# STRUCTURE NO. 04746

# SUNNYSIDE STREET over YANTIC RIVER NORWICH

Indepth Inspection on 9/23/2008

# Inspected by Baker - 23 for Area 4

TEAM:	Forwarded to TE3	Sandra Dumas	Date	5/8/2009
TE3:	Reviewed by TE3	Sandra Dumas	Date	5/12/2009
	BMM Require	ed	No	
	Town Bridge		Yes .	
	Rating <= 5 (i	tems 58,59,60 or 62)	No	
F	Forwarded to Supervisor	Sandra Dumas	Date	5/12/2009
F	orwarded to "To Be Cop	ied Drawer"	Date	
	Date BR	I-19 Entered	5/15/2009	
SUPERVIS	OR: Reviewed by Si	upervisor Sandra D	umas Dat	e 5/26/2009
SUPPORT:	Date Copies Made Scanned By:	Date Scanned	-1 .	PF Box No

NBI: Yes

KED LIVC	
te Inspection Team 91) Frequency Class:  0 3 2 3 2 3 2 02  Deck Survey Access Flagman  2 1/02  CRITICAL FEATURE INSPECTIONS  Frequency Team Date	Right 3.4ft   Half ADT?: No Kith   Half ADT?: No Ki
90) Inspection Date Inspectio	AGE AND SERVICE  106) Year Reco Pedestrian  B) Under  2007 99miles 99miles 74ft 19ft 0 0 0 4 1 7 74ft 166ft 19ft 0 No Median 388 sqft 0 No Median 388 sqft 0 19ft 0 no Hight No Ref 0 no Right No Ref 0 no Right No Ref 0 no Left
STATE OF CONNECTICUT EPARTMENT OF TRANSPORTATION BRIDGE SAFETY & EVALUATION RUCTURE EVALUATION EET 1 OF 2 FORM BRI-19 REV 10/00 SHEET OF	27) Year Built 1908
DEPA BR STRU SHEET	Non Code 56270 NA  Route Number 90000 NA  ET  ANKLIN RD  ANKLIN RD  ANKLIN RD  ANKLIN RD  ANKLIN RD  ANKLIN RD  Isign Type 0 Other  Iicable  Iicable  Iicable  Iicable
4746 10 w s k y & T. K w v u s z 23.92 7/26/2006 Data Entry By: 8 名 d 5   15 0	Street  To of the bel  SUNNYSIDE STRE  40 FT EAST OF FR  A0 FT EAST OF FR  min 00 sec  min 24.00 sec  Min 34.00
Bridge Number  Inspected By: M, Orlowsky Sufficiency Rating 63.92 Previous Inspection Date 7/26/2006 BS&E Received Copies Made Data Entry	Bridge Name Town Name NORWICH 5) Inventory Route: A) Record Type B) Signing Prefix C) Level of Service D) None of the Itel B) Signing Prefix C) Level of Service D) None of the Itel C) Level of Service D) Location T) Facility Carried: C) Level of Service T) Anilepoint T) Longitude T) Longitu

	CLASSIFICATION		CTDIICTIIDE CVALIIATION	
112) NBIS Bridge Length	Yes	lr	SINGCIONE EVALUATION	Bridge Number 04746 NBIS Length
IOA) Hishway System	,	7	SHEET 2 OF 2 FORM BRI-19 REV 10/00 Town Name	Town Name NORWICH Yes 166
104) Figures Systems		7	NHEET OF	THE LEGISLAND TO
26) Functional Class	m			Facility Carried SUNNYSIDE STREET
100) Defense Highway		П		Feature Crossed YANTIC RIVER
101) Parallel Structure	N No parallel structure exists			
102) Direction of Traffic	3 One lane bridge for 2-way traffic	П	Inspected By: M, Orlowsky	8 T. Kurusz
103) Temporary Structure		П	LOAD RATII	LOAD RATING AND POSTING
110) Designated National Network	0 Not on national network	Г	31) Design Load	Evaluation Code
20) Toll	3 On Free Road	Г	ating Type	Vor of Evaluation 2004
21) Maintain	4 City or Municipal Highway Agency	Т		
22) Owner	4 City or Municipal Highway Agency	r		0
Report Class	L LOCAL	Т	co) Inventory Rating Type 5	41) Structure Status A
37) Historical Significance	1 On National Register	Τ	Ē	
	WATERWAY		Rating By	APPRAISALS Bating By
OrainageBasinCode	3900	Г	_	Ralling
38) Navigation Control	0 No navigation control on waterway	T	40	or) Structure Evaluation o
39) Navigation Vert Clr. 0	40) Navigation Horiz Clr. 0	Т		68) Deck Geometry
16) Vert-Lift Bro Nav Min	1	Т	almonisons (on	ba) Under Clear Vert & Horiz
111) Dier Abutment Drotection	Blank	7	61) Channel & Chan. Protection 7	71) Waterway Adequacy
	GENERALIZACIONE GENERALIZACIONE	٦	62) Culverts	72) Approach Rdwy Alignment 5
CAN Time of Minds December	NOTOSED IMPROVEMENTS	1		113) Scour Critical 4
od) Type of Work Proposed				
'5B) Work Done By		Г	Items 58 Thru 72 Checked By:	& Ourses
76) Length of Struct. Improvement	The state of the s	ľ	36) Traffic Safety Features:	
34) Bridge Improvement Cost \$		Т	A) Bridge Bailings	
ost		Т	- 0	
		Т		
(		7	0	
(1) Year of Improvement Cost Est.			D) Approach Guardrail End 0	
ure AD I	115) Year Future ADT		OTHER	OTHER FEATURES
Ist No.	Advertised	1		
	POSTED SIGNS & UTILITIES			Barrel Ladder
Other Posted Signs 1	Blank 86.51	Г	ON 11	Stand Pipes
/	Blank	Г	Lence Deligni	
Actual P.L. Single Unit Truck	tons Actual P.L. 4Axle Truck tons	Г	Fence Type	_
Rec. P.L. Single Unit Truck	tons Rec. P.L. 4Axle Truck tons	Г	rence Material	Loose Concrete Checked?
Actual P.L. Semi-TrailerTruck	tons Actual P.L. 3S2 Truck tons	T	Fence Top Type	
Rec. P.L. Semi-TrailerTruck	tons Rec. P.L. 3S2 Truck tons	T	INSPECTIO	INSPECTION COMMENTS
Rec. P.L. All Vehicles	tons Actual P.L. All Vehicles tons	T	Proposed Next Indepth Insp Year 2008	
osted Vert Clearance On Bridge	Li T	r T	Don C	/ auch
Posted Vert UnderClearance	ff in	ے ا	isor	PE#17040 5/7/09
osted Speed Limit	hdm	mph	( Chi 100 c	5/12/2
Jtility		Г	REVIEWED BY:	Date 7/907
		1		

#### Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 04746 Agency ID: 04746 Sufficiency Rating: 64.5

IDEN	TIFIC	ATION
------	-------	-------

Facility Carried 7:

09 Connecticut

Struc Num 8: SUNNYSIDE STREET Location 9:

40 FT EAST OF FRANKLIN RD

Rte.(On/Under)5A: Route On Structure Rte. Signing Prefix 5B: 5 City Street

Level of Service 5C:

Directional Suffix 5E: 0 N/A (NBI)

0 None of the below

Rte. Number 5D: % Responsibility :

SHD District 2: Place Code 4:

Latitude 16

02

County Code 3:

New London

00000

NORWICH

Mile Post 11:

0.020 mi

Feature Intersected 6: YANTIC RIVER

41d 33' 36"

Longitude 17:

0724 07' 24"

Border Bridge Code 98:

Unknown (P)

Border Bridge Number 99: NA

#### STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0

Number of Spans Main Unit 45: 2

Main Span Material/Design 43A/B:

8 Masonry

11 Arch-Deck

Deck Type 107:

N N/A (NBI)

Wearing Surface 108A:

6 Bituminous

Deck Protection 108C:

N N/A (no deck (NBI))

#### AGE AND SERVICE

Year Reconstructed 106: Unknown

Type of Service on 42A:

5 Highway-pedestrian Type of Service under 42B: 5 Waterway

Lanes on 28A: 1

ADT 29:

Lanes Under 28B: 0 Truck ADT 109: 2 % Detour Length 19: 98.8 mi Year of ADT 30: 2009

Median 33: 0 No median

Length Max Span 48: 74.0 ft

418

GEOMETRIC DATA Structure Length 49: 166.0 ft

Curb/Sdwlk Wdth L 50A: 0.0 ft Width Curb to Curb 51: 13.5 ft

Curb/Sidewalk Width R 50B: 3.3 ft Width Out to Out 52: 20.3 ft

Approach Roadway Width 32: 19.0 ft (w/ shoulders)

Deck Area: 3,386. sq. ft

Skew 34: 0.00 ° Structure Flared 35:

0 No flare

Minimum Vertical Clearance Over Bridge 53:

328.1 ft

Minimum Vertical Underclearance Reference 54A:

N Feature not hwy or RR

Minimum Vertical Underclearance 54B:

Minimum Lateral Underclearance Reference R 55A:

N Feature not hwy or RR

Minimum Lateral Undrolearance R 55:

327.8 ft

Minimum Lateral Undrclearance L 56:

#### INSPECTION

Frequency 91: 24 months Inspection Date 90:

9/24/2008

FC Inspection Date 93A: NA

Next FC Inspection: NA

Next Inspection:

FC Frequency 92A: NA UW Frequency 92B: NA

UW Inspection Date 93B: NA

Next UW Inspection: NA

SI Frequency 92C: NA

SI Date 93C:

09/24/2010

#### CLASSIFICATION

0 Not a STRAHNET hwy Parallel Structure 101: Defense Highway 100:

Direction of Traffic 102: 3 1-lane Br for 2-way

Temporary Structure 103:

No II bridge exists

Highway System 104:

0 Not on NHS

NBIS Length 112:

Long Enough 19 Urban Local

Historical Significance 37: 1 Br on Natl Reg Hist PI Owner 22:

4 City/Municipal Hwy Agenc 4 City/Municipal Hwy Agenc

#### CONDITION

Deck 58: N N/A (NBI)

Inventory Rating 66:

Bridge Rail 36A:

Transition 36B:

Bridge Cost 94:

Vertical Clearance 39:

Pier Protection 111:

Super 59: 6 Satisfactory

Sub 60: 6 Satisfactory

Culvert 62: N N/A (NBI)

Channel/Channel Protection 61:

5 Bank Prot Eroded

HS22.0

#### LOAD RATING AND POSTING

Inventory Rating Method 65: 2 AS Allowable Stres: Operating Rating Method 63: 2 AS Allowable Stress

Operating Rating 64:

Posting 70:

Unknown (NBI) Design Load 31: Posting status 41: A Open, no restriction

**APPRAISAL** 

1 Meets Standards 0 Substandard

Approach Rail 36C: Approach Rail Ends 36D: Deck Geometry 68:

0 Substandard 0 Substandard 2 Intolerable - Replace

5 At/Above Legal Loads

Underclearance, Vertical and Horizontal 69:

N Not applicable (NBI) Waterway Adequacy 71: 3 Intolerable - Correct

Approach Alignment 72:

5 Above Tolerable

175

2019

Scour Critical 113:

4 Stable, needs action

\$ 1,000

\$ 1,000

\$ 2,000

PROPOSED IMPROVEMENTS Type of Work 75: 38 Other Structural

Roadway Cost 95: Total Cost 96: Year of Cost Estimate 97: 2000 Length of Improvment 76: Future ADT 114: Year of Future ADT 115:

#### NAVIGATION DATA

0 Permit Not Required Navigation Control 38: 0.0 ft

Unknown (NBI)

Horizontal Clearance 40:

Lift Bridge Vertical Clearance 116:

#### ELEMENT CONDITION STATE DATA

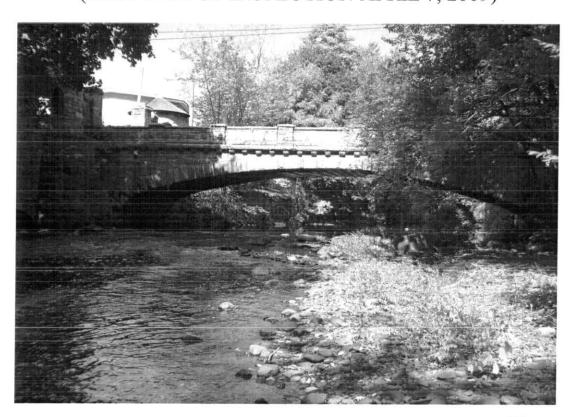
Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
UNIT0	58/3	Other Sidewalk	sq.ft	560	100 %	560	0 %	0	0 %	0	0 %	0	0 %	0
UNIT0	145/3	Other Arch	(LF)	108	59 %	64	37 %	40	4 %	4	0 %	0	0 %	0
UNIT0	217/3	Other Mtl Abutment	(LF)	82	85 %	70	15 %	12	0 %	0	0 %	0	0 %	0
UNITO	301/3	Pourable Joint Seal	(LF)	39	31 %	12	0 %	0	69 %	27	0 %	0	0 %	0
LINITO	333/3	Other Bridge Railing	(LF)	332	94 %	312	6 %	20	0 %	0	0 %	. 0	0 %	0

# **BRIDGE SAFETY INSPECTION**

STATE PROJECT NO. 170-2729



BRIDGE NO. 04746
SUNNYSIDE STREET OVER YANTIC RIVER
NORWICH, CONNECTICUT
SEPTEMBER 24, 2008
(LAST DAY OF INSPECTION APRIL 7, 2009)



**IN-DEPTH INSPECTION** 

MAY 08 2009

CONNECTICUT DOT BRIDGE SAFETY & EVALUATION Prepared by:

Baker

500 Enterprise Drive, Suite 2B Rocky Hill, CT 06067



#### STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS

# INSPECTION REPORT TRANSMITTAL FORM FORM BRI-27, REV. 9/97

2/41

Str	ucture No	04746	Town_	Norwick	h	
Inspectors <u>Michael Baker Engineering</u>	Inc. (MJO	/TK)/McLarer	(DK, JD	, SM)_	Date	09/24/2008
LOOSE FORMS (not bound in report)	TABL	E OF CONT	<u>ENTS</u>			No. of Sheets Enclosed
Maintenance Memo						
Flagging Memos						
BRI-11, Seismic Screening Data Sheet						
BRI-12, Fracture Critical Inspection Data Sh	ieet					
BRI-19, HWY Bridge SI&A Form						2
BRI-25, Under Entry SI&A Form						
BRI-39, RR Bridge SI&A Form						
BRI-49, Sign Structure SI&A Form						
PONTIS Element Data Collection Form						1
Plan Sheets 1987 Rehab, LPAI Proj. 86101.0	01	Check here is	f already o	on file:	K	
Bound Report Pages						Sheet Numbers
Title Cover Sheet						1
Table of Contents						2
Executive Summary						3-4
BRI-18, Bridge Inspection Form					********	5-9
BRI-48, Sign Structure Inspection Form						
Field Notes (Include Forms BRI-10, BRI-13, BRI-16, BRI-17, BRI-29, BRI-30)						10-25
Calculations:  Load Rating Evaluation						
Ouantities & Cost Estimate	- 44	MAY 08	2009	Ú)		
Quantities & Cost Estimate		CONNECTICU	T DOT			26.20
Negatives			i i i mai i si i i i i i	******************		20-39
Back-up Material						
						DIIVOLD

#### **Executive Summary**

Bridge No. 04746 carries Sunnyside Street over the Yantic River in Norwich. The bridge is a two span stone masonry arch that was built in 1908. It has an overall length of 166 feet and a curb-to-curb measurement 13.4 feet. There is no load rating information for this bridge on file at ConnDOT, but the bridge has a "Judgment Rating" of 34 tons. Consideration should be given to performing a load rating analysis of this structure. The bridge was found to be in satisfactory condition during an in-depth inspection completed in April, 2009.

The bituminous overlay has cracking up to 3/4" wide, transverse sawcuts up to 2" wide without sealant, and the overlay near the north curb ramps up 3" over a width of 8". The south curb has random corner spalls at the edges of granite stones. Stone masonry parapets have cracks up to 3/16" wide in the mortar joints, one capstone is shifted 1", and there are areas of missing mortar up to 4.5" deep, worst in span 1. The parapets are tilted outward approximately 1.25" over a height of 1.5' and the north parapet in span 2 is bowed outward 2" -3" over a length of 20'. The stone masonry guard turrets at the west approach have isolated missing roof sheathing, random deteriorated wood roof shakes, and large sloppy mortar repairs.

The superstructure was found to be in satisfactory condition. The intrados of both spans have heavy efflorescence leakage and areas of water leakage, worst at the ends of the spans. Random mortar joints are cracked up to 1/8" wide and there are random areas of missing mortar up to 2" deep, including at the span 2 crown. The spandrels have isolated cracked stones, random cracked mortar joints up to 1/8" wide, and random areas of missing mortar up to 4" deep. The mortar joints between the spandrels and the arch rings are deteriorated up to 4" deep in span 1 and cracked up to 1/8" wide in span 2 with random hollow and deteriorated mortar up to 2" deep.

The substructure was found to be in satisfactory condition. Abutments have heavy efflorescence leakage and areas of water leakage through the mortar joints. A void/undermined area was noted at the base of the west abutment up to 8' long x 0.5' high x 0.5' deep per McLaren inspection. Previously exposed footing at the east end of span 1 was covered with channel material this inspection. Stone masonry wingwall mortar joints have random cracks up to 1/8" wide, random deteriorated mortar up to 5" deep, and random vegetation/vine growth. The northeast wingwall has stones that are settled and laterally displaced up to 4.5", creating voids up to 2" wide x 15" deep. The southeast wingwall has a 1' x 6" x 7" deep void. Retaining wall at the north elevation is tipping outward, approximately 1.5" over a height of 2.5'.

The channel was found to be in fair condition. The channel is in span 1 only. Channel bed is comprised mainly of large stones and random areas of silt/muck at areas of deeper water. There is scour along the west abutment, where water depths are up to 3.3' (average water depth is 1.6' below the bridge) and a void/undermining is noted at the base of the abutment up to 8' long x 0.5' high x 0.5' deep per McLaren underwater inspection. There is a scour pocket below the bridge at the northeast corner of span 1 where water depths are up to 4.1' deep (typically  $\pm 1.5$ ' elsewhere), but the scour pocket does not extend fully to the east abutment.

The approaches were found to be in fair condition. The southwest approach has random uneven patches, heavy map cracking, and areas of potholes/breaking up bituminous, up to 5' x 3' x

2" deep (this area is used for parking). The east approach pavement has heavy map cracking up to 5/8" wide, random areas of up to 1.5" settlement in the shoulders, and isolated potholes/breaking up bituminous up to 8" x 9" x 1" deep. There is minor erosion at the northeast approach. There is no approach guide rail; none is installed at the west approach due to guard turrets.

#### Repair recommendations are as follows:

#### Deck:

- 1. Seal the cracks and the sawcuts in the overlay ( $\pm 600$  linear feet).
- 2. Repair corner spalls in the granite curbs (<1/4 cubic yard).
- 3. Repair deteriorated mortar joints along the parapets (±250 linear feet).
- 4. Continue to monitor the tipping of the parapets.
- 5. Repair deteriorated roof shakes (as required) and missing section of roof sheathing (±2 square feet) at the guard turrets.

#### Superstructure:

- 1. Repair the areas of mortar loss along the intrados and spandrels ( $\pm 150$  linear feet).
- 2. Consider removing heavy efflorescence from the ends of the spans to inspect mortar at the intrados.

#### Substructure:

- 1. Repair deteriorated mortar joints ( $\pm 50$  linear feet).
- 2. Fill in undermined area along the west abutment with suitable material (<1/4 cubic yard).
- 3. Continue to monitor tipping of the retaining wall at the north elevation.

#### Channel:

1. Continue to monitor channel mudline elevations.

#### Approaches:

- 1. Repair deteriorated bituminous at the southwest approach (<1 ton).
- 2. Consider installing approved guide railing at the east approaches ( $\pm 50$  linear feet).

BRIDGE #: 04746	6	INSPECTION DATE: 9/24/2008
INSPECTION TYPE: INSPECTION PERFORMED		Indepth PREVIOUS INSPECTION DATE: 7/26/2006 SNOOPER REQUIRED: No SNOOPER USED: No
TOWN: NORWICH LOCATION: 40 FT EAST C MAIN MATERIAL: Masonal		FEATURE CARRIED: SUNNYSIDE STREET YEAR BUILT: 1908  ANKLIN R FEATURE INTERSECTED YANTIC RIVER YEAR REBUILT: 0  MAIN DESIGN: Arch - Deck
INSPECTION VISITS: Inspection Date: 9/24/200 Temperature: 70	)8 ) F	Start Time: 8:30 AM Inspector: M. Orlowsky Task: Team Leader Inspector: T. Kurasz Task: Asst. Team Leader
58. DECK		Stone arch with bituminous roadway over ballast.  OVERALL RATING P
OVERLAY	6	The bituminous overlay has random transverse, longitudinal, and map cracks up to 3/8" wide. Isolated cracks are up to 3/4" wide. The bituminous adjacent to the base of the north parapet is approximately 3" higher than the roadway surface approximately 8" away. There are random sawcuts in the overlay up to 2" wide that are filled with dirt and/or vegetation. No sealant was seen along these sawcuts. See sheets 11-12 and photos 9 - 11.
DECK STR. CONDITION	N	Stone arch with bituminous roadway over ballast.
CURBS	6	South side only: There are random spalls at the edges of the granite stones, up to 7" long x 4" wide x 5" high. Some spalled areas are filled in with bituminous. Random mortar joints are cracked or deteriorated. Average curb reveal was found to be 4.75". See sheets 11 & 12 and photo 9.
MEDIAN	N	
SIDEWALKS	7	South side only: Bituminous sidewalk has random minor uneven areas. See sheets 11-12 and photo 9.
PARAPET	5	Stone masonry parapets: Stone masonry parapets have random cracked mortar joints, up to 3/16" wide, and areas of missing mortar, up to 4.5" deep. Mortar deterioration is worst at the outside faces of the span 1 parapets, where approximately 60% of the mortar joints are deteriorated. A capstone at the south parapet in span 1 is shifted south 1". The previously reported 3/8" gap between the parapet and the pillar at the southwest corner of the bridge is open up to a maximum of 5/8". The parapets are tilted outward, up to 1.25" over 1.5'. Additionally, the north parapet at the east end in span 2 appears to be bowed/distorted outward 2" - 3" over a length of 20'. See sheets 11-12 and photo 12.  Stone benches integral with the parapets between spans 1 & 2: One bench stone has a 13" x 4" fracture. Fractured portion did not move when struck with a hammer (wedged in place). See sheets 11-12.
RAILING	N	
PAINT	N	
FENCE	N	
DRAINS	7	Span 1 only: There is minor debris in and around the scupper grates. Debris is present in the basins, but scuppers do not appear to be clogged. See sheets 11-12.
LIGHTING STANDARD	8	There is utility pole in span 1 with a light standard attached. Light exhibited no deficiencies (light was not on during the daytime inspection).
UTILITIES TYPE/SIZE	N	Stone masonry guard turrets at west approach: The north turret has a 2' x 1' missing section of roof. There are random deteriorated shakes along the roofs. There are sloppy mortar repairs at each turret, up to 5' high x 1' wide x 9" deep. There is random graffiti inside of the turrets. See sheets 11-12 and photos 5 & 13.
CONSTRUCTION JOINTS	N	
<b>EXPANSION JOINTS</b>	N	

6/4/

BRIDGE #:	0474	16	INSPECTION DATE:	9/24/2008
59. SUPERSTRI	UCTURE		Two span stone masonry arch.	OVERALL RATING 6
BEARING [	DEVICES	RATING		
	RINGERS		Intrados:	
	WIT OLIVE	<u>.</u>	There are areas of heavy efflorescence along the mortar joints throughout are also areas of water leakage at random areas, mostly at the lower set opposed to the crown area). Random mortar joints are cracked up to 1/2 isolated areas of missing mortar in span 1 up to 2" deep. The transverse crown in span 2 has missing cracked mortar (±1/8" wide) along the north deteriorated/missing mortar up to 1" deep along the south half of this joint previously noted missing mortar may have been hidden by heavy efflored Also, there are random repairs to the mortar joints, some of which appears and photos 4, 14, & 15.	ections of the arch (as //16" wide. There are se mortar joint along the h half of this joint and int. Random areas of escence accumulations.
			Spandrels: Stone masonry spandrel walls have random cracks along the mortar join random areas of missing mortar up to 4" deep. The span 1 south spand cracked stone and small stone spall. The mortar joints between the arc spandrel bases are deteriorated throughout. These mortar joints have of missing mortar up to 4" deep, and areas of loose/pushing out mortar throughout in span 2 have cracks up to 1/8" wide, random light efflores hollow and deteriorated mortar up to 2" deep. See sheets 13-18 and ph	drel has an isolated h ring and the span 1 cracks, punky areas, oughout. These same scence, and random
G	SIRDERS	N		
FLOOR	BEAMS	N		
TRUSSES-GE	ENERAL	N		
TRUSSES-P	ORTALS	N		
TRUSSES-B	RACING	N		
	PAINT	N		
	RUST	N		
MACHINERY MC	OV SPAN	N		
RIVETS 8	& BOLTS	N		
WELDS & 0	CRACKS	N		
TIMBER	R DECAY	N		
CONCRETE CR	ACKING	N		
COLLISION	DAMAGE	8		
MEMBER ALIC	SNMENT	8		
DEFLECT. UNDE	R LOAD	N	None.	
VIBR. UNDE	R LOAD	N	None.	
STANI	D PIPES	N		
BARREL LA	ADDERS	N		
	20.		ARE BARREL LADDERS OSHA COMPLIANT? NA	
60. SUBSTRUCT	URE			OVERALL RATING 6
		RATING		
ABUTMENT	S-STEM		Abutments are considered to be those areas below the spring lines at the Abutments have heavy efflorescence leakage and areas of water leakag joints. A void/undermined area was noted at the base of the west abutm	e through the mortar

BRIDGE #:	04746	INSPECTION DATE: 9/24/2008
60. SUBSTRUC	TURE	OVERALL RATING 6
		high x 0.5' deep per McLaren inspection. See sheets13-18 and photos 14 & 15.
ABUTMENTS-BA	ACKWALL [	
ABUTMENTS-F	OOTINGS [	A void/undermined area was noted at the west abutment, approximately 8' long x .5' high x 0.5' deep per McLaren underwater inspection. No well-defined footing was noted at this location. Previously exposed footing at the east end of span 1 was covered with channel material this inspection; footing not seen. See sheets 24,25.
ABUTSET	TLEMENT 5	No evidence of abutment settlement was noted.
		Note: For this inspection wingwalls are only considered to be those walls at the four corners of the bridge, perpendicular to the spandrels. Retaining walls perpendicular to the bridge at the east end of span 1 and/or west end of span 2 are for embankment retention, past the limits of this bridge and are not considered for this report.
		Wingwall settlement:  North retaining wall between spans 1 & 2 is tipped outward, approximately 1.5" over a height of 2.5'. Additionally the northeast wingwall has stones that are settled and laterally displaced up to 4.5". Previous 8" settlement noted at this location actually appears to be uplift of a concrete pour on top of the wall due to tree root growth just under this concrete pour. See "Embankment Erosion" item under Item 61 for the condition of the retaining walls along the channel. See sheets 19-22 and photo 19.
ABUTMENTS-WIN	NGWALLS 5	Stone masonry wingwall mortar joints have random cracks up to 1/8" wide, random deteriorated mortar up to 5" deep, and random vegetation/vine growth. The northwest wingwall has one missing cap stone. The southwest wingwall has a stone arch for a raceway/stream. The northeast wingwall has two cracked stones, one up to 1/4" wide. In addition, the northeast wingwall has stones that are settled and laterally displaced up to 4.5", creating voids up to 2" wide x 15" deep. The southeast wingwall has one stone that is pushed out 1/2", an area of mortar pushing out, and a 1' x 6" x 7" deep void. See sheets 19-22 and photos 19-21.
		Retaining walls between spans 1 & 2 at bridge fascias, below the parapets: Wall at the north elevation is tipping outward, approximately 1.5" over a height of 2.5'. There are two full height x 1/8" wide cracks along the mortar and isolated missing mortar up to 6" long x 3 deep. The wall at the south elevation was almost completely covered and/or inaccessible due to heavy vegetation at the time of inspection. Accessible areas of this wall have random cracked and deteriorated mortar. See sheets 19-22 and photo 22.
		Architectural treatments at the corners of span 1:  There are areas of missing mortar up to 6" deep and water leakage. The treatment at the northeast corner of span 1 has up to 50% deteriorated, mortar and one stone is loose due to deteriorated mortar. See sheets 19-22 and photo 18.
PIERS/BEN	TS-CAPS	
PIERS/BENTS-P	ILE BENT N	
PIERS/BENTS-	-COLUMN N	
PIERS/BENTS-F	OOTINGS N	
PIERS/BENTS-SE	TTLEMent N	
EROSIO	N-SCOUR <b>5</b>	There is scour along the west abutment, where water depths are up to 3.3' (average water depth is 1.6' below the bridge) and a void/undermining is noted at the base of the abutment up to 8' long x 0.5' high x 0.5' deep per McLaren underwater inspection. There is a scour pocket below the bridge at the northeast corner of span 1 where water depths are up to 4.1' deep (typically ±1.5' elsewhere), but the scour pocket does not extend fully to the east abutment. Minor erosion is noted along the east abutment embankments in span 2.
CONCRETE CRAC	CK-SPALL N	
STEEL COR	RROSION N	
	PAINT	
TIMBE	R DECAY N	

# 8/41

BRIDGE #:	04746		INSPECTION DATE	9/24/2008
60. SUBSTRUC	TURE			OVERALL RATING 6
COLLISION	DAMAGE	8		
	DEBRIS	N		
61. CHANNEL 8	CHANNE	L PF	ROTECTIO	OVERALL RATING 5
		ATING		
CHANNE	EL SCOUR [	5	The channel is in span 1 only. Channel bed is comprised mainly of larger areas of silt/muck at areas of deeper water. There is scour along the water depths are up to 3.3' (average water depth is 1.6' below the bridge void/undermining is noted at the base of the abutment up to 8' long x 0 McLaren underwater inspection. There is a scour pocket below the bridge corner of span 1 where water depths are up to 4.1' deep (typically ±1.5 scour pocket does not extend fully to the east abutment.	vest abutment, where ge) and a 0.5' high x 0.5' deep per dge at the northeast
			Just downstream of the bridge, there is a large area of aggradation tha half of the channel. Within this area, there is a 15' x 6' x 1' deep scour	t forces flow to the west area.
			See sheets 23-25 and photos 23-25.	
EMBANKMENT	L		Stone retaining walls along the channels have shifted stones, voids, an are random trees growing in these walls. There are areas of light to me areas with dirt channel banks. There are trees with exposed roots at the embankment. See sheet 24 and photo 21.	oderate erosion along ne southeast channel
	DEBRIS	6	There is a large roll of fencing below the northwest corner of span 1. T flood debris along the embankments and random debris in the channel	
VEG	ETATION [	7	Moderate to heavy brush growth along the channel embankments and	tops of the retaining walls.
CHANNEL	CHANGE [	6	See "Channel Scour" item above.	
FENDER	SYSTEM [	N		
SPUR DIKES &	JETTIES [	N		
	RIP RAP	N	There are large boulders at the southeast embankment, but not organize	zed rip-rap.
62. CULVERTS	& RETAIN	ING	WALL	OVERALL RATING N
APPROACH CO	NDITION			OVERALL RATING 5
455564	_	ATING		
	CH SLAB			
	F JOINTS [		N. C.	
APPROACH GU			None.	
APPROACH PA	VEMENT [		West approach: Bituminous approach pavement has random cracks up shoulder has random uneven patches, heavy map cracking, and areas bituminous up to 5' x 3' x 2" deep (this area used for parking). See shee East approach: The east approach pavement has heavy map cracking areas of up to 1.5" settlement in the shoulders, and isolated potholes/bit to 8" x 9" x 1" deep. There are also random patches. See sheets 11-12	of potholes/breaking up ets 11-12 and photo 27. up to 5/8" wide, random reaking up bituminous up
APPROACH EMBA	NKMENT [	7	There is an area of erosion up to 4' x 3' x 5" deep at the northeast appro	oach.
TRAFFIC SAFETY BRIDGE R	_	3: 1 ]		
	SITIONS (	_ i		
APPROACH GUAI				

BRIDGE #: 04	746	INSPECTION DATE:	9/24/2008	3
APPROACH CONDIT	ION		OVERALL RATING	5
APPR. GUARDRAIL EN	DS 0			
LOAD POSTING				
SINGLE UNIT (TO	NS)			
HS (TO	NS)			$\neg$
4 AXLE (TO	NS)			=
3S2 (TO	NS)			=
ADVANCE WARNING	Y/N <b>N</b>			=
LEGIBIL	LITY N			=
VISIBILITY/LOCAT	ION N			
MICC	-1			
MISC. MIN VERT. UNDERCLR	Г	]- [		
POSTED CLR. UNDER I	<u> </u>			=
POSTED CLR. ON BRID	=	]· [   · [		=
ADVANCE WARNING (Y	/N)	No [		
SPEED LIMIT (IF ANY)		мрн		
CHARACTER OF TRAFF	FIC	Light volume, mostly passenger cars.	160	
ADDITIONAL NOTES				
- Bridge inspected with - Chest waders require	ered to h n ladders ed.	east. ave two sets of abutments (no pier). , including 10' step ladder.  med this inspection along the west abutment due to water depth and void	s/undermining at this	S
ADDITIONAL COMMEN	TS:			
Inspectors' Signatures:	1)	M/le Date: 5/3	2/_09	
	2)	Date: 051	7109	
	3)	Date:/_	_/	
	4)	Date:/_	_/	
P.E. Signatu P.E		Paul McDunness Date: 5th 13	7_10_9	
Reviewed	by:	Dandia a lumas CDOT Date: 5/1	2,09	
Diber	3 nee	ded to inspect I suspect onea - hence to	he late end a	late.

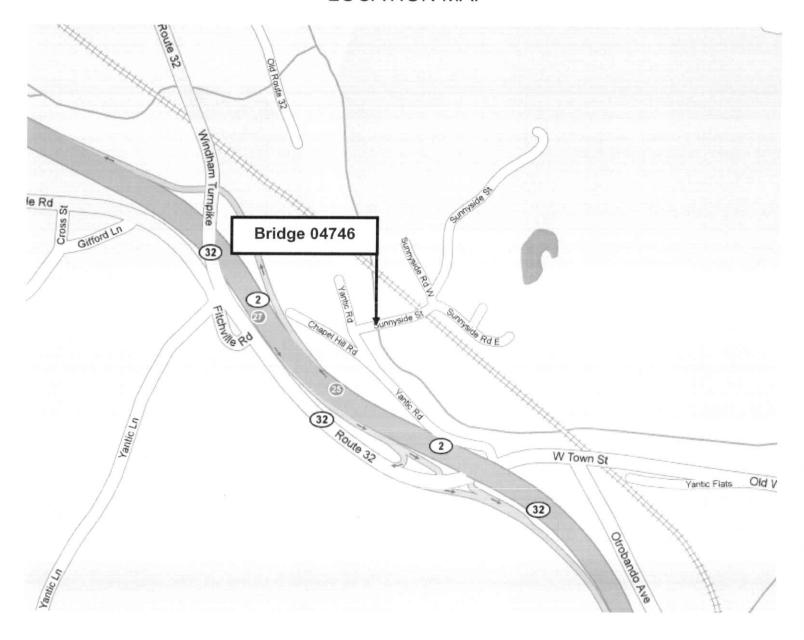
SI IDDI E	EMENTAL SHEE	T	BRIDGE NO. 4746	DATE: SEE BELOW
FIELD ORIGIN			CREW: SEE BELOW	SHEET 10/4(
DESCRIPTION				
DATE: WEATHER: EOUIP. LIST:	9/24/08 SUMMY 60'S + 70'S	CREW: SNOOPER: LIFT:	DESCRIPTION:	TIME AT SITE:
ARROW HRS. VISITORS: TC & NOTES:	INSE COMPLETE with	TROOPER:	-	T0 T0
DATE: WEATHER: EOUIP. LIST:		CREW: SNOOPER: LIFT:		TIME AT SITE:TOTO
ARROW HRS. VISITORS: TC & NOTES:	TO			T0 T0 T0
DATE: WEATHER: EOUIP. LIST:		CREW: SNOOPER: LIFT:		TIME AT SITE:TOTO
ARROW HRS. VISITORS: TC & NOTES:	T0			T0 T0 T0
DATE: WEATHER: EOUIP. LIST:		CREW: SNOOPER: LIFT: CRASH TRUCK:		
ARROW HRS.	ТО			T0







# DESCRIPTION: SUNNYSIDE STREET OVER YANTIC RIVER LOCATION MAP



SUPPLEMENTAL SHEET	JOB NO. 170-1965 BRIDGE NO. 04746
D FIELD ORIGINAL D TRANSCRIBED BY:	DATE: 9/24/08 SHEET 10 B OF 4/
DESCRIPTION: Key Plan	CREW: MJO,TK
Even Strang	RR IRON TRUSS BRIDGE THE
	BENCHES
SAN	SAN 2 SUNDINGET
POST ONEVER	

SUPPLEMENTAL SHEET	BRIDGE N	NO. 04746	DATE:	9/24/08
	CREW:	ND, 1K	SHEET	11/41
DESCRIPTION: Top of Deck	'			
7.4.7.0.20		MATCHLINE	Scupper GRATE 907 CLEAR	+ MISSING POPURTAL, UP TO HIZED
SCOT OF CASE		SHIFTED		AND COLD + MIS
DEBAIS IN B SLUDPER O SLUDPER O 907 CLES 907 CLES 2"3" /201		CAP STONE +1" SOUTH		THE "HE DATE COMPAN
55 To 898 SASE 15 UP TO 3" WICHER SCANS			DECK 57 %	E ENDS OF S.
5825 COT UP TO  10.17 T # 4 U/  10.17 T # 4 U/  5820 TX  COT TO  60.17 TX  COT TO  COT	Sidewalk		1050-	100 00 00 00 00 00 00 00 00 00 00 00 00
1005/50097 1/2  AE FRICA = 45 + 45 + 45 + 45 + 45 + 45 + 45 + 45	E	MASSANY	JEEN LTYP POSTH	
SAND WATER OF WINSSINGLE ROOF &  WESONNY  MESONNY  MESONNY  MESONNY  MESONNY  WALE  THALE  SAND WATO  SERLANA  SERLANA  APPL LOADOWAY WATO  SERLANA  MANA  SERLANA  SERLANA  SERLANA  SERLANA  WATER  WATER  SAND WATO  SERLANA  SERLANA  WATER  SERLANA  SERLANA  WATER  WATER  SERLANA  WATER  WATER  WATER  WATER  SERLANA  WATER  WATER		TO SAN A PAGE TO	SLOPINGS SLOPING STORY PROPERLY	HOLLOW AREA  HOLLOW REBAR  SHALLOW REBAR  SPALL AREA WITH EXPOSED REBAR  SPALL AREA WITH EXPOSED REBAR  WAP CRACKS (MpC) OR HARLINE MAP CRACKS (HLMDC)  HARLINE CRACK (HLC) OR CRACKS (CRK)  HONEY COMB AREA  SCALE AREA HIVY, MED OR LT)

SUPPLEMENTAL SHEET	BRIDGE NO. 4746	DATE: 9/24/08
1 JULI LEMENTAL JUEET F	CREW: MID, TR	SHEET 12 OF 41
DESCRIPTION:		
4,5 x 5, by (!)  Ellosion  Ellosion  (L Y2,)  Alone settlenen  (L Y2,)  Alone This  (L Y2,)  Alone Settlen  (L Y2,)  Alone Set	BIT PATCH W/ YE'W HOUNDAWY CLACKS	UPDATE COMPANY CREW
SEE SO # 1  SEE SO # 1  A AND CARS UP  TO THE D UP TO 2" D SADEUT  FIVE D UP TO 2" D SADEUT  FIV	WORT ON POSE WOOD LIGHT POSE,  #16 MISSING BIT AUS  To POSE, OUR TO PREMISED POSE	LECEND  LECEND  SEC SPAN # #    SEC SPAN #

#### 9/24/08 BRIDGE NO. 04746 DATE: SUPPLEMENTAL SHEET 13/41 SHEET CREW: TK, MTO FIELD ORIGINAL ☐ TRANSCRIBED BY: **DESCRIPTION:** Substructure ALLHITECTURAL CONNETT wholeware Por SEE NU CREW DET To (MAX) 1-MISSING MORTAR XXX SP ( COMPANY BY + 7"DF MORTHIR DATE 3 - REND A'S OF DET MORTHR W/CADS BYD MORTHAR & STONES & USG. GIRONTH BOTH'S AYS OF JEG GROWTH THROUGHOUT ELEV J (b) Z XXH 71 SPAN 1 0 80% OF MORTAR of arching along top MAP CRACKS (MpC) OR HARLINE MAP CRACKS (HLMpC) @ ... GEN. NOTE HAIRLINE CRACK (HLC) OR CRACKS (CRK) 150% OF WORT AZ HISE ING TSHOPE DE TO STONE DE TO MONTAR DET @ SPALL AREA WITH EXPOSED REBAR 0 SCALE AREA (HVY, MED OR LT) WITH EFFLORESCENCE A HONEY COMB AREA HOLLOW AREA SHALLOW REBAR SPALL AREA WITH MARLINE CRACK WAN DRACKS (M) HONEY CORACK WHONEY CORACK WANTH EFFLORES SHALLOW REBAR

LEGEND

SUPPLEMENTAL SHEET	BRIDGE NO. 04746	DATE: 9/24/08
FIELD ORIGINAL TRANSCRIBED BY:	CREW: Th. MTO	SHEET 14/41
DESCRIPTION: Underside of Deck		
HVY PRICE A PRICE A PAUTACON	B   BHST SELL NOCULNOC	RAINE LEAKABE RAIN PI'S MINOD EFFLO & LOND & 4TV. 245 DATE COMPANY CREW
	@ B B 23/2	(A) ACIVE LEAKAGE (B) RAND A'S U/HOD EFFE  NOTE COMPANY  A  A
3. L	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PROPERTY OF THE PROPERTY OF TH
2 Abutu End — — — — — — — — — — — — — — — — — — —	DEST SPANGLINE SPAN #1, UNDERS	HOLLOW AREA HOLLOW AREA SHALLOW REBAR SHALL AREA MAP CRACKS (MLD) OR HARRINE MAP CRACKS (HLMpC) HARRINE CRACK (HLC) OR CRACKS (CRX) HONEY COMB AREA SCALE AREA (HYY MED OR LT) WITH EFFLORESCENCE
Bras .		LEGEND  HOLLOW AREA  SHALLOW REBAR  SHALL AREA WITH EXPOSED REBAR  STALL AREA WITH EXPOSED REBAR  WHAT STACKS (UND) OR HARTINE MAP CRACKS (UND)  HARTINE GRACK (HLC) OR CRACKS (CRK)  WHOMEY COMB AREA  SCALE AREA (HVV, MED OR LT)  X WITH EFFLORESCENCE

SUPPLEMENTAL SHEET	BRIDGE NO. 4746	DATE: 9/24/08
FIELD ORIGINAL   TRANSCRIBED BY:	CREW: TH. MTS	SHEETIS OF 41
DESCRIPTION:		
HISTORY AND ALE DE TOT MISSING MORTHAL ENGINE AND ALS ENGINE ENGINE ALS ENGINE AND ALS ENGINE AN	FOR DETUNDS ARCHITECTURAL SPACE TREATMENT TO LY" do	LEGEND  (B) FIFTURE LEARLAGE  (B) FFLO  (C) FACTURE LEARLAGE  (B) FFLO  (C) FACTURE LEARLAGE  (C) FACTURE LEAR
M	662 445 643	LEGEND

# SUPPLEMENTAL SHEET

A FIELD ORIGINAL

☐ TRANSCRIBED BY:

BRIDGE NO. 04746

CREW: MJO/TK

DATE: 9/24/08

SHEET 16

16/41

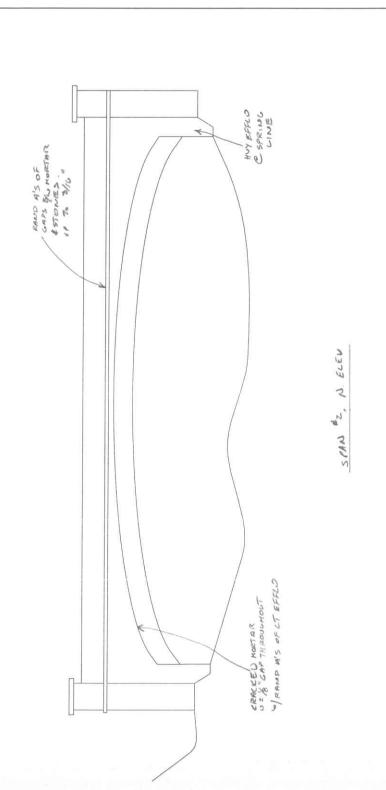
CREW

COMPANY

DATE

**DESCRIPTION:** 

Substructure



LEW. NOTES. - RAND LT VEGETHION GROWTH & STONES. - RAND MIS OF LT EFFLO E RING STONES VI DOINTS.

SPALL AREA WITH EXPOSED REBAR MAP CRACKS (MpC) OR HARLINE MAP CRACKS (HLMpC) HARRING FRACK HELD OF FRANCE (FOUR

HAIRLINE CRACK (HLC) OR CRACKS (CRK)
HONEY COMB AREA
SCALE AREA (HVY, MED OR LT)
WITH EFFLORESCENCE

HOLLOW AREA

SHALLOW REBAR

SPALL AREA WITH

MAPLINE CRACKS UB

HAMPLINE CRACKS UB

COMB AREA

SCALE AREA HITH

X WITH EFFLORESCE

LEGEND

### 9/24/08 BRIDGE NO. DATE: 04746 SUPPLEMENTAL SHEET 17/71 SHEET CREW: TK/M70 FIELD ORIGINAL ☐ TRANSCRIBED BY: DESCRIPTION: Underside of Deck F. EAST OF RAND CONC PATCHES STONES & STONES A AFOUTMENT SPRINGLING 8 EAST COMPANY B-KTIVE LEBYBGE 8 8 DATE NFL+1/FLOF MISSING X UP UNDE/15/0E 16 CAP IN ST MORTAR SPAN # Z HUY EFFLOR Spring lines & BASES - MOD EFFUD @ JOINSTS CEN, NOTES. SPRINGLINE A 0 WEST 0 0 HOLLOW AREA SHALLOW REBAR CON SPALL AREA WHAT AREA WITH EXPOSED REBAR WHAT CRACKS (MpC) OR HARLINE MAP CRACKS (HLMpC) WHATLINE CRACK (HLC) OR CRACKS (CRX) WHATLINE CRACK (HLC) OR CRACKS (CRX) CON HARLINE AREA CON SCALE AREA (HVY, MED OR LT) "ABUT MENT BASE OF A WITH EFFLORESCENCE LEGEND

SUPPLEMENTAL SHEET	BRIDGE NO. 4746 CREW: MTU, TK	DATE: 9/24/08 SHEET 13 OF Y(
DESCRIPTION:		
	(m) 2.5'2" bp 6247 Ex. LEARAGE	DATE COMPANY CREW
	(£)	ANCH FLING STONE JOINTS
160 mm This 160 mm	SPRN #2, 8. ELEV	ALCA'S & MONTAR VINE GROW TH
AAND CRAN'S MICHAEL PERON THE POST OF STORY OF STORY ES, YIE 1/8 W.	4,018 Tot (M) 01 To	CEN. AAND. AAND.
	DEGEND  MY WISSING MOUTAR	LEGEND  — HOLLOW MEA  — SHALLOW REBAR  — SPALL MEA WITH EXPOSED REBAR   — SPALL MEA WITH EXPOSED REBAR   — HARLINE GRACK (HL.D) OR HARLINE UMP CRACKS (HL.MPC)  — HARLINE GRACK (H.C) OR CRACKS (GRO)  — HARLINE GRACK (H.C) OR CRACKS (GRO)  — SCALE MEA OR LT)

#### BRIDGE NO. 4746 DATE: 4/24/08 SUPPLEMENTAL SHEET SHEET 19 OF YI CREW: MO, TK FIELD ORIGINAL ☐ TRANSCRIBED BY: . DESCRIPTION: @ RAND 10 LF + 5" dp DRY LAID STUNE WALL 11) MISSING 51006 -> 510NES . RAND HICK'S & MORMAL 1711 JUINTS; · JOINTS W/ RAND LT EFFLO + VEC + LAND ACTIVE LEAKAGE LAND HOTIVE LEAKAGE + EFFLO, HOLTAL C MISSING LINE WATER LINE AREAS OF AUY @ 3 LF VINEI M, MAAD "IP NW WINGUALL MOLTAL MISSING EZ' MISSING MORTAR GEN: - RAND LT VEG & MURTAN JTS - RAND CAR'D MORTAR JTS (OPEN UP TO YE') DE A STONE MASAN WI CHIE MUMAN JIS (EYS) MILL MISS ARCH RING LNO INSP PAST FASCIA) SW WINGWALL RAND ACTIVE LEARAGE + 2.5' × 17" + telf picking MORTAR OP MISSING UP 70 6" dp MORTAN BOT 2' WI RAND MISSING MOMMAR, TYP & 3" AF LEGERO LEGEND (M)= MISSING MUNTAR HOLLOW AREA COMPANY SPALL AREA SPALL AREA WITH EXPOSED REBAR HE MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HEMPC) Δ HARLINE CRACK (HLC) OR CRACKS (CRK) HONEY COMB AREA Δ SCALE AREA (HVY, MED OR LT)

# SUPPLEMENTAL SHEET

FIELD ORIGINAL TRANSCRIBED BY:

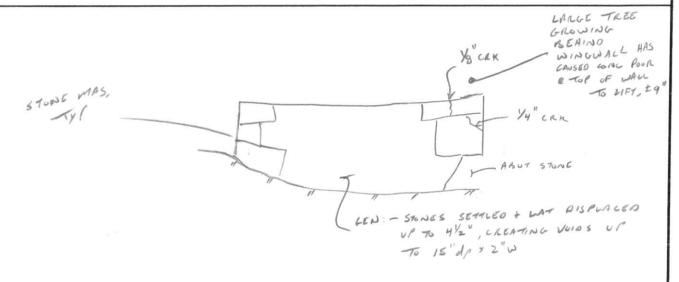
BRIDGE NO. 4746

DATE: 9/24/08

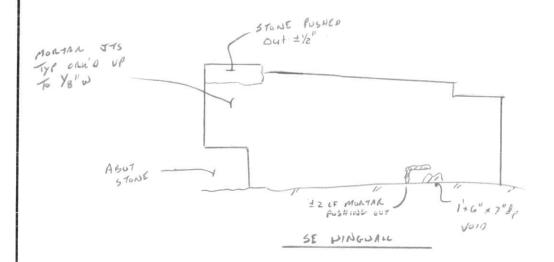
CREW: MTO, TK

SHEET 20 OF 41

DESCRIPTION:



#### NE WINGWALL



#### LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- HE MAP CRACKS (MpC) OR HARLINE MAP CRACKS (HLMPC)
- HARLINE CRACK (HLC) OR CRACKS (CRK)
- HARLINE CHALL
- SCALE AREA (HVY, MED OR LT)

UPDATE	DATE	COMPANY	CREW
Δ			
Δ			

#### BRIDGE NO. 04746 SUPPLEMENTAL SHEET

☐ TRANSCRIBED BY:

DATE:

9/24/08

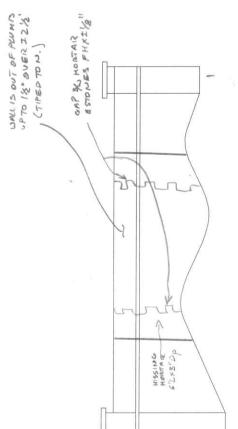
CREW: TH. MTU

SHEET

14/15

A FIELD ORIGINAL **DESCRIPTION:** 

Substructure



LET. WALL END SP & +2

CREW COMPANY DATE

-MOSTO HUYVEG GROWTH -MORTHIR & STONES IN THROUGHOUT. GEN. NOTES

LEGEND

MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC) SPALL AREA WITH EXPOSED REBAR SHALLOW REBAR

HAIRLINE CRACK (HLC) OR CRACKS (CRK) SCALE AREA (HVY, MED OR LT)
WITH EFFLORESCENCE HONEY COMB AREA HOLLOW AREA

SHALLOW REBAR

SPAL AREA

HAND SPALL AREA

HAND CRACKS (M)

HANDLINE CRACK

HANDLINE CRACK

SCALE AREA HITH

SCALE AREA HITH

X WITH EFFLORESC

Dakei		
SUPPLEMENTAL SHEET	BRIDGE NO. 4746	DATE: 9/24/08
₱ FIELD ORIGINAL □ TRANSCRIBED BY:	CREW: TH, MOD	SHEETZZ OF 4(
DESCRIPTION:		
	RET. WALL 6/W. SP #1+2 South EUEJ	ECEND  — RAND RIS WLEACHED OFF HORTHAR.  — RAND RIS WLEACHER OF HORTHAR.  — RAND RIS WATCHER OF COMPANY  — WARLING CANCES CHOOLED  — SOLLE MER CHIV, WED OR LTS.  — SOLLE MER CHIV, WED OR LTS.

9/24/08 BRIDGE NO. 4746 DATE: SUPPLEMENTAL SHEET CREW: MJU, TR SHEET 33 OF 41 FIELD ORIGINAL ☐ TRANSCRIBED BY: READINGS DROP LINE DESCRIPTION: ABANDONED/FARM PORD READINGS DRUP LINE READINGS Post #1: 20.00 4 Abut/ -7.3 SITTING AREA 0067 H4-20.4 Post # 6-22.4 18,7' to WL 0057 43-17.8 DROP LINE CEN.
INDP LINE READINGS TAKEN AS SHOWN ABOUT.
. NO READINGS TAKEN IN SPAN Z - ACANDONED FARM ROAD. FLOU UPSTREAM FASCIA TIME RAISED CAPSTONE READING C

SUPPLEMENTAL SHEET	BRIDGE NO. 4746	DATE: 9/24/08
A FIELD ORIGINAL   TRANSCRIBED BY:	CREW: MTD, TK	SHEET 25 OF 41
DESCRIPTION: READINGS e W. ABUT		
2-10 2-10 2-10 2-10 2-10 2-10 2-10 2-10	Soulder 3' wx 3' c in the channel  Area of undermining	10. 1934).  MATE: CHANNEL DEPTH BELOW.  ARIOCE = 21.6  ARIOCE = 21
17.0 N W D D D D D D D D D D D D D D D D D D	13.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	Plan view - W. Abut.  Per McLaren  Inspection (April 7, 2009)

,	4
¢	ot
(	97
	1ge
4	7

0+/+0	Inspected by:	M. Orlowsky
Norwich	Inspected by:	T. Kurasz
Sunnyside Street	Date Inspected:	September 24, 2008
Yantic River	Project No.:	170-2729
04746		
	Yantic River  94746	<b>9</b>

Photo # 2: Span 1, south elevation.

There is no Bridge ID on the structure.

Photo #1: Bridge ID.

,	4
<	ot
1	7
4	Page

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729

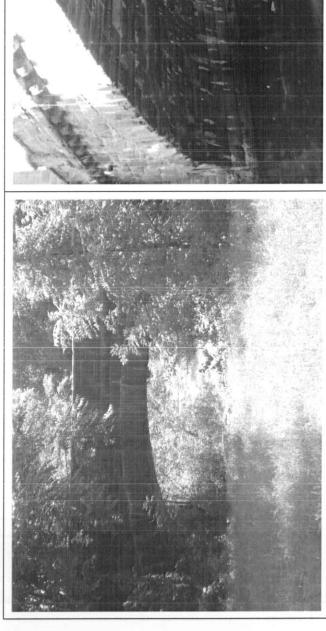


Photo # 3: Span 2, north elevation.

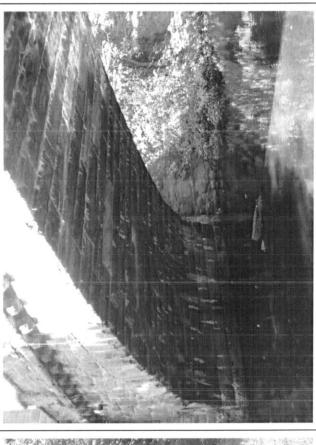


Photo # 4: Typical underside, span 1 (looking west).

Note the efflorescence leakage at the mortar joints.

	4
•	10
0	28
	ge
,	2

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729





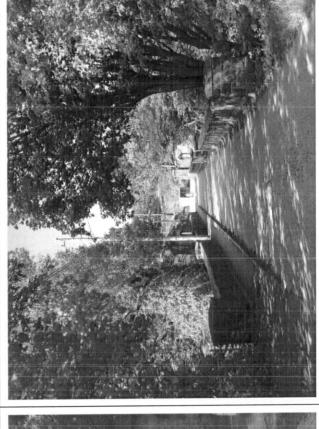
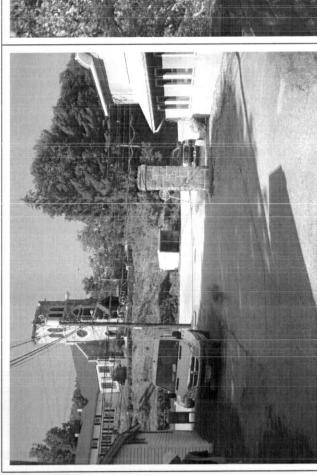
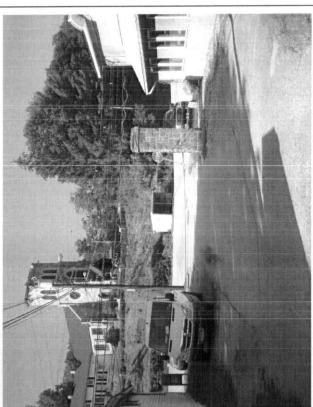


Photo # 6: Bridge from the east approach.

Photo # 5: Bridge from the west approach.

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729







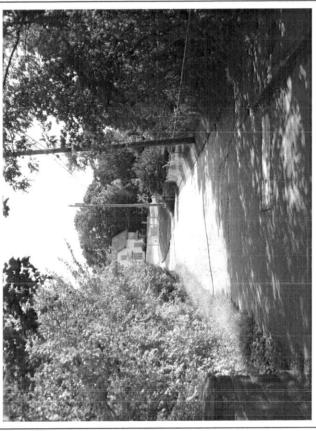


Photo #8: East approach from the bridge.

41
of
30
ge
Page

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729

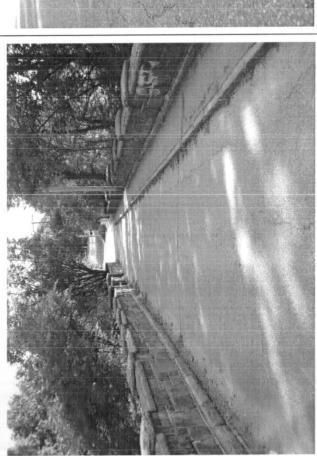




Photo # 10: Bridge overlay ramps up approximately 3" near the base of the north parapet.

Photo # 9: Typical top of deck.

4	
ot	
31	
age	
_	

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729

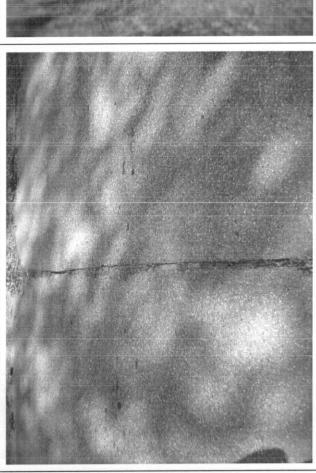






Photo # 11: Typical sawcut in the bridge overlay. Note that there is no sealant. Sawcuts are filled with dirt and have random vegetation.

Photo # 12: Tipping of the north parapet.

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729

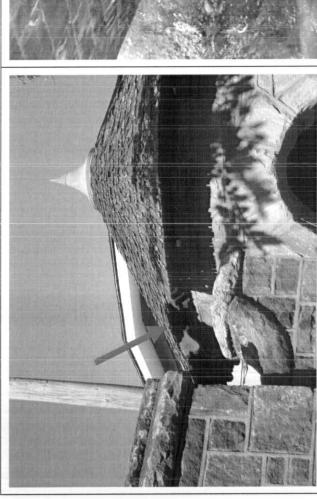


Photo # 13: North guard turret: Missing section of roof at the south side of the turret.



Photo # 14: East end of span 1: Areas of heavy efflorescence and areas of water leakage through the arch intrados.

		_
*		r
4	+	5
(	+	7
(	4	9
	OLD	I ago
,	5	3

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729



Photo # 15: East end of span 2: Heavy efflorescence and water leakage through the arch intrados.

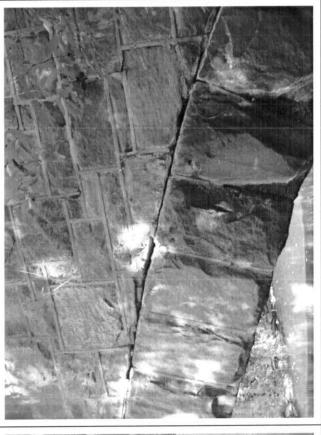


Photo # 16: Span 1, south elevation, east end: Deteriorated mortar between the arch ring stones and the spandrel wall.

	7	
<	+0	5
	17	1
	SUB	

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729



Photo # 17: Span 2, south spandrel and railing, typical.



Photo # 18: Span 1, southeast corner: Architectural stone treatment at the corner of the span has deteriorated mortar/voids between the stones. Also note the leakage through the arch ring.

41
of
35
Page

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729





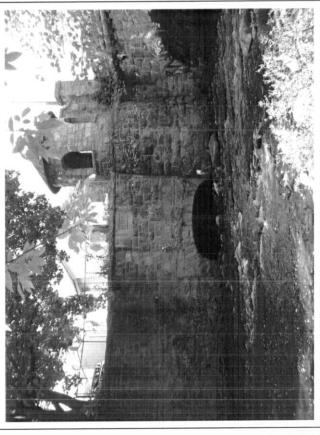


Photo # 20: Southwest wingwall. Note the stone arch in the wingwall.

		The second secon	
Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 200
Feature Crossed:	Yantic River	Project No.:	170-2729





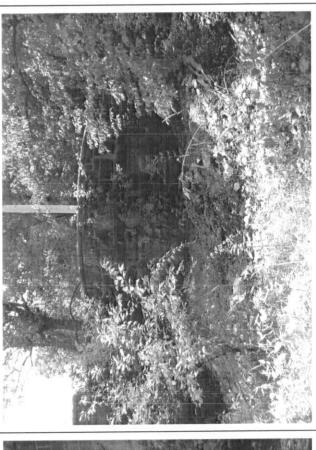
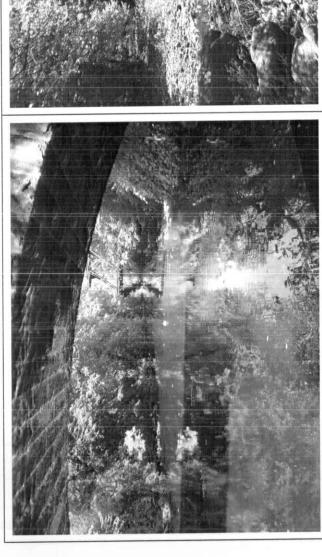


Photo # 22: Stone masonry wall between spans 1 & span 2, north elevation.

	-
٠	T 4
1	0
è	2
4	Fage

Town: Norwich		IVI. OHOWSKY	
	Inspected by:	T. Kurasz	
Feature Carried: Sunnyside Street	Date Inspected:	September 24, 2008	
Y	Project No.:	170-2729	



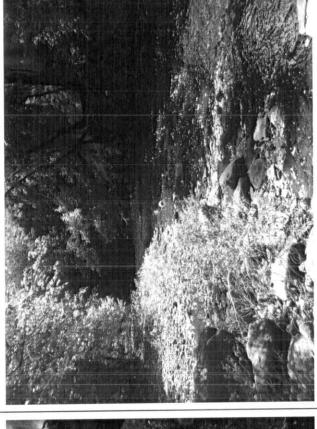
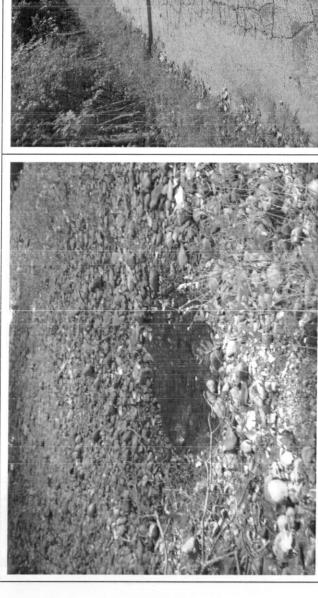


Photo # 24: Channel, looking downstream.

41
of
38
Page

Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729



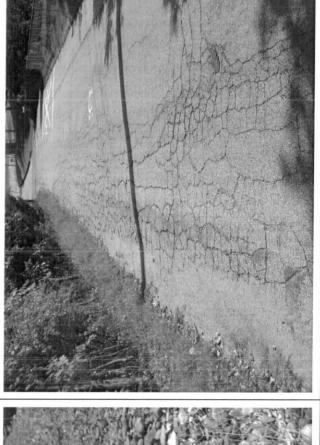


Photo # 26: East approach pavement with heavy cracking.

Photo # 25: Scour hole at the southeast channel

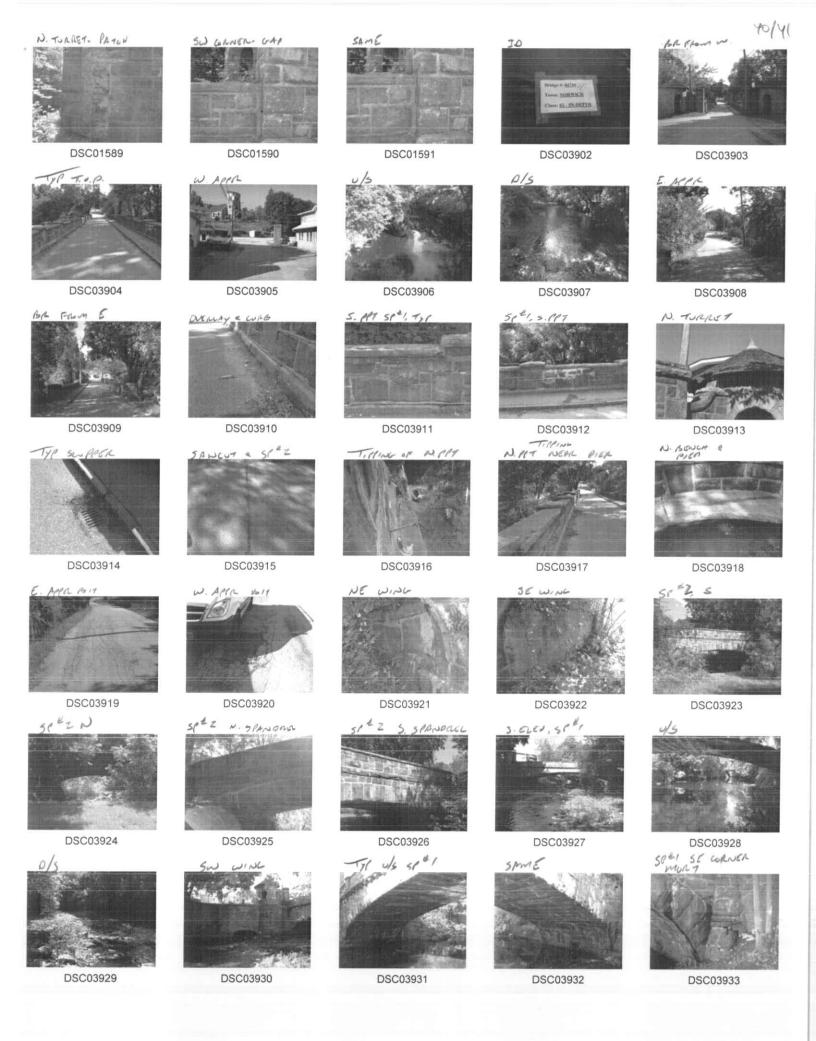
embankment.

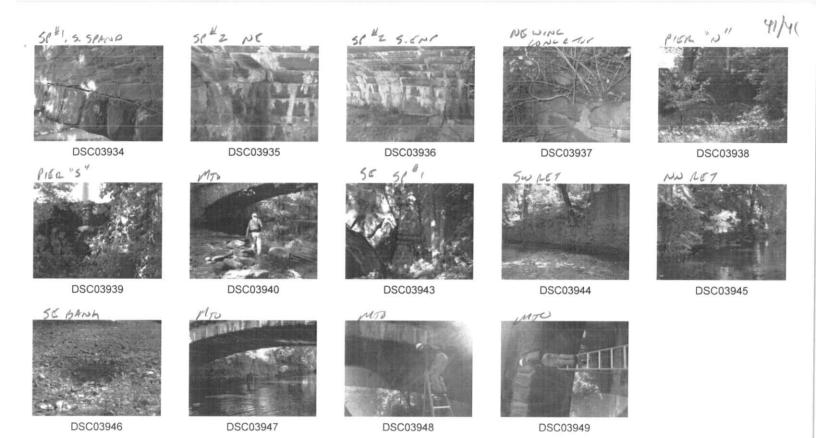
Bridge No.	04746	Inspected by:	M. Orlowsky
Town:	Norwich	Inspected by:	T. Kurasz
Feature Carried:	Sunnyside Street	Date Inspected:	September 24, 2008
Feature Crossed:	Yantic River	Project No.:	170-2729



Intentionally left blank.

Photo # 27: Deteriorated bituminous at the west approach, south shoulder.





## MICHAEL BAKER ENGINEERING, INC.

**BRIDGE** # 04746

ADDITIONAL FIELD NOTES

(BACK-UP MATERIAL)

DATE: SEPTEMBER 24, 2008

From:

William Kristoff

To: CC: P.E. George Assis; Sam S. Fares Michael Orlowsky; Paul McGuinness

Date:

9/26/2008 5:01 PM

Subject:

Fwd: FW: Bridge No. 04746 (Sunnyside Street over Yantic River, Norwich)

Hey Guys,

See email notes below from the team leader (Mike Orlowsky) and Sandy of CDOT. We basically need you guys to inspect the portion of the west abutment below the water for the above bridge, and check the undermining. You could probably do this when doing the other u/w for the other Norwich town bridges on your list. As Sandy said, no CADD needed, just send us some hand written notes to incorporate into the report.

Call or email with any questions and/or concerns with this.

Thanks.

Bill

>>> Michael Orlowsky 9/26/2008 10:32 AM >>> Paul/Bill,

Please forward to McLaren. Also, have them check for deficiencies in the west abutment face from the waterline to the channel bottom. There were some voids noted in the WMK/MDD inspection below the waterline, which we did not see through the water.

Thanks, MJO

>>> "Dumas, Sandra A." <<u>Sandra.Dumas@po.state.ct.us</u>> 9/26/2008 10:20 AM >>> Bill/Mike,

To answer question 1 - We did move the in-depth date up 1 cycle. We have been doing this when we assign a town to a consultant - we know you guys are basically doing an in-depth anyway and since we have to pay for a CE inspection, we might as well pay for a CE in-depth. (P.S. Thanks for asking though - we do make mistakes and we appreciate it when brought to our attention.)

To answer question 2 - Please have McLaren do this inspection under your project. Have them inspect the abutment in question (west) and if you need anything in the channel. They do not have to submit cadd sketches, but can just send in hand drawn sketches to you. Mike - you should incorporate what they find into your report (one submittal). Try and have McLaren do this sooner rather than later so that the report and letter are not held up.

Thanks again for your hard work!

Sandra A. Dumas Bridge Safety & Evaluation (860) 594-2072

>>> Michael Orlowsky 9/25/2008 3:17 PM >>> Paul/Bill,

A few issues regarding the inspection of the above noted structure:

1. Per the BRI-19, the next inspection of this bridge is supposed to be 2010, but the bridge list calls for an in-depth inspection (per MRJ). Note that Baker did an in-depth in 2000, which would make this inspection a routine. I called MRJ yesterday. Please let me know how you want this report classified. It doesn't really matter too much to me, the report won't vary if we call it an in-depth or a routine.

2. The water depths along west abutment were up to 40" deep. We were able to wade in front of the entire west abutment, and found an area of undermining approximately 3.2' long x 12" deep x 6" high. Water depths of up to 40" made accurate measurement of this undermining difficult. I believe that water depth of 30" trigger an underwater inspection, so you may want to ask BS&E if they want divers to go out there. Additionally, water depths were up to 4.1' deep in the channel at the east end of the span, but the channel was could be waded along the substructure at that end of the span.

MJO

## PHOTO LOG

Form BRI-13, Rev. 9/97

Bridge Information System	
Image Inventory	
Bridge No. <u>04746</u>	Date 9/24/08
Town: NORWICH	Photographer: TAL M70
Commind / Connect Summer DE ET / YANTIL DUE EN	

I P PROPRIED TO THE PROPRIED TO THE PRICE OF SOME SOME SOME SOME SOME SOME SOME SOME	m Frame #	Image Description
BR FROM WEST  JOIN  W. MPPROACH  SUPSTREAM  BE DEVISION FROM SPALE  RESPONDENCE OF READ SPALE  PET HORT AR WILDERT & S. PPT I PATCHES & S. PPT. SPALE  BROKEN OF ROOF SECTION & N. CUARD TURNET  SCUPPER IN SPALE TYP  COTH SPALE TYP  TO DISDESO N. PPT OUT OF PLUMB  PM & E. PPT.  BROKEN SEATSTONE & N. SITING AREA  PM DING  DY PT NEAR THE DIEAR OUR VED STUND AREA  PM DING  TO NOT SUPPL  TO WING  TO SU VITY POST JCY- S/G*CM  TO SU VITY OUT OF PLUMB  TO SEE WING  TO SU VITY OUT OF PLUMB  TO SEE WING  TO SO WING  TO SU VITY OUT OF PLUMB  TO SEE WING  TO SO SO SO WING  TO SO SO WING  TO SO SO WING  TO SO	in France	
W. BOPPOACH  S UPSTREAM  A DEMASTREAM  A DEMASTREAM  B ASIDGE FROM EAST  SLOPE OF OVERLAY NEAR D. PPT IN SPRI  DIT DET HORTAR W/ VEGET & S. PPT , PATCHES & S. PPT . SPRI  SCUPPER IN SPRI TYP  US SCUPPER IN SPRI TYP  OUTSIDE OF N. PPT OUT OF PLUMB  BROKEN SEAT STONE & D. SITING AREA  PM & LARK  19 A TOKKET  20,21 SW 11/1/ 1051 JCT - 5/8 CM  22 S CUP SPRI  23 SE WING  24 S. ELEU SPRI  25 SCELU, SCAL  26 OFSTREAM  37 OF USACA  38 SC WING  31 JC 1 USACA  31 JC 1 USACA  32 ST WING  33 SC WING  34 STELLU SPRI  35 SC WING  36 SC WING  37 NEW MONTAK, SPRI  38 SCAL MARKET  39 SPRI  31 SPRI  32 ST CONNER - CAN INIST MONTAK ABOUT RING STONE  36 SCAL MARKET  37 NE CONNER - CAN INIST MONTAK ABOUT RING STONE  36 SCAL MARKET  37 NE CONNER - CAN INIST MONTAK ABOUT RING STONE  36 SCAL MARKET  37 NE CONNER - CAN INIST MONTAK ABOUT RING STONE  38 PICK, N. LEU  39 PICK, N. LEU  39 PICK, N. LEU	3	
W. BOPPOACH  S UPSTREAM  A DEMASTREAM  A DEMASTREAM  B ASIDGE FROM EAST  SLOPE OF OVERLAY NEAR D. PPT IN SPRI  DIT DET HORTAR W/ VEGET & S. PPT , PATCHES & S. PPT . SPRI  SCUPPER IN SPRI TYP  US SCUPPER IN SPRI TYP  OUTSIDE OF N. PPT OUT OF PLUMB  BROKEN SEAT STONE & D. SITING AREA  PM & LARK  19 A TOKKET  20,21 SW 11/1/ 1051 JCT - 5/8 CM  22 S CUP SPRI  23 SE WING  24 S. ELEU SPRI  25 SCELU, SCAL  26 OFSTREAM  37 OF USACA  38 SC WING  31 JC 1 USACA  31 JC 1 USACA  32 ST WING  33 SC WING  34 STELLU SPRI  35 SC WING  36 SC WING  37 NEW MONTAK, SPRI  38 SCAL MARKET  39 SPRI  31 SPRI  32 ST CONNER - CAN INIST MONTAK ABOUT RING STONE  36 SCAL MARKET  37 NE CONNER - CAN INIST MONTAK ABOUT RING STONE  36 SCAL MARKET  37 NE CONNER - CAN INIST MONTAK ABOUT RING STONE  36 SCAL MARKET  37 NE CONNER - CAN INIST MONTAK ABOUT RING STONE  38 PICK, N. LEU  39 PICK, N. LEU  39 PICK, N. LEU		TAID
S DUNSTREAM SP#    POUNSTREAM SP#    REMPER OVERLAY NEAR D. PPT IN SP#    PET MORTAR W UNDER C. S. PPT   PATCHES & S. PPT . SP#    DITION OF NO PPT OUT OF PLUMS  DIFT NEAR THE DIEAR GURVED SUTURISD +3"  BROKEN SERT FONE & D. SITING AREA  DIFT NEAR THE DIEAR GURVED SUTURISD +3"  BROKEN SERT FONE & D. SITING AREA  DIFT NEAR THE DIEAR GURVED SUTURISD +3"  DIFT NEAR THE DIEAR GURVED SUTURISD HAVE BUNCH STONE  DIFT NEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR THE DIEAR GURVED SUTURISD HAVE  DIFT NEAR THE DIEAR THE DIEAR THE DIEA		- N 100 Ns
6  DOWNSTREAM SPT  E. APPOR  B. NEIDEF EXHERST  O SLOPER OVERLAY NEAR D. PPT IN SPT  10,111  PET HORTAR W/ VEWET & S. PPT , PATCHES & S. SPT. SPT    12  BROKEN OFF ROOF SECTION & N. CUARD TWERET  13  SCUPPER IN SPT   TYP  15  OUTSIDE OF N. PPT OUT OF PLUMB  16  D PPT NEAR THE DIEAR CURVED DUTWIND D +3"  17  BROKEN SEAT STONE & N. SITING AREA  19  DM TOKNOT  22  DC WING  24  SE WING  25  SE WING  27  27  SE CLEU SPT  28  USTACAM  30  SOU WIA  31  37  MISSING MONTAK, SPT , S. CLEU, E. ENT  38  SPEL NE CORNER  39  SPEL NE CORNER  30  SOU WIA  31  32  MISSING MONTAK, SPT , S. CLEU, E. ENT  39  SPEL NE CORNER  30  SOU WIA  31  32  MISSING MONTAK, SPT , S. CLEU, E. ENT  39  SPEL NE CORNER  30  SOU WIA  31  32  MISSING MONTAK, SPT , S. CLEU, E. ENT  30  SOU WIA  31  32  MISSING MONTAK, SPT , S. CLEU, E. ENT  30  SOU WIA  31  32  MISSING MONTAK, SPT , S. CLEU, E. ENT  30  SOU WIA  31  32  MISSING MONTAK, SPT , S. CLEU, E. ENT  30  SOU WIA  31  32  MISSING MONTAK, SPT , S. CLEU, E. ENT  31  SPEL NE CORNER  32  SPEL NE CORNER  36  FIEL NE CORNER  37  NE WING - CONC & TUT OF WAR  38  PIEL N. CLEU		UPSTESAM
B NOTOSET SUPERINT  9 SLOPE POWERLAY NEAR N. PPT IN SPAT  10,111 PET HORTAR W/ VEDET & S. PPT , PATCHES & S. SPT . SPAT    12 BROLLEN OFF ROOF SECTON & N. CUARD TWERET  13 SCUPPER IN SPAT TYP  15 OUTSIDE OF N. PPT OUT OF PLUMS  16 D PPT NEAR THE DIEAR CURVED DUTWARD D + 311  17 BROKEN SEAT STONE & N. SITING AREA  19 N. TOKKET  20,21 SW 111/ POST JET . S/B'CAN  22 DE WING  23 SE WING  24 S. ELEU SI & Z  25 N. ELEU SI & Z  26 UFSTREAM  27 S. ELEU SI & Z  28 UFSTREAM  29 UFSTREAM  30 SW WING  31 SI WING  31 SI WING  32 THIS SINCE MONTAK, SI & J. ELEU, E. ENT  34 SI ELEU ELEURINE W  35 SI Z NE COLNER CHAPTING WORAM ABOVE RING & JONE  36 SICK NEW COLNER  37 NE WING COLNER CHAPTING WAS ABOVE RING & JONE  37 NE WING CORNER  38 PILL N. ELEU		BULLAST PEIALA SPAL
DET MORTAR W/ VENET & S. PPT IN SPATION BROWN OF FRONT & S. PPT SPATION BROWN OF FRONT & S. PPT SPATION BROWN OF THE SPATION BROWN OF THE PROOF SECTION BROWN OF THE SPATION BROWN OF THE SPATION BROWN OF THE SPATION BROWN OF THE SPATION OF THE SPA	7	E. APPR
10,11 PET HORT AR W/ VEWET & S. PPT   PATCHES & S. PPT , SP#    12 BROKEN OFF ROOF ERECTON & N. CUMR D TWERET  13 SCUPPER IN SP#   TYP  14 CM ST SP# 2 TYP  15 WISIDE OF N. PPT OUT OF PLUMB  16 D. PPT NEAR THE DIEAR CURVED OUT ON 2 D +3"  17 BROKEN SEAT STONE & N. SITING AREA  19 DM & S. PHK  19 N. TOKKET  22 SU 1/1/ POST JCT - S/G* CAN  23 SE WING  24 S. ELEU GI & Z  25 SI M. ELLU GI & Z  26 CLEU SI MI  27 S. CLEU SI MI  28 UPSTREAM  30 SU WIA-  29 UPSTREAM  31 SI MI UPSTREAM  31 SI MISTREAM  32 MISSING MONTAK, SI MI, S. CLEU, E, EN T  34 SI MISSING MONTAK, SI MI, S. CLEU, E, EN T  35 SI Z. NE CORNER CAN INISI MONTAR ABOVE RING & TONE  36 SI Z. NE CORNER CAN INISI MONTAR ABOVE RING & TONE  37 NE WING CONNER CAN INISI MONTAR ABOVE RING & TONE  37 NE WING CONNER CAN INISI MONTAR ABOVE RING & TONE  38 PICK, N. CLEU	8	ARIDGE EROH ENST
BROKEN OFF ROOF SECTION EN. LUARD TURNET  SCUPPER IN SPHI TYP  UTSIDE OF N. PPT OUT OF PLUMB  PPT NEAR THE DIEAR CURVED OUTWARD \$3"  BROKEN SENT STONE & N. SITING AREA  PM & EAHLK  19 N. TORKET  20,21 SW 11/7/ POST JCT - 5/6" CM  22 NC WIMC  23 SE WING  24 S. ELEU SI &Z  25 N. ELEU SI &Z  26 "2 S. ELEU SI &Z  27 S. ELEU SI &Z  28 UTSTREAM  30 SU WING  31 SI WING  31 SI WING  32 SI WING  33 MISSING MONTAK, SI &I, S. ELEU, E, EN ?  34 SI WING  35 SI WING  36 SI WING  37 NESSING MONTAK, SI &I, S. ELEU, E, EN ?  38 SI SI Z. NE CORNER  31 SI SI Z. NE CORNER  31 SI SI Z. NE CORNER  31 SI SI Z. NE CORNER  32 SI Z. NE CORNER  33 NESSING WONG CORNER  34 SI Z. NE CORNER  37 NE WING CORNER  38 PICK, N. LIEU	ol	SLUPER OVERLAY NEAR N. PPT IN SPAI
SCUPPER IN SPAINTY  IN COM A SPAINTY  OUTSIDE OF NORTH OUT OF PLUMB  IF DIFFER THE DIFAR OUR DOTWIND DASI  IF BROKEN SEMT STONE & N. SITING AREA  IF NO COMPANY  OF THE POST JCY- S/G* CM  22 N. FILL SPAINTY  23 SE WING  24 S. FILL SPAINTY  25 SIAL N. SEMANDER MYP;  26 "2 S. "  27 S. CLEU SIAL  28 OF THEM  30 SW WING  31 JI SI WING  31 JI WING MONTHAN, SIAL, SIAL  33 SIAL WONTH ABOUT RING STONY  34 SIAL WONTH CANDON ABOUT RING STONY  35 SIAL NE COLNER  36 SIAL NE COLNER  37 NE WING COLNER  38 SIAL NE COLNER  37 NE WING CONCER CANDON ABOUT RING STONY  38 SIAL NE COLNER  37 NE WING CONCER CANDON ABOUT RING STONY  38 PICK, N. CUEU	10,11	PET MORTAR W/ VEGET & S. PPT , PATCHIES & S. PPT. SP#1
15  OUTSIDE OF NOTOF PLUMS  16  DIPPT NEAR THE DIEAR OURUED OUTWARD \$13th  17  BROKEN SEAT STONE & N. SITING BREAD  19  AT TORKET  20,21  SW 1971 POST JCY- 5/8*CAN  22  NO WING  24  35 ELEU SIEZ  25  SIEZ, N. SEADOREL MYPS  26  27  28  OFSTREAD  30  SW WING  31  31  31  31  31  31  31  31  31  3	12	BROKEN OFF ROOF SECTON & N. LUAR D TURRET
15  OUTSIDE OF NOTOF PLUMS  16  DIPPT NEAR THE DIEAR OURUED OUTWARD \$13th  17  BROKEN SEAT STONE & N. SITING BREAD  19  AT TORKET  20,21  SW 1971 POST JCY- 5/8*CAN  22  NO WING  24  35 ELEU SIEZ  25  SIEZ, N. SEADOREL MYPS  26  27  28  OFSTREAD  30  SW WING  31  31  31  31  31  31  31  31  31  3	13	SCUPPER IN SP#1 TYP
16  D PPT NEAR THE DIEAR CURVED DUTWIND D +311  17  BROKEN SEAT STONE & N. SITING AREA  19  N. TOKNET  20,21  SW 197/ POST JCT - S/G*CAN  22  NE WING  23  SELEU SIEZ  25  SIEZU SIEZ  27  28  OFSTREAM  30  SW WINF  31  31  31  31  31  31  31  31  31  3	73.65	
BROKEN SEMT STONE & N. SITING AREA  IP DM & EARTH  IP N. TORKET  20,21 SW PPT POST JET - S/8"CAP  22 NE WING  23 SE WING  24 S. ELEU GF # Z  25 SC 2. N. SEPNOREL MYP?  26 UPSTREAM  27 S. CLEU SF # I  28 UPSTREAM  29 OPSTREAM  30 SW WINT  31 SI USA WORTAK, SF # I, S. ELEU, E. EN T  34 SP IS CORNER CAN INTISI MORAN ABOVE RING & TONY  35 SI Z NE CORNER  36 SI Z NE CORNER  37 NE WING - WALL & TUP OF WALL  38 PICK, N. ELEU  38 PICK, N. ELEU  39 NE WING - WALL & TUP OF WALL  30 NE WING - WALL & TUP OF WALL  30 NE WING - WALL & TUP OF WALL  30 NE WING - WALL & TUP OF WALL		OUTSIDE OF N. PPT OUT OF PLUMS
19  DH C EAPTR  19  N. TORRET  20,21  SW 117/ POST JCY- 5/6 CAN  22  DE WING  23  SE WING  24  3. ELEU SI & 2  25  SI * 2. N. SCHNORD. MYP?  26  17  27  28  OPSTREAM  29  OPSTREAM  30  SW WING  31  31  31  31  31  31  31  31  31  3		
19  20,21  20,21  21  22  23  25  24  25  25  27  25  26  27  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  27  20  20		
20,21  22  PE WING  23  SE WING  24  3. ELEU SI # Z  25  N. ELEU SI # Z  25  SC * 2. N. SERNOREL MY ?  26  17  27  28  USSTRAN  29  USSTRAN  30  SW WING  31  31  31  31  31  31  31  31  31  3		
22 DE WING  23 SE WING  24 S. EVEU GI # 2  25 N. EVEU GI # 2  25 SI # 2, N. SERNOREL MYP;  26 " 2 S. "  27 S. CLEU, SI # 1  28 UPSTREAM  30 SW WING  31 SI WING  31 SI WING  32 " " " E  33 MISSING MONTAK, SI # 1, S. EVEU, E, EM?  34 SI # 1 SE CORNER - CAN I MISSI MONAH ABOUT RING & JONE  35 SI # 2, NE CORNER  36 SI # 2, NE CORNER  37 NE WING - CONC & TUT OF WALL  38 PICK, N. CLEU		D. TORRET
23 24 3. ELEU 9/ # Z 25 N. ELEU 9/ # Z 25 S/ # Z. N. SPANOREL MYP, 26 27 28 UPSTREAM  30 SW WING  31 31 31 31 31 31 31 31 31 31 31 31 31		
24 5. ELEU G/ # Z  25 N. ELEU G/ # Z  25 S( # Z, N. SEPNOREL My );  26 12 3. ELEU , S( # /  27 S. ELEU , S( # /  28 U/5TREAM  30 SW W/A*  31 3/ # 1 U/5, LEWHINE W  32 11 11 15 E  33 M155/NL MONTAN, 5/ # /, 3, ELEU, E, EM ?  34 S/ # 1 5E CORNER - CAR / M/5/ MORAR ABOVE RINU & 70NH  35 S/ # Z PE CORNER  36 S/ # Z, ENP  37 NE WING - WAC & TUP OF WALL  38 PICK, N. ELEU		SE WING
25 56 2, N. SERNOREL MYP;  26 11 2 3. 11  27 5. CLEV. SELL  28 OFSTREAM  30 50 WING  31 71 41 015, LEWHINE W  31 32 11 11  32 11 11  33 MISSING MONTAN, SELL, S. ELLO, E, ENT  34 SELL SE CORNER - CAR IMISI MONTAN ABOVE RING STONE  35 SELT NE CORNER  36 SIZE, S. END  37 NE WING - WNC E TOP OF WALL  38 PICK, N. ELED	24	3. ELEU GI#Z
25 SC 22, N. SERNOREL MYP;  26 11 2 3. 11  27 S. CLEV., ST 21  28 OFSTREAM  30 SW WING  31 31 11 11 11 11 11 11 11 11 11 11 11 1	25	N. MEU 9/ #2
27 S. ELEU ST #1  28 OPSTREAM  30 SW WING  31 91 #1 U/S, LEWHINE W  32 "1" " " " " " " " " " " " " " " " " "		SCHZ, N. SERNOREL MYPS
30 30 30 30 30 30 31 31 31 31 31 31 31 32 33 MISSING MONTAN, SPRI, S. ELEU, E, ENT 34 38 SPRI SE CORNER - CARIMISI MONAR ABOVE RING STONY 35 SPRI NE CORNER 36 SPRI, S. END 37 NE WING - WNG E TOP OF WAGE 38 PIER, N. ELEU	26	11 2 5, 11
30 30 30 30 30 30 31 31 31 31 31 31 31 32 33 MISSING MONTAN, SPRI, S. ELEU, E, ENT 34 38 SPRI SE CORNER - CARIMISI MONAR ABOVE RING STONY 35 SPRI NE CORNER 36 SPRI, S. END 37 NE WING - WNG E TOP OF WAGE 38 PIER, N. ELEU	27	5. ELEU , SI "1
31 31 11 115, LEWYING W  32 MISSING MONTAK, STRI, S. ELEU, E, EXT  34 STRI SE CORNER - CARIMISI MORAR ABOVE RING STONY  35 STRI, NE CORNER  36 STRI, S. END  37 NE WING - WAG E TOP OF WAG  38 PICK, N. ELEU	28	
31 31 11 115, LEWYING W  32 MISSING MONTAK, STRI, S. ELEU, E, EXT  34 STRI SE CORNER - CARIMISI MORAR ABOVE RING STONY  35 STRI, NE CORNER  36 STRI, S. END  37 NE WING - WAG E TOP OF WAG  38 PICK, N. ELEU		Que A STACA
33 MISSING MONTAN, SPRI, S. ELEU, E, ENT 34 SPRI SE CONNER - CHN INISI MONAR ASSUE RING BYONY 35 SPRI, NE CORNER 3C SPRI, S. END 37 NE WING - CONC E TOP OF WAL- 38 PICK, N. ELEU	10000	Sch (1) / 1 =
33 MISSING MONTAR, SPRI, S. ELEU, E, EN? 34 SPRI SE CORNER - CRITICIS MONAR ASSUE RING BYONE 35 SPRI, NE CORNER 36 SPRI, S. END 37 NE WING - CONC E TOP OF WALL 38 PICK, N. ELEU		3/ 11 U/S, LECTIVE W
35 STEZ NE CORNET  36 STOZ, S. END  37 NE WING - WAG E TUP OF WAG  38 PIER, N. ELEU		Edd and
35 STEZ NE CORNET  36 STOZ, S. END  37 NE WING - WAG E TUP OF WAG  38 PIER, N. ELEU		SOUL AND THE ST ST STEED, E.EN
37 NE SING - WAC E TUP OF WALL		CIEZ NE COUNTY - CHE / VIII TO TO THE PORTE
37 NE SING - WAC E TUP OF WALL	36	SIDZ, S. END
38 PIEK, N. ELEU	37	
39 S. CIEV DE PIER- NOY UEC		PIEK, N. ELEV
	39	S. CLEV OF PIER- MUY UEL

## **PHOTO LOG**

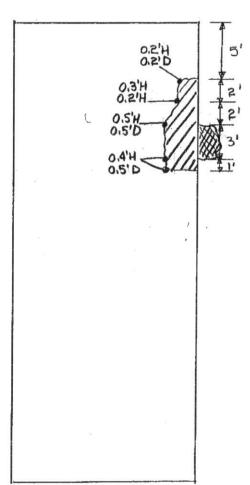
Form BRI-13, Rev. 9/97

Bridge Information	on System
Image Inventory	
Bridge No. 471	
Town: Norw	Photographer:
Carried / Crossed	1: SUNNYSIDE ST/ YKNIL RIU
Film Frame #	Image Description
40	SE CORNER SP#1 - MORTAN WIDS & ARCH CORNER TREAT
4 2	NW "
43	Scoul Halt e SE BANA



PROJECT	04746			
SHEET NO.	2: 0:04	_ OF _	·	 
CALCULATED BY		DATE	4/7/09	 
CHECKED BY		DATE		 
REVISIONS				 
SCALE				

North



BOULDER - 3'WIDE × 3'LONG

PLAN VIEW-WEST ABUTMENT