

Joint Number	<b>VD25</b> Joint Type	<b>VD26</b> Movement Class	<b>VD27</b> Manufacture Code
1	P - Asphaltic Plug	A - Up to 2"	G - Unknown

**Deck**

**1A01** Condition Rating: 6 - Satisfactory condition - structural elements show some minor deterioration  
**6B07** Est. Spall Delamination: 0.00 % **6B08** Date: 01/01/1901  
**6B10** Est. Chloride Content: 0.00 % **6B11** Date: 01/01/1901  
**1A07** Unrepaired Spalls: -1.00 SF

**Deck Top:** tops of beams not visible due to wearing surface

**Deck Underside:** light scattered drainage & staining along beam joints

**Deck Drainage:** clogged

**Expansion Joints:** 2' wide strips of bituminous recently paved across pier joints

**Deck Notes:**

**Superstructure**

**1A04** Condition Rating: 5 - Fair-all primary structural elements are sound but may have minor section loss, cracking spalling.  
**Narrative:** 19 p/s adjacent box beams x 3 spans

5A01

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7A01

Inspection Date: December 01, 2011

**Girders/Beams:** span 1:

- B1 - web patch @ pier end (under parapet joint)
- B2 - tiny crack/spall @ 1st drain
- B3 - cracked patch @ midspan (previously 1 strand) w/ some delamination on near side, similar cracked patch @ 3/4 span
- B7 - tiny corner spall @ near, small patch @ far
- B11 - 2 round patches (@ old drains?)
- B16 - patch @ far
- B17 - tiny spall near end @ utility
- B18 - n/c hairline crack far half
- B19 - hairline cracks w/ efflorescence outside web @ pier

span 2:

- B1 - patch @ near web, w/ small spall @ bottom corner
- B2 - small delamination on near half; lightly cracked & spalled patch @ midspan (previous 3 strands, moderate loss)
- B7 - tiny spall @ near
- B9 - n/c hairline/fine crack across
- B11 - 2 round patches (@ old drains?)
- B15 - tiny spall @ near half
- B18 - small spall @ near

span 3:

- B1 - spall @ near outside end/corner w/ ends of couple strands visible
- B2 - h/l crack @ each end, 24" delamination toward near, 3' x 1' delams. @ near & far
- B3 - cracked patch @ midspan (previous 2 strands, severed) w/ crack/delam. @ FL
- B7 - small patch @ far
- B9 - small patches @ midspan edges
- B11 - 2 round patches (@ old drains?)
- B15 - small spall @ midspan
- B17 - patch @ near & 1/3 span, light edge spalling
- B18 - few short h/l cracks @ near
- B19 - hairline crack @ near web

**Floorbeams:** n/a

**Stringers:** n/a

**Diaphragms:** n/a

**Truss Members:** n/a

**Portals/Bracings:** n/a

**Bearings:** no problems observed

**Drainage System:** drains through holes in B2 (flush w/ bottom of beam)

**5A01** SR ID: 39730100009029 **5A03** BR Key: 23511 **7A01** Inspection Date: December 01, 2011

**1A02** Substructure Condition Rating: 5 - Fair-all primary structural elements are sound but may have minor section loss, cracking, spalling.

Notes:

**Near Abutment**

**Backwall:** n/a

**Bridge Seats:** some active drainage from B1 to B3

**Cheekwalls:** no problems observed

**Stem:** 3' x 1' spall @ bottom left;  
lightly cracked patch @ top right (@ utility);  
cracked patch @ top half of joint w/ right wing - spalling of patch @ top

**Wings:** 2" gap measured @ top of each wing joint;  
some erosion @ free end of extended left wing from tributary flow

**Footing:** not visible

**Piles:** n/a

**IN20** Scour Undermine: 0 - No

**Settlement:** none observed

**Embank Slope-wall:** large rock across end of left wing

**Wall Drainage:** clear

**Far Abutment**

**Backwall:** n/a

**Bridge Seats:** spots of active drainage

**Cheekwalls:** no problems observed

**Stem:** 4 large, lightly cracked patches on left side;  
4 small delaminations/spalls around middle;  
scattered light hairline cracking

**Wings:** - no problems observed

**Footing:** not visible

**Piles:** n/a

**IN20** Scour Undermine: 0 - No

**Settlement:** none observed

**Embank Slope-wall:** n/a

**Wall Drainage:** clear

5A01

SR ID: 39730100009029

5A03

BR Key: 23511

7A01

Inspection Date: December 01, 2011

### Navigational Control

4A21

Controls Exist: Unknown

4A22

Vert Clearance: 0.00

4A24

Lift Vertical: -1.00

4A23

Horz Clearance: -1.00

4A07

Pier Protection: Not Applicable (N)

### Pier Details

5D02

Pier/Bent Number: P01

IN20

Scour Undermine: No

#### Condition Summary:

**Bridge Seats:** some drainage @ left, previous staining across

**Cheekwalls:** n/a

**Columns/Stems:** near: patch @ left, patch @ middle (some cracking)

far: 3' delamination @ top left - almost spalled off;  
3' delamination @ top middle - extends down joint - hairline crack w/ efflo. above;  
small patch @ bottom middle - half spalled w/ crack extending down;  
small delamination @ right

u/s nose: small spalls, cracked patches

footing: not visible - rock around, except @ FR

**Settlement:** none observed

5D02

Pier/Bent Number: P02

IN20

Scour Undermine: No

#### Condition Summary:

**Bridge Seats:** previous staining

**Cheekwalls:** n/a

**Columns/Stems:** near: small cover spalls @ left & middle, couple patches

far: couple patches, some small delaminations

u/s nose: spalling @ top, smaller spalls & cracked small patches full height

footing: not visible from NL - around u/s nose - across far face;  
water depth prohibits probing across NR 2/3, underwater inspection required

**Settlement:** none observed

**5A01** SR ID: 39730100009029      **5A03** BR Key: 23511      **7A01** Inspection Date: December 01, 2011

**Main**

**6A44** Group: 9 - Group 9  
**6A45 - 6A48** Critical Rating Factor: 9992  
**6A49** Total Critical Rating Factor: 29

**Structure Type (Dept)**

**6A26** Material Makeup: 4 - P/S  
**6A27** Physical Makeup: 2 - Pretensioned  
**6A28** Span Interaction: 1 - Simple, non-comp  
**6A29** Structural Config: 07 - Box beam - adj

**Approach**

**6A44** Group:  
**6A45 - 6A48** Critical Rating Factor:  
**6A49** Total Critical Rating Factor: 0

**Structure Type (Dept)**

**6A26** Material Makeup:  
**6A27** Physical Makeup:  
**6A28** Span Interaction:  
**6A29** Structural Config:

**Fracture Critical Details**

**IF01** Location:      **IF02** Type:      **IF05** FC Stress Category:  
**IF03** Member:

**IF04** Member Detail:  
**IF06** Notes:

**5A01** SR ID: 39730100009029      **5A03** BR Key: 23511      **7A01** Inspection Date: December 01, 2011

**IU00a** UW Reviewer Action:

**IU00b** Reviewer Comments:

**IU02** Number of Units: 0

**IU01** Recalculate SCBI: 0 - no recalc needed

**IU03** SCBI Source: O - observed

**4A08** SCBI: 3 - SC - Unstable

**IU04** Overall SCBI: 6

**IU05** SAR: 83.00

**IU06** Streambed Material #1: A4 - Alluvium/advanced

**IU06** Streambed Material #2: A5 - Stable nat alluvium

**IU07** Notes: gravel, small cobbles

**Current Countermeasures**

CM Num	<b>IU21</b> Type	<b>IU22</b> Location	<b>IU23</b> Condition	<b>IU24</b> Subunit
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**Possible Countermeasures**

PCM Num	<b>IU25</b> Location	<b>IU26</b> Work Candidate
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**SAR Calculation Data**

**IU08** Debris Potential: 1 - Medium

**IU09** Trapping Potential: 0 - Low

**IU10** Pressure Flow: 0 - No

**IU11** NAB Location: 2 - Right

**IU12** FAB Location: 1 - Left

**US Left Wingwall**

**IU13** Presence: 1 - Yes

**IU14** Condition: 1 - Good

**US Right Wingwall**

**IU15** Presence: 1 - Yes

**IU16** Condition: 1 - Good

**Horizontal Debris Blockage**

**IU17** Start: 0

**IU18** End: 0

**Vertical Debris Blockage**

**IU19** Start: 0

**IU20** End: 0

**5A01** SR ID: 39730100009029      **5A03** BR Key: 23511      **7A01** Inspection Date: December 01, 2011

**Sub Unit OSA Data**

**Observed Scour Rating Components**

<b>IN01</b>	<b>IN12</b>	<b>IN13</b>	<b>IN14</b>	<b>IN15</b>	<b>IN19</b>	<b>IN04</b>	<b>IN05</b>	<b>IN06</b>	<b>IN07</b>	<b>IN08</b>	<b>IN09</b>	<b>IN10</b>	<b>IN11</b>	<b>IN03</b>
Sub Unit	Pier/ Abut Type	Inv. Found Type	Found Type	Strmbd Mat	Move Ind	Chg Since Last Insp	Scour Hole	Debris Potential	Scour-ability	Opening Adeq. / Channel	Sediment	Alignment	Velocity/ Stream Slope	Observed Scour Rating
P02	23	J	2	A4	0									-
FAB	2	E	3	A4	0	9	9	9	7	9	9	8	6	7
NAB	2	L	2	A4	0	9	9	9	5	9	9	8	6	7
P01	23	J	2	A4	0	9	9	6	7	9	9	8	6	6

**Other Subunit Details**

<b>IN01</b>	<b>IN16</b>	<b>IN18</b>	<b>IN17</b>	<b>IN20</b>	<b>IN21</b>	<b>IN02</b>	<b>IN22</b>	<b>IN23</b>	<b>IU27</b>
Sub Unit	UW Insp Type	Water Dept	Observed Scour Depth	Scour Undermine	Counter-measures	Info from Current Insp	100 yr Flood Calc Scour Depth	500 yr Flood Calc Scour Depth	SCBI Code
P02	C	-1.0	-1.0	0	0	0	-1.0	-1.0	6

**IN24** Notes: water depth prohibits probing across NR 2/3

FAB	E	0.0	0.0	0	0	1	-1.0	-1.0	4
-----	---	-----	-----	---	---	---	------	------	---

**IN24** Notes: no scour

NAB	E	0.0	0.0	0	0	1	-1.0	-1.0	3
-----	---	-----	-----	---	---	---	------	------	---

**IN24** Notes: no scour

P01	E	3.0	0.0	0	1	1	-1.0	-1.0	3
-----	---	-----	-----	---	---	---	------	------	---

**IN24** Notes: rip-rap at all but far right

**Underclearance**

<b>IL09</b>	Origin Description:
<b>IL10</b>	Horizontal:
<b>IL11</b>	Vertical:
<b>IL12</b>	Notes:

**5A01**

SR ID: 39730100009029

**5A03**

BR Key: 23511

**7A01**

Inspection Date: December 01, 2011

**Channel**

**1A05** Channel/ Channel Protection Cond. Rating: 4

**Channel:** fairly straight - mostly through span 2 (some flow around pier 1);  
scour across NR 2/3 of pier 2 - 7'+ water depth

**Banks:** stable

**Streambed Movements:** none

**Debris, Vegetation:** limb @ u/s pier 1 & under FL span 1, few small branches @ pier 2;  
root ball (some stump) under FR span 1

**River Control Devices:** 2 gabion spurs @ NL tributary entrance (u/s) - partly failing/slumping

**Embank/Streambed Contr:** rock @ NL wing

**Drift Other:** small tributary enters from NL (u/s) corner

**Waterway Adequacy**

**1A06** Appraisal Code: 8

**Notes:** deck even w/approaches

**IL02** Overtop Risk: R - Remote

**IL03** Traffic Delay: I - Insignificant

**5C22** Functional Class: 19 - Urban Local

**High Water Mark**

**IL05** Elevation: 0.0

**IL06** Date: January 01, 1901

**IL07** New High Water Mark: No

**Notes:** unknown

**5A01** SR ID: 39730100009029 **5A03** BR Key: 23511 **7A01** Inspection Date: December 01, 2011

**Paint Condition**

**6B36** Paint Cond Rating: N - Not Applicable **6B37** Ext of Paint Cond: N - Not Applicable

**6B35** New Paint: 0 - no new paint

Int Beam / Gird:

Fascias:

Splsh Zone Truss Gird:

Truss:

Bearings:

Other:

**4B03** Bridge Cap. Appraisal: 9 - 31% or more above

**6B16** Controlling: (blank)

**4A09** Struct Cond Appraisal: 5

**Structure Condition Appraisal Based on**

The following Ratings:

**1A04** Superstructure Condition R 5 - Fair-all primary strutral elements are :

**1A02** Substructure Condition Rating: 5 - Fair-all primary structural elements are

**1A03** Culvert Rating: N - Not applicable

**Load Ratings**

**4B15** Load Rating Review Recommended: Recalc not required

Due To:

**IR03** Calculation Date: December 22, 2005

**IR02** Rating Approval Date: December 22, 2005

**Load Rating Details**

LOAD TYPE	<b>IR10</b> IR LOAD	<b>IR11</b> OR LOAD	<b>IR05</b> NBI IND	<b>IR06</b> RTNG ANAL METH	<b>IR07</b> CONT MEM TYPE	<b>IR16</b> ANALYSIS ENGINEER	<b>IR14</b> AASHTO MANUAL YEAR	<b>IR15</b> AASHTO SPEC YEAR	<b>IR13</b> OPR GOV CRITERIA	<b>IR12</b> INV GOV CRITERIA
1	34	70	0	2	1		1994	1992	M	M
<b>Notes Description:</b>										
2	44	96	0	2	1		1994	1992	M	M
<b>Notes Description:</b>										
8	38	77	0	2	1		1994	1992	M	M
<b>Notes Description:</b>										
2	44	96	1	2	1		1994	1992	M	M
<b>Notes Description:</b>										
0	43	84	0	2	1		1994	1992	M	M
<b>Notes Description:</b>										

**5A01** SR ID: 39730100009029

**5A03** BR Key: 23511

**7A01** Inspection Date: December 01, 2011

<b>IM01</b> Type of Work	<b>IM03</b> Action	<b>IM04</b> Est Qty	UOM	<b>IM05</b> Priority	<b>IM06</b> Date Rec	<b>IM08</b> Target Year	<b>IM11</b> Ass. WK
Flexible	2 - A743301-RESEAL DK.JOINT	244	LF	3	12/18/1997	0	No
<b>IM07</b> Status: 5 - Completed/Dept		<b>IM15</b> Notes:					
<b>IM09</b> Location N12F							
Flexible	28 - B744802-REPAIR ABUTMENT	1	CY	3	12/18/1995	0	No
<b>IM07</b> Status: 0 - Work not planned		<b>IM15</b> Notes:					
<b>IM09</b> Location NF							
Flexible	13 - B745301-CONST.ROCK PROTECT	25	CY	3	12/18/1997	0	No
<b>IM07</b> Status: 0 - Work not planned		<b>IM15</b> Notes:					
<b>IM09</b> Location UPUNDN							
Flexible	11 - C745301-BKFL.SCOUR HOLE	75	CY	3	12/18/1995	0	No
<b>IM07</b> Status: 0 - Work not planned		<b>IM15</b> Notes:					
<b>IM09</b> Location P02							
Flexible	32 - D744802-RPR. PIER	1	CY	3	12/20/1999	0	No
<b>IM07</b> Status: 0 - Work not planned		<b>IM15</b> Notes:					
<b>IM09</b> Location 12							

**5A01** SR ID: 39730100009029 **5A03** BR Key: 23511 **7A01** Inspection Date: December 01, 2011

Flexible 3 - ECREMVG-REMOVE VEG/DEBRIS 5 CY 3 12/22/2005 0 No

**IM07** Status: 0 - Work not planned **IM15** Notes:

**IM09** Location UPUN

Flexible 40 - RDPVMT-PATCH/RAISE PAVEMENT 55 SY 4 12/22/2005 0 No

**IM07** Status: 5 - Completed/Dept **IM15** Notes:

**IM09** Location NF

Flexible 42 - A744603-RPR/RPL.CONC.BEAM 12 EA 3 12/17/2009 0 No

**IM07** Status: 0 - Work not planned **IM15** Notes:

**IM09** Location 123

Flexible 17 - RLGSTRM-RPR/RPL.STR.MTD.G.R. 38 LF 3 12/17/2009 0 No

**IM07** Status: 5 - Completed/Dept **IM15** Notes:

**IM09** Location 23

Flexible 10 - BITWRGS-RPR/RPL.BIT.W.S. 1 SY 4 12/17/2009 0 No

**IM07** Status: 5 - Completed/Dept **IM15** Notes:

**IM09** Location 123

Flexible 1 - B743101-FLUSH SCUP/DNSPTG 0 EB 5 12/01/2011 0 No

**IM07** Status: 0 - Work not planned **IM15** Notes:

**IM09** Location

**5A01** SR ID: 39730100009029      **5A03** BR Key: 23511      **7A01** Inspection Date: December 01, 2011

Flexible    27 - RDGDERL-CONNECT GDERAIL TO BR      2    EA      4      12/01/2011      0    No

**IM07** Status: 0 - Work not planned      **IM15** Notes:

**IM09** Location NR FL

5A01

SR ID: 39730100009029

5A03

BR Key: 23511

7A01

Inspection Date: December 01, 2011

**Current Inspection**

7A03 Primary Type: R - Regular (routine)

7A06 Types of Inspections Performed:

NBI	Underwater	Element	Fracture Critical	Other Special
Yes	No	Yes	No	No

**Inspection Man Hours**

6B26	NBI Crew:	-1.00	6B30	Underwater:	0.00
6B28	Fracture Critical:	0.00	6B29	Other 1:	-1.00
6B27	Crane:	0.00	6B31	Other 2:	-1.00

**Inspection Costs (Entered to nearest dollar)**

6B32	Engineering:	2,054	6B33	Rigging:	-1
			6B34	Office:	-1

**Special Equip Used:**

6B12	Temperature:	50.0	6B09	Weather:	1 - Clear
6B03	Inventory Review Recommended:	No			

**Change Notes:**

**Inspection Team**

7A05 Inspected By: 8 - Consulting Firm  
 7A02 Team Leader: STV Incorporated Bren Miller  
 6B23 Team Member: Scott Kline  
 6B24 Hired By: 1  
 6B25 Insp Contract Num: E01222  
 2A02 Inspection Notes: Underwater Inspection Required

12/1/2011 - Reran scour calculator. SCBI (4A08) changed from "4" to "6" due to incomplete information for pier 2. Near abutment and pier 1 control with a rating of "3". 4A08 was updated to "3" based on this information.

Work since 2009 inspection:  
 Mill 2" wearing surface & replace w/ 2" Superpave (no waterproof membrane).  
 Joints are now asphaltic plug.

5A01

SR ID: 39730100009029

5A03

BR Key: 23511

7A01

Inspection Date: December 01, 2011

**Next Inspection**

7A14

Next Inspection By: 8 - Consulting Firm

6B20

Next Insp Type: R - Regular (routine)

**Schedule**

Insp Types	7A07 Required	7A09 Frequency	7A10 Next Date
NBI	----	24	December 01, 2013
Fractical Critical	No	-1	January 01, 1901
Underwater	No	-1	January 01, 1901
Other Special	No	-1	January 01, 1901
Element	----	24	December 23, 2005
Crane	----		6B18 January 01, 1901

6B01

Special InspType: 9 - Underwater only

**Estimated Inspection Man Hours**

7A12

NBI Crew: 0.00

7A17

Underwater: 0.00

7A15

Fracture Critical: 0.00

7A16

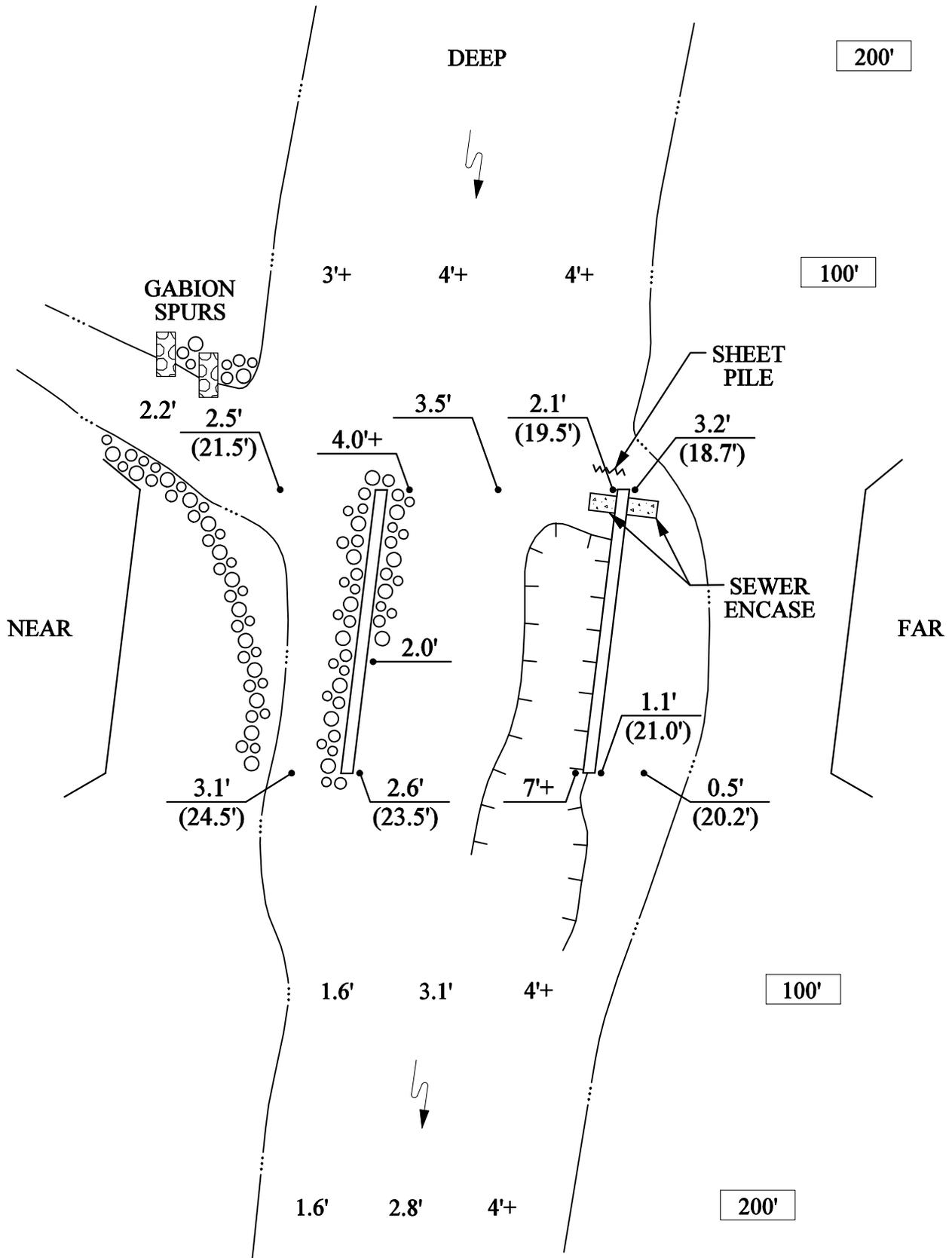
Other 1: 0.00

7A13

Crane: 0.00

7A18

Other 2: 0.00



**WATERWAY SKETCH**

Water Depth  
(Clear to Bottom of Beam)