

STRUCTURE NO. 05588

ROUTE 74
over
HOCKANUM RIVER
VERNON

Routine Inspection
on
5/21/2010

Inspected by Team 3
for Area 3

TEAM:	Forwarded to TE3 Paul D'Attilio	Date	5/21/2010
TE3:	Reviewed by TE3 <i>PAUL F. D'ATTILIO</i>	Date	5/26/10
	BMM Required	<i>YES</i>	
	Town Bridge	<i>No</i>	
	Rating <= 5 (Items 58,59,60 or 62)	<i>YES</i>	
	Forwarded to Supervisor <i>TDL</i>	Date	5/26/10
	Forwarded to "To Be Copied Drawer" <input type="checkbox"/>	Date	
	Date BRI-19 Entered	<i>5/26/10</i>	
SUPERVISOR:	Reviewed by Supervisor <i>TDL</i>	Date	5/28/10
SUPPORT:	Date Copies Made	BMM No	
	Scanned By: <input type="text"/>	Date Scanned <input type="text"/>	PDF Box No <input type="text"/>

NBI: Yes

Structure No. Town
 Inspection Date Inspectors

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Loose Forms (not bound in report)

Number of
Sheets Enclosed

Maintenance Memo		<input type="text"/>
Flagging Memos		<input type="text"/>
PONTIS Element Data Collection Form		<input type="text" value="1"/>
Plan Sheets	Already on File <input type="checkbox"/>	<input type="text"/>

Bound Report Pages

Title Cover Sheet		<input type="text" value="1"/>
Table of Contents		<input type="text" value="1"/>
Executive Summary		<input type="text"/>
Field Notes		<input type="text" value="4"/>
Calculations:	Load Rating Evaluation	<input type="text"/>
	Quantities & Cost Estimate	<input type="text"/>
Photo Sheets		<input type="text" value="5"/>
Photo Images		<input type="text" value="9"/>

Forms

BRI-18 Bridge Inspection Report Form	<input type="text" value="7"/>
BRI-19 Highway Bridge Inventory Form	<input type="text" value="2"/>

Comments:

Bridge Number

05588

Inspected By:

S. Bradner & J. Venardos

Sufficiency Rating
Previous Inspection Date

63.04

5/27/2008

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION

STRUCTURE EVALUATION
SHEET 1 OF 2 FORM BRL-19 REV 10/00

SHEET _____ OF _____

BS&E Received Data Entry By: PFD
Copies Made Data Entry Date: 5/26/10

IDENTIFICATION

Bridge Name: VERNON
Town Name: VERNON
Town Code: 78250

5) Inventory Route: 1
A) Record Type: 1
B) Signing Prefix: 3
C) Level of Service: 1
D) Route Number: 00074
E) Directional Suffix: 0
Mainline
HOCKANUM RIVER

7) Facility Carried: ROUTE 74
9) Location: .5 MI WEST OF ROUTE 83

11) Milepoint: 4.58 Miles
16) Latitude: 41deg 51 min 42.00 sec
17) Longitude: 72deg 29 min 12.00 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: 3 Steel
B) Design Type: 19 Culvert (includes fram)

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: N
108) Wearing Surface/Protective System: N

A) Type of Wearing Surface: Not Applicable
B) Type of Membrane: Not Applicable
C) Type of Deck Protection: Not Applicable

90) Inspection Date: 05/27/10
Inspection Team: 303
Frequency Class: 24
91) Frequency Class: 01
Inspection Date: 6/17/2004
Deck Survey: 0
Access: 0
Flagman: 0
CRITICAL FEATURE INSPECTIONS
Fracture: Type: Frequency: Team: Date:
Uwarter:
Special:

AGE AND SERVICE

27) Year Built: 1955
42) Type of Service: 1 Highway
28) Number of Lanes: 2
A) On: 2
B) Under: 5 WATERWAY

29) Average Daily Traffic: 7200
109) Percent Truck: 3%
30) Year of ADT: 2007
19) Bypass, Detour Length: 6 miles

GEOMETRIC DATA

48) Length of Max Span: 14ft
49) Structure Length: 31ft
50) Curb or Sidewalk Widths:
A) Left: 0.0ft
B) Right: 0.0ft

51) Brg Rdwy width, curb-curb: 20.0ft
52) Deck Width, Out-Out: 30.0ft
32) Approach Roadway Width: 20ft
33) Bridge Median: 0 No Median

34) Skew Angle: 0deg
35) Structure Flared: 0
10) Inv. Rte. Min. Vert Clearance: 99ft
47) Log Inv. Rte. Total Horiz. Clr.: 20.0ft
53) Min Vert Clearance Over Bridge: 99ft
54) Min Vert Under Clearance: 0ft
55) Min Lat Under Clearance on Right: Ref
56) Min Lat Under Clearance on Left: 0.0ft

BRIDGE COMMENTS

BMW 6-253 comp.
For Erosion

CLASSIFICATION

112) NBIS Bridge Length	Yes	
104) Highway System	0	Off System
26) Functional Class	16	Urban Minor Arterial
100) Defense Highway	0	Route is not a STRAHNET Route
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	1	State Highway Agency
22) Owner	1	State Highway Agency
Report Class	S	STATE
37) Historical Significance	5	Bridge is not eligible for National Register

WATERWAY

DrainageBasinCode	4500	
38) Navigation Control	0	No navigation control on waterway
39) Navigation Vert Clr.	0	40) Navigation Horiz Clr.
116) Vert-Lft Brg Nav Min		
111) Pier Abutment Protection		

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed		
75B) Work Done By		
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. 22	Project No.	Advised

POSTED SIGNS & UTILITIES

Other Posted Signs 1		
Other Posted Signs 2		
Actual P.L. Single Unit Truck	tons	
Rec. P.L. Single Unit Truck	tons	
Actual P.L. Semi-Trailer Truck	tons	
Rec. P.L. Semi-Trailer Truck	tons	
Rec. P.L. All Vehicles	ft	
Posted Vert Clearance On Bridge	ft	
Posted Vert UnderClearance	ft	
Posted Speed Limit	mph	
Utility	2	Water

STRUCTURE EVALUATION

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

SHEET _____ OF _____

Bridge Number	05588	NBIS Length	Yes 31
Town Name	VERNON		
Facility Carried	ROUTE 74		
Feature Crossed	HOCKANUM RIVER		

Inspected By: S. Brashier & P. Venables

LOAD RATING AND POSTING		APPRAISALS	
31) Design Load	0	Rating	By
63) Operating Rating Type	5	67) Structure Evaluation	4
64) Operating Rating	58.0	68) Deck Geometry	2
65) Inventory Rating Type	5	69) Under Clear Vert & Horiz	N
66) Inventory Rating	34.0	71) Waterway Adequacy	8
		72) Approach Rwy Alignment	6
		113) Scour Critical	8

CONDITION		APPRAISALS	
58) Deck	N	Rating	By
59) Superstructure	N	67) Structure Evaluation	4
60) Substructure	N	68) Deck Geometry	2
61) Channel & Chan. Protection	N	69) Under Clear Vert & Horiz	N
62) Culverts	4	71) Waterway Adequacy	8
		72) Approach Rwy Alignment	6
		113) Scour Critical	8

Items 58 Thru 72 Checked By: PEP

36) Traffic Safety Features:

A) Bridge Railings	0	
B) Transitions	1	
C) Approach Guardrail	1	
D) Approach Guardrail End	1	

OTHER FEATURES

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

INSPECTION COMMENTS

Proposed Next Indepth Insp Year: 2014

Senior Supervisor: Paul D'Attilio

Reviewed By: Theodore Lapien Date: 5/26/10

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 05588

Inspection Date: 5/21/2010

Inspection Type:	Routine	Previous Inspection Date:	5/27/2008	Snooper Required:	No
Inspection Performed By:	Team 3	Feature Carried:	ROUTE 74	Snooper Used:	No
Town:	VERNON	Feature Intersected:	HOCKANUM RIVER	Year Built:	1955
Location:	.5 MI WEST OF ROUTE 83	Main Design:	Culvert (includes frame culverts)	Year Rebuilt:	-
Main Material:	Steel				

Visits

Inspectors:

Visit Date:	Temp:	Start Time:	End Time:	Inspector:	Task:
5/21/2010	65	7:30:00 AM	8:30:00 AM		

DECK: - Overall Rating: P

Rating

OVERLAY:	6	THE BITUMINOUS SURFACE, OVER ABOUT TWO FEET OF BALLAST MATERIALS, OVER THE CORRUGATED METAL PIPES ARCHS, APPEARS TO HAVE BEEN RESURFACED, SINCE THE 2002 INSPECTION DATE. THE SURFACE SHOWS LONGITUDINAL PAVING JOINT LINES, LONGITUDINAL, TRANSVERSE, MULTIPLE, AND RANDOM CRACKING, SOME ARE OPEN UP TO 1/2 INCH, LIGHT BITUMINOUS SEGREGATION, AND MINIMAL TIRE WEAR.THERE WAS AN AREA OF EROSION TO THE ROADWAY EDGE, ALONG THE NORTHERLY ELEVATION, OVER THE WESTERLY PIPE ARCH, WHICH MEASURED 13 LINEAR FEET LONG, WAS UP TO 3 FEET WIDE, AND WAS UP TO 3 FEET DEEP, WHICH WAS UNDERMINING THE SHOULDER EDGE UP TO 12 INCHES. LONGITUDINAL SURFACE BREAKAGE WAS NOTED WITHIN THE UNDERMINED SHOULDER. THE AREA OF EROSION WAS BETWEEN THE SHOULDER EDGE, AND THE CONCRETE MITERED SECTION OVER THE WESTERLY PIPE. THIS AREA HAS BEEN REPAIRED WITH STONE AND BITUMINOUS CONCRETE SINCE THE 2006 INSPECTION DATE.
DECK-STR. CONDITION:	N	-
CURBS:	N	THIS STRUCTURE SHOWS NO CURBS.
MEDIAN:	N	THIS STRUCTURE SHOWS NO BRIDGE MEDIAN.
SIDEWALKS:	N	THIS STRUCTURE SHOWS NO SIDEWALKS.
PARAPET:	8	A SINGLE CONCRETE RAILBASE, IS LOCATED ALONG THE SOUTHERLY ELEVATION OF THE STRUCTURE. IT HAS BEEN RECONSTRUCTED SINCE THE 2002 INSPECTION DATE. IT SHOWS ISOLATED VERTICAL CRACKING, WITH RUB COAT DELAMINATIONS

		ALONG THE CAP.
RAILING:	8	THE BRIDGE RAILING HAS BEEN UPDATED SINCE THE 2002 INSPECTION DATE. A SINGLE METAL BEAM RAILING IS CARRIED OVER BOTH ELEVATIONS OF THE STRUCTURE, FROM THE APPROACH ROADWAYS. THE SOUTHERLY RAILING IS MOUNTED TO THE RAILBASE VIA H-BEAM POSTS, EMBEDDED INTO THE RAILBASE. THE NORTHERLY RAILING IS ATTACHED VIA H-POSTS, EMBEDDED INTO THE BALLAST OVER THE STRUCTURE. THE RAILING ITSELF STILL SHOWS ONLY LIGHT RUB AREAS.
PAINT:	N	-
FENCE:	N	THIS STRUCTURE SHOWS NO FENCE.
DRAINS:	N	THIS STRUCTURE SHOWS NO DRAINS.
LIGHTING STANDARD:	N	THIS STRUCTURE SHOWS NO OVERHEAD LIGHTING.
UTILITIES TYPE/SIZE:	7	A SIXTEEN INCH WATER MAIN, IS NOTED ALONG THE SOUTHERLY ELEVATION. IT SHOWS AREAS OF PEELING PAINT, WITH EXPOSED PRIMER, AND LIGHT TO MODERATE RUST AREAS.
CONSTR JOINTS:	N	-
EXPANSION JOINTS:	N	THERE ARE NO JOINTS.

59. SUPERSTRUCTURE:

Overall Rating:

60. SUBSTRUCTURE:

Overall Rating:

Rating

61. CHANNEL & CHANNEL PROTECTION:

Overall Rating:

Rating

CHANNEL SCOUR:	8	THE CHANNEL SHOWS A CONSTANT WATER DEPTH OF 12 TO 14 INCHES ALONG THE INLET. THERE APPEARS TO BE A FAIR AMOUNT OF PAST ACCUMULATED SILTATION, ALONG THE INLET. THE WATER DEPTH ALONG THE CHANNEL OUTLET, A SHORT DISTANCE FROM THE STRUCTURE, GOES TO ABOUT 3 FEET.
EMBANKMENT EROSION:	6	ALL EMBANKMENTS SHOW LIGHT, TO MODERATE ENCROACHMENT, THRU -OUT.
DEBRIS:	6	THERE IS A SINGLE TREE BRANCH ACROSS THE SOUTHERLY OUTLET, ABOUT 10 FEET FROM THE STRUCTURE. THERE IS STILL SOME LIGHT TIMBER DEBRIS LODGED ALONG THE OUTLET BANKS.
VEGETATION:	6	THERE IS HEAVY VEGETATION GROWTH ALONG ALL EMBANKMENTS.
CHANNEL CHANGE:	6	THE CHANNEL SHOWS A SWAMP TYPE ATMOSPHERE ALONG THE INLET. THE CHANNEL HAS PAST NARROWED ALONG THE OUTLET, DUE TO PAST EMBANKMENT ENCROACHMENT.
FENDER SYSTEM:	N	-
SPUR, DIKES & JETTIES:	N	-
RIP RAP:	N	RIP-RAP IS NOT NOTED ALONG THE BANKS OF THIS CHANNEL.

62. CULVERTS & RETAINING WALL:

Overall Rating:

Rating

BARREL:	4	THIS STRUCTURE IS A DUAL CELL, CORRUGATED METAL PIPE ARCH, UNDER ABOUT TWO FEET OF BALLAST MATERIALS, AND BITUMINOUS
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		OVERLAY. EACH PIPE ARCH RESTS UPON A CONCRETE STEM, WITH A CONCRETE FLOOR. A MITERED CONCRETE PAVEMENT, IS USED ALONG EACH ELEVATION OF THE STRUCTURE, FOR BANK RETENTION.
CONCRETE:	5	THIS STRUCTURE SHOWS A CONCRETE FLOOR, WITH CONCRETE STEMS. IT IS ASSUMED ALL WERE CAST IN PLACE IN A MONOLITHIC FASHION. AT THE TIME OF INSPECTION, ONLY THE UPPER STEMS, AND THEIR CAPS WERE EXPOSED. ALL STEMS SHOW MODERATE SCALE, WITH POCKETS OF SEVERE SCALING TO THE STEM CAPS. THE FLOORS WHERE NOT COVERED WITH DEBRIS CANNOT BE REPORTED ON, DUE TO MURKEY WATER.
STEEL:	4	BOTH PIPE ARCHES ARE IN FAIR CONDITION, WITH A GOOD SYMMETRICAL APPEARANCE OF THE TOP ARC. THE BOLT LINES ARE STRAIT, WITH THE JOINTS SHOWING NO CUSPING, OR LEAKAGE INFILTRATION. AREAS OF THE ASPHALTIC COATING HAVE PAST WORN AWAY, UP TO 3 FEET HIGH, AND LIGHT TO HEAVY RUSTING, WITH LIGHT TO MODERATE LAMINAR SHEETS, AND RANDOM PERF HOLES, ARE NOTED ALONG THE WATERLINE, AT THE STEM JUNCTIONS. AT LEAST 12 CELL RIBS WITHIN THE WESTERLY CELL SHOW MULTIPLE PERF HOLES. THE WATER DEPTH WITHIN THE EASTERLY CELL IS AS LITTLE AS 14 INCHES, DUE TO SILT ACCUMULATIONS, AND AS MUCH AS 22 INCHES IN THE WESTERLY CELL. THERE ARE ISOLATED MISSING BOLTS ALONG THE BOTTOM EDGES OF BOTH PIPES. IN THE WEST PIPE, ONE OF BOLT HOLES APPEARS TO HAVE BEEN ELONGATED. THE VERY END OF THE WESTERLY CELL, ALONG THE NORTHWESTERLY CORNER WHICH ACTS AS A BANK RETENTION, SHOWS ABOUT FOUR LINEAR FEET OF HEAVY DETERIORATION TO THE UPPER PLATE EDGE. THIS AREA OF DETERIORATION APPEARS TO BE ABOUT 6.0 INCHES HIGH.
TIMBER:	N	-
HEADWALL:	6	THE MITERED CONCRETE END TREATMENTS ALONG EACH ELEVATION OF THE STRUCTURE, SHOW LIGHT, TO MODERATE SCALING THRU-OUT THE SURFACE, WITH THE JOINTS OPEN, TO ABOUT ONE INCH. SILT INFILTRATION, WITH VEGETATION GROWTH, IS STILL NOTED WITHIN THE JOINTS OF THE SOUTHERLY END TREATMENT. THERE IS A CONCRETE SLAB SECTION ALONG THE NORTHWESTERLY CORNER, ADJACENT TO THE WATERLINE, WHICH HAS PAST ROTATED UPWARDS, UP TO 12 INCHES.
CUTOFF WALL:	N	THERE ARE NO VISIBLE CUT-OFF WALLS.
DEBRIS:	5	BOTH PIPE ARCHES SHOW ACCUMULATIONS OF SILT AND STONE UP TO 3 FEET HIGH, WHICH ARE LOCATED MAINLY ALONG THE INLET AND THE OUTLET SECTIONS OF BOTH PIPES. THERE IS AN ACCUMULATION OF MODERATE TIMBER DEBRIS LOCATED ALONG THE INLET OF THE EASTERLY CELL, WHICH EXTENDS TO THE CENTER OF THE PIPE.
RETAINING WALL STEM:	N	THIS STRUCTURE SHOWS NO WINGWALLS.
FOOTING:	N	NO FOOTINGS ARE VISIBLE.

65. APPROACH CONDITION

-

Overall Rating: 7

Rating

APPROACH SLAB:

N

-

RELIEF JOINTS:

N

-

APPROACH GUIDE RAIL:	7	A SINGLE METAL BEAM RAIL, MOUNTED ON STEEL H-POSTS, HAS BEEN INSTALLED ALONG ALL APPROACH SHOULDERS, AND CARRIED OVER THE STRUCTURE, SINCE THE 2002 INSPECTION DATE. THE RAILING IS IN GOOD CONDITION, AND SHOWS ONLY POCKETS OF LIGHT RUBS. THERE IS A BROKEN PLASTIC BLOCK STAND-OFF ALONG THE NORTHEASTERLY APPROACH RAILING, NEAR THE STRUCTURE.
APPROACH PAVEMENT:	7	THE BITUMINOUS APPROACH ROADWAYS, APPEAR TO HAVE BEEN RESURFACED SINCE THE 2002 INSPECTION DATE. THE SURFACES NOW SHOW LONGITUDINAL PAVING JOINT LINES, LONGITUDINAL CRACKING OPEN UP TO 1/2 INCH, TRANSVERSE CRACKING, LIGHT BITUMINOUS SEGREGATION, POCKETS OF MODERATE BITUMINOUS SEGREGATION, AND LIGHT TIRE WEAR.
APPROACH EMBANKMENT:	8	AN AREA OF EROSION FROM ROADWAY RUN-OFF, IS PAST NOTED ALONG THE NORTHWESTERLY APPROACH SHOULDER, MEASURING FIFTEEN FEET IN LENGTH, BY FOUR FOOT WIDE, AND UP TO ONE AND ONE-HALF FEET IN DEPTH. IT WAS ALSO PAST REPORTED AS HAVING BEGUN TO SLIGHTLY UNDERMINE THE EDGE OF THE ROADWAY SHOULDER. THIS ENTIRE AREA HAS BEEN FILLED IN WITH RIP-RAP, SINCE AT LEAST THE 2000 INSPECTION DATE.

*BMM
6-235
COMPL*

TRAFFIC SAFETY FEATURES

Rating

BRIDGE RAILINGS:	Last Inspection: 0 Current: -	-
TRANSITIONS:	Last Inspection: 1 Current: -	-
APPROACH GUARDRAILS:	Last Inspection: 1 Current: -	-
APPR. GUARDRAIL ENDS:	Last Inspection: 1 Current: -	-

66. LOAD POSTING

- Posted Loading -

SINGLE UNIT (TONS):	Last Inspection: - Current: -	-
SEMI TRAILER (TONS):	Last Inspection: - Current: -	-
4 AXLE (TONS):	Last	-

	Inspection: - Current: -	
3S2 (TONS):	Last Inspection: - Current: -	
ADVANCE WARNING (Y/N):	N	
LEGIBILITY:	N	
VISIBILITY/LOCATION:	N	

67.
MISCELLANEOUS

Rating

MIN. VERT. UNDERCLEARANCE:	Last Inspection: 0' 0" Current: -' -"	
POSTED CLR. UNDER BRIDGE:	Last Inspection: -' -" Current: -' -"	
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	
ADVANCED WARNING (YES/NO):	No	
SPEED LIMIT (IF ANY):	Last Inspection: - Current: -	
CHARACTER OF TRAFFIC:	THE TRAFFIC VOLUME WAS LIGHT TO MODERATE DURING THE INSPECTION, WITH ALL TYPES OF VEHICLES NOTED OVER THE STRUCTURE.	

ADDITIONAL NOTES:

THE BRIDGE NUMBER OR CHANNEL NAME IS NOT POSTED AT THIS STRUCTURE.

ADDITIONAL COMMENTS:

SENIOR ENGINEER JOHN DAIGLE WAS CONTACTED ON THE DAY OF THE 2006 INSPECTION TO THE EROSION PROBLEM OVER THE STRUCTURE. A PRIORITY "B" BMM 06-253 WAS ISSUED.

Inspectors' Signatures:

1)

John G. Audin

Date:

05/21/2010
MILLET CEF 081734
EXP. 2-2011.

2)

Date:

---/---/---



3)

Date: 05/21/2010

4)

Date: ---/---/---

P.E. Signature:

Date: ---/---/---

P.E. #:

Date: ---/---/---

Reviewed by:


_____ conndot

Date: 5/26/10

DATE PREPARED

05-27-2008

DATE CHECKED

PREPARED BY

CHECKED BY

P.V.

State of Connecticut
 Department of Transportation
 Bureau of Engineering & Highway Operations
 DES-003 REV 1-93
 (302-06-0225)
 COMPUTATION SHEET

ORGANIZATION UNIT NO.

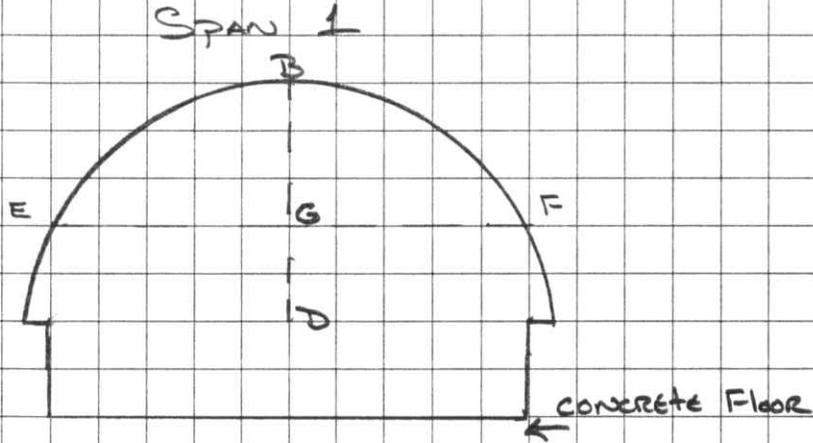
1307

WORK ORDER NO.

SHEET NO.

SUBJECT:

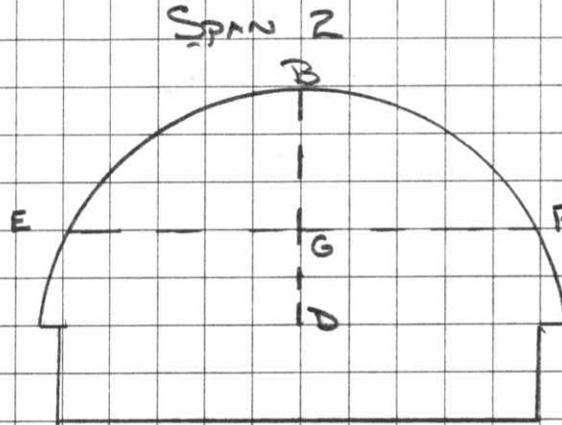
Bridge 5588 Route 74 over Hockanum River, Waterbury (N.T.S)



DATE	North End	Center	South End
5-27-08	E-F 122" B-G 25"	E-F 122" B-G 25"	E-F 122" B-G 25"
5/21/2010	E-F 122" B-G 25"	E-F 122" B-G 25"	E-F 122" B-G 25"

SUBJECT:

Bridge 5588 Route 74 over Hockanum River, Veenow (N.T.S)



Date	North End		Center		South End	
5-27-08	E-F	122"	E-F	122"	E-F	121"
	B-G	24 1/2"	B-G	24 1/2"	B-G	24 3/4"
5/21/2010	E-F	122"	E-F	122"	E-F	121"
	B-G	24 1/2" NC	B-G	24 1/2" NC	B-G	24 3/4" NC

DATE PREPARED
06-17-04

PREPARED BY
R.V.

State of Connecticut
Department of Transportation
Bureau of Engineering & Highway Operations
DES-003 REV 1-93
(302-06-0225)
COMPUTATION SHEET

ORGANIZATION UNIT NO.

WORK ORDER NO.

DATE CHECKED

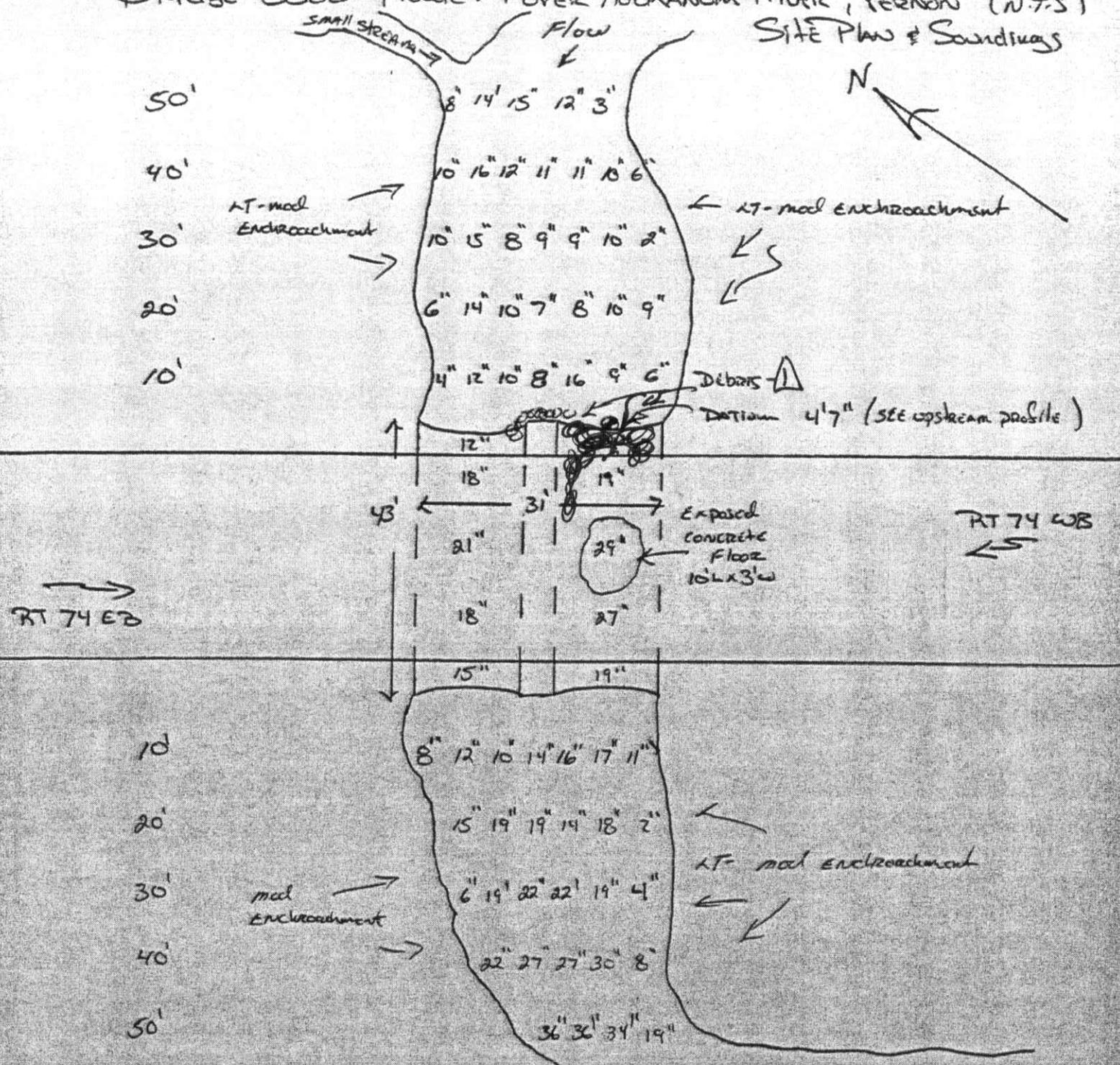
CHECKED BY

1307

SHEET NO.

SUBJECT

BRIDGE 5588 ROUTE 74 OVER HOCKANUM RIVER, VERNON (N.T.S.)
SITE PLAN & SOUNDINGS

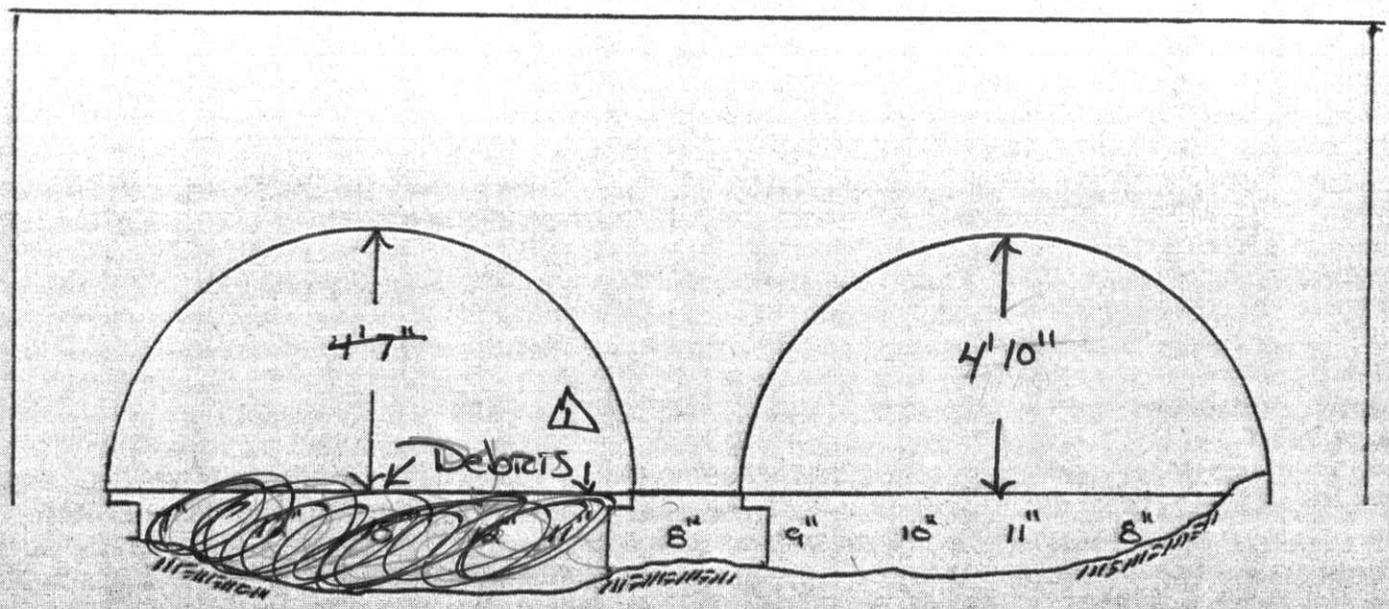


V-06	TCAR2	
S-08	TCAR 7	
15/10	12/14	
NO.	DATE	DESCRIPTION
DIVISIONS		

DATE PREPARED 66-17-04	PREPARED BY P.Y.	State of Connecticut Department of Transportation Bureau of Engineering & Highway Operations DES-003 REV 1-93 (302-06-0225) COMPUTATION SHEET	ORGANIZATION UNIT NO. 1307	WORK ORDER NO.
DATE CHECKED	CHECKED BY			SHEET NO.

SUBJECT: Bridge 5588 Route 74 over Hockanum River, Vernon (N.T.S)

UPSTREAM PROFILE



6-06	TEAM 7	
5-10	T.N.	
NO.	DATE	DESCRIPTION
REVISIONS		

Bridge No.:	05588	Inspected by:	JOHN BRNDIAR
Town:	VERNON	Inspected by:	PETER VENOUTSOS
Feature Carried:	ROUTE 74	Date Inspected:	May 21, 2010
Feature Crossed:	HOCKANUM RIVER	Project No.:	

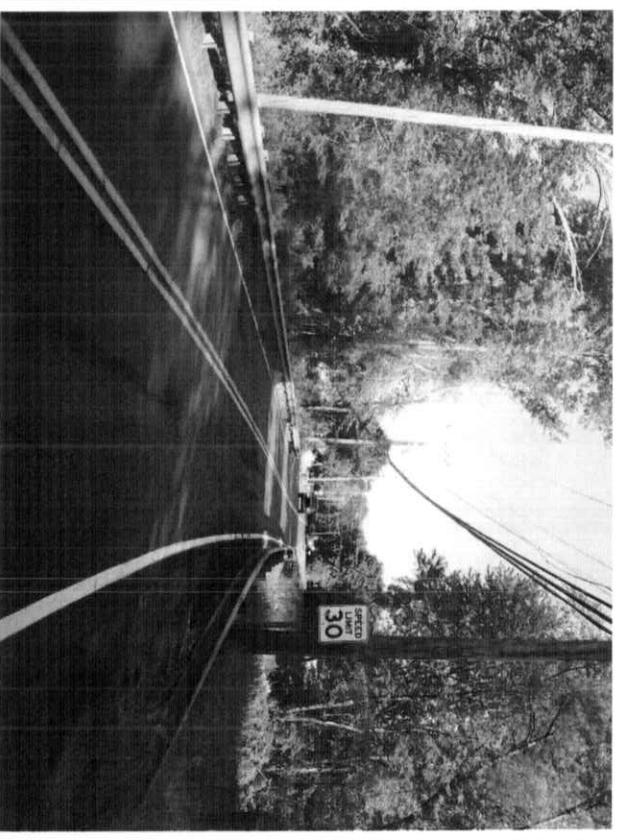
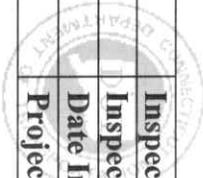


Photo # : LOOKING WEST OVER BRIDGE.

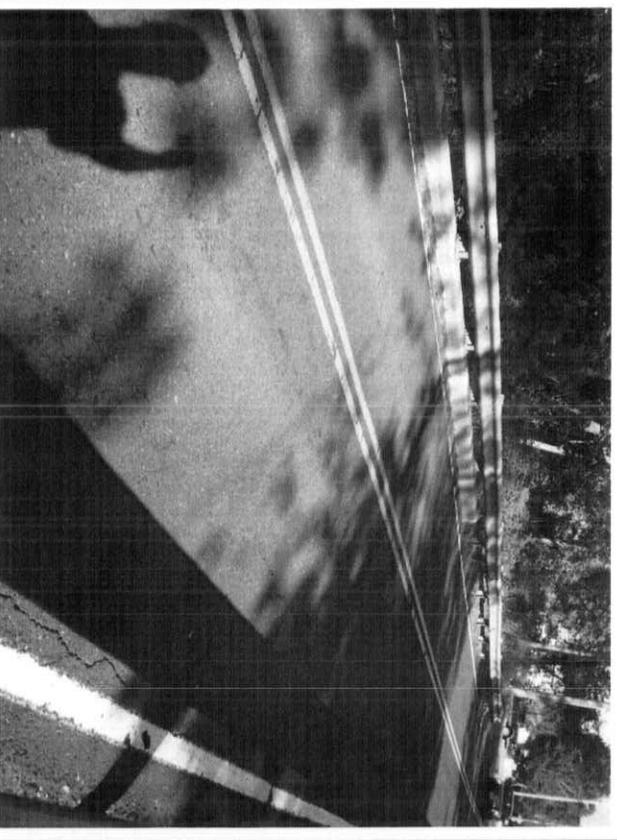


Photo # : VIEW OF WEARING SURFACE.

Bridge No.:	05588	Inspected by:	JOHN BRNDIAR
Town:	VERNON	Inspected by:	PETER VENOUTSOS
Feature Carried:	ROUTE 74	Date Inspected:	May 21, 2010
Feature Crossed:	HOCKANUM RIVER	Project No.:	

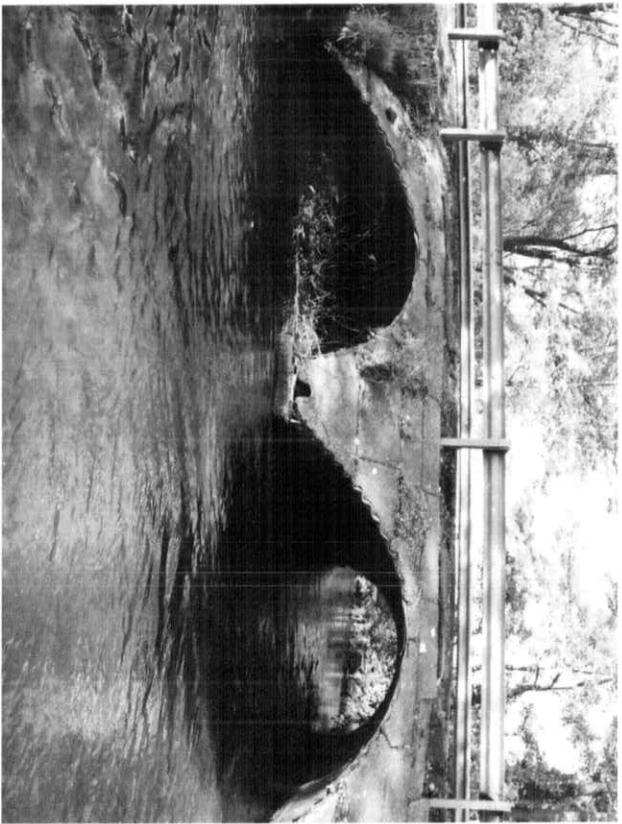
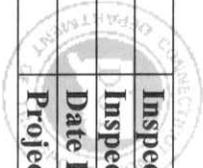


Photo # : NORTH ELEVATION.(UPSTREAM)



Photo # : LOOKING UPSTREAM.

Bridge No.	05588	Inspected by:	JOHN BRNDIAR
Town:	VERNON	Inspected by:	PETER VENOUTSOS
Feature Carried:	ROUTE 74	Date Inspected:	May 21, 2010
Feature Crossed:	HOCKANUM RIVER	Project No.:	

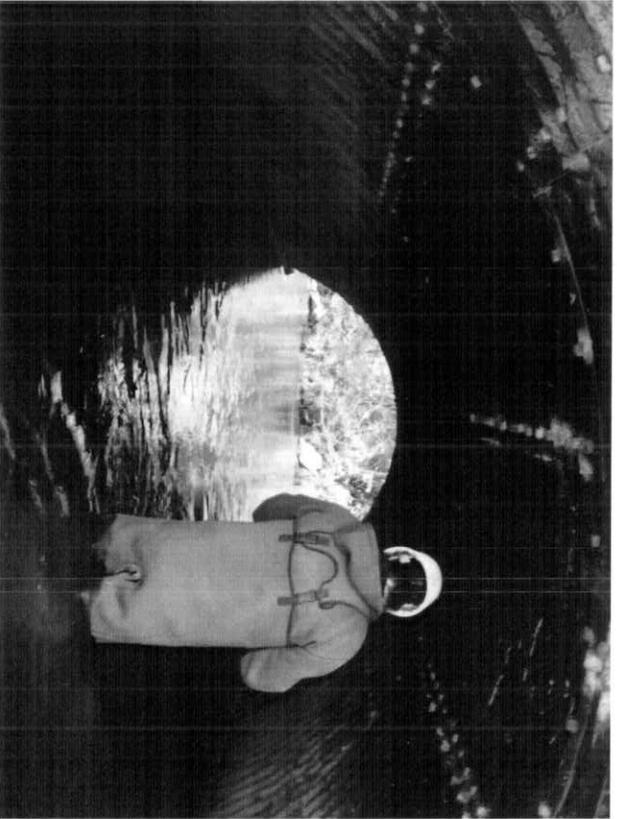
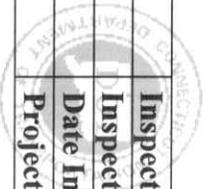


Photo # : LOOKING THRU WEST PIPE.



Photo # : PERF HOLES IN WEST PIPE.

Bridge No.	05588	Inspected by:	JOHN BRNDIAR
Town:	VERNON	Inspected by:	PETER VENOUTSOS
Feature Carried:	ROUTE 74	Date Inspected:	May 21, 2010
Feature Crossed:	HOCKANUM RIVER	Project No.:	

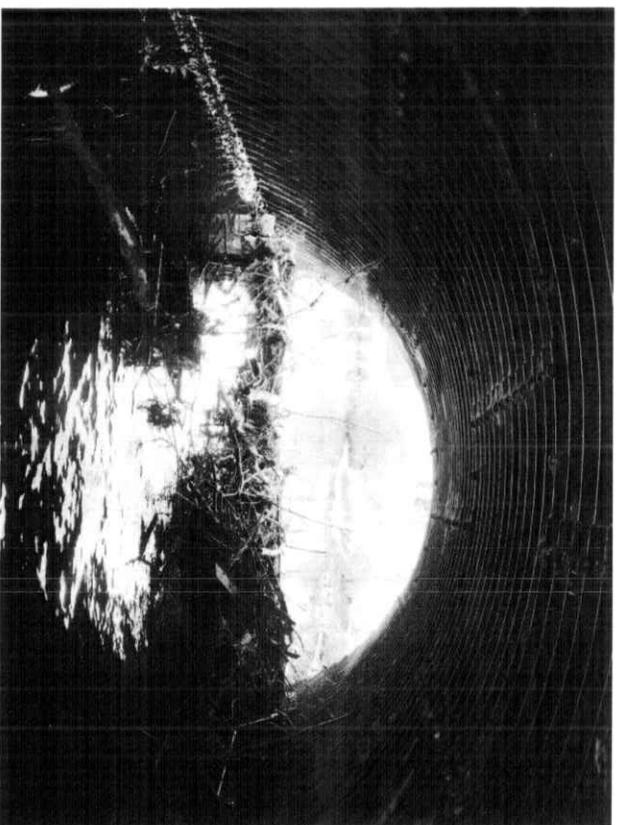
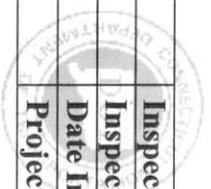


Photo # : LOOKING THRU EAST CELL.

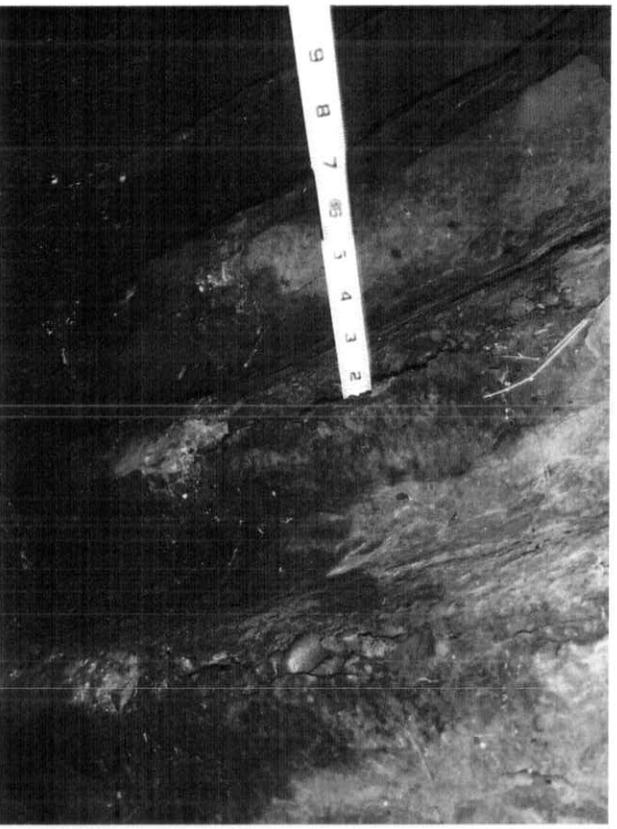


Photo # : PER HOLES IN EAST PIPE.

Bridge No.	05588	Inspected by:	JOHN BRNDIAR
Town:	VERNON	Inspected by:	PETER VENOUTSOS
Feature Carried:	ROUTE 74	Date Inspected:	May 21, 2010
Feature Crossed:	HOCKANUM RIVER	Project No.:	

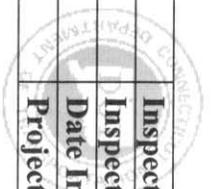


Photo # : VIEW OF DEBRIS IN EAST PIPE AT NORTH END.

Double-click here to insert picture

Photo # :

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 05588

Agency ID: 05588

Sufficiency Rating: ~~78.0~~

IDENTIFICATION

State 1: 09 Connecticut Struc Num 8: 05588
 Facility Carried 7: ROUTE 74 Location 9: .5 MI WEST OF ROUTE 83
 Rte.(On/Under)5A: Route On Structure Rte. Signing Prefix 5B: 3 State Hwy
 Level of Service 5C: 1 Mainline Rte. Number 5D: 00074
 Directional Suffix 5E: 0 N/A (NBI) % Responsibility : 0
 SHD District 2: 01 County Code 3: Tolland
 Place Code 4: VERNON Mile Post 11: 4.579 mi
 Feature Intersected 6: HOCKANUM RIVER
 Latitude 16: 41d 51' 54" Longitude 17: 072d 29' 12"
 Border Bridge Code 98: Unknown (P)
 Border Bridge Number 99: NA

INSPECTION

Frequency 91: 24 months Inspection Date 90: 5/21/2010 Next Inspection: 05/21/2012
 FC Frequency 92A: NA FC Inspection Date 93A: NA Next FC Inspection: NA
 UW Frequency 92B: NA UW Inspection Date 93B: NA Next UW Inspection: NA
 SI Frequency 92C: NA SI Date 93C: NA Next SI: NA
 Element Frequency: 24 months Element Inspection Date: 05/21/2010 Next Elem. Insp. Due: 05/21/2012

CLASSIFICATION

Defense Highway 100: 0 Not a STRAHNET hwy Parallel Structure 101: No || bridge exists
 Direction of Traffic 102: 2 2-way traffic Temporary Structure 103: Unknown (NBI)
 Highway System 104: 0 Not on NHS NBIS Length 112: Long Enough
 Toll Facility 20: 3 On free road Functional Class 26: 16 Urban Minor Arterial
 Historical Significance 37: 5 Not eligible for NRHP
 Owner 22: 1 State Highway Agency
 Custodian 21: 1 State Highway Agency

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0 Number of Spans Main Unit 45: 2
 Main Span Material/Design 43A/B:
 3 Steel 19 Culvert
 Deck Type 107: N N/A (NBI)
 Wearing Surface 108A: N N/A (no deck (NBI))
 Membrane 108B: N N/A (no deck (NBI))
 Deck Protection 108C: N N/A (no deck (NBI))

CONDITION

Deck 58: N N/A (NBI) Super 59: N N/A (NBI) Sub 60: N N/A (NBI)
 Culvert 62: 4 Considerable Damage Channel/Channel Protection 61: 6 Bank Slumping

LOAD RATING AND POSTING

Inventory Rating Method 65: 5 No rating Operating Rating Method 63: 5 No rating
 Inventory Rating 66: HS18.7 Operating Rating 64: HS32.0
 Design Load 31: Unknown (NBI) Posting 70: 5 At/Above Legal Loads
 Posting status 41: A Open, no restriction

AGE AND SERVICE

Year Built 27: 1955 Year Reconstructed 106: Unknown
 Type of Service on 42A: 1 Highway
 Type of Service under 42B: 5 Waterway
 Lanes on 28A: 2 Lanes Under 28B: 0 Detour Length 19: 0.0 mi
 ADT 29: 7,800 Truck ADT 109: 3% Year of ADT 30: 1998

APPRAISAL

Bridge Rail 36A: 0 Substandard Approach Rail 36C: 0 Substandard
 Transition 36B: 40 Substandard Approach Rail Ends 36D: 0 Substandard
 Str. Evaluation 67: 40/80 Deck Geometry 68: 2 Intolerable - Replace
 Underclearance, Vertical and Horizontal 69: N Not applicable (NBI)
 Waterway Adequacy 71: 7 Above Minimum Approach Alignment 72: 6 Equal Min Criteria
 Scour Critical 113: 8 Stable Above Footing

GEOMETRIC DATA

Length Max Span 48: 14.1 ft Structure Length 49: 30.8 ft
 Curb/Sdwk Width L 50A: 0.0 ft Curb/Sidewalk Width R 50B: 0.0 ft
 Width Curb to Curb 51: 20.0 ft Width Out to Out 52: 43.0 ft
 Approach Roadway Width 32: 20.0 ft Median 33: 0 No median (w/ shoulders)
 Deck Area: 958. 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: 0.0 ft
 Minimum Lateral Underclearance Reference R 55A: N Feature not hwy or RR
 Minimum Lateral Underclearance R 55: 327.8 ft
 Minimum Lateral Underclearance L 56: 0.0 ft

PROPOSED IMPROVEMENTS

Bridge Cost 94: \$ 1,000 Type of Work 75: 38 Other Structural
 Roadway Cost 95: \$ 1,000 Length of Improvement 76: 0.3 ft
 Total Cost 96: \$ 2,000 Future ADT 114: 3,900
 Year of Cost Estimate 97: 2000 Year of Future ADT 115: 2019

NAVIGATION DATA

Navigation Control 38: 0 Permit Not Required
 Vertical Clearance 39: 0.0 ft Horizontal Clearance 40: 0.0 ft
 Pier Protection 111: Unknown (NBI) 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	240/3	Steel Culvert	(LF)	62	1%	0	0%	0	99%	62	0%	0	0%	0
UNIT0	330/3	Metal Rail Uncoated	(LF)	59	100%	59	0%	0	0%	0	0%	0	0%	0