

STRUCTURE NO. 05140

SANDY BROOK ROAD
over
SANDY BROOK
COLEBROOK

Routine Inspection
on
1/19/2007

Inspected by Team 1
for Area 1

TEAM:	Forwarded to Senior	John Daigle	Date	2/1/2007
SENIOR:	Reviewed by Senior	<i>[Signature]</i>	Date	3-6-07
	BMM Required			NO
	Town Bridge			YES
	Rating <= 5 (Items 58,59,60 or 62)			YES
	Forwarded to Supervisor	TDL	Date	5/15/07
	Forwarded to "To Be Copied Drawer"	<input type="checkbox"/>	Date	
	Date BRI-19 Entered			3/6/07
SUPERVISOR:	Reviewed by Supervisor	TDL	Date	5/21/07
SUPPORT:	Date Copies Made	52407 town	BMM No	<input type="text"/>

NBI: Yes

Structure No.	05140	Town	COLEBROOK
Inspection Date	1/19/2007	Inspectors	TEAM 01

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Comments:

Bridge Number **05140**

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION
STRUCTURE EVALUATION

90) Inspection Date 01/19/07	Inspection Team 101	91) Frequency 24	Class 01
Indepth Insp 3/15/01	Deck Survey	Access 0	Flagman 0

CRITICAL FEATURE INSPECTIONS

	Type	Frequency	Team	Date
Fracture:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uwater:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Inspected By: S. Jaranczyk & J. Jones

Sufficiency Rating **66.03**
Previous Inspection Date **3/7/05**

SHEET 1 OF (INSP. REPORT)

BS&E Received Data Entry By: JP
Copies Made Data Entry Date: 3/6/07

IDENTIFICATION

Bridge Name **COLEBROOK** Town Code **16050**

5) Inventory Route:
 A) Record Type **1** D) Route Number **00000**
 B) Signing Prefix **5** City Street E) Directional Suffix **0** NA
 C) Level of Service **0** None of the bel

6) Feature Intersected **SANDY BROOK**

7) Facility Carried: **SANDY BROOK ROAD**

9) Location **3.9 MILES E OF ROUTE 183**

11) Milepoint **0.52** Miles

16) Latitude **41 deg 59 min 36.00 sec** deg min sec
 17) Longitude **73 deg 3 min 18.00 sec** deg min sec

98) Border Bridge:
 A) State Code B) Percent Responsibility %
 C) Border Town Name

99) Border Bridge Structure No

STRUCTURE TYPE AND MATERIAL

43) Structure Type, Main:
 A) Material **1** Concrete B) Design Type **4** Tee Beam

44) Structure Type, Approach:
 A) Material **0** Other B) Design Type **0** Other

45) Number of Spans, Main Unit **2**
 46) Number of Approach Spans **0**

107) Deck Structure Type **1** Concrete Cast-in-Place

108) Wearing Surface/Protective System:
 A) Type of Wearing Surface **6** Bituminous
 B) Type of Membrane **8** Unknown
 C) Type of Deck Protection **8** Unknown

AGE AND SERVICE

27) Year Built **1942** 106) Year Reconstructed **0000**

42) Type of Service:
 A) On **1** Highway B) Under **5** WATERWAY

28) Number of Lanes:
 A) On **2** B) Under **0**

29) Average Daily Traffic **500** Half ADT?: **No**

109) Percent Truck **7** %
 30) Year of ADT **1991**

19) Bypass, Detour Length **8** miles

GEOMETRIC DATA

48) Length of Max Span **39** ft
 49) Structure Length **78** ft

50) Curb or Sidewalk Widths:
 A) Left **1.8** ft B) Right **1.8** ft

51) Brg Rdwy width, curb-curb **23.0** ft
 52) Deck Width, Out-Out **26.5** ft
 32) Approach Roadway Width **23** ft
 33) Bridge Median **0** No Median
 Deck Area **2067** sqft
 34) Skew Angle **45** deg
 35) Structure Flared **0**

10) Inv. Rte. Min. Vert Clearance **99** ft **99** in
 47) Log Inv. Rte. Total Horiz Clr.: **23.0** ft
 47) RLog Inv. Rte. Total Horiz. Clr.: **ft**

53) Min Vert Clearance Over Bridge **99** ft **99** in
 54) Min Vert Under Clearance **N** Ref **0** ft **0** in
 55) Min Lat Under Clearance on Right **N** Ref **99.9** ft
 56) Min Lat Under Clearance on Left **0.0** ft

BRIDGE COMMENTS

RED FLAG

CLASSIFICATION

112) NBIS Bridge Length	Yes	
104) Highway System	0	Off System
26) Functional Class	9	Rural Local
100) Defense Highway	0	Not Defense Highway
101) Parallel Structure	N	No parallel structure exists
102) Direction of Traffic	2	2-way traffic
103) Temporary Structure		
110) Designated National Network	0	Not on national network
20) Toll	3	On Free Road
21) Maintain	3	Town or Township Highway Agency
22) Owner	3	Town or Township Highway Agency
Report Class	L	LOCAL
37) Historical Significance	5	Bridge is not eligible for National Register

WATERWAY

DrainageBasinCode	4304
38) Navigation Control	0 No navigation control on waterway
39) Navigation Vert Clr.	0
116) Vert-Lift Brg Nav Min	
111) Pier Abutment Protection	
40) Navigation Horiz Clr.	0

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed	Replacement - incidental widening	
75B) Work Done By	Work done by contract	
76) Length of Struct. Improvement	ft	
94) Bridge Improvement Cost	\$	
95) Roadway Improvement Cost	\$	
96) Total Project Cost	\$	
97) Year of Improvement Cost Est.		
114) Future ADT		
115) Year Future ADT		
List No.	Project No.	Advertised

POSTED SIGNS & UTILITIES

Other Posted Signs 1					
Other Posted Signs 2					
Actual P.L. Single Unit Truck	tons		Actual P.L. 4Axle Truck	tons	
Rec. P.L. Single Unit Truck	tons		Rec. P.L. 4Axle Truck	tons	
Actual P.L. Semi-Trailer Truck	tons		Actual P.L. 3S2 Truck	tons	
Rec. P.L. Semi-Trailer Truck	tons		Rec. P.L. 3S2 Truck	tons	
Rec. P.L. All Vehicles	tons		Actual P.L. All Vehicles	tons	
Posted Vert Clearance On Bridge	ft	in		ft	in
Posted Vert Under Clearance	ft	in		ft	in
Posted Speed Limit	mph			mph	
Utility					

STRUCTURE EVALUATION

SHEET 2 OF 2 FORM BRI-19 REV 10/00

SHEET 2 OF (INSP. REPORT)

Bridge Number	05140	NBIS Length	
Town Name	COLEBROOK	Yes	78
Facility Carried	SANDY BROOK ROAD		
Feature Crossed	SANDY BROOK		

Inspected By: Jaramczyk & Jones

LOAD RATING AND POSTING

31) Design Load	0		Evaluation Code	J
63) Operating Rating Type	5		Year of Evaluation	1993
64) Operating Rating	71.0		70) Bridge Posting	5
65) Inventory Rating Type	5		41) Structure Status	A
66) Inventory Rating	38.0		Open, no restriction	

CONDITION

58) Deck	8	Rating	By
59) Superstructure	6		
60) Substructure	5		
61) Channel & Chan. Protection	6		
62) Culverts	N		

APPRAISALS

67) Structure Evaluation	5	Rating	By
68) Deck Geometry	4		
69) Under Clear Vert & Horiz	N		
71) Waterway Adequacy	5		
72) Approach Rdwy Alignment	3		
113) Scour Critical	8		

Items 58 Thru 72 Checked By: J. Daigle

36) Traffic Safety Features:

A) Bridge Railings	0
B) Transitions	0
C) Approach Guardrail	0
D) Approach Guardrail End	0

OTHER FEATURES

Fence Required	No		Barrel Ladder	No
Fence Present	No		Stand Pipes	No
Fence Height	0.0	ft	Cat Walks	No
Fence Type	Chain-Link		Movable Inspection System	No
Fence Material	Steel		Loose Concrete Checked?	No
Fence Top Type	Return			

INSPECTION COMMENTS

Proposed Next Indepth Insp Year	2011
Senior Supervisor	daiglej lapierred

REVIEWED BY J. Daigle Date 3/6/07

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

BRIDGE #: 05140

INSPECTION DATE: 1/19/2007

INSPECTION TYPE: Routine **PREVIOUS INSPECTION DATE:** 3/7/2005 **SNOOPER REQUIRED:** No

INSPECTION PERFORMED BY: Team 1 **SNOOPER USED:** No

TOWN: COLEBROOK **FEATURE CARRIED:** SANDY BROOK ROAD **YEAR BUILT:** 1942

LOCATION: 3.9 MILES E OF ROUTE 183 **FEATURE INTERSECTED:** SANDY BROOK **YEAR REBUILT:** 0

MAIN MATERIAL: Concrete **MAIN DESIGN:** Tee Beam

INSPECTION VISITS:

Inspection Date: 1/19/2007 **Start Time:** 9:15 AM
Temperature: 39 ° F **End Time:** 10:45 AM

INSPECTORS:

Inspector: S. Jaronczyk **Task:** Inspection
Inspector: J. Jones **Task:** Inspection

58. DECK **OVERALL RATING** 7

RATING

OVERLAY	7	Bituminous overlay. Random longitudinal and transverse cracks.
DECK STR. CONDITION	N	
CURBS	N	
MEDIAN	N	
SIDEWALKS	N	
PARAPET	7	RAILBASE - Vertical hairline cracks and light to medium scale on both. Partial snow covered this inspection.
RAILING	6	Angle iron posts and cap - Extensive loss of paint on both rails. Light rust on exposed steel. Remaining paint faded. Minor collision damage at the westend of the south rail.
PAIN	N	
FENCE	N	
DRAINS	N	
LIGHTING STANDARD	N	
UTILITIES TYPE/SIZE	N	
CONSTRUCTION JOINTS	N	
EXPANSION JOINTS	N	

59. SUPERSTRUCTURE **OVERALL RATING** 6

RATING

BEARING DEVICES	N	
STRINGERS	6	An area of short longitudinal cracking with efflorescence in bay #3 span #1 and #2. Scattered areas of efflorescence stains and light map cracks in both spans. Moss growth span #1 and #2 Beam #1 outside face.

Connecticut Department of Transportation

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BRIDGE #: 05140

INSPECTION DATE: 1/19/2007

59. SUPERSTRUCTURE

OVERALL RATING 6

A few widely scattered vertical hairline cracks on random beams.

Two diagonal hairline westend, north face of beam #2 span #1.

Small areas of map on the soffit of beam #3 span #2 at the westend.

Beam #4 bottom flange near abutment #1 has spall with exposed rebar.

Beam #3, span #2 has vertical hairline cracks approximately midspan, full height.

Random popouts from shallow steel.

Light rust on exposed steel.

GIRDERS	N	
FLOOR BEAMS	N	
TRUSSES-GENERAL	N	
TRUSSES-PORTALS	N	
TRUSSES-BRACING	N	
PAINT	N	
RUST	N	
MACHINERY MOV SPAN	N	
RIVETS & BOLTS	N	
WELDS & CRACKS	N	
TIMBER DECAY	N	
CONCRETE CRACKING	6	See above items.
COLLISION DAMAGE	8	
MEMBER ALIGNMENT	8	
DEFLECT. UNDER LOAD	N	
VIBR. UNDER LOAD	N	
STAND PIPES	N	
BARREL LADDERS	N	

ARE BARREL LADDERS OSHA COMPLIANT?

60. SUBSTRUCTURE

OVERALL RATING 5

	RATING	
ABUTMENTS-STEM	6	<p>Abutment #1 - Vertical hairline cracks and horizontal hairline cracks some with light efflorescence.</p> <p>Abutment #2 - Vertical hairline cracks.</p> <p>Open vertical crack under bay #2 at the center of the stem open 1/4" with small spalls and a very slight shift of 1/4" of south half to the west.</p>

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BRIDGE #: 05140

INSPECTION DATE: 1/19/2007

60. SUBSTRUCTURE

OVERALL RATING 5

		Abutment #2 has sticks, on seat.
ABUTMENTS-BACKWALL	7	Vertical hairline cracks and small spalls. Abutment #1 adjacent #1 has potential spall 2'x 1'.
ABUTMENTS-FOOTINGS	N	Not visible.
ABUT.-SETTLEMENT	8	
ABUTMENTS-WINGWALLS	4	Southwest - 7sf. severe scale, deterioration and hollow areas. Southeast - 14sf. severe scale deterioration, hollow areas and a potential spall at the free end. A large spall at and below the waterline This void extends into the abutment. Total area is approximately 10sf.x 6"deep. The southeast wing wall was probed and undermining was found up to 5 inches. There is allot of fine gravel at the base. Northeast - 5sf. severe scale, deterioration and hollow areas on the cap and free end. Random hairline cracks and efflorescence. Tops are covered with snow. Ice covered along the outer edges, spall at southeast is not visible.
PIERS/BENTS-CAPS	5	Southend - Heavy map cracking with efflorescence, rust stains and hollow areas. 6sf. severe on the eastface and 5sf. severe scale and deterioration on the cap. Northend - 10sf. medium to severe scale on the westface 20sf. severe scale, deterioration and hollow areas on the cap. Minor debris hung up at pier nose upstream side. Light to medium scale at waterline both faces. Efflorescence stains at construction joint (seam) both faces.
PIERS/BENTS-PILE BENT	N	
PIERS/BENTS-COLUMN	N	
PIERS/BENTS-FOOTINGS	N	
PIERS/BENTS-SETTLEMENT	8	
EROSION-SCOUR	8	
CONCRETE CRACK-SPALL	4	See above items.
STEEL CORROSION	N	
PAIN	N	
TIMBER DECAY	N	
COLLISION DAMAGE	8	
DEBRIS	N	

61. CHANNEL PROTECTION

OVERALL RATING 6

**Connecticut Department of Transportation
Bridge Inspection Report BRI-18**

BRIDGE #:

INSPECTION DATE:

61. CHANNEL PROTECTION **OVERALL RATING**

RATING

CHANNEL SCOUR A scour hole along southeast corner upto 5 feet deep x 4 feet around. This condition is old and consistent.
The area was probed and no undermining found at the abutment.
The southeast wing wall was probed and undermining was found up to 5 inches. There is allot of fine gravel at the base.
Partial Ice covered this inspection.

EMBANKMENT EROSION Minor at northwest wing.
Downstream heavy erosion.
Snow covered.

DEBRIS

VEGETATION

CHANNEL CHANGE

FENDER SYSTEM

SPUR DIKES & JETTIES

RIP RAP

62. CULVERTS & RETAINING WALL **OVERALL RATING**

APPROACH CONDITION **OVERALL RATING**

RATING

APPROACH SLAB

RELIEF JOINTS

APPROACH GUIDE RAIL Wire rope rail on wood posts - Loose and disconnected cable southwest and northeast.
Leaning posts. A broken post at the northeast approach.
Partial snow covered this inspection.

APPROACH PAVEMENT Random cracking and settlement up to 1" both approaches.
Open longitudinal crack at both approaches at centerline of roadway open up to 2".

APPROACH EMBANKMENT Heavy embankment erosion behind both west wings and the southeast wing from roadway run-off.

TRAFFIC SAFETY FEATURES:

BRIDGE RAILINGS

TRANSITIONS

APPROACH GUARDRAILS

APPR. GUARDRAIL ENDS

LOAD POSTING

SINGLE UNIT (TONS)

**Connecticut Department of Transportation
Bridge Inspection Report BRI-18**

BRIDGE #:

INSPECTION DATE:

HS (TONS)	<input type="checkbox"/>	<input type="text"/>
4 AXLE (TONS)	<input type="checkbox"/>	<input type="text"/>
3S2 (TONS)	<input type="checkbox"/>	<input type="text"/>
ADVANCE WARNING Y/N	<input type="checkbox" value="N"/>	<input type="text"/>
LEGIBILITY	<input type="checkbox" value="N"/>	<input type="text"/>
VISIBILITY/LOCATION	<input type="checkbox" value="N"/>	<input type="text"/>

MISC.

MIN VERT. UNDERCLR.	<input type="text" value="0"/>	'	<input type="text" value="0"/>	"	<input type="text"/>
POSTED CLR. UNDER BRIDGE	<input type="text"/>	'	<input type="text"/>	"	<input type="text"/>
POSTED CLR. ON BRIDGE	<input type="text"/>	'	<input type="text"/>	"	<input type="text"/>
ADVANCE WARNING (Y/N)	<input type="text" value="No"/>				
SPEED LIMIT (IF ANY)	<input type="text" value="0"/>	MPH	<input type="text"/>		
CHARACTER OF TRAFFIC	<input type="text" value="Light - mixed."/>				

ADDITIONAL NOTES

ADDITIONAL COMMENTS:

Inspectors' Signatures:

1)		Date: <u>01/30/07</u>
2)		Date: <u>01/30/07</u>
3)	<input type="text"/>	Date: <u>__/__/__</u>
4)	<input type="text"/>	Date: <u>__/__/__</u>

P.E. Signature:

P.E.#:

Date: __/__/__

Reviewed by:

 **CDOT**

Date: 3/6/07

CONCRETE DETERIORATION WORKSHEET

Form BRI-10, Rev. 9/97

9/9

Deterioration By Span - In Square FEET											
Span Number											
Deterioration Type	1	2	3	4	5	6	7	8	9	10	Total
Spalled and Delaminated Areas	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Scale (Moderate to Severe Only)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Cracks: w/Efflorescence (use .5 width x length)	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
w/o Efflo. (use .25 width x length)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Map Cracking: w/Efflorescence (use full area)	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
w/o Efflo. (use 50% of area)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Honeycombed Areas (only areas more than 1.5" deep)	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
TOTAL	80	56.5									
Span Area	1033.5	1033.5									
% Spalled and Delaminated on Top											
% Deterioration on Bottom	80%	6.0%									

CONCWORK.SHT

1	24-11-03	NONE
2	3-7-05	NONE
3	1-19-07	NO PROBLEMS
NO.	DATE	DESCRIPTION
REVISIONS		

Bridge No.	05140	Inspected by:	STEVEN JARONCZYK
Town:	COLEBROOK	Inspected by:	JAMES JONES
Feature Carried:	SANDY BROOK	Date Inspected:	1/19/07
Feature Crossed:	SANDY BROOK	Project No.:	



Photo # 1:
Looking east

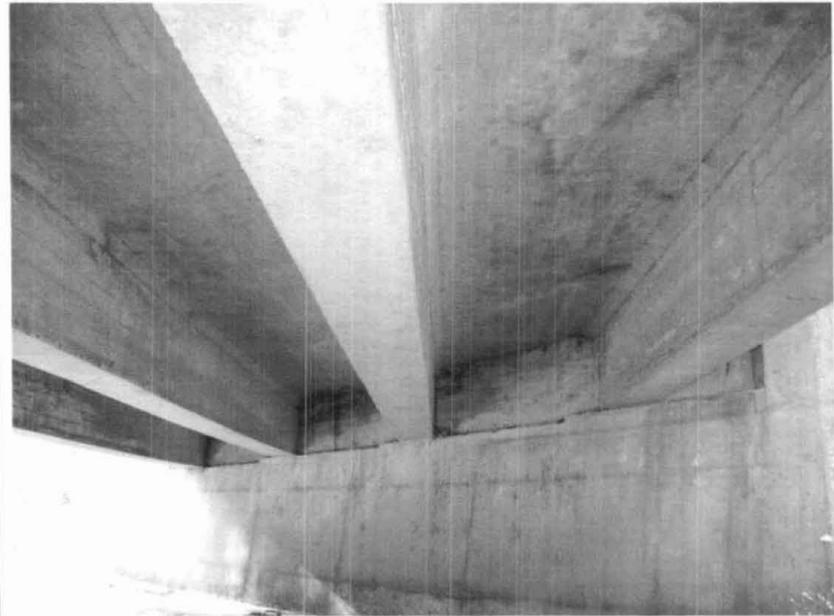


Photo # 2:
General underside of span # 2

Bridge No.	05140	Inspected by:	STEVEN JARONCZYK
Town:	COLEBROOK	Inspected by:	JAMES JONES
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Feature Crossed:	SANDY BROOK	Project No.:	

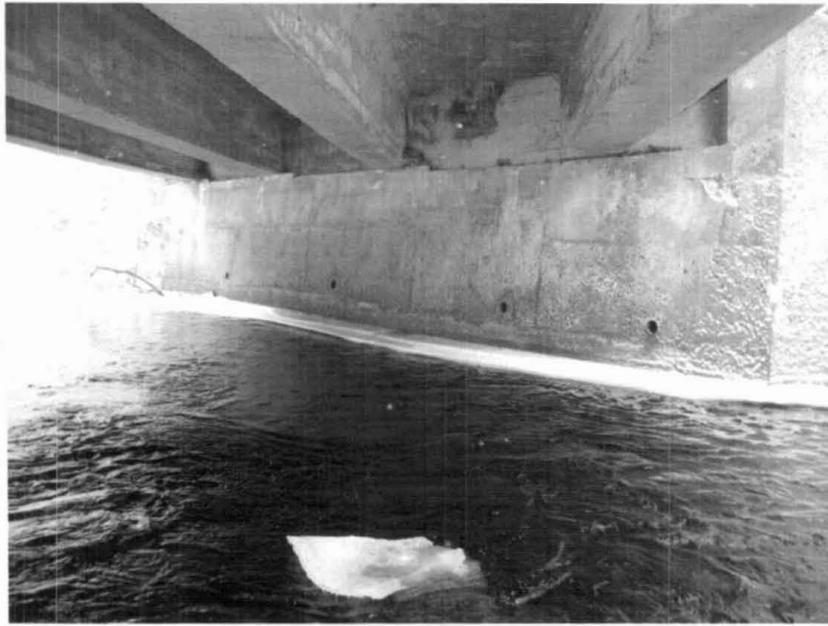


Photo # 3:
General view of abutment # 2

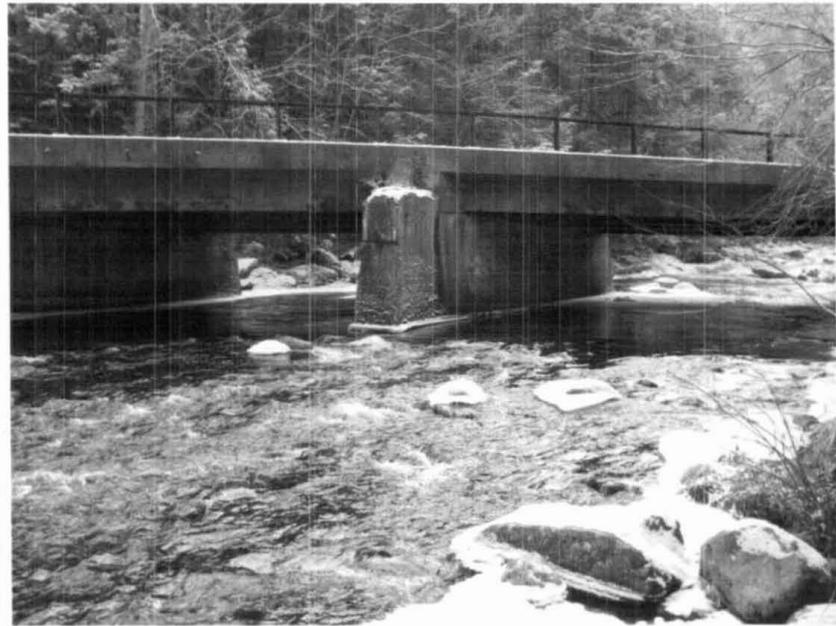


Photo # 4:
Short random cracks with efflo and shallow rebar in bay # 3, span # 2

Bridge No.	05140	Inspected by:	STEVEN JARONCZYK
Town:	COLEBROOK	Inspected by:	JAMES JONES
Feature Carried:	SANDY BROOK	Date Inspected:	1/19/07
Feature Crossed:	SANDY BROOK	Project No.:	



**Photo # 5:
Looking upstream**



**Photo # 6:
North elevation**

Bridge No.	05140	Inspected by:	STEVEN JARONCZYK
Town:	COLEBROOK	Inspected by:	JAMES JONES
Feature Carried:	SANDY BROOK	Date Inspected:	1/19/07
Feature Crossed:	SANDY BROOK	Project No.:	



Photo # 7:
Overlay



Photo # 8:
Looking east