TOWN OF GLASTONBURY
PROFESSIONAL SERVICES PROCUREMENT NOTICE
REQUEST FOR QUALIFICATIONS
EASTERN BOULEVARD BRIDGE ENGINEERING SERVICES
FISHER HILL ROAD BRIDGE ENGINEERING SERVICES
RPGL- 2014-18

The Town of Glastonbury will be accepting proposals from qualified individuals or firms to provide engineering services related to the rehabilitation of Bridge No. 05608, Eastern Boulevard over Salmon Brook, and Bridge No. 04514, Fisher Hill Road over Roaring Brook. The basic services required include preparation of design plans and specifications suitable for soliciting construction bids. Funding for design and construction has been approved through the Federal Local Bridge Program. It is anticipated that ten percent will be established as the goal for percentage of work that must be performed by Disadvantaged Business Enterprises (DBE). Interested individuals and firms should request the Instructions for Qualification Statement and Proposal Details from the Purchasing Agent, 2155 Main Street, Glastonbury, CT 06033.

Proposals must be submitted to the Purchasing Agent no later than **January 29, 2014 at 11:00 A.M.**

LATE PROPOSALS WILL NOT BE CONSIDERED. COPIES OF THE PROPOSAL ARE AVAILABLE ON THE TOWN'S WEBSITE AT www.glastonbury-ct.gov

Mary F. Visone
Purchasing Agent

TABLE OF CONTENTS

SECTION I – GENERAL INFORMATION

EXECUTIVE SUMMARY

- The Town of Glastonbury is proposing replacement of the existing bridges located on Eastern Boulevard over Salmon Brook, Bridge No. 05608 and the bridge on Fisher Hill Road over Roaring Brook, Bridge No. 04514. Design and Construction is approved for 80% funding through the Federal Local Bridge Program. It is anticipated that ten percent will be established as a goal for percentage of work performed by Disadvantaged Business Enterprises (DBE). It is the Town's intent to complete work on these structures consecutively rather than concurrently.

  BRIDGE NO. 05608 – EASTERN BOULEVARD OVER SALMON BROOK

  The existing structure is located on Eastern Boulevard approximately 370 feet north of Hebron Avenue (Route 94) and consists of twin asphalt-covered corrugated steel culverts. The bridge span is approximately 13 feet. The structure was constructed in 1955 and has a sufficiency rating of 50.33 with a Structure Evaluation rating of 4. The curb-to-curb width of Eastern Boulevard at this location is 30 feet and the roadway approach geometry is adequate. Average daily traffic over the bridge is 7,182 with 2% trucks.

  BRIDGE NO. 04514 – FISHER HILL ROAD OVER ROARING BROOK

  The existing structure is located on Fisher Hill Road approximately 350 feet from the intersection with Manchester Road (Route 83). The concrete bridge deck is integral with the superstructure and the span is 27 feet. The structure was constructed in 1939 and has a sufficiency rating of 47.27 with a structural evaluation rating of 4. The curb to curb width of Fisher Hill Road at this location is 22.8 feet and some roadway approach reconstruction is anticipated. Average daily traffic is 912 with 7% trucks.

- It is the Town's intent to select one consultant to provide engineering services related to both bridges.

SPECIAL CONSIDERATIONS

- A study entitled "Structure No. 05608, Eastern Boulevard over Salmon Brook, Glastonbury, Glastonbury, Routine Inspection on 5/23/2011" was prepared by the Connecticut Department of Transportation. This study may serve as a reference for this project. **(Attachment C)**

- A document entitled "Connecticut Local Bridge Program, Fiscal Year 2012, Preliminary Application, Eastern Boulevard over Salmon Brook, Glastonbury, CT" was prepared by WMC Consulting Engineers, Newington, Connecticut and shall be referenced by the Consultant as part of the scope of services. **(Attachment D)**

- A study entitled "Structure No. 04514, Fisher Hill Road over Roaring Brook, Glastonbury, Routine Inspection on 5/23/2011" was prepared by the Connecticut Department of Transportation. This study may serve as a reference for this project. **(Attachment E)**

- A document entitled "Connecticut Local Bridge Program, Fiscal Year 2012, Preliminary Application, Fisher Hill Road over Roaring Brook, Glastonbury, CT" was prepared by WMC Consulting Engineers, Newington, Connecticut and shall be referenced by the Consultant as part of the scope of services. **(Attachment F)**

GENERAL SCOPE

- Review all existing State and Town files, reports, and plans about the structures and applicable appurtenances.

- Provide a preliminary engineering report to determine the immediate and future needs for the preservation or replacement of the existing structures to ensure the long-term structural integrity.

- The report shall include details regarding the existing condition of the structures and their appurtenances, and shall include recommendations for structural repairs with estimates of probable cost.

- Alternatives for replacement of the structures should be included in the report with estimates of probable costs. Roadway approach and intersection geometry improvements should be considered if practical and feasible. The report shall also consider the impact of varying traffic conditions and stormwater capacities.

- The report shall contain a description of the permits required for any proposed work. This shall contain the types of permits required and associated costs, including an estimate of Consultant fees associated with the application process. The permits shall consider zoning, wetlands, flood zone, channel encroachment, historical, or any other Federal, State or local permit required with this type of work. The Consultant shall be responsible for obtaining all regulatory permits on behalf of the Town.

- Attend meetings and public hearing to obtain feedback from the public, interested parties, and policymakers, and to present findings of the report.

- The Consultant shall prepare final design plans and specifications sealed by a Connecticut Registered Professional Engineer for the first bridge chosen for rehabilitation. Plans and specifications are to be suitable for public solicitation of construction bids.

- The Consultant shall prepare the Supplemental Application under the CONNECTICUT DEPARTMENT OF TRANSPORTATION FEDERAL LOCAL BRIDGE PROGRAM.

- The Consultant shall also advise the Town of any other available Grant programs applicable to this type of work.

SECTION II – CONSULTANT'S SERVICES

- The Consultant shall perform professional services as stated and according to instructions received from the Town. The Consultant's services shall include all incidental services.

- All drawings, reports, and other documents prepared by the Consultant according to this Agreement shall be submitted to the Town for its review and approval.

- No such approval shall in any way be construed to relieve the Consultant of responsibility for technical adequacy or operate as a waiver of any of the Town's rights under this Agreement. The Consultant shall remain liable to the Town according to applicable laws and practices for all damages to the Town caused by the Consultant's negligent performance of any of the services furnished under this Agreement.

- The Consultant shall conduct regular meetings with the Town, and other appropriate parties, at a location established by the Town to review progress. The Consultant will provide written notes of each meeting to all attending parties before the next meeting.

- The Consultant's services under agreements reached shall be as described above. The Town does not guarantee future design and construction phase work. However, any executed Consultant agreement shall contain provisions for future phases of work. The scope and fee for future phases will be negotiated at a later date pending full project funding and satisfactory Consultant performance during the first design phase.

SECTION III - SUBMISSION OF PROPOSAL

MINIMUM REQUIREMENTS

- Firm/Individual shall have a Professional Engineer licensed in the State of Connecticut assigned to the project.

- Firm/Individual shall have demonstrated experience with similar bridge rehabilitation projects funded through the Federal Local Bridge Program within the past five (5) years.

PROPOSAL INSTRUCTIONS

- By submitting a proposal, you represent that you have thoroughly examined and become familiar with the Scope of Services outlined in this RFQ and you are capable of performing the work to achieve the Town's objectives.

- All firms are required to submit an original and seven (7) copies of their proposal to Mary F. Visone, Purchasing Agent, 2155 Main Street, Glastonbury, CT by the date and time listed in the proposal response page. All proposals will be opened publicly and recorded as received. Respondents may be present at the opening; however, there will be no public reading of Proposals. Proposals received later than the time and date specified

will not be considered. The proposal must be submitted in a sealed envelope or package and the outside shall be clearly marked as follows:

SEALED REQUEST FOR QUALIFICATIONS
PROFESSIONAL SERVICES PROCUREMENT NOTICE
EASTERN BLVD & FISHER HILL RD BRIDGE ENGINEERING SERVICES
RPGL- 2014-18
DUE – JANUARY 29, 2014
TIME – 11:00 A.M.

- All respondents are required to submit the information detailed below. **Responses shall be organized and presented in the order listed below to assist the Town in reviewing and rating proposals.** Responses should be presented in appropriate detail to thoroughly respond to the requirements and expected services described herein.

1. Table of Contents to include clear identification of the material provided by section and number.
2. A letter of transmittal indicating the firm's interest in providing the service and any other information that would assist the Town in making a selection. This letter must be signed by a person legally authorized to bind the firm to a contract.
3. Name and telephone number of person(s) to be contacted for further information or clarification.
4. A background statement, including a description of the firm/individual submitting the proposal.
5. A list of staff members who would be involved with the project, including their assigned roles and a description of their background and experience.
6. A description of relevant engineering experience, including specific reference to similar services as required by the Town under this proposal.
7. List of similar projects completed over the past five (5) years with the contact name, address and telephone number of the owners' representative in each project.
8. Overall approach to the engineering needs of the Town for the bridge rehabilitation project.
9. Proposed schedule for completion of engineering services as required to meet the Town's intended schedule.
10. A concluding statement as to why the respondent is best qualified to meet the needs of the Town.
11. Current Federal GSA Form 330

12. Proposal Response Form (**ATTACHMENT A**).

13. Respondent is required to review the Town of Glastonbury Code of Ethics adopted July 8, 2003 and effective August 1, 2003. Respondent shall acknowledge that they have reviewed the document in the area provided on the attached Ethics Acknowledgement form included on **ATTACHMENT A.** The selected respondent will also be required to complete and sign a Consultant Acknowledgement Form prior to award. The Code of Ethics and the Consultant Acknowledgment Form can be accessed at the Town of Glastonbury website at http://www.glastonbury-ct.gov. Upon entering the website, click on General Information, then Bids and Quotes, which will bring you to the links for the Code of Ethics and the Consultant Acknowledgement Form. If the respondent does not have access to the internet, a copy of these documents can be obtained through the Purchasing Department at the address listed within this proposal.

14. Statement of Non-Collusion (**ATTACHMENT B**).

15. The Town of Glastonbury is dedicated to waste reduction and the practice of using and promoting the use of recycled and environmentally preferable products. Respondents are encouraged to submit RFP responses that are printed double-sided (except for the signed proposal page) on recycled paper, and to use paper dividers to organize the RFP for review. All proposal pages should be secured with a binder clip, staple or elastic band, and shall not be submitted in plastic binders or covers, nor shall the proposal contain any plastic inserts or pages. We appreciate your efforts towards a greener environment.

16. Any technical questions regarding this RFQ shall be made in writing and directed to Daniel A. Pennington, Town Engineer/Manager of Physical Services, 2155 Main Street, Glastonbury, CT 06033 or by email Daniel.pennington@glastonbury-ct.gov. For administrative questions concerning this proposal, please contact Mary F. Visone, Purchasing Agent, at (860) 652-7588 or purchasing@glastonbury-ct.gov.

17. All questions, answers, and/or addenda, as applicable, will be posted on the Town's website at www.glastonbury-ct.gov. (Upon entering the website click on Bids & RFPs). It is the respondent's responsibility to check the website for addenda prior to submission of any proposal. NOTE: Responses to requests for more specific contract information than is contained in the RFQ shall be limited to information that is available to all respondents and that is necessary to complete this process. The request must be received at least five (5) business days prior to the advertised response deadline.

18. Failure to include any of the above-referenced items in the submitted PROPOSAL may be grounds for disqualifying said proposal.

EVALUATION CRITERIA

- The following factors will be considered by the Town when evaluating proposals:

    - Accuracy, overall quality, thoroughness, and responsiveness to the Town's requirements as summarized herein.

    - Demonstrated understanding of the Scope of Services.

    - The qualifications and experience of the firm, the designated account representative, and other key personnel to be assigned to the project.

    - Demonstrated successful performance on other accounts.

    - Overall approach and schedule to meet the Town's requirements.

- Following review and evaluation of proposals, the Town reserves the right to request certain additional information. Based on review and rating of proposals, a short list of respondents will be invited to interview with the Town Selection Committee.

- Based on the results of the interview process, the Town Manager will review the Scope of Services, fee structure, and other factors with the top-rated firm and negotiate a specific agreement based on these discussions.

SELECTION PROCESS

- This request for qualifications does not commit the Town of Glastonbury to award a contract or to pay any costs incurred in the preparation of a proposal to this request. All proposals submitted in response to this request for qualifications become the property of the Town of Glastonbury. The Town of Glastonbury reserves the right to accept or reject any or all proposals received as a result of this request, to negotiate with the selected respondent, the right to extend the contract for an additional period, or to cancel, in part or in its entirety, the request for qualifications if it is in the best interests of the Town to do so.

- An Evaluation Committee, appointed by the Town Manager, will evaluate all proposals received for completeness and the respondent's ability to meet all requirements as outlined in this RFQ. The committee will then short list the specific firms whose proposals best meet all criteria required and conduct interviews with these firms.

- Additional technical information may be requested from any respondent by the evaluation committee prior, during or after the interview for clarification purposes, but in no way changes the original proposal submitted. Interviews are at the option of the evaluation committee and may or may not be conducted.

- The selected respondent will be issued a purchase order to perform the work.

TIMELINE

The Town intends to adhere to the schedule listed below as closely as possible, but reserves the right to modify the schedule in the best interest of the Town as required.

Publicize RFQ	**January 15, 2014**
RFQ Due Date	**January 29, 2014**
Shortlist of Proposals Received	**February 14, 2014**
Interviews with Top Respondents	**February 26, 2014**
Fee Proposal and Scope of Services	**March 14, 2014**
Contract Effective Date	**April 11, 2014**

INSURANCE REQUIREMENTS

The Consultant shall, at its own expense and cost, obtain and keep in force during the entire duration of the Project or Work the following insurance coverage covering the Consultant and all of its agents, employees, sub-contractors and other providers of services and shall name the Town, its employees and agents as an Additional Insured on a primary and non-contributory basis to the Consultant's Commercial General Liability and Automobile Liability policies. **These requirements shall be clearly stated in the remarks section on the Consultant's Certificate of Insurance.** Insurance shall be written with insurance carriers approved in the State of Connecticut and with a minimum Best's Rating of A-. In addition, all carriers are subject to approval by the Town. Minimum limits and requirements are stated below:

1) Worker's Compensation Insurance:

- Statutory Coverage
- Employer's Liability
- $100,000 each accident/$500,000 disease-policy limit/$100,000 disease each employee

2) Commercial General Liability:

- Including Premises & Operations, Products and Completed Operations, Personal and Advertising Injury, Contractual Liability and Independent Contractors.

- Limits of Liability for Bodily Injury and Building Damage
  Each Occurrence $1,000,000
  Aggregate $2,000,000 (The Aggregate Limit shall apply separately to each job.)
- A Waiver of Subrogation shall be provided

3) Automobile Insurance:

- Including all owned, hired, borrowed and non-owned vehicles

- Limit of Liability for Bodily Injury and Building Damage:
  Per Accident $1,000,000

4) Errors and Omissions Liability or Professional Services Liability Policy

- Provide Errors and Omissions Liability or Professional Services Liability Policy for a minimum Limit of Liability $1,000,000 each occurrence or per claim. The awarded Consultant(s) will be responsible to provide written notice to the Owner 30 days prior to cancellation of any insurance policy.

- The Consultant agrees to maintain continuous professional liability coverage for the entire duration of this Project, and shall provide for an Extended Reporting Period in which to report claims for seven (7) years following the conclusion of the Project.

The Consultant shall provide a Certificate of Insurance as "evidence" of General Liability, Auto Liability, including all owned, hired, borrowed and non-owned vehicles, statutory Worker's Compensation and Employer's Liability and Professional Services Liability coverage.

The Consultant shall direct its Insurer to provide a Certificate of Insurance to the Town before any work is performed. The awarded Consultant(s) will be responsible to provide written notice to the Owner thirty (30) days prior to cancellation of any insurance policy. The Certificate shall evidence all required coverage, including the Additional Insured on the General Liability and Auto Liability policies and Waiver of Subrogation on the General Liability policy. The Consultant shall provide the Town copies of any such insurance policies upon request.

Indemnification

To the fullest extent permitted by law, the Consultant shall indemnify and hold harmless the Town and the Board of Education and their respective consultants, agents, and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including, but not limited to fees and charges of engineers, attorneys and other professionals and court and arbitration costs) to the extent arising out of or resulting from the performance of the Consultant's work, provided that such claim, damage, loss or expense is caused in whole or in part by any negligent act or omission by the Consultant, or breach of its obligations herein or by any person or organization directly or indirectly employed or engaged by the Consultant to perform or furnish either of the services, or anyone for whose acts the Consultant may be liable.

As to any and all claims against the Town or any of its consultants, agents or employees by any employee of Consultant, by any person or organization directly or indirectly employed by Consultant to perform or furnish any of the work, or by anyone for whose acts Consultant may be liable, the indemnification obligation stated herein shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Consultant under worker's or workman's compensation acts, disability benefit acts or other employee benefit acts.

The above insurance requirements are the Town's general requirements. Insurance requirements with the awarded respondent are subject to final negotiations.

ATTACHMENT A
PROPOSAL RESPONSE PAGE

TOWN OF GLASTONBURY
PROPOSAL **RPGL # 2014-18**
DATE ADVERTISED **1/15/2014** **DATE / TIME DUE** **1/29/2014 @ 11:00 a.m.**

NAME OF PROPOSAL **EASTERN BLVD & FISHER HILL RD BRIDGE ENGINEERING SERVICES**
REQUEST FOR QUALIFICATIONS

CODE OF ETHICS:
I / We have reviewed a copy of the Town of Glastonbury's Code of Ethics and agree to submit a Consultant Acknowledgement Form if I /We are selected. Yes _____ No _____ *

***Respondent is advised that effective August 1, 2003, the Town of Glastonbury cannot consider any proposal where the respondent has not agreed to the above statement.**

The Respondent acknowledges receipt of the following Addendums:

Addendum #1 _____ Date: _____
Addendum #2 _____ Date: _____
Addendum #3 _____ Date: _____

Type or Print Name of Individual	**Doing Business as (Trade Name)**
Signature of Individual	**Street Address**
Title	**City, State, Zip Code**
Date	**Telephone Number / Fax Number**
E-Mail Address	**SS # or TIN#**

(Seal – If proposal is by a Corporation)

Attest

ATTACHMENT B

NON-COLLUSION STATEMENT

The company submitting this proposal certifies that it is being submitted without any collusion, communication or agreement as to any matter relating to it with any other respondent or competitor. We understand that this proposal must be signed by an authorized agent of our company to constitute a valid proposal.

Date: _____

Name of Company: _____

Name and Title of Agent: _____

By (SIGNATURE): _____

Address: _____

_____

_____

Telephone Number: _____

ATTACHMENT C

STRUCTURE NO. 05608, EASTERN BOULEVARD OVER SALMON BROOK, GLASTONBURY, ROUTINE INSPECTION ON 5/23/2011

STRUCTURE NO. 05608

EASTERN BOULEVARD
over
SALMON BROOK
GLASTONBURY

Routine Inspection
on
5/23/2011

Inspected by Team 4

for Area 6

TEAM:	Forwarded to TE3 Don Carlson	Date	6/14/2011
TE3:	Reviewed by TE3 DmC	Date	6/17/11
	BMM Required	No	
	Town Bridge	YES	
	Rating <= 5 (Items 58,59,60 or 62)	YES	
	Rating Change 2 or More Values	No	
	Forwarded to Supervisor SAD	Date	6/24/11
	Forwarded to "To Be Copied Drawer" ☐	Date	rcd 7/28/11
	Date BRI-19 Entered 6/17/11		
SUPERVISOR:	Reviewed by Supervisor SDumas	Date	7/29/11
SUPPORT:	Date Copies Made	BMM No	
	Scanned By:	Date Scanned	PDF Box No

NBI: Yes

State of Connecticut
Department of Transportation
Bureau of Engineering and Construction

Inspection Report Transmittal Form
Form BRI-27, Rev. 8/09

Structure No.	04514	**Town**	Glastonbury
Inspection Date	5/23/2011	**Inspectors**	TEAM 4

TABLE OF CONTENTS

Loose Forms (not bound in report)

			Number of Sheets Enclosed
Maintenance Memo			
Flagging Memos			
PONTIS Element Data Collection Form			1
Plan Sheets	Already on File	☐	

Bound Report Pages

Title Cover Sheet		1
Table of Contents		1
Executive Summary		
Field Notes		3
Calculations:	Load Rating Evaluation	
	Quantities & Cost Estimate	
Photo Sheets		4
Photo Images		7

Forms

BRI-18 Bridge Inspection Report Form	7
BRI-19 Highway Bridge Inventory Form	2
BRI-10 Concrete Deterioration Worksheet	

Comments:

Bridge 05608

Inspected By: C. Walsh & D. Willis

Sufficiency Rating 72.34

Previous Inspection Date 4/30/2009

BS&E Received ☐ Data Entry By: DMC

Copies Made ☐ Data Entry Date: 10/17/11

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

SHEET 1 OF _____ (INSP. REPORT)

90) Inspection Date	Inspection Team	91) Frequency	Class:
05/23/2011	04	24	
Indepth Insp	**Deck Survey**	**Access**	**Flagman**
5/23/2003	5/1/1900 12	0	

CRITICAL FEATURE INSPECTIONS

	Type	Frequency	Team	Date
Fracture:				
Uwater:				
Special:				

RED FLAG ☐

IDENTIFICATION

Bridge Name

Town Name GLASTONBURY Town Code 91240

5) Inventory Route:

A) Record Type 1

B) Signing Prefix 3 City Street

C) Level of Service 0 None of the bel

D) Route Number 00000

E) Directional Suffix 0 NA

6) Feature Intersected SALMON BROOK

7) Facility Carried: EASTERN BOULEVARD

9) Location APPROX 370'NORTH OF RT 94

11) Milepoint 0.07 Miles

16) Latitude 41deg 43 min 00 sec ___ deg ___ min ___ sec

17) Longitude 72deg 35 min 6.00 sec ___ deg ___ min ___ sec

98) Border Bridge:

A) State Code ☐☐☐ B) Percent Responsibility ___%

C) Border Town Name

99) Border Bridge Structure No

STRUCTURE TYPE AND MATERIAL

43) Structure Type, Main:

A) Material 3 Steel B) Design Type 19 Culvert (includes frame culverts)

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 Not Applicable

108) Wearing Surface/Protective System:

A) Type of Wearing Surface N Not Applicable

B) Type of Membrane N Not Applicable

C) Type of Deck Protection N Not Applicable

AGE AND SERVICE

27) Year Built 1955 106) Year Reconstructed

42) Type of Service:

A) On 7 Highway B) Under 5 WATERWAY

28) Number of Lanes:

A) On 2 B) Under

29) Average Daily Traffic 6000 Half ADT?: N

109) Percent Truck 2%

30) Year of ADT 2006

19) Bypass, Detour Length miles

GEOMETRIC DATA

48) Length of Max Span 13ft

49) Structure Length 25ft

50) Curb or Sidewalk Widths:

A) Left 0.0ft B) Right 0.0ft

51) Brg Rdwy width,curb-curb 30.0ft

52) Deck Width, Out-Out 30.0ft

32) Approach Roadway Width 30ft

33) Bridge Median 0 No Median

Deck Area 1260 sqft

34) Skew Angle 0deg

35) Structure Flared 0

10)Inv. Rte. Min. Vert Clearance 99ft 99in

47) Log Inv. Rte. Total Horiz Clr.: 30.0ft

47) RLog Inv. Rte. Total Horiz. Clr.: ft

53) Min Vert Clearance Over Bridge 99ft 99in

54) Min Vert Under Clearance N Ref 0ft 0in Ref

55) Min Lat Under Clearance on Right N Ref 99.9ft Ref

56) Min Lat Under Clearance on Left 0.0ft

BRIDGE COMMENTS

STRUCTURE EV. JATION

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

SHEET 2 OF _____

Bridge Number	05608 NBIS Length
Town Name	GLASTONBURY
Facility Carried	EASTERN BOULEVARD
Feature Crossed	SALMON BROOK

Inspected By: T. Kolnak & D. Willis

CLASSIFICATION

112) NBIS Bridge Length	Yes	
104) Highway System	0	Off System
26) Functional Class	19	Urban Local
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	5	Town or Township Highway Agency
22) Owner	3	Town or Township Highway Agency
Report Class	L	LOCAL
37) Historical Significance	4	Historical significance not determinable

WATERWAY

DrainageBasinCode	4006	
38) Navigation Control	0	No navigation control on waterway
39) Navigation Vert Clr.	0	
40) Navigation Horiz Clr.	0	
116) Vert-Lift Brg Nav Min		
111) Pier Abutment Protection		

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed		
75B) Work Done By		
76) Length of Struct. Improvement	0	ft
94) Bridge Improvement Cost	$ 0	
95) Roadway Improvement Cost	$ 0	
96) Total Project Cost	$ 0	
97) Year of Improvement Cost Est.	0	
114) Future ADT	0	115) Year Future ADT 0
List No.	Project No.	Advertised

POSTED SIGNS & UTILITIES

Other Posted Signs 1	0	Blank			
Other Posted Signs 2	0	Blank			
Actual P.L. Single Unit Truck		tons	Actual P.L. 4Axle Truck		tons
Rec. P.L. Single Unit Truck		tons	Rec. P.L. 4Axle Truck		tons
Actual P.L. Semi-TrailerTruck		tons	Actual P.L. 3S2 Truck		tons
Rec. P.L. Semi-TrailerTruck		tons	Rec. P.L. 3S2 Truck		tons
Rec. P.L. All Vehicles		tons	Actual P.L. All Vehicles		tons
Posted Vert Clearance On Bridge		ft in			ft in
Posted Vert UnderClearance		ft in			ft in
Posted Speed Limit		mph			mph
Utility					
Utility	2	Water			
Utility	6	Cable TV			

LOAD RATING AND POSTING

31) Design Load	0	Evaluation Code	
63) Operating Rating Type		Year of Evaluation	2009
64) Operating Rating	58.0	70) Bridge Posting	
65) Inventory Rating Type	5	41) Structure Status	4
66) Inventory Rating	36.0	Open, no restriction	

CONDITION

	Rating	By
58) Deck	N	DW
59) Superstructure	N	DW
60) Substructure	N	DW
61) Channel & Chan. Protection	6	DW
62) Culverts	4	DW

APPRAISALS

	Rating	By
67) Structure Evaluation	4	DMG
68) Deck Geometry	N	DW
69) Under Clear Vert & Horiz	N	DW
71) Waterway Adequacy	7	DW
72) Approach Rdwy Alignment	8	DW
113) Scour Critical		

Items 58 Thru 72 Checked By:

36) Traffic Safety Features:

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

OTHER FEATURES

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

INSPECTION COMMENTS

Proposed Next Indepth Insp Year	2013
Senior	Stephen Keedy
Supervisor	Joseph Kozlowski

REVIEWED BY: D. Carlson Date 6/17/11

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 05608 **Inspection Date: 5/23/2011**

Inspection Type:	Routine	**Previous Inspection Date:**	4/30/2009	**Snooper Required:**	No
Inspection Performed By:	Team 4	**Feature Carried:**	EASTERN BOULEVARD	**Snooper Used:**	No
Town:	GLASTONBURY	**Feature Intersected:**	SALMON BROOK	**Year Built:**	1955
Location:	APPROX 370'NORTH OF RT 94	**Main Design:**	Culvert (includes frame culverts)	**Year Rebuilt:**	-
Main Material:	Steel				

Visits

Visit Date:	Temp:	Start Time:	End Time:
5/23/2011	55	9:30:00 AM	10:50:00 AM

Inspectors:

Inspector:	Task:
D. Willis	Inspector
T. Kahak	Lead Inspector

DECK: METAL PLATE PIPE ARCH CULVERT
BITUMINOUS OVERLAY / APPROX. 1' 08" OF FILL

Overall Rating: P

	Rating	
OVERLAY:	7	Transverse, diagonal & longitudinal cracks, open up to 1/2".
DECK-STR. CONDITION:	N	-
CURBS:	7	Bituminous - west side show some vertical cracks & minor gouges.
MEDIAN:	N	-
SIDEWALKS:	N	-
PARAPET:	6	Concrete : East - Vertical cracks in both sides with transverse cracks, with light efflorescence extending across the cap (encircling) over each pipe, open 1/16" to 3/4 (with chipping along the crack over cell # 1) & offset 1/8" along east fascia side. Small spall at the south end. West - A vertical & transverse crack over cell # 2, open 1/16". Light to medium scale along the cap.
RAILING:	7	Galvanized two pipe rail with galvanized stanchions. The pipes show light rust, especially at the ends.

		East rail at post # 3 - Anchor nut missing from the base plate.
PAINT:	N	-
FENCE:	N	-
DRAINS:	N	-
LIGHTING STANDARD:	N	-
UTILITIES TYPE/SIZE:	N	Water & electric per BRI-19 from 1995.
CONSTR JOINTS:	N	-
EXPANSION JOINTS:	N	-

59. SUPERSTRUCTURE:	-	**Overall Rating:**	N

60. SUBSTRUCTURE:	-	**Overall Rating:**	N

Rating

61. CHANNEL & CHANNEL PROTECTION:	STREAM BED - MAINLY GRAVEL & SMALL STONES	**Overall Rating:**	6

Rating

CHANNEL SCOUR:	6	Scour hole at the center of the inlet, 16 ft. long x 6. ft. wide x 37" deep. The centerwall vertical face is exposed up to 8" high for 10' long. See attached sketch.
EMBANKMENT EROSION:	6	Moderate erosion along the downstream embankments. Moderate to heavy encroachment with embankment erosion & undercutting upstream at the southeast. See attached sketch.
DEBRIS:	7	Light accumulation of limbs & debris upstream blocking inlet of cell # 1.
VEGETATION:	7	Brush overhanging channel upstream at the northeast.
CHANNEL CHANGE:	6	Embankment encroachment at the inlet of cell # 1. See Channel Scour & Embankment Eroision.
FENDER SYSTEM:	N	-
SPUR, DIKES & JETTIES:	N	-
RIP RAP:	8	-

62. CULVERTS & RETAINING WALL:	ASPHALT COATED METAL PLATE PIPE ARCH - TWIN	**Overall Rating:**	4

Rating

BARREL:	-	-

CONCRETE:	N	-
STEEL:	4	The invert & corner plates show loss of asphalt coating with heavy to laminar rust & pitting with 1/16" section loss for full length. The asphalt coating is intact above the center plates. The connections are also good. Cell # 1 : There is a downward buldge in the crown, 16.5 feet from the inlet, under the wheel load of Northbound lane, three ribs are bent 1 ft. to 2 ft. long x 1-1/2". No evidence of distress in the overlay (See photo # 10). Cell # 2 : along the waterline of the south wall shows several 1/2" perforations (See photo # 9). See the Shape Measurement sheet also.
TIMBER:	N	-
HEADWALL:	7	Concrete : Vertical & diagonal hairline cracks, some which extend into parapets, with efflorescence & map cracking. East [inlet] : A diagonal crack extending from the Southeast wing, open 5/16" & offset 1/8". Horizontal crack between the pipes along the base, open 1/16" , with some random hairline cracks , moderate scale & a spall 4" x 4'. West : A diagonal crack with efflorescence at the bottom of the north end which extends up the corner of the northwest wingwall, open 1/16". Horizontal crack between the pipes along the base, open up to 3/16" .
CUTOFF WALL:	N	-
DEBRIS:	6	Heavy amount of sand and gravel accumulation in both barrels, up to 36" in cell # 1 & 12" high in cell # 2.
RETAINING WALL STEM:	5	Concrete : Southeast : A diagonal crack with chipping along the edges open approximately 5/16" at the chisel mark (measurement taken inside the crack) & offset 1/8".
FOOTING:	7	Inlet centerwall vertical face is exposed up to 8" high for 10' long at base. See attached sketch.

---

65. APPROACH CONDITION BITUMINOUS PAVEMENT **Overall Rating:** 7

	Rating	
APPROACH SLAB:	N	-
RELIEF JOINTS:	N	-
APPROACH GUIDE RAIL:	8	Flex beam rail Southwest corner only. Rail missing at northwest.
APPROACH PAVEMENT:	7	Transverse & random cracks, open 1/4" to 1".

		Some bituminous patches.
APPROACH EMBANKMENT:	8	-

TRAFFIC SAFETY FEATURES

	Rating	
BRIDGE RAILINGS:	Last Inspection: N Current: -	-
TRANSITIONS:	Last Inspection: N Current: -	-
APPROACH GUARDRAILS:	Last Inspection: N Current: -	-
APPR. GUARDRAIL ENDS:	Last Inspection: N 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

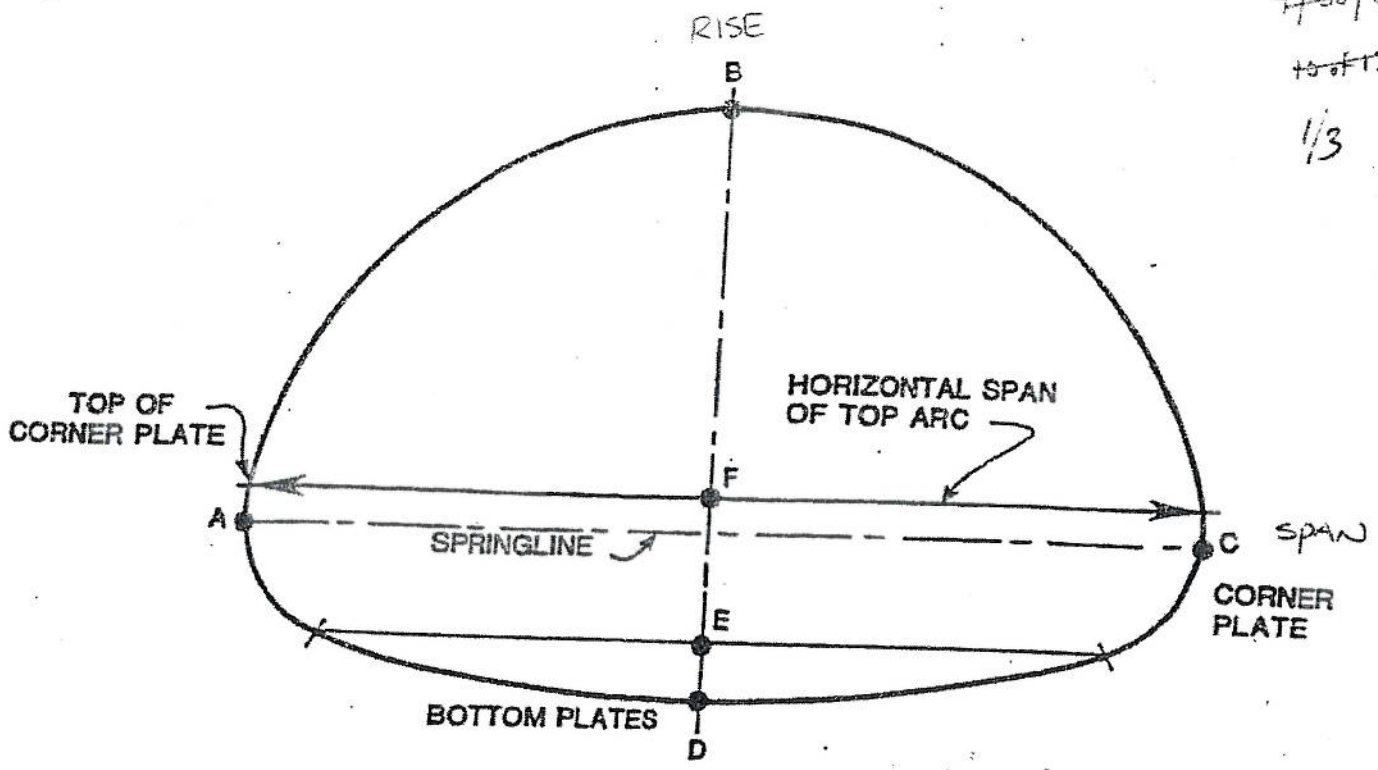
	Rating	
MIN. VERT. UNDERCLEARANCE:	Last Inspection: 0' 0" Current: -' -"	-
POSTED CLR. UNDER BRIDGE:	Last Inspection: -' -" Current: -' -"	-
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	-
ADVANCED WARNING (YES/NO):	No	-
SPEED LIMIT (IF ANY):	Last Inspection: - Current: -	-
CHARACTER OF TRAFIC:		ADT - 7,182 with 2% trucks.

ADDITIONAL NOTES:	The log direction is south to north. East is inlet.
ADDITIONAL COMMENTS:	-

Inspectors' Signatures:	1)	Tom Kaheky	Date: 6/14/11
	2)		Date: 6/14/11
	3)		Date: ----/----/-----
	4)		Date: ----/----/-----
P.E. Signature:			Date: ----/----/-----
P.E. #:			Date: ----/----/-----
Reviewed by:		P. Carlson conndot	Date: 6/17/11

Glastonbury, Bridge # 05608, Eastern Blvd & Salmon Brook

4/30/09
to 5/13
1/3



Asphalt Coated Corrugated Metal Pipe Arch

DATE:

	PIPE # 1				PIPE # 2		
4/19/07	A	B	C	4/19/07	A	B	C
SPAN	149"	150"	149"		150"	150"	148"
RISE	65"	63"	65 1/2"		65"	64"	65"
RISE AT BULGE 61 1/2"							

DATE:

TEAM-7

4/30/09	A	B	C	4/30/09	A	B	C
SPAN	149"	150"	148 1/2"		149 3/4"	150"	147 7/8"
RISE	65 1/2"	63"	65 1/2"		65"	64"	66 1/8"
RISE AT BULDGE 61 1/2"							

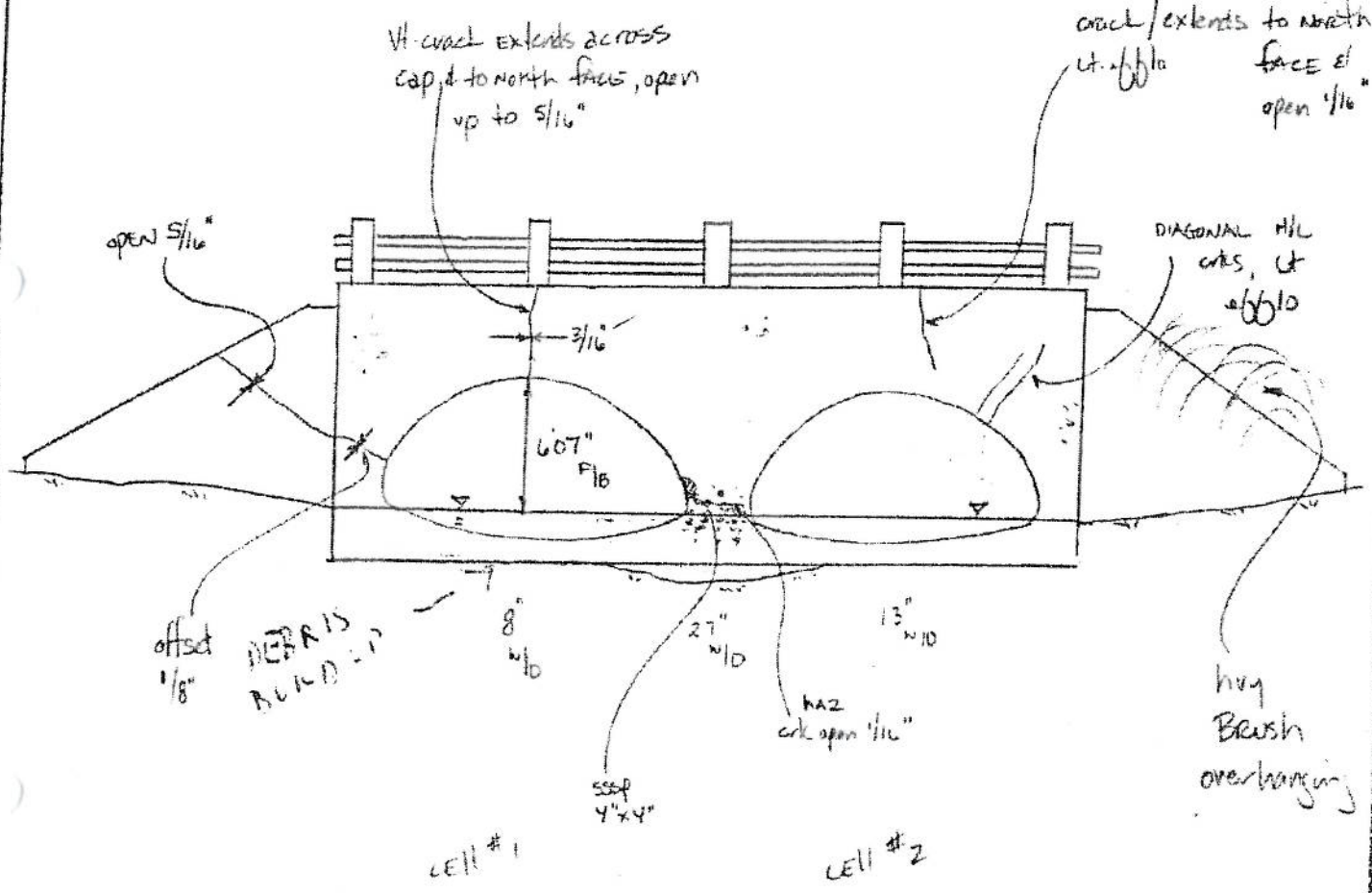
5-23-11	149"	150"	149"		149"	151"	148"
	65"	63"	65"		65"	64"	66"
RISE AT BULGE 61 1/2							

FIELD NOTES

	Bridge # 05603	DATE: 4/30/09
	TEAM - 7	SHEET: 1 of 3

Eastern Blvd over Salmon Brook, Glastonbury

2/3



EAST ELEVATION (INLET)

5/23/11

NOTE: VERTICAL face of INLET HEADWALL

EXPOSED 10'x4' WIDE & up to 8" DP

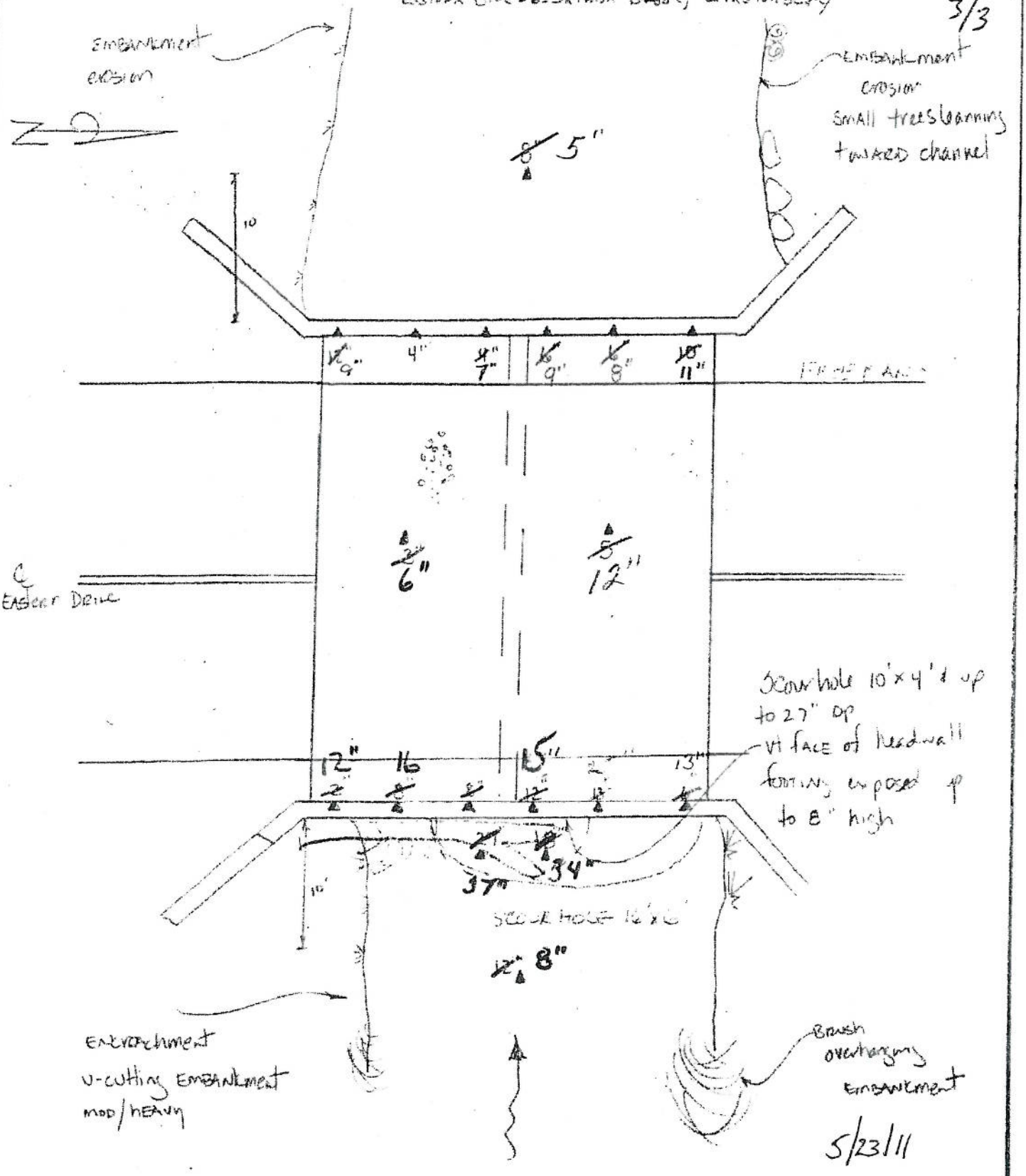
NO UNDERMINING found

FIELD NOTES

Bridge # 5608	DATE: ~~4/30/09~~
TEAM - 7	SHEET: ~~12 of 13~~

Eastern Blvd - Salmon Brook, Glastonbury

3/3



5/23/11

▲ = WATER DEPTHS

Bridge No.	05608	**Inspected by:**	D. WILLIS
Town:	GLASTONBURY	**Inspected by:**	T. KAHAK
Feature Carried:	EASTERN BOULEVARD	**Date Inspected:**	5/23/11
Feature Crossed:	SALMON BROOK	**Project No.:**	

Photo # 1: **SOUTH APPROACH.**

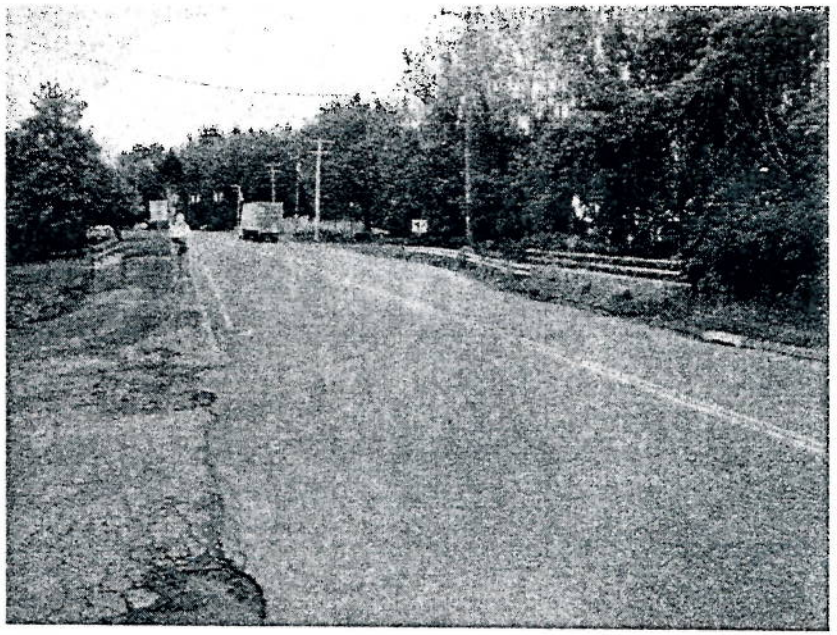


Photo # 2: **NORTH APPROACH.**

Bridge No.	05608	**Inspected by:**	D. WILLIS
Town:	GLASTONBURY	**Inspected by:**	T. KAHAK
Feature Carried:	EASTERN BOULEVARD	**Date Inspected:**	5/23/11
Feature Crossed:	SALMON BROOK	**Project No.:**	

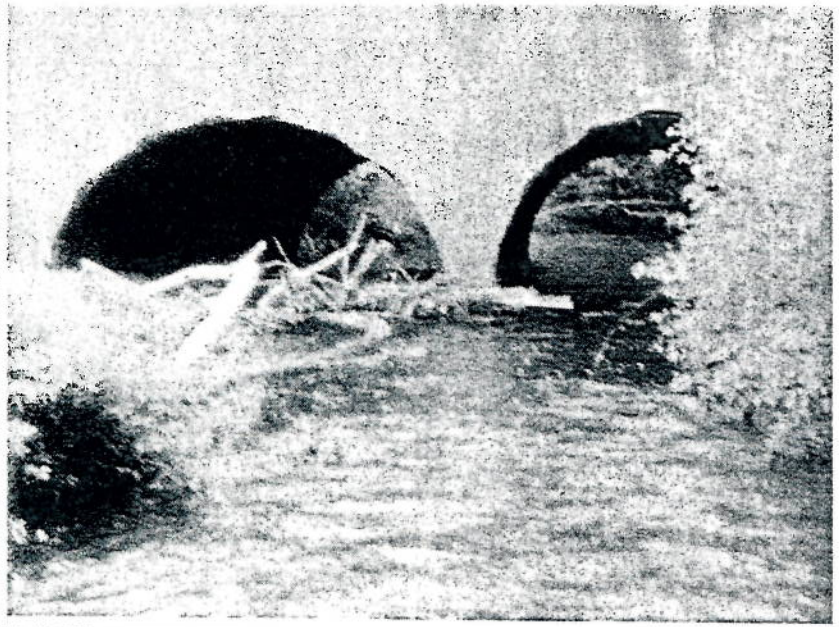


Photo # 3: EAST ELEVATION. NOTE DEBRIS AT INLET OF CELL 1.

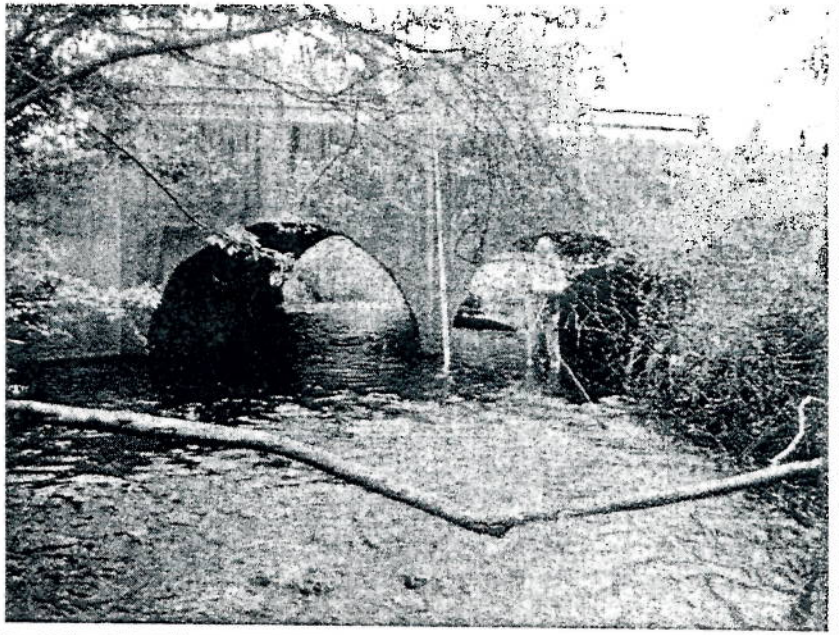


Photo # 4: WEST ELEVATION.

Bridge No.	05608	**Inspected by:**	D. WILLIS
Town:	GLASTONBURY	**Inspected by:**	T. KAHAK
Feature Carried:	EASTERN BOULEVARD	**Date Inspected:**	5/23/11
Feature Crossed:	SALMON BROOK	**Project No.:**	

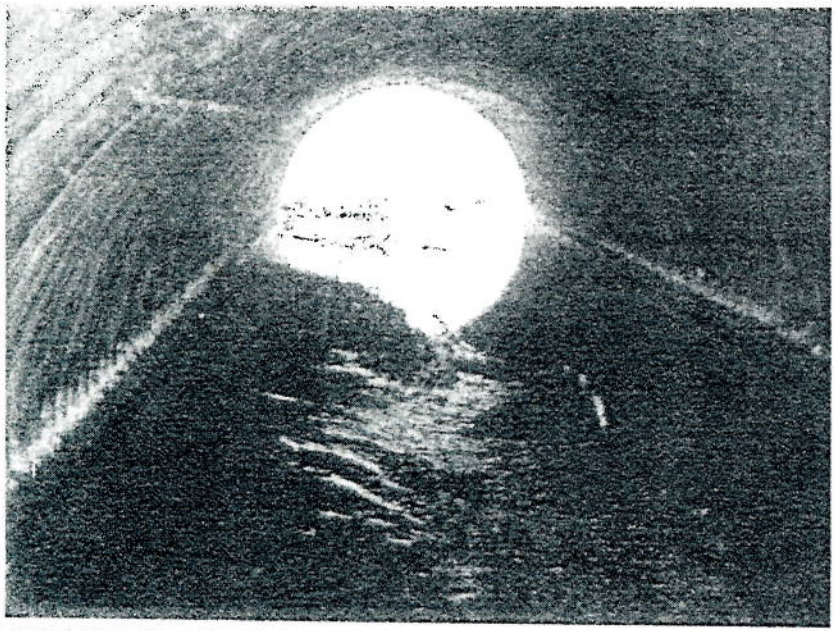


Photo # 5: **INTERIOR OF CELL 1.**

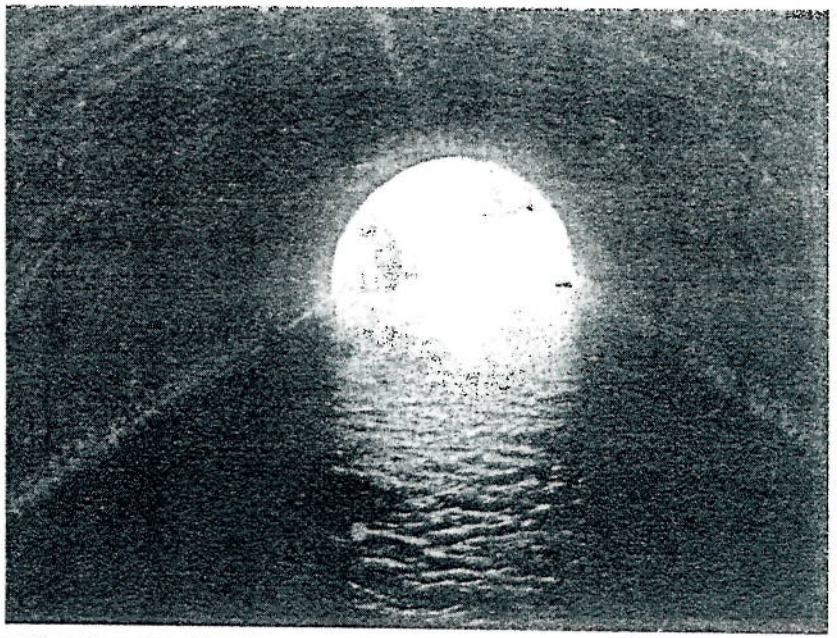


Photo # 6: **INTERIOR CELL 2.**

Bridge No.	05608	**Inspected by:**	D. WILLIS
Town:	GLASTONBURY	**Inspected by:**	T. KAHAK
Feature Carried:	EASTERN BOULEVARD	**Date Inspected:**	5/23/11
Feature Crossed:	SALMON BROOK	**Project No.:**	

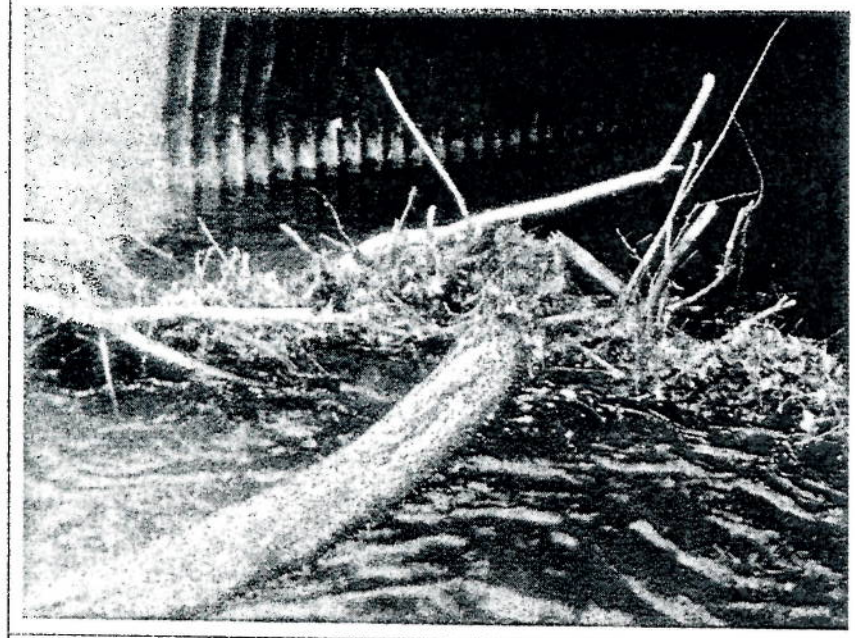


Photo # 7: CLOSE UP OF DEBRIS AT INLET OF CELL 1.

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 05608 Agency ID: 05608 Sufficiency Rating: 81.0

IDENTIFICATION

State 1:	09 Connecticut	Struc Num 8:	05608
Facility Carried 7:	EASTERN BOULEVARD	Location 9:	APPROX 370'NORTH OF RT 94
Rte.(On/Under)5A:	Route On Structure	Rte. Signing Prefix 5B:	5 City Street
Level of Service 5C:	0 None of the below	Rte. Number 5D:	00000
Directional Suffix 5E:	0 N/A (NBI)	% Responsibility :	0
SHD Distrct 2:	01	County Code 3:	Hartford
Place Code 4:	GLASTONBURY	Mile Post 11:	0.070 mi
Feature Intersected 6:	SALMON BROOK		
Latitude 16:	41d 43' 00"	Longitude 17:	072d 34' 48"
Border Bridge Code 98:	Unknown (P)		
Border Bridge Number 99:	NA		

INSPECTION

Frequency 91:	24 months	Inspection Date 90:	5/23/2011	Next Inspection:	05/23/2013
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:	05/23/2011	Next Elem. Insp. Due:	05/23/2013

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:	19 Urban Local
Historical Significance 37:	4 Hist sign not determin		
Owner 22:	3 Town/Township Hwy Agency		
Custodian 21:	3 Town/Township Hwy 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 Deterioration Channel/Channel Protection 61: 6 Minor Damage

LOAD RATING AND POSTING

Inventory Rating Method 65:	2 AS Allowable Stres	Operating Rating Method 63:	2 AS Allowable Stress
Inventory Rating 66:	HS20.0	Operating Rating 64:	HS27.3
Design Load 31:	0 Other or Unknown	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:	6,300	Truck ADT 109: 2 %	Year of ADT 30: 1993

APPRAISAL

Bridge Rail 36A:	N N/A or not required	Approach Rail 36C:	N N/A or not required
Transition 36B:	N N/A or not required	Approach Rail Ends 36D:	N N/A or not required
Str. Evaluation 67:	6	Deck Geometry 68:	3 Intolerable - Correct
Underclearance, Vertical and Horizontal 69:	N Not applicable (NBI)		
Waterway Adequacy 71:	7 Above Minimum	Approach Alignment 72:	8 Equal Desirable Crit
Scour Critical 113:	8 Stable Above Footing		

GEOMETRIC DATA

Length Max Span 48:	13.0 ft	Structure Length 49:	28.0 ft
Curb/Sdwlk Width L 50A:	0.0 ft	Curb/Sidewalk Width R 50B:	0.0 ft
Width Curb to Curb 51:	30.0 ft	Width Out to Out 52:	45.0 ft
Approach Roadway Width 32: (w/ shoulders)	30.0 ft	Median 33:	0 No median
Deck Area:	1,259.4 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 Undrclearance R 55:		99.9 ft	
Minimum Lateral Undrclearance 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 Improvment 76:	20.0 ft
Total Cost 96:	$ 2,000	Future ADT 114:	7,560
Year of Cost Estimate 97:	1999	Year of Future ADT 115:	2020

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	212/3	Reinforced Conc wing	(LF)	59	0 %	0	100 %	59	0 %	0	0 %	0	0 %	0
UNIT0	240/3	Steel Culvert	(LF)	89	0 %	0	100 %	89	0 %	0	0 %	0	0 %	0
UNIT0	330/3	Metal Rail Uncoated	(LF)	56	100 %	56	0 %	0	0 %	0	0 %	0	0 %	0

ATTACHMENT D

CONNECTICUT LOCAL BRIDGE PROGRAM, FISCAL YEAR 2012, PRELIMINARY APPLICATION, EASTERN BOULEVARD OVER SALMON BROOK, GLASTONBURY, CT

CONNECTICUT LOCAL BRIDGE PROGRAM

Fiscal Year 2012

PRELIMINARY APPLICATION

Eastern Boulevard over

Salmon Brook

Glastonbury, CT

ConnDOT Bridge No. 05608

Prepared for the
Connecticut Department of Transportation
Federal Local Bridge Program
Newington, Connecticut

Prepared by
WMC Consulting Engineers
87 Holmes Road
Newington, Connecticut

December 2012

Table of Contents

CONNECTICUT DEPARTMENT OF TRANSPORTATION

The Honorable James P. Redeker, Commissioner

PRELIMINARY APPLICATION FOR THE LOCAL BRIDGE PROGRAM

Preliminary application is hereby made by the Town of Glastonbury
for possible inclusion in the Local Bridge Program for the following structure:

Bridge Location: Eastern Blvd. over Salmon Brook - Approx. 370 feet north of Rte. 94

Bridge Number: 05608 Length of Span: 13.00 feet Curb Width: 30.00 feet

Sufficiency Rating: 50.33 Priority Rating: 49.22

Evaluation & Rating Performed by: ☒ State Forces ☐ Others

If Others, Name of Professional Engineer: _____

Connecticut Professional Engineers License Number: _____

Engineering Firm: _____

Engineer's Address: _____

Engineer's E-mail Address: _____

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

Description of Project Scope: A *(note repair code; attach narrative/preliminary plans & specifications).*

Municipal Official to Contact *(name & title)*: Richard Johnson - Town Manager

Mailing Address: P.O. Box 6523, Glastonbury, CT 06033

Telephone: (860) 652-7500 FAX: (860) 652-7505

E-mail: richard.johnson@glastonbury-ct.gov

Schedule: (Anticipated Dates – MM/DD/YYYY)

Public Hearing Conducted:	01/30/2014
Design Completion:	08/30/2014
Property Acquisition Completion:	08/30/2014
Utilities Coordination Completion:	08/30/2014
Construction Advertising:	11/30/2014
Start of Construction:	03/01/2015
Completion of Construction:	12/01/2015

Preliminary Cost Figures:

Preliminary Engineering Fees (Include Breakdown of Fees)	$ 307,800.00
Rights-of-Way Cost (If applicable)	$
Municipally Owned Utility Relocation Cost	$
Estimated Construction Costs (Include Detailed Estimate)	$ 1,710,000.00
Construction Engineering (Inspection, Materials Testing)	$ 205,200.00
Contingencies *(10% of Construction Costs Only)*	$ 171,000.00
Total Estimated Project Cost	$ 2,394,000.00

Financial Aid Data:

Federal Reimbursement:
Total Estimated Project Cost multiplied by 80%:

Federal Aid Request $ 1,915,200.00

I hereby certify that the above is accurate and true, to the best of my knowledge and belief. I also certify that this form has not been m odified in any way from that distributed by the Departm ent of Transportation.

Signature: Town Manager
(Chief Elected Official, Town Manager, or other Officer Duly Authorized)

Date: 12-5-12

Return completed applications to:

Mr. Stanley C. Juber
Administrator of the Local Bridge Program
Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, Connecticut 06131-7546

2. Existing Condition

Eastern Boulevard over Salmon Brook I.R. Summary

Item No.	Item	Rating	
58	Deck	N	
59	Superstructure	N	
60	Substructure	N	
61	Channel & Ch. Protection	6	Needs minor repairs to repair erosion
62	Culverts	4	Poor Condition
67	Structure Eval.	4	Meets min. limits to be left in Place
68	Deck Geometry	N	
113	Scour Critical	8	Stable (Above top of footing)
	Sufficiency Rating	**50.23**	
	Priority Rating	**49.22**	

*See attached I.R. for reference.

3. Proposed Condition

According to the Connecticut Department of Transportation (ConnDOT) bridge inspection report, dated May 23, 2011, the **Structure Evaluation** rating is **4** with a Sufficiency Rating of **50.23%** indicate that the bridge would likely warrant replacement. Replacement would involve the following:

- Removal of twin corrugated steel culverts
- M&P - Detour Traffic along Western Boulevard (Approximately 1.1 miles)
- Steel Pile foundation (Wingwall and arch footings)
- Precast Concrete Arch Culvert
- Reinforced concrete spandrel wall, arch footings and wingwalls
- Concrete form liners on exposed concrete faces
- Install approach walls and three rail aluminum bridge rail
- Install Concrete sidewalk
- Install new MBR and end anchorages
- Reconstruct approximately 100 feet of roadway (50 feet each side of arch)
- Improve Hydraulics - Currently Inadequate - 100 year (FEMA)

Estimated construction cost for the work is $1,710,000. A detailed estimate is provided on the following page.

Town of Glastonbury

Bridge No. 05608

WMC Reference No.:

Federal Project No.:

State Project No.:

Date: October 26, 2012

Eastern Boulevard over Salmon Brook

PE Cost Opinion

Bridge Replacement

ConnDOT No.		ITEM	UNIT	RDWY QUANT.	BRIDGE QUANT.	UNIT PRICE	TOTAL COST
0201001		Clearing and Grubbing	L.S.	1		$ 23,500.00	$ 23,500.00
0202001		Earth Excavation	C.Y.	195		$ 30.00	$ 5,850.00
0202101		Rock Excavation	C.Y.	15		$ 150.00	$ 2,250.00
0202216	A	Excavation and Reuse of Existing Channe Bottom Material	C.Y.	110		$ 75.00	$ 8,250.00
0202529		Cut Bituminous Concrete Pavemen	L.F.	130		$ 6.00	$ 780.00
0203202		Structure Excavation - Earth (Excluding Cofferdam and Dewatering	C.Y.		440	$ 25.00	$ 11,000.00
0204001	A	Cofferdam and Dewatering	L.F.		175	$ 120.00	$ 21,000.00
0205003		Trench Excavation 0-10' Deep	C.Y.	100		$ 25.00	$ 2,500.00
0209001		Formation of Subgrade	S.Y.	400		$ 3.00	$ 1,200.00
0210306	A	Turbidity Control Curtains	L.F.	180		$ 75.00	$ 13,500.00
0210820	A	Water Pollution Control (Estimated Cost - Plus	Estpls	1		$ 5,000.00	$ 5,000.00
0212002		Subbase	C.Y.	110		$ 50.00	$ 5,500.00
0214020		Compacted Granular Fill	C.Y.	5		$ 70.00	$ 350.00
0216002		Pervious Structure Backfill	C.Y.		350	$ 50.00	$ 17,500.00
0219001		Sedimentation Control Systen	L.F.	265		$ 5.00	$ 1,325.00
0406237		Material for Tack Coat	Gal.	105		$ 10.00	$ 1,050.00
0406171		HMA S0.5	Ton	175	20	$ 110.00	$ 21,450.00
0406170		HMA S1	Ton	130		$ 100.00	$ 13,000.00
0503001	A	Removal of Superstructure	L.S.		1	$ 30,000.00	$ 30,000.00
0507026		Type "C" Catch Basin (4' Sump	Ea.	2		$ 2,800.00	$ 5,600.00
0601003	A	Class "A" Concrete	C.Y.		115	$ 800.00	$ 92,000.00
0601088		Concrete Form Liners	S.F.		555	$ 40.00	$ 22,200.00
0601201	A	Class "F" Concrete	C.Y.		12	$ 1,250.00	$ 15,000.00
0601156	A	Precast Reinforced Concrete Arcl	L.F.		46	$ 2,500.00	$ 115,000.00
0602002		Deformed Steel Bars	Lbs.		9200	$ 1.80	$ 16,560.00
0602011		Deformed Steel Bars-Epoxy Coatec	Lbs.		1200	$ 2.00	$ 2,400.00
0603253	A	Disposal of Lead Debris	BBL.		1	$ 5,000.00	$ 5,000.00
0603444	A	Lead Health Protection Program (LHPP	L.S.		1	$ 25,000.00	$ 25,000.00
0651001		Bedding Material	C.Y.	5		$ 40.00	$ 200.00
0651013		18" R.C. Pipe	L.F.	50		$ 100.00	$ 5,000.00
0651034		Remove Pipe	L.F.	50		$ 22.00	$ 1,100.00
0702101		Furnishing Steel Piles	Lbs.		353900	$ 1.00	$ 353,900.00
0702111		Driving Steel Piles	L.F.		3025	$ 40.00	$ 121,000.00
0702120		Point Reinforcement for Steel Pile	Ea.		75	$ 300.00	$ 22,500.00
07027__		Test Pile (Steel - 40' Long)	Ea.		2	$ 20,000.00	$ 40,000.00
0703011		Intermediate Riprap	C.Y.	20		$ 90.00	$ 1,800.00
0703029	A	Rounded Stone Riprap	C.Y.	10		$ 110.00	$ 1,100.00
0708001		Dampproofing	S.Y.		35	$ 25.00	$ 875.00
0728015		No. 67 Stone	C.Y.		55	$ 50.00	$ 2,750.00
0751827		6" C.C.M.P. Structure Underdrair	L.F.		150	$ 35.00	$ 5,250.00
0751828		6" C.C.M. Outlets for Underdrair	L.F.		10	$ 25.00	$ 250.00
0755013		Geotextile Erosion Control Class A	S.Y.	70		$ 50.00	$ 3,500.00
0815001		Bituminous Concrete Lip Curbing	L.F.	210		$ 7.50	$ 1,575.00
0822001		Temporary Precast Concrete Barrier Curl	L.F.	120		$ 50.00	$ 6,000.00
0904303	A	Metal Bridge Rail - Three Rail (Traffic)	L.F.		60	$ 260.00	$ 15,600.00
0910173		R-B 350 Bridge Attachment - Vertical Shaped Parapet	Ea.	4		$ 2,500.00	$ 10,000.00

Town of Glastonbury

Bridge No. 05608

WMC Reference No.:

Federal Project No.:

State Project No.:

Date: October 26, 2012

Eastern Boulevard over Salmon Brook

PE Cost Opinion

Bridge Replacement

ConnDOT No.		ITEM	UNIT	RDWY QUANT.	BRIDGE QUANT.		UNIT PRICE		TOTAL COST
0911923		R-B End Anchorage Type	Ea.	1		$	1,200.00	$	1,200.00
0911924		R-B End Anchorage Type I	Ea.	2		$	1,200.00	$	2,400.00
0912503		Remove Metal Beam Rai	L.F.	60		$	5.50	$	330.00
0921001		Concrete Sidewalk	S.F.	400		$	10.00	$	4,000.00
0922501		Bituminous Concrete Driveway	S.Y.	20		$	50.00	$	1,000.00
0944002		Furnishing and placing Topsoi	S.Y.	700		$	7.00	$	4,900.00
0950005		Turf Establishment	S.Y.	700		$	2.00	$	1,400.00
0952052	A	Control and Removal of Invasive Vegetatio	Est	1		$	10,000.00	$	10,000.00
0969060	A	Construction Field Office (Small	Mo.	8		$	2,600.00	$	20,800.00
0971001	A	Maintenance and Protection of Traffi	L.S.	1		$	35,000.00	$	35,000.00
0974001	A	Removal of Existing Masonry	C.Y.		90	$	375.00	$	33,750.00
0975002		Mobilization	L.S.	1		$	87,000.00	$	87,000.00
0976002		Barricade Warning Light-High Intensity	Day	976		$	1.75	$	1,708.00
0979003	A	Construction Barricade Type III	Ea.	4		$	200.00	$	800.00
0980001		Construction Staking	L.S.	1		$	12,000.00	$	12,000.00
1209124		Hot-Applied Painted Pavement Markings 4" Whit	L.F.	260		$	0.25	$	65.00
1209114		Hot-Applied Painted Pavement Markings 4" Yellov	S.F.	260		$	0.25	$	65.00
1210101		4" White Epoxy Resin Pavement Markin	L.F.	260		$	0.50	$	130.00
1210102		4" Yellow Epoxy Resin Pavement Markin	L.F.	260		$	0.50	$	130.00
1220011	A	Construction Signs-Type III Reflective Sheetin	S.F.	105		$	35.00	$	3,675.00
1801002		Repair of Impact Attenuation System Type "A Module 700 lb.	Ea.		2	$	375.00	$	750.00
1801003		Repair of Impact Attenuation System Type "A Module 1400 lb.	Ea.		4	$	375.00	$	1,500.00
1801004		Repair of Impact Attenuation System Type "A' Module 2100 lb.	Ea.		4	$	375.00	$	1,500.00
1807012		Temporary Type "A" Impact Attenuation Module 700 lb	Ea.		4	$	400.00	$	1,600.00
1807013		Temporary Type "A" Impact Attenuation Module 1400 lb	Ea.		8	$	420.00	$	3,360.00
1807014		Temporary Type "A" Impact Attenuation Module 2100 lb	Ea.		8	$	460.00	$	3,680.00
1807104		Relocation of Temporary Type "A" Impact Attenuatior Module 700 lb.	Ea.		4	$	90.00	$	360.00
1807105		Relocation of Temporary Type "A" Impact Attenuatio Module 1400 lb.	Ea.		4	$	195.00	$	780.00
1807106		Relocation of Temporary Type "A" Impact Attenuatior Module 2100 lb.	Ea.		4	$	315.00	$	1,260.00
							SUBTOTAL	$	1,311,308.00
							CONTINGENCY @ 25%	$	327,827.00
							TOTAL	**$**	**1,639,135.00**
							Projected 1 year @ 4% per year	**$**	**1,704,700.40**
							SAY TOTAL	**$**	**1,710,000.00**

ATTACHMENT E

STRUCTURE NO. 04514, FISHER HILL ROAD OVER ROARING BROOK, GLASTONBURY, ROUTINE INSPECTION ON 5/23/2011

STRUCTURE NO. 04514

FISHER HILL ROAD
over
ROARING BROOK
GLASTONBURY

Routine Inspection
on
5/23/2011

Inspected by Team 4
for Area ~~6~~ 7

TEAM:	Forwarded to TE3 Don Carlson	Date	6/14/2011
TE3:	Reviewed by TE3 DMC	Date	6/14/11
	BMM Required		No
	Town Bridge		YES
	Rating <= 5 (Items 58,59,60 or 62)		YES
	Rating Change 2 or More Values		No
	Forwarded to Supervisor ~~BAP~~ SAD	Date	6/24/11
	Forwarded to "To Be Copied Drawer" ☐	Date	rcd 7/28/11
	Date BRI-19 Entered 6/14/11		
SUPERVISOR:	Reviewed by Supervisor SDuma	Date	7/29/11
SUPPORT:	Date Copies Made	BMM No	
	Scanned By:	Date Scanned	PDF Box No

NBI: Yes

State of Connecticut
Department of Transportation
Bureau of Engineering and Construction

Inspection Report Transmittal Form
Form BRI-27, Rev. 8/09

Structure No.	04514	**Town**	Glastonbury
Inspection Date	5/23/2011	**Inspectors**	TEAM 4

TABLE OF CONTENTS

Loose Forms (not bound in report)

		Number of Sheets Enclosed
Maintenance Memo		
Flagging Memos		
PONTIS Element Data Collection Form		1
Plan Sheets	Already on File ☐	

Bound Report Pages

Title Cover Sheet		1
Table of Contents		1
Executive Summary		
Field Notes		6
Calculations:	Load Rating Evaluation	
	Quantities & Cost Estimate	
Photo Sheets		3
Photo Images		6

Forms

BRI-18 Bridge Inspection Report Form	8
BRI-19 Highway Bridge Inventory Form	2
BRI-10 Concrete Deterioration Worksheet	1

Comments:

Bridge 04514

Inspected By: T. Kubak & D. Wills

Sufficiency Rating 52.07

Previous Inspection Date 4/29/2009

BS&E Received ☐ Data Entry By: Dmc

Copies Made ☐ Data Entry Date: 6/14/11

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

SHEET 1 OF _____ (INSP. REPORT)

90) Inspection Date	Inspection Team	91) Frequency	Class:
05/31/11	019	24	01

Indepth Insp	Deck Survey	Access	Flagman
4/29/2009	11/1900	0	

RED FLAG ☐

CRITICAL FEATURE INSPECTIONS

	Type	Frequency	Team	Date
Fracture:				
Uwater:				
Special:				

IDENTIFICATION

Bridge Name

Town Name GLASTONBURY Town Code 91240

5) Inventory Route:

A) Record Type 1

B) Signing Prefix 5 City Street

C) Level of Service 0 None of the bel

D) Route Number 00000

E) Directional Suffix 0 NA

6) Feature Intersected ROARING BROOK

7) Facility Carried: FISHER HILL ROAD

9) Location 350 Ft East of Rte 83

11) Milepoint 0.00 Miles

16) Latitude 41deg 41 min 58.00 sec

17) Longitude 72deg 32 min 00 sec

98) Border Bridge:

A) State Code ☐☐☐ B) Percent Responsibility 0%

C) Border Town Name

99) Border Bridge Structure No

STRUCTURE TYPE AND MATERIAL

43) Structure Type, Main:

A) Material 1 Concrete B) Design Type 1 Slab

44) Structure Type, Approach:

A) Material 0 Other B) Design Type 0 Other

45) Number of Spans, Main Unit 1

46) Number of Approach Spans 0

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

108) Wearing Surface/Protective System:

A) Type of Wearing Surface 6 Bituminous

B) Type of Membrane 8 Unknown

C) Type of Deck Protection 0 None

AGE AND SERVICE

27) Year Built 1933 106) Year Reconstructed

42) Type of Service:

A) On 1 Highway B) Under 5 WATERWAY

28) Number of Lanes:

A) On 2 B) Under 0

29) Average Daily Traffic 900 Half ADT?: N

109) Percent Truck %

30) Year of ADT 2008

19) Bypass, Detour Length miles

GEOMETRIC DATA

48) Length of Max Span 27 ft

49) Structure Length 31 ft

50) Curb or Sidewalk Widths:

A) Left 0.3 ft B) Right 0.7 ft

51) Brg Rdwy width,curb-curb 22.6 ft

52) Deck Width, Out-Out 23.3 ft

32) Approach Roadway Width 20 ft

33) Bridge Median 0 No Median

Deck Area 630 sqft

34) Skew Angle 24 deg

35) Structure Flared 0

10)Inv. Rte. Min. Vert Clearance 99 ft 99 in

47) Log Inv. Rte. Total Horiz Clr.: 22.8 ft

47) RLog Inv. Rte. Total Horiz. Clr.: ft

53) Min Vert Clearance Over Bridge 99 ft

54) Min Vert Under Clearance N Ref 99 ft 0 in Ref

55) Min Lat Under Clearance on Right N Ref 99.9 ft Ref

56) Min Lat Under Clearance on Left 0.0 ft

BRIDGE COMMENTS

STRUCTURE EVALUATION

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

SHEET 2 OF

Bridge Number	04514
NBIS Length	Yes 31
Town Name	GLASTONBURY
Facility Carried	FISHER HILL ROAD
Feature Crossed	ROARING BROOK

Inspected By: T. Klodt & D. Willis

CLASSIFICATION

112) NBIS Bridge Length	Yes	
104) Highway System	0	Off System
26) Functional Class	19	Urban Local
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	8	Town or Township Highway Agency
22) Owner	03	Town or Township Highway Agency
Report Class	1	LOCAL
37) Historical Significance	5	Bridge is not eligible for National Register

WATERWAY

DrainageBasinCode	4080	
38) Navigation Control	0	No navigation control on waterway
39) Navigation Vert Clr.	0	
40) Navigation Horiz Clr.	0	
116) Vert-Lift Brg Nav Min		
111) Pier Abutment Protection		

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed		
75B) Work Done By		
76) Length of Struct. Improvement	0	ft
94) Bridge Improvement Cost	$ 0	
95) Roadway Improvement Cost	$ 0	
96) Total Project Cost	$ 0	
97) Year of Improvement Cost Est.	0	
114) Future ADT	0	115) Year Future ADT 0
List No.		Project No.
		Advertised

POSTED SIGNS & UTILITIES

Other Posted Signs 1	0	Blank		
Other Posted Signs 2	0	Blank		
Actual P.L. Single Unit Truck		tons	Actual P.L. 4Axle Truck	tons
Rec. P.L. Single Unit Truck		tons	Rec. P.L. 4Axle Truck	tons
Actual P.L. Semi-TrailerTruck		tons	Actual P.L. 3S2 Truck	tons
Rec. P.L. Semi TrailerTruck		tons	Rec. P.L. 3S2 Truck	tons
Rec. P.L. All Vehicles		tons	Actual P.L. All Vehicles	tons
Posted Vert Clearance On Bridge		ft in		ft In
Posted Vert UnderClearance		ft in		ft In
Posted Speed Limit		mph		mph
Utility				
Utility	1	Gas		

LOAD RATING AND POSTING

31) Design Load	5	Evaluation Code	4
63) Operating Rating Type	1	Year of Evaluation	2001
64) Operating Rating	58.0	70) Bridge Posting	5
65) Inventory Rating Type	1	41) Structure Status	A
66) Inventory Rating	34.0	Open, no restriction	4

CONDITION

	Rating	By
58) Deck	7	DW
59) Superstructure	4	DW
60) Substructure	7	DW
61) Channel & Chan. Protection	7	DW
62) Culverts	N	DW

APPRAISALS

	Rating	By
67) Structure Evaluation	4	DW
68) Deck Geometry	4	DW
69) Under Clear Vert & Horiz	N	DW
71) Waterway Adequacy	7	DW
72) Approach Rdwy Alignment	7	DW
113) Scour Critical		

Items 58 Thru 72 Checked By:

36) Traffic Safety Features:

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

OTHER FEATURES

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

INSPECTION COMMENTS

Proposed Next Indepth Insp Year 2019

Senior Supervisor Stephen Kopecky / Joseph Kozlowski

REVIEWED BY: D. Carlson Date 6/14/11

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 04514 **Inspection Date: 05/23/2011**

Inspection Type:	Routine	**Previous Inspection Date:**	4/28/2011	**Snooper Required:**	No
Inspection Performed By:	Team 4	**Feature Carried:**	FISHER HILL ROAD	**Snooper Used:**	No
Town:	GLASTONBURY	**Feature Intersected:**	ROARING BROOK	**Year Built:**	1939
Location:	350 Ft. East of Rte 83	**Main Design:**	Slab	**Year Rebuilt:**	-
Main Material:	Concrete				

Visits

Visit Date:	Temp:	Start Time:	End Time:
5/23/2011	55	12:40:00 PM	1:15:00 PM

Inspectors:

Inspector:	Task:
D. Willis	Inspector
T. Kahak	Lead Inspector

DECK: Reinforced Concrete Slab / Bituminous Overlay **Overall Rating:** 7

	Rating	
OVERLAY:	7	Bituminous concrete overlay : Random cracks in westbound lane. Transverse cracking along both deckends. Sand along both shoulders.
DECK-STR. CONDITION:	7	The deck is integral with the superstructure, therefore the rating is based on the riding surface. See Superstructure / Stringers.
CURBS:	6	Concrete (parapet bases) : Curb reveal - 16 1/2" Vertical hairline cracks, some extending across top & several areas of medium scale & patches, some hollow. Small edge spalls. North side - Horizontal & map hairline cracks, some with efflorescence (See photo # 5). Spalls at east end 20" x 6" with hollow patch below. Spall at west end 1' x 6". Spalls along edges for a total of 6 linear feet. Moderate scale 4' x 3' at west end up to 1" deep. South side - Spalls at both corners.
MEDIAN:	N	-
SIDEWALKS:	N	-

PARAPET:	7	Concrete : Vertical cracks, both faces - some with efflorescence & some extending across caps. Areas of scale & random small spalls. North parapet - Two spalls in the cap, 5" diameter x 2" deep each / midspan. West end shows hollow patch 3' x 6". Northeast approach parapet - Undermined along the roadway, 96" long x 3" high x 3" penetration (See photo # 6). Southeast approach end cap shows a spall 6" x 4" x 1" deep. See attached sketch.
RAILING:	N	-
PAINT:	N	-
FENCE:	N	-
DRAINS:	6	Steel deck drains along both gutterlines / midspan. South drain clogged. The pipes should be extended, water is draining onto the slab edge faces, causing only minor derterioration to the south, but severe scale to the north.
LIGHTING STANDARD:	N	-
UTILITIES TYPE/SIZE:	8	4-1/2" diameter gas pipe attached to the south face.
CONSTR JOINTS:	N	-
EXPANSION JOINTS:	N	No formal joints.

59. SUPERSTRUCTURE:	Reinforced Concrete Slab	Overall Rating:	4

	Rating	
BEARING DEVICES:	N	-
STRINGERS:	4	Soffit : Longitudinal , map & diagonal hairline cracks, some with efflorescence. Mortar patches & minor honeycomb areas. Slab edges show numerous horizontal & map hairline cracks for full length with efflorescence & areas of stalactites. North edge face/ midspan - Severe scale with exposed rusted rebar under the drain opening 36" x 15" x 6" deep (See photo # 16). South edge face - Light scale under the drain & severe scale at the west end 36" x 5" x 3" deep (See photo # 15). Both facias show bands of horizontal cracking for 3' high x 31' long (See photo # 15). Total deterioration is approximately 46.9 % See attached BRI-10 & sketch.
GIRDERS:	N	-
FLOOR BEAMS:	N	-
TRUSSES-GENERAL:	N	-
TRUSSES-PORTALS:	N	-
TRUSSES-BRACING:	N	-
PAINT:	N	-
RUST:	N	-
MACHINERY MOV SPAN:	N	-
RIVETS & BOLTS:	N	-
WELDS - CRACKS:	N	-
TIMBER DECAY:	N	-
CONCRETE CRACKING:	5	See above items.
COLLISION DAMAGE:	8	-
MEMBER ALIGNMENT:	8	-
DEFLECT. UNDER LOAD:	N	Normal.

VIBRATION UNDER LOAD:	N	Normal.
STAND PIPES:	N	-
BARREL LADDERS:	N	-

ARE BARREL LADDERS OSHA COMPLIANT? NA

---

60. SUBSTRUCTURE: Reinforced Concrete Abutments & Wingwalls **Overall Rating:** 7

	Rating	
ABUTMENTS-STEM:	7	Both abutments show vertical & map hairline cracks with efflorescence in the ends & light to medium scale along the waterline. Abutment # 1 north face - map cracking with efflorescence 2' x 6' Abutment # 2 south face - Hollow area in the repaired section, 3 sq.ft. with cracking. Abutment # 2 north face - 22" x 22" hollow area in repaired section with cracking.
ABUTMENTS-BACKWALL:	N	-
ABUTMENTS-FOOTINGS:	N	The abutment footing are not visible.
ABUTMENTS-SETTLEMENT:	8	-
ABUTMENTS-WINGWALLS:	7	Numerous hairline cracks in the repaired sections, some with efflorescence. Northeast : 6' x 3' area of horizontal cracks with efflorescence. Northwest : Moderate efflorescence around a 2' x 8' patch. Southwest : Map cracking area 12' x 1' with efflorescence & an adjacent horizontal crack 6' long.
PIERS/BENTS-CAPS:	N	-
PIERS/BENTS-PILE BENT:	N	-
PIERS/BENTS-COLUMNS:	N	-
PIERS/BENTS-FOOTING:	N	-
PIERS/BENTS-SETTLMT:	N	-
EROSION-SCOUR:	7	Northeast retaining wall footing is exposed 12" wide x 12' long with vertical face exposed up to 5" high. Also has a spall at the north end 12" x 6" x 4" deep.
CONCRETE CRACK-SPALL:	7	See above items.
STEEL CORROSION:	N	-
PAINT:	N	-

TIMBER DECAY:	N	-
COLLISION DAMAGE:	8	-
DEBRIS:	N	-

61. CHANNEL & CHANNEL PROTECTION: The stream bed is stone and gravel. **Overall Rating:** 7

Rating		
CHANNEL SCOUR:	7	Generally, no scour was found, however, the northeast retaining wall footing is exposed for full length & vertical face exposed for up to 5" high.
EMBANKMENT EROSION:	6	Moderate erosion at the free end of the southwest wing 20' long x 4' wide x 4' deep, with exposed tree roots & extending to backside. One large tree leanning at the norhtwest with exposed roots.
DEBRIS:	7	Discarded steel pipes & bricks laying in channel.
VEGETATION:	8	-
CHANNEL CHANGE:	7	Freeboard : 10' 07" Waterdepth : 8" +/- Measurment taken midspan / inlet. See attached channel profile sketch.
FENDER SYSTEM:	N	-
SPUR, DIKES & JETTIES:	7	Granite masonry retainning walls with concrete caps : Small mortar voids along the waterline & several areas of cracks in mortar with efflorescence. Concrete caps show areas of scale & isolated cracks. Northeast retainning wall : Footing is exposed for 12" wide x 12' long wirth vertical face exposed up to 5" high with a corner spall at the north end 12" x 6" x 4" deep.
RIP RAP:	N	-

62. CULVERTS & RETAINING WALL: - **Overall Rating:** N

65. APPROACH CONDITION Bituminous Pavement **Overall Rating:** 7

Rating		
APPROACH SLAB:	N	-

RELIEF JOINTS:	N	-
APPROACH GUIDE RAIL:	7	Wood posts only : Split & weathered.
APPROACH PAVEMENT:	7	Transverse & longitudinal cracks. Settlement at the corners of the structure, up to 2" deep at the southest.
APPROACH EMBANKMENT:	8	-

TRAFFIC SAFETY FEATURES

	Rating	
BRIDGE RAILINGS:	Last Inspection: 0 Current: -	-
TRANSITIONS:	Last Inspection: 0 Current: -	-
APPROACH GUARDRAILS:	Last Inspection: 0 Current: -	-
APPR. GUARDRAIL ENDS:	Last Inspection: 0 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 TRAFIC:		ADT : 912 with 7% trucks.

ADDITIONAL NOTES:	The log direction is west to east. Upstream is north.
ADDITIONAL COMMENTS:	-

Inspectors' Signatures:

1) Tony Kakaty Date: 6/14/11

2) Date: 6/14/11

3) Date: ----/----/-----

4) Date: ----/----/-----

P.E. Signature: Date: ----/----/-----

P.E. #: Date: ----/----/-----

Reviewed by: D. Carlson conndot Date: 6/14/11

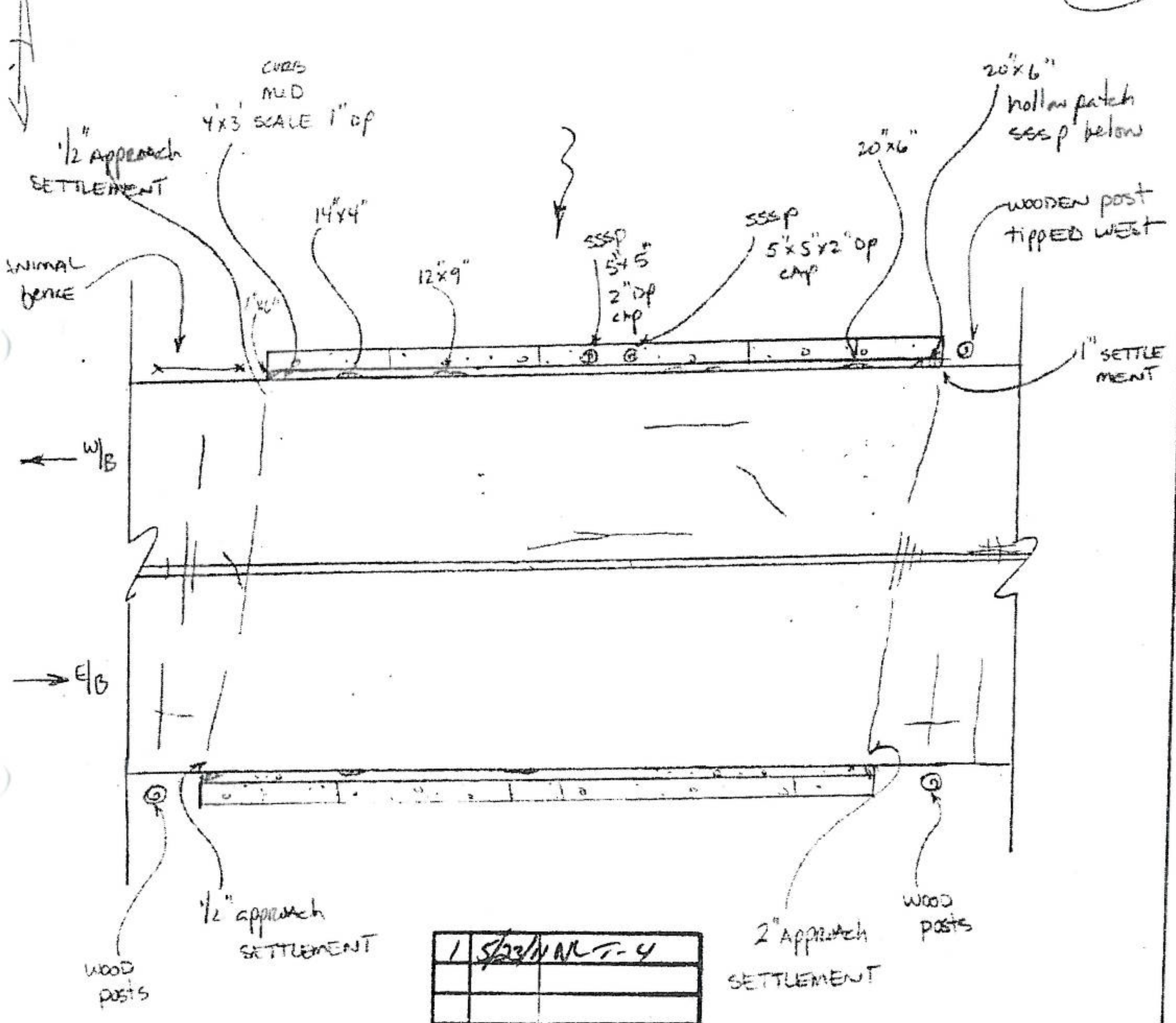
FIELD NOTES

BRIDGE No. 04514	DATE · In-Depth 4/29/02
TEAM · 7	SHEET · ~~11 of 18~~

Fisher Hill Rd. – Roaring Brook, Glastonbury

1/7

DECKtop



NO	DATE	DESCRIPTION
1	5/23/	NR T-4

REVISIONS

General NOTES:

SAND Along both shoulders

PARAPETS: AREAS of SCALE, VT crks, some with eff/lb & SOME EXTEND ACROSS CAP

PARAPET/CURBS: SEVERAL AREAS of SCALE Along edges, PATCHES, some hollow

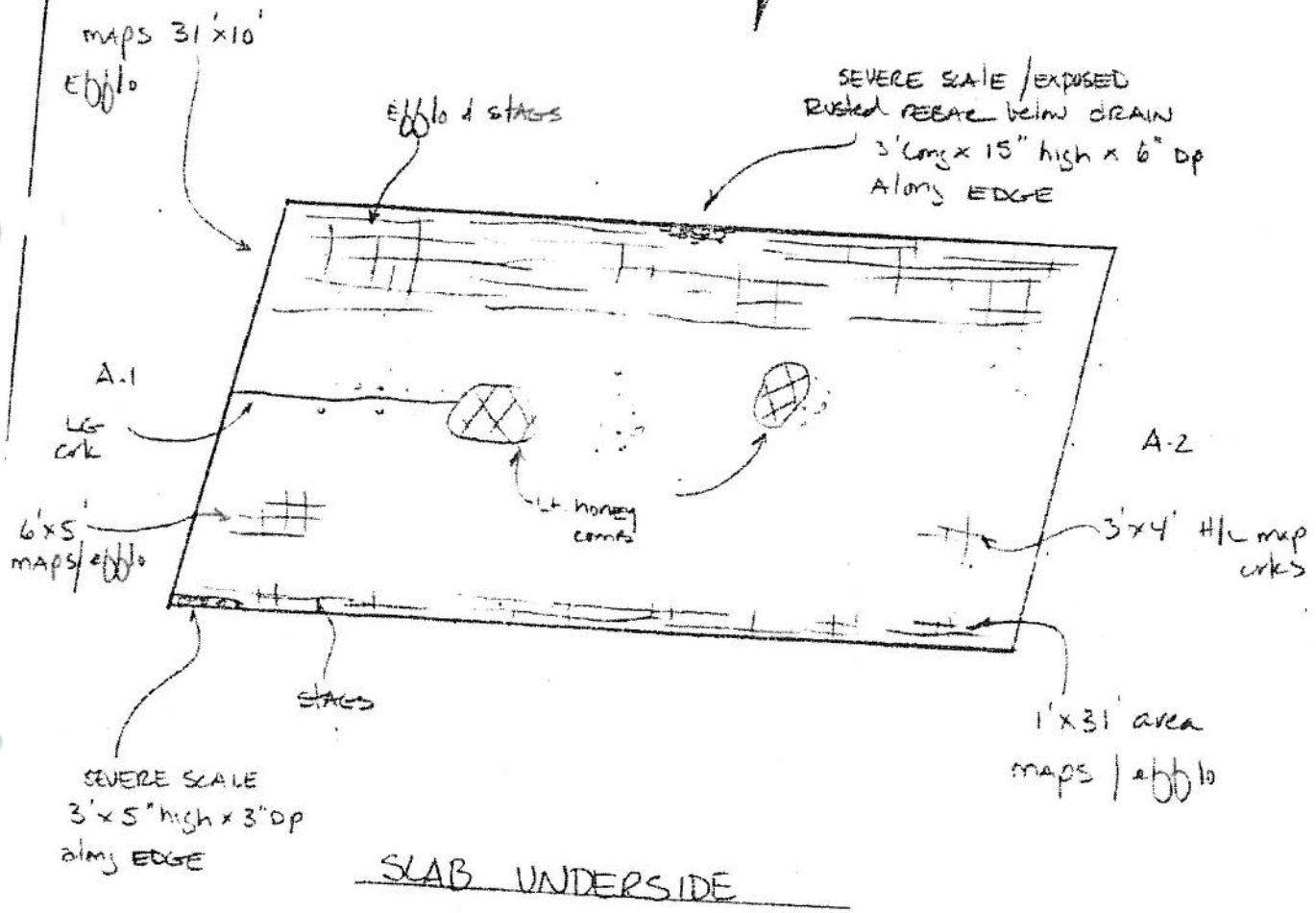
FIELD NOTES

BRIDGE No. 04514 | DATE: In-Depth 4/2011

TEAM. 7 | SHEET. 12 of 48

Fisher Hill Rd. - Roaring Brook, Glastonbury

2/7



SLAB UNDERSIDE

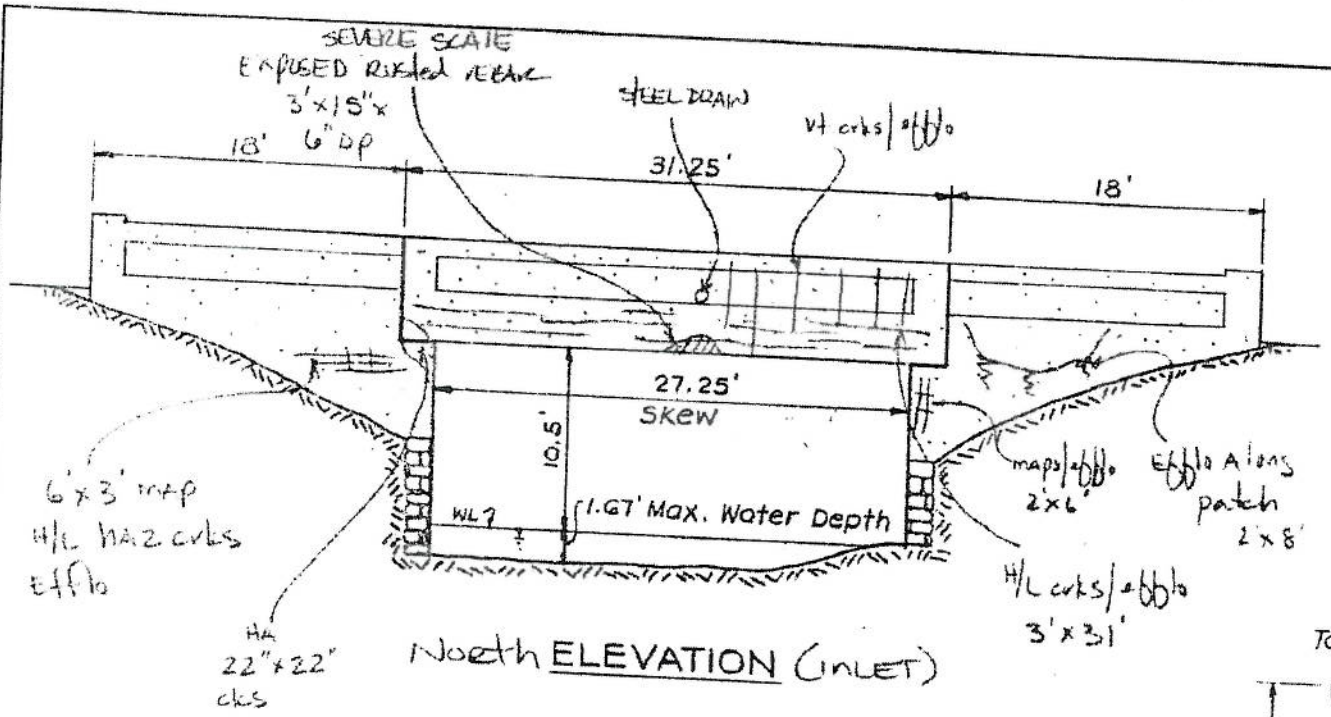
GENERAL NOTES: SEVERAL CONCRETE PATCHES
AREAS of EXPOSED TAR PAPER

NO.	DATE	DESCRIPTION
1	5/23/11	AL

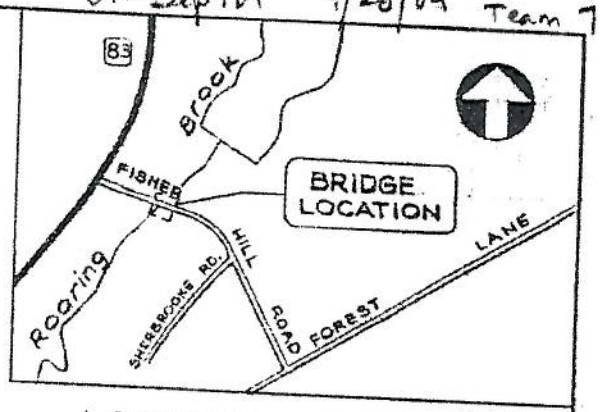
REVISIONS

3/7

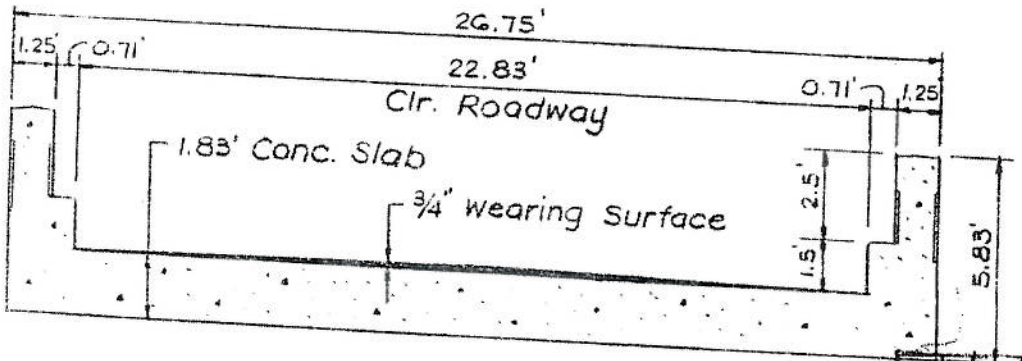
In-Depth 4/28/09 Team 7



North ELEVATION (INLET)



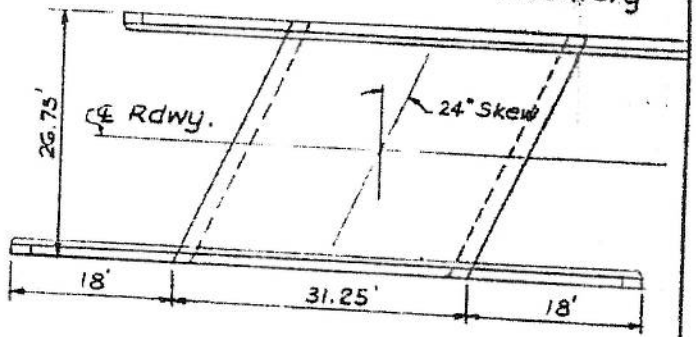
LOCATION PLAN



CROSS SECTION

CURB REVEAL : 16 1/2"

To Rte. 83 ← → Inventory



PLAN

NO.	DATE	DESCRIPTION
1	5/23/11	ac

REVISIONS

CONN. DEPT. OF TRANSPORTATION

GLASTONBURY
FISHER HILL ROAD
OVER
BROOK

PLANS PREPARED BY
MACCHI ENGINEERS, HARTFORD CT.

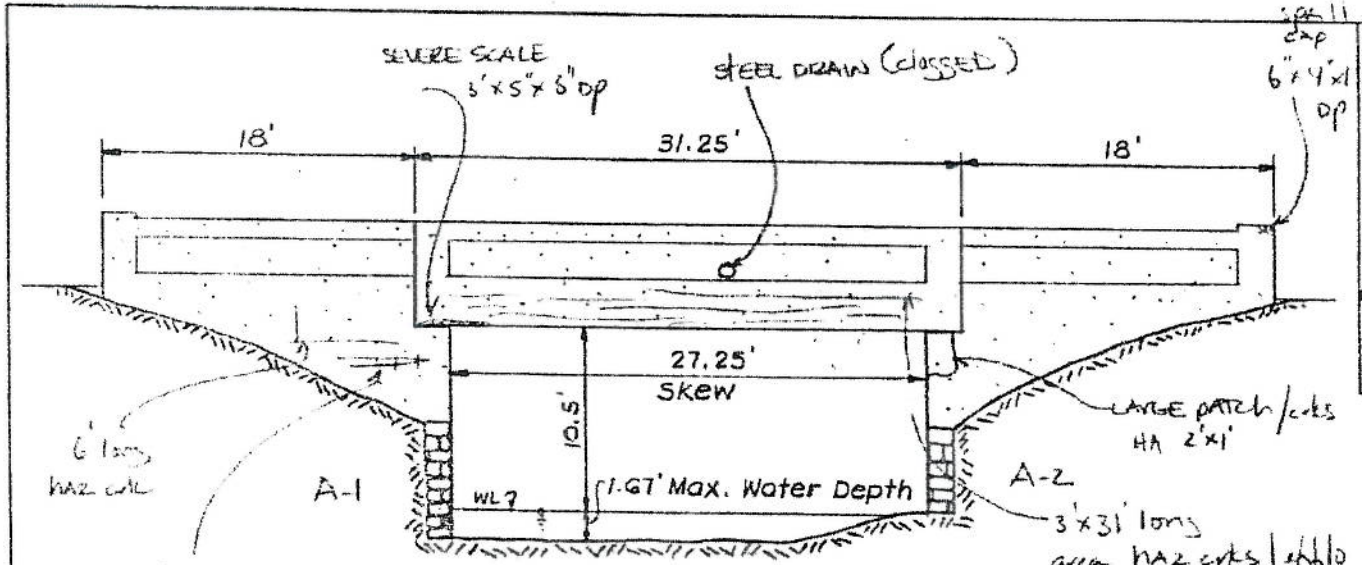
DATE 2-5-80 | SHT. 1 OF 2

CDOT BR. NO. 04514

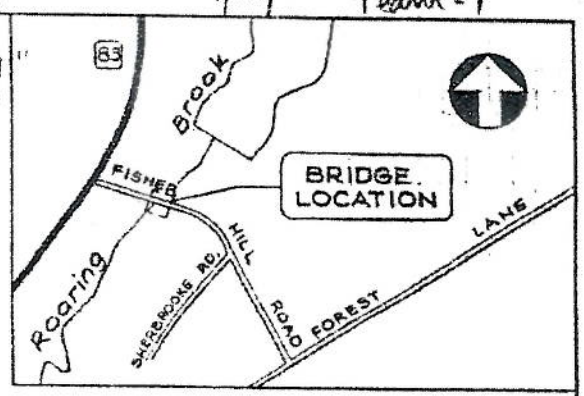
~~15 of 18~~

4/7

4/28/03 Team-7

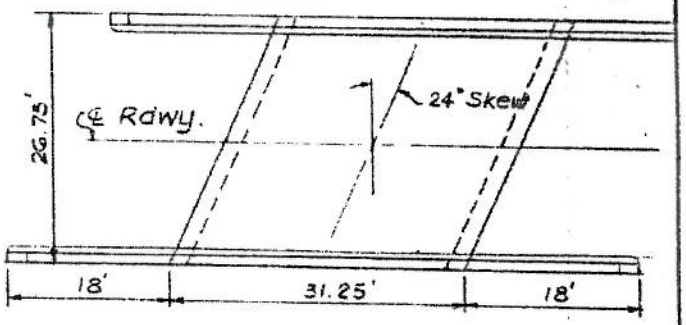


South ELEVATION (outlet)

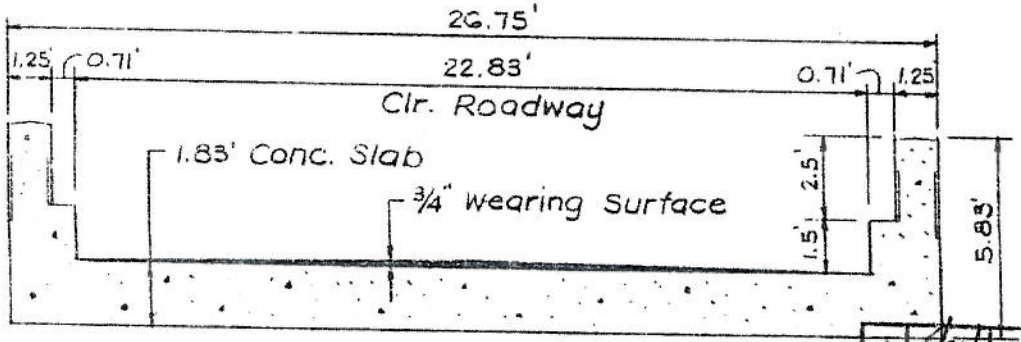


LOCATION PLAN

To Rte. 83 ← → Inventory



PLAN



CROSS SECTION

CURB REVEAL : 16 1/2"

NO.	DATE	DESCRIPTION
		REVISIONS

In Depth

CONN. DEPT. OF TRANSPORTATION

GLASTONBURY
FISHER HILL ROAD
OVER
BROOK

PLANS PREPARED BY
MACCHI ENGINEERS, HARTFORD CT.

DATE 2-5-80 | SHT. 1 OF 2

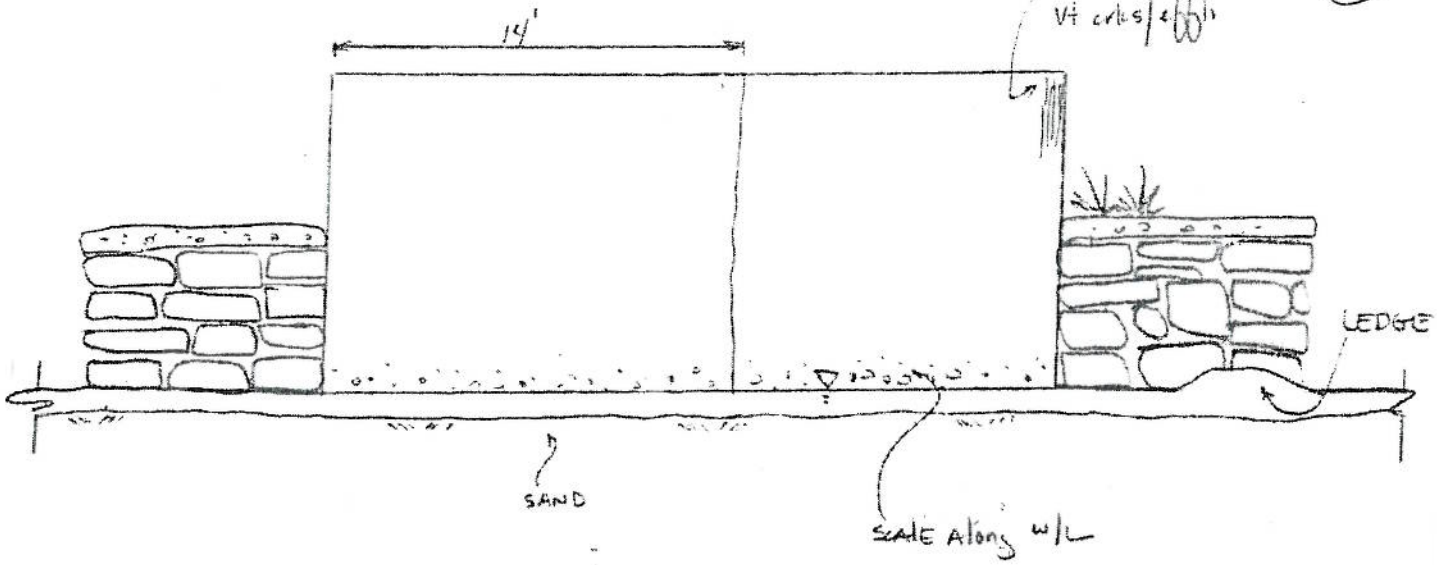
CDOT BR. NO. 04514

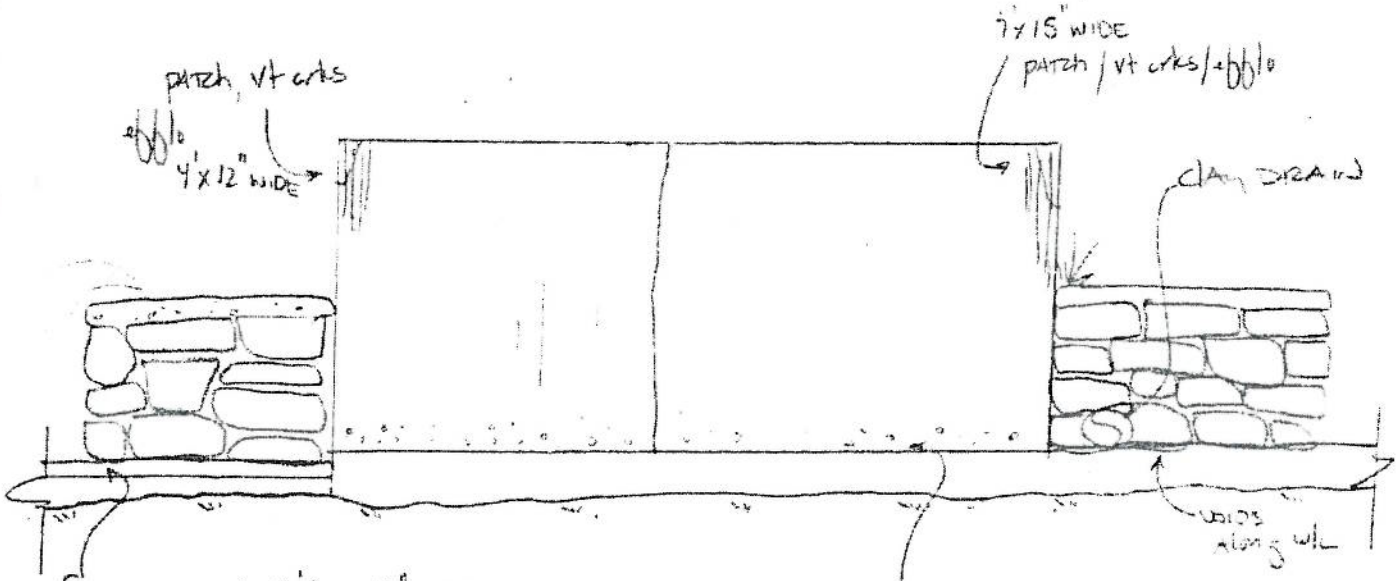
FIELD NOTES

BRIDGE No. 4514	DATE · In-Depth ~~4 oct~~
TEAM · 7	SHEET · ~~4 of 10~~ 5/7

Fisher Hill Rd over Roaring Brook, Glastonbury

A-1 (WEST)





FOOTING EXPOSED 12' long x 12" WIDE
up to 5" Vt FACE EXPOSED (NO V-NOTCHING)

RETAINING WALLS: crks, efflo along mortar
small VOIDS along base
Areas of scale along concrete caps

A-2 (EAST)

NO.	DATE	DESCRIPTION
1	5/23/24	NC
REVISIONS		

(6/7)

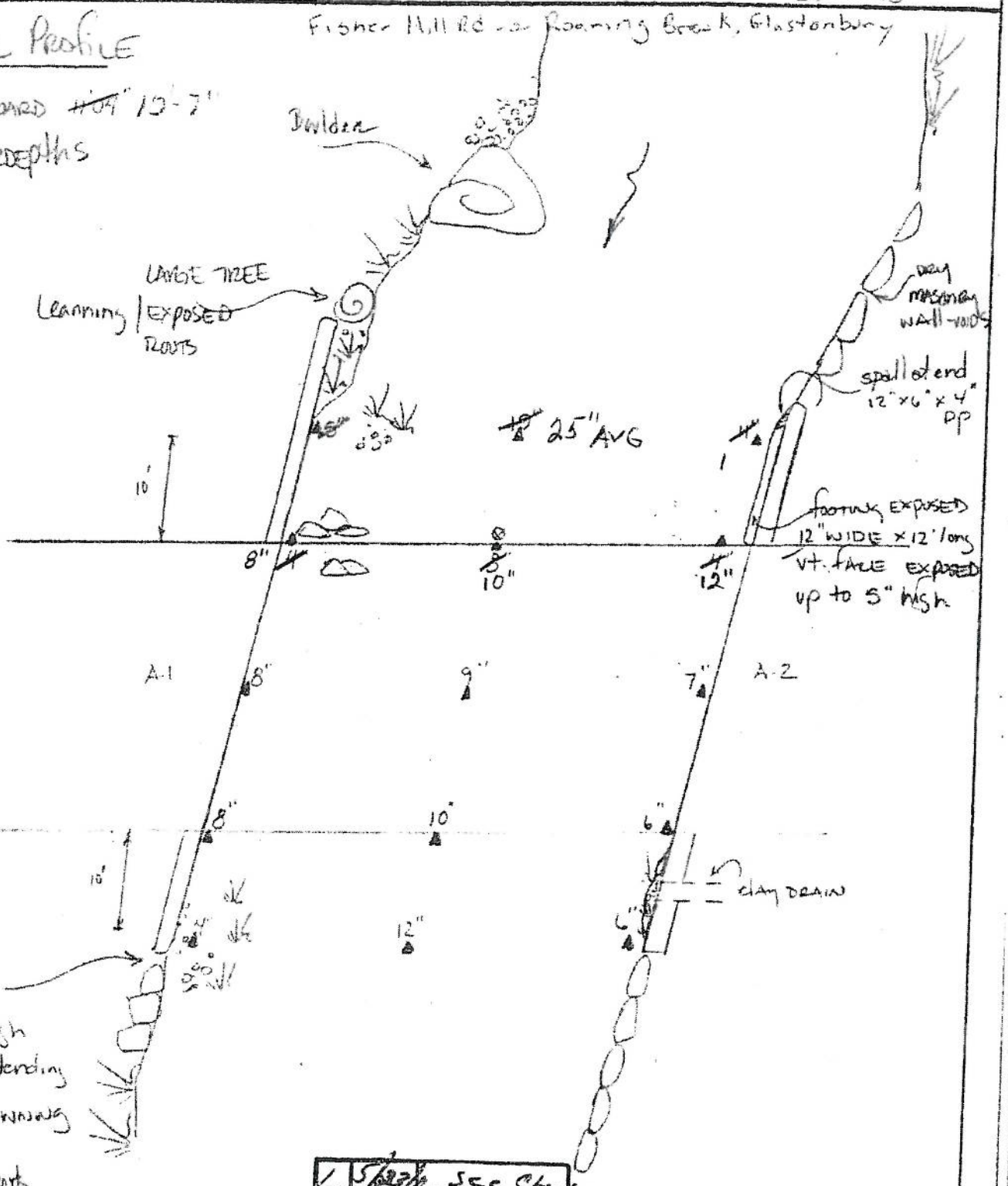
FIELD NOTES

BRIDGE No. 04514	DATE · In-Depth 4/22/04
TEAM · 7	SHEET · 17 of 18

CHANNEL PROFILE

⊗ : FREEBOARD ~~#04~~ 13'-7"

▲ : WATERDEPTHS



NO.	DATE	DESCRIPTION
1	[illegible]	See Change

REVISIONS

DEBRIS : DISCARDED metal pipes, Bricks in channel

STREAM BED : stones & cobbles sand along A-1

Bridge # ... 4514 Date ... 4/28/2009 Prepared by ... team 7 checked by ...

7/7

CONCRETE DETERIORATION WORKSHEET

Form BRI-10 Rev 2001

		Deterioration By Span - In Square Feet										
		Span Number										
Deterioration Type	X	1	2	3	4							Total
Spalled and Delaminated Areas	Top	0										0
	Bot.	0										0
Scale (Moderate to Severe Only)	Top	0										0
	Bot.	7.5										7.5
Cracks: with Efflorescence (Use 6" width x length)	Bot.	5										5
Cracks: w/o Efflo.(Use 3" width x Length)	Top	0										0
	Bot.	0										0
Map Cracking: w/Efflorescence (Use full Area)	Bot.	371										371
Map Cracking: w/o Efflo.(Use 50% of Area)	Top	0										0
	Bot.	6										6
Honeycombed Areas: (only areas more than 1 1/2" deep)	Bot.	0										0
Totals	Top	0										0
	Bot.	389.5										389.5
Span Area		830										
% Spalled and Delaminated on top												
% Deterioration on Bottom												46.9%

1 / concrete patches
2 / areas of light honeycomb

NO	DATE	DESCRIPTION
1	5/23/11	M

REVISIONS

4

Bridge No.	04514	**Inspected by:**	D. WILLIS
Town:	GLASTONBURY	**Inspected by:**	T. KAHAK
Feature Carried:	FISHER HILL RD.	**Date Inspected:**	5/23/11
Feature Crossed:	ROARING BROOK	**Project No.:**	

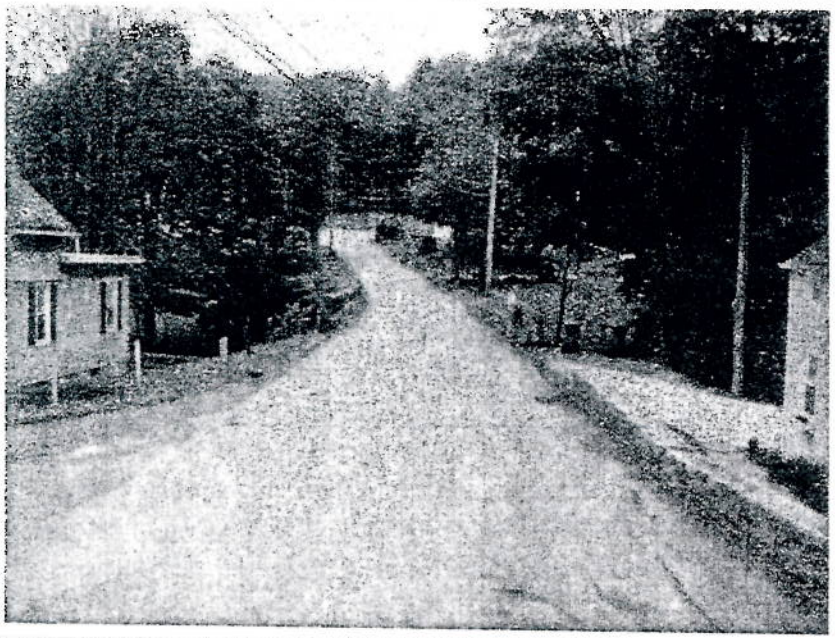


Photo # 1: **EAST APPROACH.**

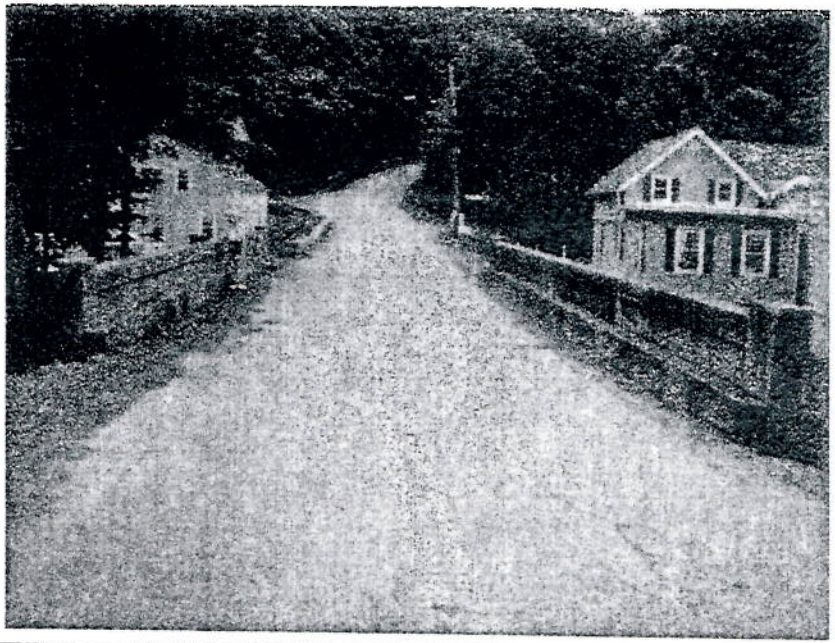


Photo # 2: **WEST APPROACH.**

Bridge No.	04514	**Inspected by:**	D. WILLIS
Town:	GLASTONBURY	**Inspected by:**	T. KAHAK
Feature Carried:	FISHER HILL RD.	**Date Inspected:**	5/23/11
Feature Crossed:	ROARING BROOK	**Project No.:**	

Photo # 3: SOUTH ELEVATION.

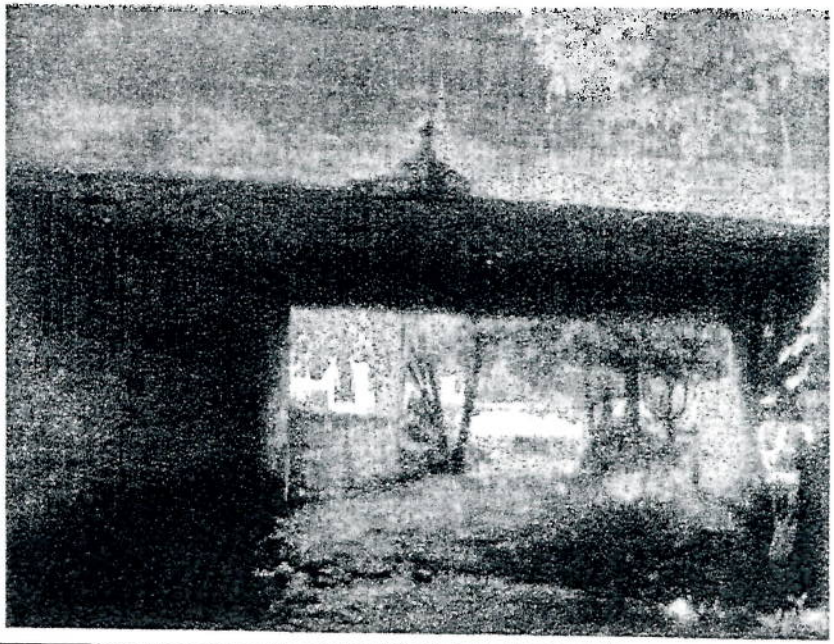


Photo # 4: NORTH ELEVATION.

Bridge No.	04514	**Inspected by:**	D. WILLIS
Town:	GLASTONBURY	**Inspected by:**	T. KAHAK
Feature Carried:	FISHER HILL RD.	**Date Inspected:**	5/23/11
Feature Crossed:	ROARING BROOK	**Project No.:**	

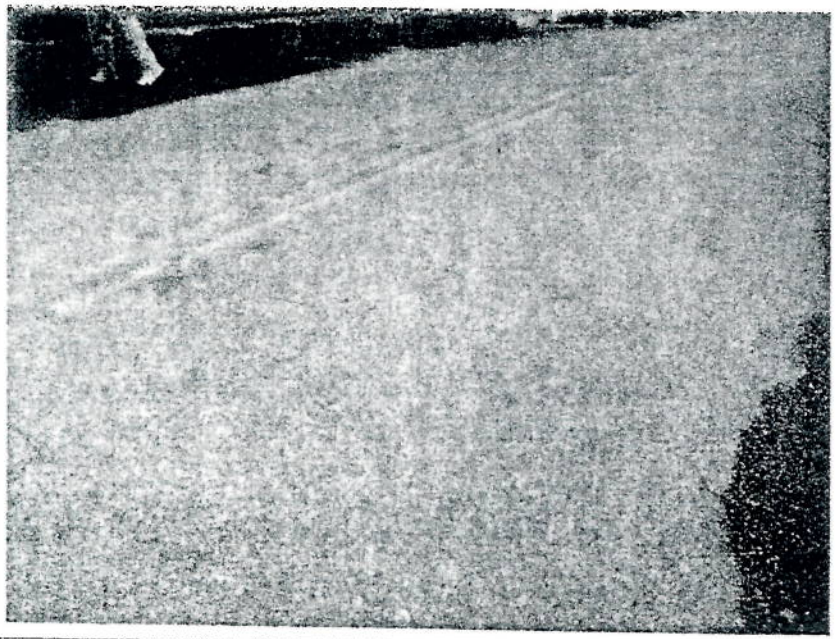


Photo # 5: WEARING SURFACE.

Photo # 6: UNDERSIDE.

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 04514 Agency ID: 04514 Sufficiency Rating: 67.9

IDENTIFICATION

State 1:	09 Connecticut	Struc Num 8:	04514
Facility Carried 7:	FISHER HILL ROAD	Location 9:	350FT FR JCT RTE 83
Rte.(On/Under)5A:	Route On Structure	Rte. Signing Prefix 5B:	5 City Street
Level of Service 5C:	0 None of the below	Rte. Number 5D:	00000
Directional Suffix 5E:	0 N/A (NBI)	% Responsibility	0
SHD District 2:	01	County Code 3:	Hartford
Place Code 4:	GLASTONBURY	Mile Post 11:	0.000 mi
Feature Intersected 6:	ROARING BROOK		
Latitude 16:	Missing	Longitude 17:	Missing
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: 1

Main Span Material/Design 43A/B:

1 Concrete 01 Slab

Deck Type 107:	1 Concrete-Cast-in-Place
Wearing Surface 108A:	6 Bituminous
Membrane 108B:	8 Unknown
Deck Protection 108C:	None

AGE AND SERVICE

Year Built 27:	1939	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: 1.0 mi
ADT 29:	800	Truck ADT 109: 7 %	Year of ADT 30: 1993

GEOMETRIC DATA

Length Max Span 48:	27.0 ft	Structure Length 49:	31.0 ft
Curb/Sdwlk Wdth L 50A:	0.7 ft	Curb/Sidewalk Width R 50B:	0.7 ft
Width Curb to Curb 51:	22.8 ft	Width Out to Out 52:	26.8 ft
Approach Roadway Width 32: (w/ shoulders)	23.0 ft	Median 33:	0 No median
Deck Area:	828.8 sq ft		
Skew 34:	24.00 °	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 Undrclearance R 55:		99.9 ft	
Minimum Lateral Undrclearance L 56:		0.0 ft	

INSPECTION

Frequency 91:	24 months	Inspection Date 90:	5/23/2011	Next Inspection:	05/23/2013
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:	05/23/2011	Next Elem. Insp. Due:	05/23/2013

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:	09 Rural Local
Historical Significance 37:	5 Not eligible for NRHP		
Owner 22:	3 Town/Township Hwy Agency		
Custodian 21:	3 Town/Township Hwy Agency		

CONDITION

Deck 58:	7 Good	Super 59:	4 Poor	Sub 60:	7 Good
Culvert 62:	N N/A (NBI)	Channel/Channel Protection 61:		7 Minor Damage	

LOAD RATING AND POSTING

Inventory Rating Method 65:	2 AS Allowable Stres	Operating Rating Method 63:	2 AS Allowable Stress
Inventory Rating 66:	HS20.0	Operating Rating 64:	HS30.6
Design Load 31:	0 Other or Unknown	Posting 70:	5 At/Above Legal Loads
Posting status 41:	A Open, no restriction		

APPRAISAL

Bridge Rail 36A:	0 Substandard	Approach Rail 36C:	0 Substandard
Transition 36B:	0 Substandard	Approach Rail Ends 36D:	0 Substandard
Str. Evaluation 67:	5	Deck Geometry 68:	4 Tolerable
Underclearance, Vertical and Horizontal 69:	N Not applicable (NBI)		
Waterway Adequacy 71:	6 Equal Minimum	Approach Alignment 72:	6 Equal Min Criteria
Scour Critical 113:	6 Calcs not made		

PROPOSED IMPROVEMENTS

Bridge Cost 94:	$ 1,000	Type of Work 75:	38 Other Structural
Roadway Cost 95:	$ 1,000	Length of Improvment 76:	20.0 ft
Total Cost 96:	$ 2,000	Future ADT 114:	960
Year of Cost Estimate 97:	1999	Year of Future ADT 115:	2020

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	39/3	Unp Conc Slab/AC Ovl	(SF)	829	100 %	829	0 %	0	0 %	0	0 %	0	0 %	0
UNIT0	215/3	R/Conc Abutment	(LF)	59	100 %	59	0 %	0	0 %	0	0 %	0	0 %	0
UNIT0	331/3	Conc Bridge Railing	(LF)	135	0 %	0	100 %	135	0 %	0	0 %	0	0 %	0
UNIT0	359/3	Soffit Smart Flag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0

ATTACHMENT F

CONNECTICUT LOCAL BRIDGE PROGRAM, FISCAL YEAR 2012, PRELIMINARY APPLICATION, FISHER HILL ROAD OVER ROARING BROOK, GLASTONBURY, CT

CONNECTICUT LOCAL BRIDGE PROGRAM

Fiscal Year 2012

PRELIMINARY APPLICATION

Fisher Hill Road over

Roaring Brook

Glastonbury, CT

ConnDOT Bridge No. 04514

Prepared for the
Connecticut Department of Transportation
Federal Local Bridge Program
Newington, Connecticut

Prepared by
WMC Consulting Engineers
87 Holmes Road
Newington, Connecticut

December 2012

Table of Contents

CONNECTICUT DEPARTMENT OF TRANSPORTATION

The Honorable James P. Redeker, Commissioner

PRELIMINARY APPLICATION FOR THE LOCAL BRIDGE PROGRAM

Preliminary application is hereby made by the Town of Glastonbury for possible inclusion in the Local Bridge Program for the following structure:

Bridge Location: Fisher Hill Road over Roaring Brook - 350 feet from Jct. Rte. 83

Bridge Number: 04514 Length of Span: 27.00 feet Curb Width: 22.80 feet

Sufficiency Rating: 47.27 Priority Rating: 46.38

Evaluation & Rating Performed by: ☒ State Forces ☐ Others

If Others, Name of Professional Engineer: _____

Connecticut Professional Engineers License Number: _____

Engineering Firm: _____

Engineer's Address: _____

Engineer's E-mail Address: _____

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

Description of Project Scope: A *(note repair code; attach narrative/preliminary plans & specifications).*

Municipal Official to Contact *(name & title)*: Richard Johnson - Town Manager

Mailing Address: P.O. Box 6523, Glastonbury, CT 06033

Telephone: (860) 652-7500 FAX: (860) 652-7505

E-mail: richard.johnson@glastonbury-ct.gov

Schedule: (Anticipated Dates – MM/DD/YYYY)

Public Hearing Conducted:	01/30/2014
Design Completion:	08/30/2014
Property Acquisition Completion:	08/30/2014
Utilities Coordination Completion:	08/30/2014
Construction Advertising:	11/30/2014
Start of Construction:	03/01/2015
Completion of Construction:	12/01/2015

Preliminary Cost Figures:

Preliminary Engineering Fees (Include Breakdown of Fees)	$ 325,800.00
Rights-of-Way Cost (If applicable)	$
Municipally Owned Utility Relocation Cost	$
Estimated Construction Costs (Include Detailed Estimate)	$ 1,810,000.00
Construction Engineering (Inspection, Materials Testing)	$ 217,200.00
Contingencies *(10% of Construction Costs Only)*	$ 181,000.00
Total Estimated Project Cost	$ 2,534,000.00

Financial Aid Data:

Federal Reimbursement:
Total Estimated Project Cost multiplied by 80%:

Federal Aid Request $ 2,027,200.00

I hereby certify that the above is accurate and true, to the best of my knowledge and belief. I also certify that this form has not been m odified in any way from that distributed by the Departm ent of Transportation.

Signature: Town Manager
(Chief Elected Official, Town Manager, or other Officer Duly Authorized)

Date: 12-5-12

Return completed applications to:

Mr. Stanley C. Juber
Administrator of the Local Bridge Program
Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, Connecticut 06131-7546

2. Existing Condition

Fisher Hill Road over Roaring Brook I.R. Summary

Item No.	Item	Rating	
58	Deck	7	Good Condition
59	Superstructure	4	Poor Condition
60	Substructure	7	Good Condition
61	Channel & Ch. Protection	7	Needs Minor Repairs
62	Culverts	N	
67	Structure Eval.	4	Meets min. limits to be left in Place
68	Deck Geometry	4	Meets min. limits
113	Scour Critical	8	Stable (Above top of footing)
	Sufficiency Rating	**47.27**	
	Priority Rating	**46.38**	

*See attached I.R. for reference.

3. Proposed Condition

According to the Connecticut Department of Transportation (ConnDOT) bridge inspection report, dated May 23, 2011, the **Structure Evaluation** rating is **4** with a Sufficiency Rating of **47.27%** indicate that the bridge would likely warrant replacement. Replacement would involve the following:

- Removal of superstructure
- M&P - Detour traffic along Rte 83 (Manchester Road) and Forest Lane (< 1 Mile)
- Remove the substructure in its' entirety
- Steel Pile Foundations (Abutment and Wingwalls)
- Cast in place reinforced concrete abutments and U shaped wingwalls
- Reconstruct stone retaining walls
- New Superstructure - Precast concrete box beams
- Install solid concrete approach walls and parapet with ashlar stone masonry
- Install new MBR and end anchorages
- Reconstruct approximately 100 feet of roadway (50 feet each side of bridge)

Estimated construction cost for the work is $1,810,000. A detailed estimate is provided on the following page.

Town of Glastonbury
Bridge No. 04514
WMC Reference No.:

Fisher Hill Road over Roaring Brook
PE Cost Opinion
Bridge Replacement

Federal Project No.: -
State Project No.: -
Date: October 22, 2012

ConnDOT No.		ITEM	UNIT	RDWY QUANT.	BRIDGE QUANT.	UNIT PRICE	TOTAL COST
0201001		Clearing and Grubbing	L.S.	1		$ 23,500.00	$ 23,500.00
0202529		Cut Bituminous Concrete Pavement	L.F.	80		$ 6.00	$ 480.00
0202001		Earth Excavation	C.Y.	630		$ 27.00	$ 17,010.00
0202101		Rock Excavation	C.Y.		30	$ 150.00	$ 4,500.00
0202216	A	Excavation and Reuse of Existing Channel Bottom Material	C.Y.		60	$ 75.00	$ 4,500.00
0203202		Structure Excavation - Earth (Excluding Cofferdam and Dewatering)	C.Y.		170	$ 25.00	$ 4,250.00
0204001	A	Cofferdam and Dewatering	L.F.		120	$ 200.00	$ 24,000.00
0209001		Formation of Subgrade	S.Y.	295		$ 3.00	$ 885.00
0210306	A	Turbidity Control Curtains	L.F.		120	$ 75.00	$ 9,000.00
0210820	A	Water Pollution Control (Estimated Cost)	Est	1		$ 5,000.00	$ 5,000.00
0212002		Subbase	C.Y.	85		$ 50.00	$ 4,250.00
0216000		Pervious Structure Backfill	C.Y.		595	$ 50.00	$ 29,750.00
0219001		Sedimentation Control System	L.F.	315		$ 5.00	$ 1,575.00
0406017		Bituminous Concrete, Class 2	Ton	4		$ 118.00	$ 472.00
0406170		HMA S1	Ton	105		$ 110.00	$ 11,550.00
0406171		HMA S0.5	Ton	60	25	$ 110.00	$ 9,350.00
0406237		Material for Tack Coat	Gal.	60		$ 10.00	$ 600.00
0503001	A	Removal of Superstructure	L.S.		1	$ 50,000.00	$ 50,000.00
0514204		Prestressed Deck Units (3'-0" x 1'-6")	L.F.		300	$ 250.00	$ 75,000.00
0521021		Steel-Laminated Elastomeric Bearings	C.I.		1465	$ 3.25	$ 4,761.25
0601000		Class "A" Concrete	C.Y.		225	$ 700.00	$ 157,500.00
0601201		Class "F" Concrete	C.Y.		30	$ 1,250.00	$ 37,500.00
0602000		Deformed Steel Bars	Lbs.		19000	$ 1.80	$ 34,200.00
0602006		Deformed Steel Bars-Epoxy Coated	Lbs.		3500	$ 2.00	$ 7,000.00
0602936	A	Drilling and Grouting Reinforcing Bars	L.F.		80	$ 40.00	$ 3,200.00
0605201	A	Ashlar Stone Masonry	S.Y.		90	$ 300.00	$ 27,000.00
0702101		Furnishing Steel Piles	Lbs.		304700	$ 1.00	$ 304,700.00
0702111		Driving Steel Piles	L.F.		2605	$ 40.00	$ 104,200.00
0702120		Point Reinforcement for Steel Piles	Ea.		65	$ 300.00	$ 19,500.00
07027__		Test Pile (Steel HP 12 x 74 - 40' Long)	Ea.		2	$ 20,000.00	$ 40,000.00
0707001		Membrane Waterproofing (Woven Glass Fabric)	S.Y.		95	$ 30.00	$ 2,850.00
0728015		No. 67 Stone	C.Y.		50	$ 50.00	$ 2,500.00
0751827		6" C.C.M.P. Structure Underdrain	L.F.		130	$ 35.00	$ 4,550.00
0751828		6" C.C.M. Outlets for Underdrain	L.F.		30	$ 25.00	$ 750.00
0708001		Dampproofing	S.Y.		195	$ 25.00	$ 4,875.00
0822001		Temporary Precast Concrete Barrier Curb	L.F.	80		$ 50.00	$ 4,000.00
0822002		Relocate Temporary Precast Concrete Barrier Curb	L.F.	80		$ 20.00	$ 1,600.00
0910173		R-B 350 Bridge Attachment - Vertical Shaped Parapet	Ea.	4		$ 2,500.00	$ 10,000.00
0911923		R-B End Anchorage Type I	Ea.	3		$ 1,200.00	$ 3,600.00
0911924		R-B End Anchorage Type II	Ea.	1		$ 1,200.00	$ 1,200.00
0912506		Remove Single Post	Ea.	11		$ 40.00	$ 440.00
0922501		Bituminous Concrete Driveway	S.Y.	30		$ 40.00	$ 1,200.00

Town of Glastonbury
Bridge No. 04514
WMC Reference No.:

Fisher Hill Road over Roaring Brook
PE Cost Opinion
Bridge Replacement

Federal Project No.: -
State Project No.: -
Date: October 22, 2012

ConnDOT No.	ITEM	UNIT	RDWY QUANT.	BRIDGE QUANT.	UNIT PRICE	TOTAL COST
0944000	Furnishing and Placing Topsoil	S.Y.	350		$ 7.00	$ 2,450.00
0950005 A	Turf Establishment	S.Y.	350		$ 2.00	$ 700.00
0952052 A	Control and Removal of Invasive Vegetatior	Est	1		$ 10,000.00	$ 10,000.00
0969060 A	Construction Field Office (Small)	Mo.	8		$ 2,600.00	$ 20,800.00
0971001 A	Maintainence and Protection of Traffic	L.S.	1		$ 46,500.00	$ 46,500.00
0974001 A	Removal of Existing Masonry	C.Y.		230	$ 375.00	$ 86,250.00
0975002	Mobilization	L.S.	1		$ 87,000.00	$ 87,000.00
0976002	Barricade Warning Light-High Intensity	Day	1440		$ 1.75	$ 2,520.00
0979003 A	Construction Barricade Type III	Ea.	4		$ 200.00	$ 800.00
0980001 A	Construction Staking	L.S.	1		$ 12,000.00	$ 12,000.00
1210101	4" White Epoxy Resin Pavement Marking	L.F.	210		$ 0.50	$ 105.00
1210102	4" Yellow Epoxy Resin Pavement Marking	L.F.	210		$ 0.50	$ 105.00
1220011	Construction Signs-Type III Reflective Sheetin	S.F.	85		$ 35.00	$ 2,975.00
1504010 A	Temporary Support of Utilities	L.S.	1		$ 12,000.00	$ 12,000.00
					SUBTOTAL	$ 1,337,003.25
					CONTINGENCY @ 25%	$ 334,250.81
					Year 2012 TOTAL	**$ 1,671,254.06**
					Projected 2 years to Year 2014 @ 4% per year	**$ 1,807,628.39**
					SAY TOTAL	**$ 1,810,000.00**