# *STRUCTURE NO. 03120*

*BASSETT ROAD*

over

*INTERSTATE-91*

*NORTH HAVEN*

*Indepth Inspection*

*on*

*7/20/2011*

*Inspected by HAKS - 25*

*for Area 9*

| | | | |
|---|---|---|---|
| **TEAM:** | Forwarded to TE3 Ron Jantzen | Date | 10/20/2011 |
| **TE3:** | Reviewed by TE3 R Jantzen | Date | 12/13/11 |
| | BMM Required | | ~~N~~ |
| | Town Bridge | | No |
| | Rating <= 5 (Items 58,59,60 or 62) | | Yes ✓ |
| | Rating Change 2 or More Values | | Yes ✓ |
| | Forwarded to Supervisor S Dumas | Date | 12/14/11 |
| | Forwarded to "To Be Copied Drawer" ☐ | Date | |
| | Date BRI-19 Entered | 12/14/11 | |
| **SUPERVISOR:** | Reviewed by Supervisor S Dumas | Date | 12/17/11 |
| **SUPPORT:** | Date Copies Made 12/17/11 | BMM No | trans |
| | Scanned By: DZd | Date Scanned | 12/17/11 PDF Box No |

***NBI: Yes***

# BRIDGE SAFETY INSPECTION
# STATE PROJECT NO. 170 – 3013

## BRIDGE NO. 03120

**BASSETT ROAD**
**OVER**
**INTERSTATE 91**

**NORTH HAVEN, CONNECTICUT**

## IN-DEPTH INSPECTION

RECEIVED
OCT 20 2011
CONNECTICUT - DOT
BRIDGE SAFETY & EVALUATION

Prepared by

HAKS
Middletown, CT 06457

JULY 20, 2011

STATE OF CONNECTICUT
ERIK J. LAAKSO
No. 22045
LICENSED
PROFESSIONAL ENGINEER

Bridge Number **03120**

Inspected By: [illegible] & V. Raghuram Reddy

Sufficiency Rating 90.93

Previous Inspection Date 6/22/2009

BS&E Received ☐ Data Entry By: RDT

Copies Made ☐ Data Entry Date: 12/14/11

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

# STRUCTURE EVALUATION

SHEET 1 OF 2 FORM BRI-19 REV 10/00

SHEET_____ OF_____

| 90) Inspection Date | Inspection Team | 91) Frequency | Class: |
|---|---|---|---|
| 07/20/11 | 2525 | 24 | 02 |
| **Indepth Insp** | **Deck Survey** | **Access** | **Flagman** |
| 4/24/2001 7/20/11 | | 21 | |

**CRITICAL FEATURE INSPECTIONS**

| | Type | Frequency | Team | Date |
|---|---|---|---|---|
| Fracture: | | | | |
| Uwater: | | | | |
| Special: | | | | |

RED FLAG ☐

## IDENTIFICATION

Bridge Name

Town Name NORTH HAVEN Town Code 54870

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 INTERSTATE-91

7) Facility Carried: BASSETT ROAD

9) Location 700' NORTH OF WILSON AVE.

11) Milepoint 10.92 Miles

16) Latitude 41deg 24 min 6.00 sec

17) Longitude 72deg 50 min 18.00 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 2 Stringer/Multi-beam o

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

45) Number of Spans, Main Unit 5

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 1 Built-up
- C) Type of Deck Protection 0 None

## AGE AND SERVICE

27) Year Built 1965 106) Year Reconstructed

42) Type of Service:
- A) On 5 Highway-pedestrian
- B) Under 1 HIGHWAY

28) Number of Lanes:
- A) On 2
- B) Under 6

29) Average Daily Traffic 1978 2260 Half ADT?: No

109) Percent Truck 3%

30) Year of ADT 2009 05

19) Bypass, Detour Length 2miles 2011

## GEOMETRIC DATA

48) Length of Max Span 96ft

49) Structure Length 348ft

50) Curb or Sidewalk Widths:
- A) Left 1.5ft
- B) Right 5.6ft

51) Brg Rdwy width,curb-curb 30.0ft

52) Deck Width, Out-Out 39.8ft

32) Approach Roadway Width 30ft

33) Bridge Median 0 No Median

Deck Area 13850 sqft

34) Skew Angle 37deg

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.: 0ft

53) Min Vert Clearance Over Bridge 99ft 99in

54) Min Vert Under Clearance H Ref 15ft 11in ✓ Ref

55) Min Lat Under Clearance on Right H Ref 13.9ft H Ref 14.2ft

56) Min Lat Under Clearance on Left 22.4ft 20.9ft

## BRIDGE COMMENTS

Item 29 & 30 – Estimated ADT for 2014 based on ADT of 1900 in 1993

RDT 12/13/11

# STRUCTURE EVALUATION

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

SHEET_____ OF_____

| | | NBIS Length |
|---|---|---|
| Bridge Number | 03120 | |
| Town Name | NORTH HAVEN | Yes 348 |
| Facility Carried | BASSETT ROAD | |
| Feature Crossed | INTERSTATE-91 | |

Inspected By: Paul Clark & V. Raghuvam Reddy

## CLASSIFICATION

| | | |
|---|---|---|
| 112) NBIS Bridge Length | Yes | |
| 104) Highway System | 0 | Off System |
| 26) Functional Class | 17 | Urban Collector |
| 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 | |
| 38) Navigation Control | |
| 39) Navigation Vert Clr. | |
| 40) Navigation Horiz Clr. | |
| 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 | | ft |
| 94) Bridge Improvement Cost | $ | |
| 95) Roadway Improvement Cost | $ | |
| 96) Total Project Cost | $ | |
| 97) Year of Improvement Cost Est. | | |
| 114) Future ADT | | 115) Year Future ADT |

List No. _____ Project No. 0092-H102 Advertised 6/15/2005

## 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 | | | | | |

## LOAD RATING AND POSTING

| | | | | |
|---|---|---|---|---|
| 31) Design Load | 5 | Evaluation Code | L | |
| 63) Operating Rating Type | 1 | Year of Evaluation | 2001 | |
| 64) Operating Rating | 72.0 | 70) Bridge Posting | 5 | |
| 65) Inventory Rating Type | 1 | 41) Structure Status | A | A |
| 66) Inventory Rating | 43.0 | | | |

## CONDITION

| | | Rating | By |
|---|---|---|---|
| 58) Deck | RDS 12/13/11 | 4 | 6 PHH |
| 59) Superstructure | | 6 | 5 PHH |
| 60) Substructure | RDS 12/13/11 | 5 | 7 6 PHH |
| 61) Channel & Chan. Protection | | N | N PHH |
| 62) Culverts | | N | N PHH |

## APPRAISALS

| | Rating | By |
|---|---|---|
| 67) Structure Evaluation | 6 | 5 EZ → 4 RDS 12/13/11 |
| 68) Deck Geometry | 5 | 5 PHH |
| 69) Under Clear Vert & Horiz | 5 | 5 PHH |
| 71) Waterway Adequacy | N | N PHH |
| 72) Approach Rdwy Alignment | 8 | 8 PHH |
| 113) Scour Critical | | |

Items 58 Thru 72 Checked By: RDS 12/13/11

36) Traffic Safety Features:

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

## OTHER FEATURES

| | | | | | |
|---|---|---|---|---|---|
| Fence Required | Yes | | Barrel Ladder | No | |
| Fence Present | Yes | Y | Stand Pipes | No | |
| Fence Height | 7.0 ft | ft | Cat Walks | No | |
| Fence Type | 2 | Chain Link | Movable Inspection System | No | |
| Fence Material | 2 | Steel | Loose Concrete Checked? | Yes | Y |
| Fence Top Type | 1 | Vertical | | | |

## INSPECTION COMMENTS

Proposed Next Indepth Insp Year 2011 — 2011

Senior Stephen Keedy

Supervisor Joseph Kozlowski

REVIEWED BY: _____ Date 10/14/2011

CDOT review by R. Jantzen 12/13/11

| BRIDGE NUMBER | TOWN NAME | NBIS BRG LGTH | |
|---|---|---|---|
| 03120 | NORTH HAVEN | True | 348 |
| FACILITY CARRIED | FEATURE CROSSED | | |
| BASSETT ROAD | INTERSTATE-91 | | |

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

# INVENTORY ROUTE UNDER STRUCTURE EVALUATION

FORM BRI-25 REV 10/00

INSPECTED BY: V. Raghuram Reddy

REVIEWED BY: DATE: 10/14/2011

SHEET_____ OF_____ (INSP. REPORT)

## IDENTIFICATION

DESCRIPTION:

5) INVENTORY ROUTE:

| | | | |
|---|---|---|---|
| A) RECORD TYPE | 2 | | |
| B) ROUTE SIGNING PREFIX | 1 | Interstate Highway | |
| C) DESIGNATED LEVEL OF SERVICE | 1 | Mainline | |
| D) ROUTE NO. | 00091 | | |
| 11) MILE POINT (INV.RTE) | 9.32 | | |

## CLASSIFICATION

| | | | |
|---|---|---|---|
| 26) INV. RTE. FUNCT CLASSIFICATION | 11 | Urban Principal Arterial - I | |
| 100) DEFENSE HIGHWAY DESIGNATION | 1 | Route is on a Interstate S | |
| ** 102) DIRECTION OF TRAFFIC | 2 | 2-way traffic | |
| 104) HIGHWAY SYSTEM OF INV. ROUTE | 1 | On System | |
| 110) DESIGNATED NATIONAL NETWORK | 1 | On national network | |

## AGE & SERVICE

| | | | |
|---|---|---|---|
| + 28B) NUMBER OF INV.ROUTE LANES | 6 | | |
| * 29) ADT (INV. RTE) | 79300 | | 7 8 7 0 0 |
| * 109) TRUCK ADT % (INV.RTE) | 14 | | 0 9 |
| * 30) YEAR OF ADT (INV. RTE) | 2008 | | 2 0 1 0 |
| * 41) INV ROUTE OPERATIONAL STATUS | A | Open, no restriction | A |
| 19) BYPASS DETOUR LENGTH | 2 | Miles | |

## POSTED SIGNS

+ POSTED VERT. CLR UNDER BRIDGE 0ft 0in ft in

COMMENTS:

## GEOMETRIC DATA

| | | | |
|---|---|---|---|
| + 10) INV. RTE. MIN. VERT. CLEARANCE | 18 ft 2 in | 1 8 ft 0 0 in | |
| + 47) LOG INV. RTE. TOTAL HORIZ CLR. | 50.5 ft | 5 1 . 8 ft | |
| + 47) RLOG INV. RTE. TOTAL HORIZ CLR. | 50 ft | 5 1 . 2 ft | |
| + LOG MIN VERT CLR OVER INV ROUTE | 15 ft 11 in | ft in | |
| + RLOG MIN VERT CLR OVER INV ROUTE | 16 ft 1 in | 1 5 ft 1 1 in | |
| + 55) MIN LAT UNDERCLR ON RIGHT | H 13.9 ft | H 1 4 . 2 ft | |
| + 56) MIN LAT UNDERCLR ON LEFT | 22.4 ft | 2 0 . 9 ft | |

No correction ROT 12/13/11

* FILL OUT ON EVERY INSPECTION 29, 109, 30, 41

\+ VERIFY EVERY INSPECTION 28B, 10, 47, 53, 55, 56 & POSTED VERT CLEARANCE UNDER THE BRIDGE

** MUST BE FILLED OUT OR VERIFIED ON THE FIRST INSPECTION MADE BASED ON THE NEW FHWA GUIDE 102

# Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 03120 Agency ID: 03120 Sufficiency Rating: 76.9

## IDENTIFICATION

| | | | |
|---|---|---|---|
| State 1: | 09 Connecticut | Struc Num 8: | 03120 |
| Facility Carried 7: | BASSET ROAD | Location 9: | 700' NORTH OF WILSON AVE. |
| 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: | 03 | County Code 3: | New Haven |
| Place Code 4: | NORTH HAVEN | Mile Post 11: | 10.920 mi |
| Feature Intersected 6: | INTERSTATE-91 | | |
| Latitude 16: | 41d 24' 06" | Longitude 17: | 072d 50' 18" |
| 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: 5

Main Span Material/Design 43A/B:

3 Steel 02

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

## AGE AND SERVICE

| | | | |
|---|---|---|---|
| Year Built 27: | 1965 | Year Reconstructed 106: | Unknown |
| Type of Service on 42A: | 5 Highway-pedestrian | | |
| Type of Service under 42B: | 1 Highway | | |
| Lanes on 28A: | 2 | Lanes Under 28B: | 6 |
| Detour Length 19: | 2.0 mi | | |
| ADT 29: | 1,978 | Truck ADT 109: | 5 % |
| Year of ADT 30: | 2009 | | |

## GEOMETRIC DATA

| | | | |
|---|---|---|---|
| Length Max Span 48: | 96.0 ft | Structure Length 49: | 348.0 ft |
| Curb/Sdwlk Wdth L 50A: | 1.5 ft | Curb/Sidewalk Width R 50B: | 5.6 ft |
| Width Curb to Curb 51: | 30.0 ft | Width Out to Out 52: | 39.8 ft |
| Approach Roadway Width 32: (w/ shoulders) | 30.0 ft | Median 33: | 0 No median |
| Deck Area: | 13,850. sq. ft | | |
| Skew 34: | 37.00 ° | Structure Flared 35: | 0 No flare |
| Minimum Vertical Clearance Over Bridge 53: | 328.1 ft | | |
| Minimum Vertical Underclearance Reference 54A: | H Hwy beneath struct | | |
| Minimum Vertical Underclearance 54B: | 15.9 ft | | |
| Minimum Lateral Underclearance Reference R 55A: | H Hwy beneath struct | | |
| Minimum Lateral Undrclearance R 55: | 14.2 ft | | |
| Minimum Lateral Undrclearance L 56: | 20.9 ft | | |

## INSPECTION

| | | | | | |
|---|---|---|---|---|---|
| Frequency 91: | 24 months | Inspection Date 90: | 7/20/2011 | Next Inspection: | 07/20/2013 |
| 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: | 07/20/2011 | Next Elem. Insp. Due: | 07/20/2013 |

## 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: | 17 Urban Collector |
| Historical Significance 37: | 5 Not eligible for NRHP | | |
| Owner 22: | 01 State Highway Agency | | |
| Custodian 21: | 01 State Highway Agency | | |

## CONDITION

| | | | | | |
|---|---|---|---|---|---|
| Deck 58: | 4 Poor | Super 59: | 5 Fair | Sub 60: | 6 Satisfactory |
| Culvert 62: | N N/A (NBI) | Channel/Channel Protection 61: | | N N/A (NBI) | |

## LOAD RATING AND POSTING

| | | | |
|---|---|---|---|
| Inventory Rating Method 65: | 1 LF Load Factor | Operating Rating Method 63: | 1 LF Load Factor |
| Inventory Rating 66: | HS23.9 | Operating Rating 64: | HS40.0 |
| Design Load 31: | 5 MS 18 (HS 20) | 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: | 5 Above Tolerable |
| Underclearance, Vertical and Horizontal 69: | 5 Above Tolerable | | |
| Waterway Adequacy 71: | N Not applicable | Approach Alignment 72: | 8 Equal Desirable Crit |
| Scour Critical 113: | N Not Over Waterway | | |

## PROPOSED IMPROVEMENTS

| | | | |
|---|---|---|---|
| Bridge Cost 94: | $ 1,000 | Type of Work 75: | 38 Other Structural |
| Roadway Cost 95: | $ 1,000 | Length of Improvment 76: | 0.3 ft |
| Total Cost 96: | $ 2,000 | Future ADT 114: | 850 |
| Year of Cost Estimate 97: | 2000 | Year of Future ADT 115: | 2024 |

## NAVIGATION DATA

| | | | |
|---|---|---|---|
| Navigation Control 38: | N NA-no waterway | | |
| Vertical Clearance 39: | 0.0 ft | Horizontal Clearance 40: | 0.0 ft |
| Pier Protection 111: | Unknown (NBI) | Lift Bridge Vertical Clearance 116: | 0.0 ft |

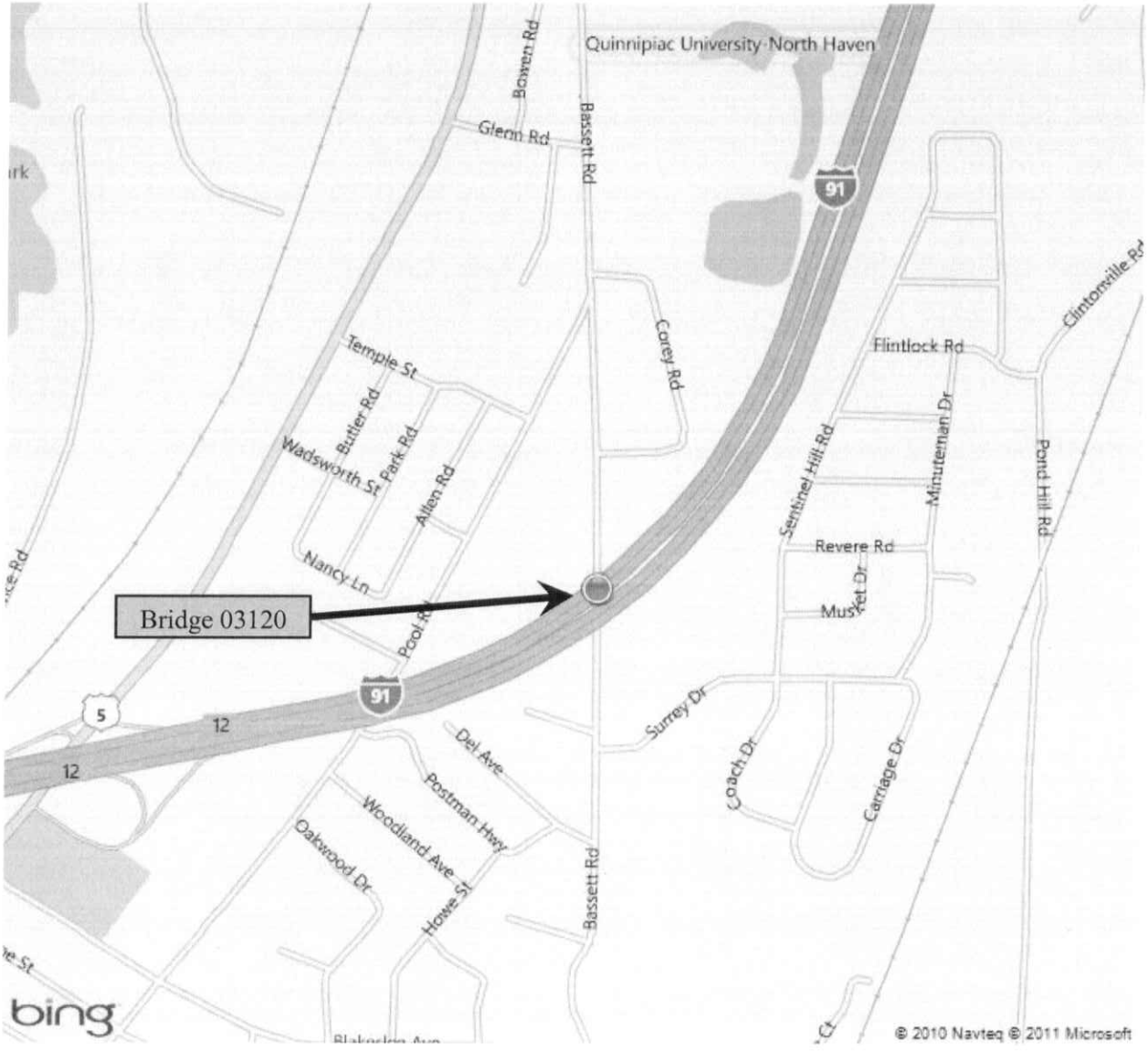
## ELEMENT CONDITION STATE DATA

| 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 | 14/3 | P Conc Deck/AC Ovly | (SF) | 13,850 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 100 % | 13,850 |
| UNIT0 | 56/3 | Concrete sidewalk | sq.ft | 1,948 | 100 % | 1,948 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| UNIT0 | 107/3 | Paint Stl Opn Girder | (LF) | 2,067 | 54 % | 1,117 | 19 % | 400 | 19 % | 400 | 7 % | 150 | 0 % | 0 |
| UNIT0 | 205/3 | R/Conc Column | (EA) | 12 | 50 % | 6 | 0 % | 0 | 50 % | 6 | 0 % | 0 | 0 % | 0 |
| UNIT0 | 215/3 | R/Conc Abutment | (LF) | 98 | 90 % | 88 | 7 % | 7 | 3 % | 3 | 0 % | 0 | 0 % | 0 |
| UNIT0 | 234/3 | R/Conc Cap | (LF) | 190 | 86 % | 164 | 14 % | 26 | 0 % | 0 | 0 % | 0 | 0 % | 0 |

# Structure Inventory and Appraisal Sheet (English Units)

| 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 | 301/3 | Pourable Joint Seal | (LF) | 226 | 0 % | 0 | 0 % | 0 | 100 % | 226 | 0 % | 0 | 0 % | 0 |
| UNIT0 | 311/3 | Moveable Bearing | (EA) | 30 | 0 % | 0 | 100 % | 30 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| UNIT0 | 313/3 | Fixed Bearing | (EA) | 30 | 0 % | 0 | 100 % | 30 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| UNIT0 | 331/3 | Conc Bridge Railing | (LF) | 748 | 100 % | 748 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| UNIT0 | 359/3 | Soffit Smart Flag | (EA) | 1 | 0 % | 0 | 0 % | 0 | 100 % | 1 | 0 % | 0 | 0 % | 0 |

# LOCATION MAP




**Bridge:** 03120
**Feature Carried:** Bassett Road
**Feature Crossed:** I-91
**Town:** North Haven
**Milepoint:** 10.92
**Latitude:** 41° 24' 6"
**Longitude:** 72° 50'18"

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

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

STRUCTURE NO. 03120 TOWN North Haven

Inspectors Paul Holmes, Raghu Vuppula, Marco Adorno Date 7/20/2011

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BRIDGE SAFETY & EVALUATION

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4/91

**PROJECT No. 170-3013** **BRIDGE No. 03120**

## EXECUTIVE SUMMARY

Bridge No. 03120 was built in 1965. It carries Bassett Road over Interstate 91 in the town of North Haven. This five span bridge consists of a multi-girder system composite with a reinforced concrete deck supported by reinforced concrete abutments and piers. The overall length is 348 feet and the curb-to-curb width is 30 feet. As per information in the Connecticut Department of Transportation files, the inventory rating for an AASHTO HS-20 loading is 43 Tons. During this in-depth inspection completed in July 2011, the bridge was found to be in fair condition.

### Deck

The deck is in poor condition. The bituminous overlay has extensive longitudinal, transverse and map cracks open up to 1 inch wide; mostly sealed in the past. There are numerous bituminous and asphaltic sealant patches, some of which are depressed; areas of light to heavy raveling; and random potholes up to 1 foot diameter by up to 1-1/2 inches deep. The paved over deck joints at both abutments and Pier 4 have random bituminous and asphaltic sealant patches with some depressed areas and random minor potholes/raveling. The underside of deck has isolated transverse hairline cracks and random map cracks with and without efflorescence; and isolated honeycomb areas up to 4 feet by 1-1/2 feet with and without exposed rebar. The deck haunches along end diaphragms and girder top flanges have random hollow areas and spalls up to 8 feet long by 5 inches wide by up to 3 inches deep. Deck ends have random spalls and area of honeycombing up to 4 feet long by 9 inches wide by up to 2 inches deep with and without exposed rebar.

Safetywalk has heavy accumulation of debris throughout. Parapets have random vertical and transverse hairline cracks with and without efflorescence, areas of light scale and isolated areas of honeycombing up to 3 feet by 1 foot.

Span 1 east fence at the second post from the south abutment has a broken bracket at the bottom connection to the bridge railing stanchion and the post is tipped and disconnected. The third fence post bottom connection bracket is cracked/bent and the top horizontal pipe is bent for ±14 feet long between the first and third posts. The east fence at Pier 1 has a disconnected bracket at the bottom stanchion connection. Fencing at the northwest end has a 12 inch by 6 inch hole. The fencing at the southwest end is protruding into the safetywalk by ±2 inches.

Pier expansion joints have poured sealer with concrete headers. The poured sealer is deteriorated at random locations and the concrete headers where visible have areas of light to moderate scale. Pier 2 sealer is depressed at various locations and has failed for ±20 feet long, mostly in the southbound lane. Sidewalk and safetywalk poured sealer joints are deteriorated and have cracks up to 3/8 inch wide.

The following items have shown increased deterioration, were deficiencies not previously noted and/or are new deficiencies found during this inspection:

- The bituminous overlay and the paved over joints at both abutments and Pier 4 have random locations of concrete dust pumping through the cracks and patches.
- The underside of deck deterioration has slightly increased since the last inspection. The overall underside of deck deterioration is 1.8% with a maximum of 4.3% in Span 5.

- Span 2, west side of girder G3 near Pier 1 underside of deck over the right shoulder had a 40 inch long area of hollow sounding haunch. A 2 foot long section was removed at the time of inspection and the adjacent 16 inch long section is tight. Span 2, west side of girder G6 near Pier 1, the loose haunch over the right shoulder has been removed since the last inspection.
- The sealant between the curbs and sidewalk or safetywalk is missing, loose and/or deteriorated at random locations.
- Poured sealer is deteriorated at Pier 1 and 3 expansion joints with one location of exposed backer rod at Pier 1.

**Superstructure**

The superstructure is in fair condition. Sliding plate expansion bearings at both abutments typically have light to moderate rust and up to 1/8 inch impacted rust between sole and sliding plates. All bearings show evidence of movement at 80°-88° F and all bearings were in contraction mode. Sole and sliding plates are typically laterally misaligned by up to 7/16 inch and the top of the sliding plates are exposed due to the misalignment. Rocker bearings at Piers 2-4 have moderate to heavy rust with crushed rust and laminated rust below the rocker. Most of the anchor bolt nuts have up to 50% section loss. All bearings show evidence of movement; Piers 2 and 4 bearings were in expansion mode at 88°F and Pier 3 bearings were in contraction mode at 83°F. Fixed bearings typically have peeling paint with light to heavy rust and areas of laminated rust. There is minor impacted rust sole plate. A few anchor bolt nuts have up to 60% section loss and a few anchor bolts are slightly tilted.

Girders have random areas of peeling paint with areas of light to heavy rust and areas of laminated rust, typically at the fascia. Random girder ends at the piers have areas of laminated rust with up to 1/4 inch deep pitting/section loss on the bottom flanges and up to 1/8 inch deep pitting/section loss on the bottom of webs. The bearing stiffeners/diaphragm connection plates typically have laminated rust with negligible section loss. Steel bolsters for girders over Piers 1 and 4 have areas of light to moderate rust and spotty areas of laminated rust with negligible section loss. There is up to 1/2 inch impacted rust/gap between end diaphragms and deck at random locations.

The following items have shown increased deterioration, were deficiencies not previously noted and/or are new deficiencies found during this inspection:

- Girder G6 North abutment bearing has moderate to heavy rust with areas of laminated rust. There is up to 1/4 inch impacted rust between all plates. The right anchor bolt is tilted and the masonry plate overhangs the pedestal by 5/16 inch at the north side.
- The underside of random rockers has up to full width by up to 1/2 inch long by up to 1/8 inch deep section loss at the front side.
- Span 4, girder G3 web at Pier 3 has heavy rust with section loss up to 2 inches high by up to 4 inches long by up to 1/8 inch deep and a 2 inches long by 1 inch high perforation at the bottom of web between the bearing stiffener and the diaphragm connection plate resulting in less than 5% web loss for shear and 6.5% web loss for bearing.

**Substructure**

The substructure is in satisfactory condition. Abutment stems and backwalls have random hairline cracks with and without efflorescence and spalls with and without exposed rebar up to 10 inches by 4 inches by 1-1/4 inches deep. Wingwalls have heavy vine/vegetation growth and all expansion joints are missing joint filler material.

Pier caps and columns have light to moderate scale throughout with isolated areas of heavy to severe scale on cap seats, random vertical and diagonal hairline cracks open up to 1/32 inch wide, shallow rebar, popouts and isolated hollow areas and spalls with and without exposed rebar up to 16 inches by 6 inches by 1 inch deep.

**Approach Condition**

The approaches are in satisfactory condition. Metal beam rails have random areas of minor impact scrapes and dents with light rust throughout. Approach pavements have numerous longitudinal and transverse cracks open up to 1 inch wide, some cracks were previously sealed. There are random bituminous patches; some of which have settled and random minor potholes/raveling.

The following items have shown increased deterioration, were deficiencies not previously noted and/or are new deficiencies found during this inspection:

- Southeast and Northeast approach sidewalks and curbs have settled by up to 2 inches.
- Southwest and Northwest corners have no transition curbs in place. Bridge curb and safetywalk have blunt ends up to 10 inches high.

## REPAIR RECOMMENDATIONS

**Deck**

1. Seal the cracks (±200 LF) and patch the heavy raveling/potholes (<0.25 Ton) in the bituminous overlay.
2. Collect core samples to determine the remaining usable life of the deck.
3. It appears that the membrane has failed resulting in deck deterioration. Replace the membrane and overlay.
4. Remove the debris from the safetywalk (LS).
5. Repair the hole in the fence at the northwest end (1 LF).
6. Repair the fence at the southwest end (1 Location).
7. Replace the broken and cracked connection brackets at Span 1 east fence and connect the bracket at Pier 1 east fence (3 Locations).
8. Remove heavy vine and vegetation growth at all four corners and Pier 1 east end of the chain link fence (LS).
9. Repair the deck joints at Piers 1-3 (±90 LF). Consider replacing all deck joints during any future project.
10. Seal the deteriorated sidewalk and safetywalk expansion joints (±43 LF).

**Superstructure**

1. Clean and paint the sliding bearings at both abutments (12 EA).
2. Clean and paint all rocker and fixed bearings over Piers 1-4 (48 EA).
3. Clean and paint the girder ends and end diaphragms over the piers (±3500 SF).
4. Consider cleaning and painting the superstructure steel.

**Substructure**

1. Remove vegetation along wingwalls before next inspection (LS).
2. Repair deteriorated concrete at the pier columns (<1/4 CY).

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**Approaches**

1. Seal the cracks in the approach pavements (±300LF).
2. Install a bituminous ramp at Southeast and Northeast approach sidewalks to provide a smooth transition to the bridge sidewalk (<1 TON).
3. Install transition curbs at the Southwest and Northwest corners to remove blunt ends (±10 LF).
4. Repair the erosion area at the end of the southeast approach embankment that has undermined the fence post concrete base (<1/2 CY).

8/91

# Connecticut Department of Transportation

## Bridge Inspection Report BRI-18

**Bridge #: 03120** **Inspection Date: 07/20/2011**

| | | | | | |
|---|---|---|---|---|---|
| **Inspection Type:** | Indepth | **Previous Inspection Date:** | 6/22/2009 | **Snooper Required:** | No |
| **Inspection Performed By:** | HAKS Engineers | **Feature Carried:** | BASSETT ROAD | **Snooper Used:** | No |
| **Town:** | NORTH HAVEN | **Feature Intersected:** | INTERSTATE-91 | **Year Built:** | 1965 |
| **Location:** | 700' NORTH OF WILSON AVE. | **Main Design:** | Stringer/Multi-beam or Girder | **Year Rebuilt:** | - |
| **Main Material:** | Steel | | | | |

**Visits**

| Visit Date: | Temp: | Start Time: | End Time: |
|---|---|---|---|
| 7/20/2011 | 91 | 8:30:00 AM | 3:00:00 PM |
| 7/21/2011 | 90 | 8:30:00 AM | 3:00:00 PM |

**Inspectors:**

| Inspector: | Task: |
|---|---|
| M. Adorno | Inspector |
| P. Holmes | Lead Inspector |
| R. Vuppula | Inspector |

**DECK:** REINFORCED CONCRETE DECK
BITUMINOUS OVERLAY W/MEMBRANE

**Overall Rating:** 4

| | Rating | |
|---|---|---|
| **OVERLAY:** | 3 | Bituminous overlay with membrane. Overlay has extensive longitudinal, transverse and map cracks open up to 1" wide, most have been sealed, and numerous bituminous and asphaltic sealant patches (mainly along the east curbline) up to 10' long x up to 4' wide, some of which are depressed. There are random locations of concrete dust pumping through the cracks and patches. Overlay also has random potholes up to 1' diameter x up to 1-1/2" deep, and areas of light raveling throughout with areas of moderate to heavy raveling along the Span 3 west curbline and Span 4 east curbline. Rideability is poor.<br><br>The paved over deck joints at both abutments and Pier 4 have random bituminous and asphaltic sealant patches with random depressed areas.<br><br>See sheets 20-24 and photos 6, 8, 11-14 & 20. |
| **DECK-STR. CONDITION:** | 4 | Underside of deck has isolated transverse hairline cracks and random map cracks with and without efflorescence; random exposed rusted rebar chairs; isolated honeycomb areas up to 4' x 1-1/2' with and without exposed rebar. Deck ends have random spalls and area of honeycombing up to 4' long x 9" wide x up to 2" deep with and without exposed rebar. Also Large areas of discoloration & stains RVS 12/13/11<br>Deck haunches along end diaphragms and girder top flanges have random hollow areas and spalls up to 8' long x 5" wide x up to 3" deep. Span 2, west side of girder G3 near Pier 1 underside of deck over the right shoulder has 40" long hollow sounding; 2' long section was removed at the time of inspection, |

| | | |
|---|---|---|
| | | the adjacent 16" long section is tight (Item No. 2 under BMM No. 08-598, previously noted Girder G4) and Span 2, west side of girder G6 near Pier 1 underside of deck loose haunch over the right shoulder has been removed since the last inspection (Item # 1 under BMM No. 08-598, previously noted Girder G1).<br><br>The overall underside of deck deterioration is 1.8% with the maximum of 4.3% in span 5.<br><br>Concrete dust is pumping through the overlay at random locations.<br><br>See sheets 20-24 & 32-37 and photos 9, 10 & 15-18. |
| **CURBS:** | 6 | Granite block curbs. Curbs have random scrape marks, rust stains and edge chipping. The sealant between the curbs and sidewalk or safetywalk is deteriorated, loose and/or missing at random locations.<br><br>Average west curb reveal is 9-1/2".<br>Average east curb reveal is 9-5/16".<br><br>See sheets 20-25 and photos 19-21. |
| **MEDIAN:** | N | - |
| **SIDEWALKS:** | 7 | Concrete sidewalk on east side and concrete safetywalk on west side have areas of light scale and light to heavy accumulation of debris throughout; mainly along the safetywalk.<br><br>See sheets 20-24 and photos 19 & 20. |
| **PARAPET:** | 7 6 | Concrete parapets have random vertical and transverse hairline cracks with and without efflorescence and areas of light scale. Span 1, west parapet has isolated areas of honeycombing up to 3' x 1'. There is a 6" long shallow rebar at the southwest parapet end.<br><br>See sheets 20-26 and photos 19 & 20. |
| **RAILING:** | 7 | Standard two steel pipe rails with H-Beam posts (behind chain link fence). Rails have random areas of peeling paint or paint holidays with exposed primer and some light rust throughout.<br><br>See sheets 20-24 and photos 19, 20 & 22-24. |
| **PAINT:** | 7 | Less than 10% peeling paint with some exposed primer along the railing and fence. Less than 5% of the painted surfaces are rusting. |
| **FENCE:** | 5 | 5' high chain link safety fence on top of both parapets. There are deficiencies at the following locations:<br>- Span 1 east fence near the south abutment has a broken bracket at the bottom connection at the 2nd post and the post is tipped and disconnected from the bottom of the bridge railing stanchion; the 3rd post bottom connection bracket is cracked/bent; and the top horizontal pipe is bent for ±14' long between the 1st and 3rd posts.<br>- East fence at Pier 1 has a disconnected bracket at the bottom stanchion connection.<br>- Southeast end post concrete base is undermined by ±50% due to approach embankment erosion.<br>- Fencing at the northwest end has 12" x 6" hole.<br>- Fencing at the southwest end is protruding into the safetywalk by ±2".<br><br>The east fence at Pier 1 and the fence at all four corners have heavy vine and vegetation growth.<br><br>See sheets 20-24 and photos 19, 20 & 22-24. |
| **DRAINS:** | N | - |
| **LIGHTING STANDARD:** | N | - |
| | | |

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| | | |
|---|---|---|
| **UTILITIES TYPE/SIZE:** | N | - |
| **CONSTR JOINTS:** | N | - |
| **EXPANSION JOINTS:** | 4 3 | The abutments and Pier 4 deck joints are paved over. See item "OVERLAY" above for deficiencies.<br><br>Piers 1-3 have poured sealer joints with concrete headers. Asphaltic sealer was previously poured along the joint openings and the concrete headers. The poured sealer is deteriorated at Piers 1 and 3 with one location of exposed backer rod at Pier 1. Pier 2 sealer is depressed at various locations and has failed for ±20' long (mostly at the southbound lane). Concrete headers, where visible, have areas of light to moderate scale.<br><br>Sidewalk and safetywalk have poured sealer joints. Sealer is deteriorated with cracks open up to 3/8" wide.<br><br>See sheets 20-24 and photos 25-28. |

11/9)

| 59. SUPERSTRUCTURE: | STEEL MULTI-GIRDER | Overall Rating: | 5 |
|---|---|---|---|

| | Rating | |
|---|---|---|
| **BEARING DEVICES:** | 6 | Sliding Bronze Plate Expansion bearings at both abutments. All bearings show evidence of movement and were in contraction at 80°-88°F. Bearings typically have peeling paint with light to moderate rust except for girder G6 bearing at north abutment which has moderate to heavy rust with areas of laminated rust (mostly at the masonry plate). There is up to 1/8" impacted rust between the sliding and sole plates at random bearings. Girder G6 north abutment bearing has up to 1/4" impacted rust between all plates, the right anchor bolt is tilted and the masonry plate overhangs the pedestal by 5/16" at the north side. Sole and sliding plates are typically laterally misaligned by up to 7/16" and the top of the sliding plates are exposed due to the misalignment.<br><br>Rocker Expansion bearings at Piers 2-4 have peeling paint with moderate to heavy rust and laminated rust and crushed rust below the rocker. Most of the anchor bolt nuts have up to 50% section loss. All bearings show evidence of movement; Piers 2 and 4 bearings were in expansion mode at 88°F and Pier 3 bearings were in contraction mode at 83°F. The underside of random rockers has up to full width by up to 1/2" long by up to 1/8" deep section loss on the front side.<br><br>Fixed bearings at Piers. Bearings have peeling paint with light to heavy rust and areas of laminated rust. There is minor impacted rust under the sole plate. Few anchor bolt nuts have up to 60% section loss and few anchor bolts are slightly tilted.<br><br>See sheets 27-36 and photos 29-34. |
| **STRINGERS:** | N | - |
| **GIRDERS:** | 5 | Welded plate girders except girders G2-G5 in Spans 1 & 5 which are rolled beams.<br><br>Rolled beams: Girders have random areas of peeling paint with areas of light to heavy rust and areas of laminated rust with negligible section loss; typically at the fascia. Steel bolsters for girders over Piers 1 and 4 have areas of light to moderate rust and spotty areas of laminated rust with negligible section loss.<br><br>Welded plate girders: Girders have extensive areas of peeling paint with areas of light to heavy rust and laminated rust; typically at the fascia. Random girder ends at the piers have laminated rust with up to 1/4" deep pitting/section loss on the bottom flanges and up to 1/8" deep pitting/section loss at the bottom of webs. The bearing stiffeners/diaphragm connection plates typically have laminated rust with negligible section loss.<br><br>Span 4, girder G3 web at Pier 3 has heavy rust with section loss up to 2" high x up to 4" long x up to 1/8" deep and a 2" long x 1" high perforation at the bottom of web between the bearing stiffener and diaphragm connection plate resulting in less than 5% web loss for shear and 6.5% web loss for bearing.<br><br>The intermediate and end diaphragms have peeling paint with areas of light to heavy rust. The backside of end diaphragms at the piers have light to heavy rust and bleeding rust with random locations of up to 3/16" deep pitting. There is up to 1/2" impacted rust/gap between end diaphragms and deck at random locations. |

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| | | |
|---|---|---|
| | | See sheets 32-36 and photos 9, 10 & 35-42. |
| **FLOOR BEAMS:** | N | - |
| **TRUSSES-GENERAL:** | N | - |
| **TRUSSES-PORTALS:** | N | - |
| **TRUSSES-BRACING:** | N | - |
| **PAINT:** | 3 | Random areas of peeling paint throughout. Greater than 50% of the painted surfaces are rusting. |
| **RUST:** | 5 | See above items. |
| **MACHINERY MOV SPAN:** | N | - |
| **RIVETS & BOLTS:** | N | Erection bolts. |
| **WELDS - CRACKS:** | 7 | All of the bottom flange transition welds in Spans 2, 3 and 4 were checked 100% hands-on and no deficiencies were found (Fatigue category B). See photo 43.<br><br>Plug weld in erection bolt hole at bottom cross frame connection at west side of G4 in Span 4 over Pier 4. No deficiencies noted. |
| **TIMBER DECAY:** | N | - |
| **CONCRETE CRACKING:** | N | - |
| **COLLISION DAMAGE:** | 7 | Girder G3, west side in Span 2 at the 2nd intermediate diaphragm from Pier 1 has a bent web stiffener, 1" over 18" long. Span 4 girder G2, 1st web stiffener from Pier 3 on the west side is bent 1/2" over 6" long.<br><br>See sheets 33 & 35 and photo 44. |
| **MEMBER ALIGNMENT:** | 7 | See item "BEARING DEVICES" above. |
| **DEFLECT. UNDER LOAD:** | N | (N) Normal (E) Excessive. |
| **VIBRATION UNDER LOAD:** | N | (N) Normal (E) Excessive. |
| **STAND PIPES:** | N | - |
| **BARREL LADDERS:** | N | - |

**ARE BARREL LADDERS OSHA COMPLIANT? NA**

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**60. SUBSTRUCTURE:** REINFORCED CONCRETE ABUTMENTS AND PIERS **Overall Rating:** 6 5 RDT 12/13/14

| | Rating | |
|---|---|---|
| **ABUTMENTS-STEM:** | 7 RDT 12/13/11 | Stems have isolated vertical hairline cracks up to full height and random areas of peeling protective concrete coating.<br><br>South abutment stem has a 16" x 4" hollow area and 6" diameter x 1/2" deep spall with exposed rebar in bay 1.<br><br>See sheets 38 & 39 and photo 45. |
| **ABUTMENTS-** | | |

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| | | |
|---|---|---|
| **BACKWALL:** | 7 6 RDT 12/13/11 | The south backwall has random full height vertical hairline cracks with efflorescence and the north backwall has random spalls along the top up to 10" long x 4" high x 1-1/4" deep.<br><br>See sheets 38 & 39 and photos 45-47. |
| **ABUTMENTS-FOOTINGS:** | N | Not visible. |
| **ABUTMENTS-SETTLEMENT:** | 8 | None noted. |
| **ABUTMENTS-WINGWALLS:** | 7 6 RDT 12/13/11 | Wingwalls have areas of light scale. Southwest wingwall has a 4" x 2" x 1/2" deep spall. There is heavy vine/vegetation growth along all the wingwalls. All expansion joints are missing joint filler material. There are form bolts left in place at northwest and northeast wingwalls.<br><br>Northeast cheekwall has a 1 foot long shallow rebar at inside face.<br><br>See sheets 40 & 41 and photo 48. |
| **PIERS/BENTS-CAPS:** Large areas of SSC. HLC's at cantilevers in Negative moment Tension zone. | 7 6 RDT 12/13/11 | Pier caps have light to moderate scale throughout and isolated areas of heavy to severe scale along top surface of the caps. There are random vertical and diagonal hairline cracks mostly at the cantilevers, few areas of map cracking up to 3' x 2' and isolated areas of shallow rebar and popouts.<br><br>See sheets 42-49 and photos 49 & 51. |
| **PIERS/BENTS-PILE BENT:** | N | - |
| **PIERS/BENTS-COLUMNS:** | 6 5 many RDT 12/13/11 | Columns have random areas of light to moderate scale and random short cracks open up to 1/32" wide and isolated areas of map cracking. There are isolated hollow areas and spalls with and without exposed rebar up to 16" x 6" x 1" deep and random shallow rebar, popouts and tie wires.<br><br>See sheets 42-49 and photos 49 & 50. |
| **PIERS/BENTS-FOOTING:** | N | Not visible. |
| **PIERS/BENTS-SETTLMT:** | 8 | None noted. |
| **EROSION-SCOUR:** | 8 | Erosion - Rated 8.<br><br>Scour - N/A. |
| **CONCRETE CRACK-SPALL:** | 6 | See above items. |
| **STEEL CORROSION:** | N | - |
| **PAINT:** | N | - |
| **TIMBER DECAY:** | N | - |
| **COLLISION DAMAGE:** | 8 | None noted. |
| **DEBRIS:** | 6 5 RDT 12/13/11 | Light to heavy accumulation of sand debris and joint material. There is up to 4" high debris on Pier 2 cap. |

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| | | | |
|---|---|---|---|
| **61. CHANNEL & CHANNEL PROTECTION:** | - | **Overall Rating:** | N |

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

| | | | |
|---|---|---|---|
| **65. APPROACH CONDITION** | BITUMINOUS PAVEMENT | **Overall Rating:** | 6 → 5 ADS 12/13/11 |

| | Rating | |
|---|---|---|
| **APPROACH SLAB:** | N | - |
| **RELIEF JOINTS:** | N | - |
| **APPROACH GUIDE RAIL:** | 7 | Metal beam rails: There are random areas of minor impact scrapes and dents with light rust throughout.<br><br>See sheets 20 & 24 and photos 52 & 53. |
| **APPROACH PAVEMENT:** | 6 → 5 ADS 12/13/11 | The approach pavements have numerous longitudinal and transverse cracks open up to 1" wide at the south approach and up to 1/4" wide at the north approach, some cracks were previously sealed. There are random bituminous patches; some of which have settled and random minor potholes/raveling (mainly at the south approach pavement).<br><br>Approach sidewalks and curbs: Southeast and Northeast approach sidewalks and curbs have settled by up to 2".<br><br>There are no transition curbs in place at the southwest and northwest corners. Bridge curb and safetywalk have blunt ends up to 10" high.<br><br>See sheets 20 & 24 and photos 5, 7, 54-56. |
| **APPROACH EMBANKMENT:** | 6 | Embankments have heavy vine and vegetation growth. There is a 24" long x 18" wide x 9" deep erosion along the southeast wingwall which has undermined the fence post concrete base by ±50%. |

## TRAFFIC SAFETY FEATURES

| | Rating | |
|---|---|---|
| **BRIDGE RAILINGS:** | Last Inspection: 0<br>Current: 0 | ≤18" wide safetywalk and <32" high solid concrete parapet on Non-NHS. |
| **TRANSITIONS:** | Last Inspection: 0<br>Current: 0 | Not R-B 350 compliant. |
| **APPROACH GUARDRAILS:** | Last Inspection: 0<br>Current: 0 | Not R-B 350 compliant. |
| **APPR. GUARDRAIL ENDS:** | Last Inspection: 0 | - |

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| | | |
|---|---|---|
| | Current: 0 | |

## 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: 15' 11" Current: 15' 11" | - |
| **POSTED CLR. UNDER BRIDGE:** | Last Inspection: -' -" Current: -' -" | - Posted speed limits for roadway only |
| **POSTED CLR. ON BRIDGE:** | Last Inspection: -' -" Current: -' -" | - No speed limit posted specifically for the bridge. |
| **ADVANCED WARNING (YES/NO):** | No | - ADT 12/13/11 |
| **SPEED LIMIT (IF ANY):** | Last Inspection: - Current: - | 25 mph posted at southwest approach, 35 mph posted at northeast approach. |
| **CHARACTER OF TRAFIC:** | | Light volume with mixed weights. |

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**ADDITIONAL NOTES:**

1. Bridge ID numbers are in good condition.
2. Bridge is logged from south to north with girder G1 at the west fascia which is consistent with bridge plans and previous inspection report.
3. A 45' lift was used to complete the inspection.

**ADDITIONAL COMMENTS:**

-

**Inspectors' Signatures:**

1) Rahul — Date: 10/13/2011

2) V. Raghuram Reddy — Date: 10/13/2011

3) — Date: ----/----/-----

4) — Date: ----/----/-----

**P.E. Signature:** — Date: 10/14/2011

**P.E. #:** 22045 — Date: ----/----/-----

**Reviewed by:** conndot — Date: 12/15/11

RECEIVED
OCT 20 2011
CONNECTICUT - DOT
BRIDGE SAFETY & EVALUATION

HAKS

JOB NO. 170-3013 | BRIDGE NO. 03120

**SUPPLEMENTAL SHEET** | DATE: (SEE BELOW) | SHEET 17 OF 91

DESCRIPTION: TIME LOG

| | | | | | | |
|---|---|---|---|---|---|---|
| DATE: | 7/20/2011 | **Day #** | **1** | DESCRIPTION | TIME AT SITE | |
| WEATHER: | Clear 91°F | CREW: | | PHH, RV, MA, OM | 8:30AM | TO 3:00PM |
| EQUIP. LIST: | Cube Truck, | SNOOPER: | | | | TO |
| | 45' Lift Truck | SHADOW TRUCK: | | (1) from McClain | 8:30AM | TO 2:30PM |
| | from EL Equipment | TROOPER | | M. Dicocco #308 | 11:15AM | TO 2:30PM |
| VISITORS: | Parviz(DOT)10:15-10:30am | R.R. FLAGMAN: | | | | TO |

TC & NOTES: Double left lane and single right lane closures on I-91 SB btwn. Exits 13 & 12.

Inspected 1/2 of Span 3-5.

| | | | | | | |
|---|---|---|---|---|---|---|
| DATE: | 7/21/2011 | **Day #** | **2** | DESCRIPTION | TIME AT SITE | |
| WEATHER: | Clear 90°F | CREW: | | PHH, RV, MA, OM | 8:30AM | TO 3:00PM |
| EQUIP. LIST: | Cube Truck, | SNOOPER: | | | | TO |
| | 45' Lift Truck | SHADOW TRUCK: | | (1) from McClain | 8:30AM | TO 2:30PM |
| | from EL Equipment | TROOPER: | | R. Grega #144 | 8:30AM | TO 2:30PM |
| VISITORS: | | R.R. FLAGMAN: | | | | TO |

TC & NOTES: Double left lane and single right lane closures on I-91 NB btwn. Exits 11 & 13.

Complete Spans 1-5. Inspected Top of Deck.

In-depth inspection complete.

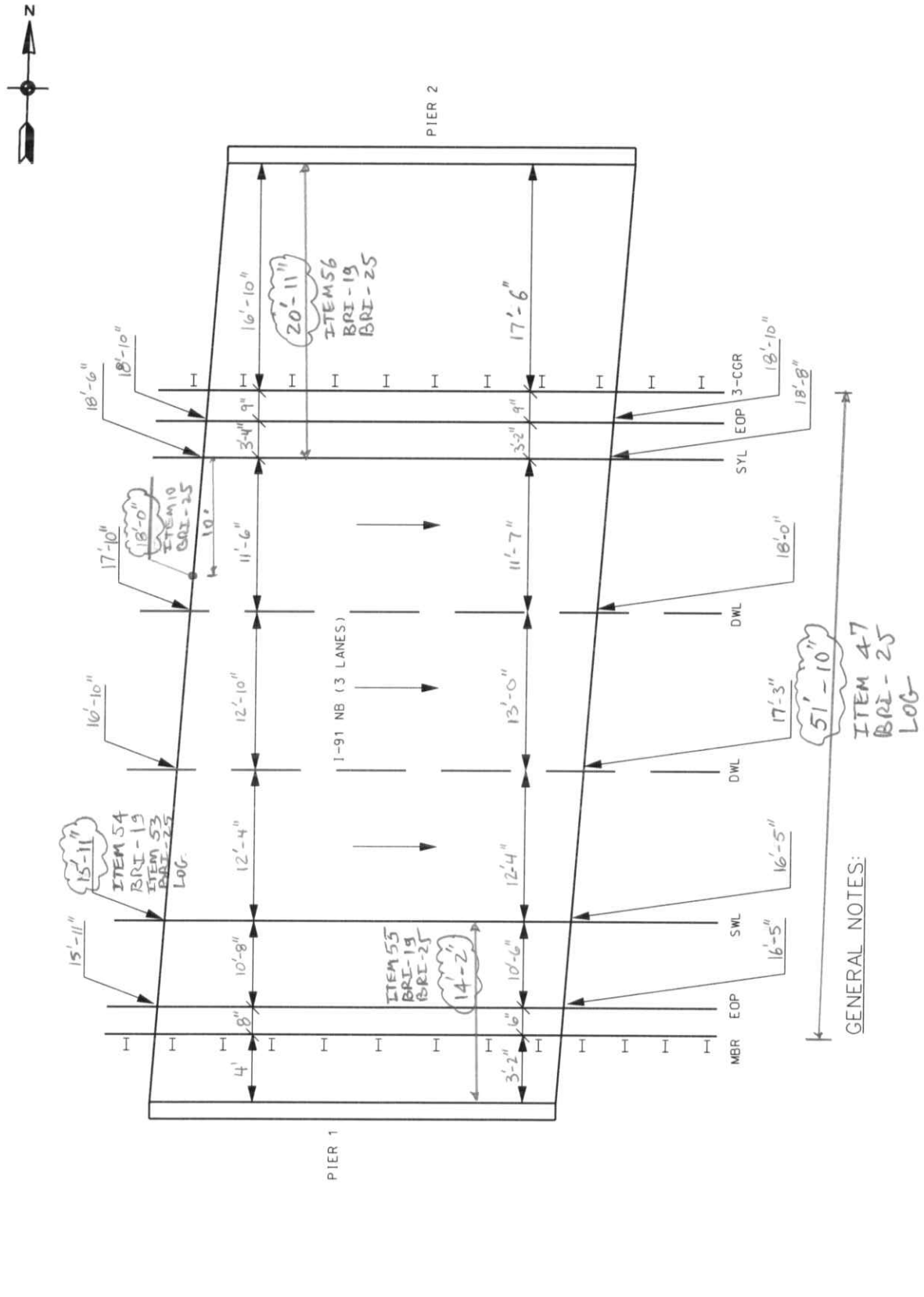
| | | | | | | |
|---|---|---|---|---|---|---|
| DATE: | | **Day #** | **3** | DESCRIPTION | TIME AT SITE | |
| WEATHER: | | CREW: | | | | TO |
| EQUIP. LIST: | | SNOOPER: | | | | TO |
| | | SHADOW TRUCK: | | | | TO |
| | | TROOPER: | | | | TO |
| VISITORS: | | R.R. FLAGMAN: | | | | TO |

TC & NOTES:

| | | | | | | |
|---|---|---|---|---|---|---|
| DATE: | | **Day #** | **4** | DESCRIPTION | TIME AT SITE | |
| WEATHER: | | CREW: | | | | TO |
| EQUIP. LIST: | | SNOOPER: | | | | TO |
| | | SHADOW TRUCK: | | | | TO |
| | | TROOPER: | | | | TO |
| VISITORS: | | R.R. FLAGMAN: | | | | TO |

TC & NOTES:

| HAKS FIELD NOTES | JOB NO. 170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 18 OF 91 |
| | CREW: MAA, PHH, RV | |




## CLEARANCE DIAGRAM - SPAN 2

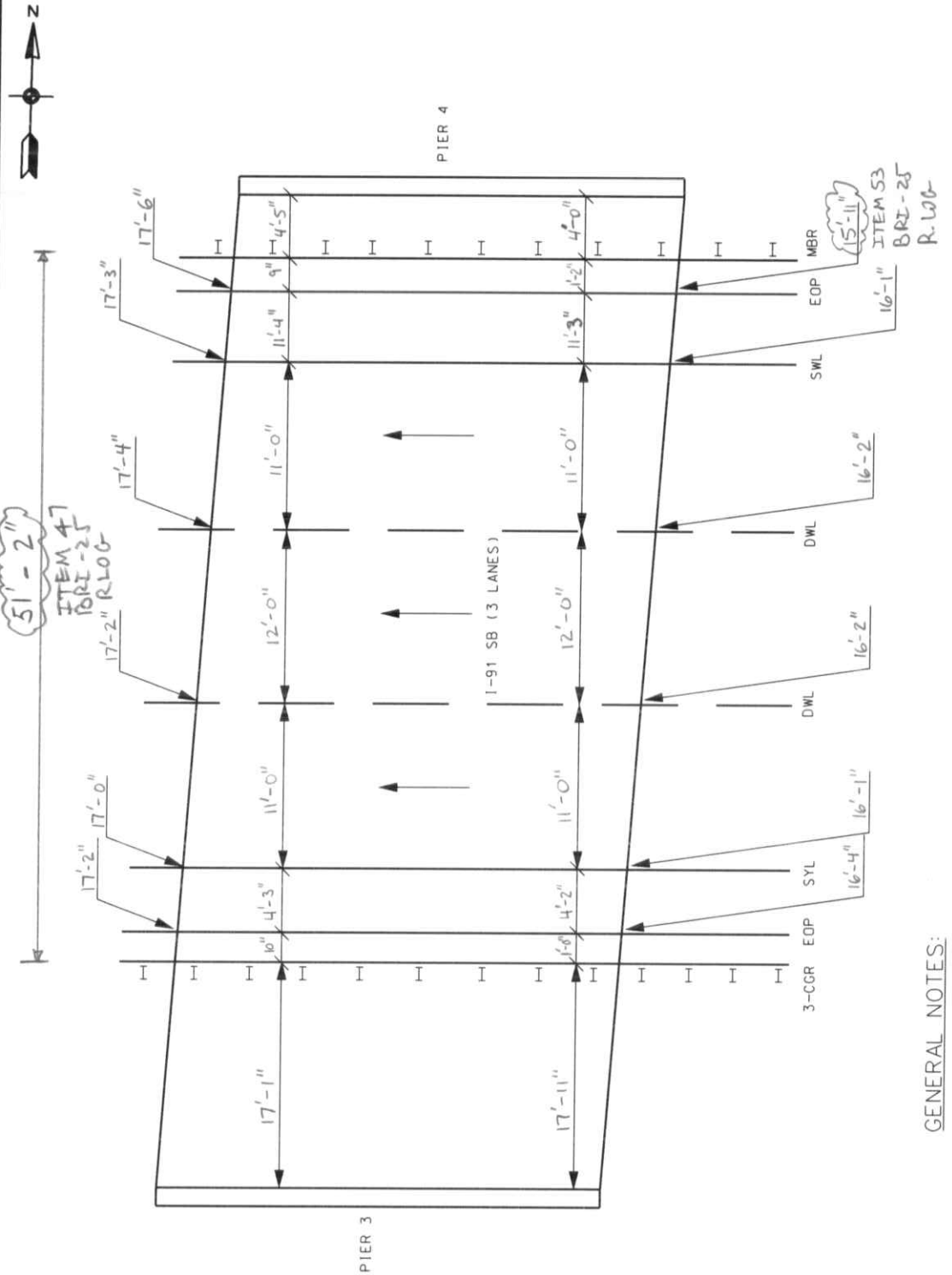
NTS

LEGEND:

MBR - METAL BEAM RAIL
EOP - EDGE OF PAVEMENT
SWL - SOLID WHITE LINE
DWL - DASHED WHITE LINE
SYL - SOLID YELLOW LINE
CGR - CABLE GUIDE RAIL

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 19 OF 91 |
| | CREW: MAA, RV, PHH | |

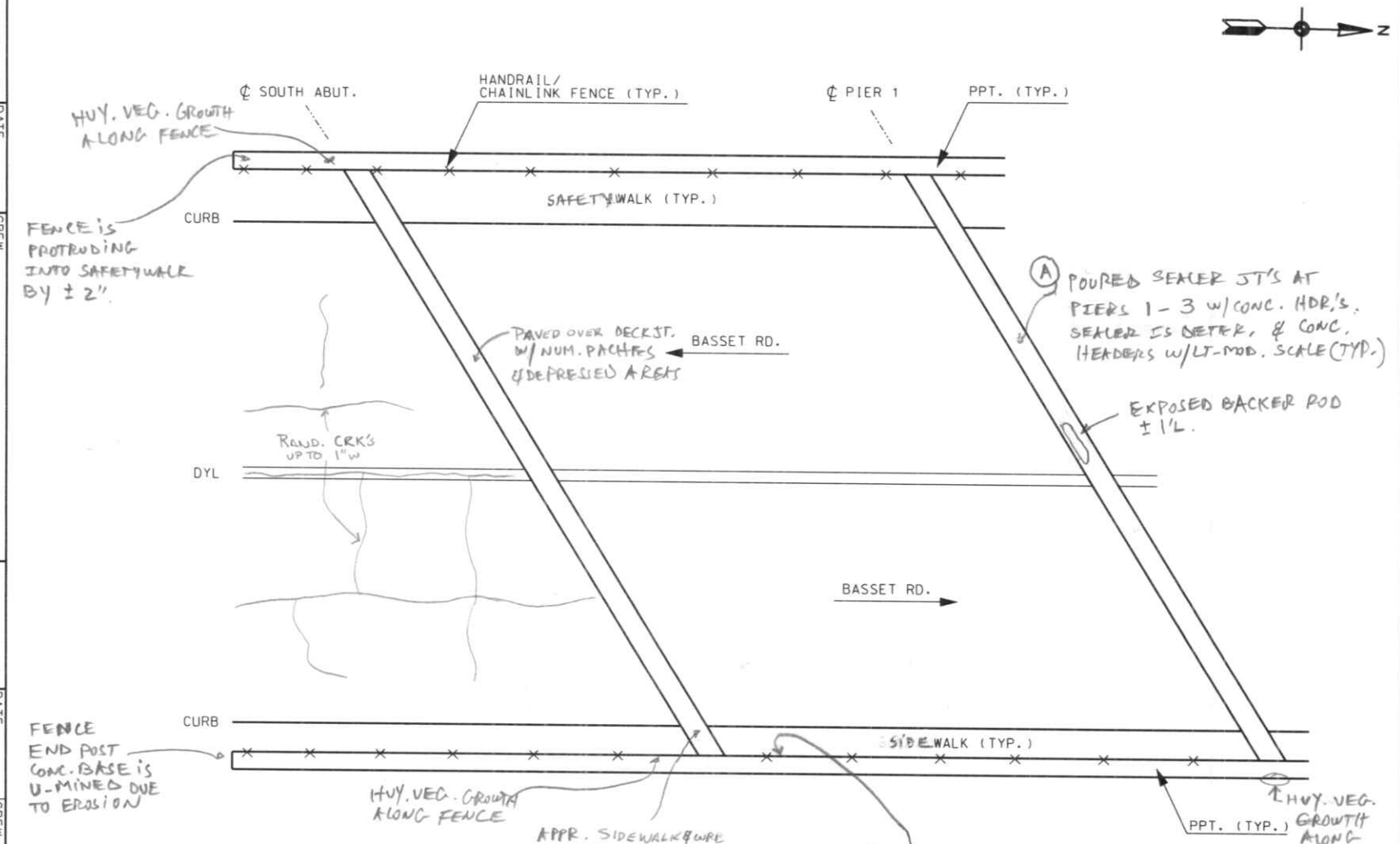



CLEARANCE DIAGRAM - SPAN 4
NTS

GENERAL NOTES:

LEGEND:
MBR - METAL BEAM RAIL
EOP - EDGE OF PAVEMENT
SWL - SOLID WHITE LINE
DWL - DASHED WHITE LINE
SYL - SOLID YELLOW LINE
CGR - CABLE GUIDE RAIL

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |




## GENERAL NOTES:

1. BITUMINUS OVERLAY w/ NUMEROUS RANDOM LONG & TRANSVERSE CRACKS, MPCR's OPEN ½" - 1" W X UP TO 1" DP (MOSTLY SEALED); NUMEROUS BITUMINOUS & ASPHALTIC SEALANT PATCHES UP TO 10'L X UP TO 4'W (SOME OF WHICH ARE DEPRESSED) + ALSO, RANDOM LOC.'S OF CONC. DUST PUMPING THRU-OUT CRK's,
2. BITUMINOUS OVERLAY w/ LT TO HVY RAVELING UP TO ¼" DP ALONG CURBS AND RANDOM POTHOLES UPTO 1'Ø x 1½' DP.
3. GRANITE CURBS w/ RAND. SCRAPES, RUST STAINS AND CHIPPING ALONG EDGES THROUGHOUT.
4. SIDEWALK/SAFETYWALK WITH LT. SCALE THRU-OUT, SAFETYWALK w/ HEAVY ACCUMULATIONS OF SAND DEBRIS
5. PARAPETS w/ AREAS OF LT SCALING + RAND. VT. HLCRK'S THROUGHOUT UP TO FM.
6. PAVED OVER DECK JT.'s @ BOTH ABUT.'s & P-4 HAVE RANDOM BIT. & ASPHALTIC SEALANT PATCHES w/ DEPRESSED AREAS,
7. APPR. PVMT.'S HAVE NUMEROUS LONG. & TRANSV. CRK's OPEN UP TO 1"W, RANDOM PATCHES (SOME HAVE SETTLED) AND RANDOM POTHOLES/RAVELING.

LEGEND:
SWL - SOLID WHITE LINE
DYL - DOUBLE YELLOW LINE
PPT. - PARAPET

## TOP OF DECK - SPAN 1

NTS

HAKS

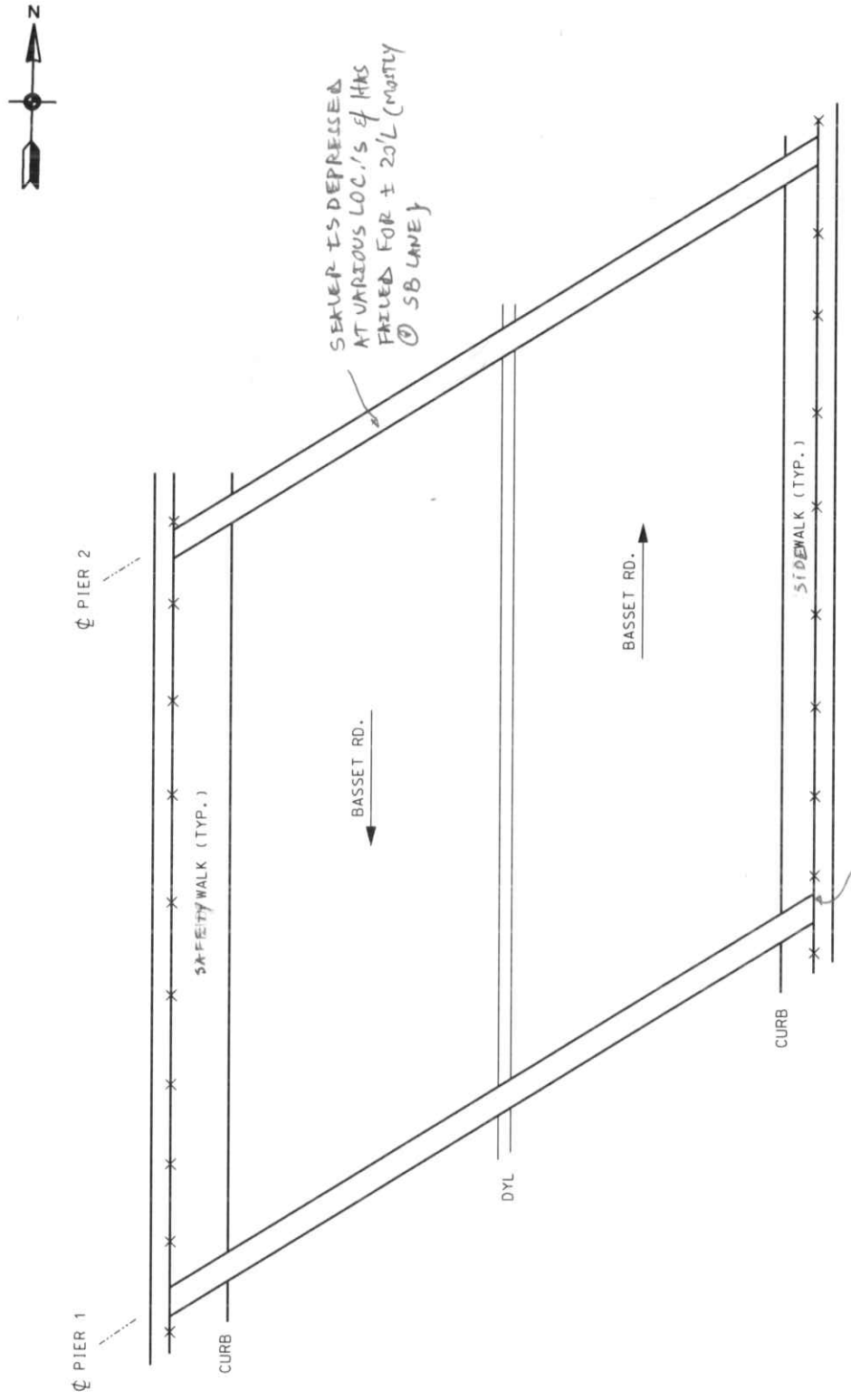
FIELD NOTES

JOB NO. 170-3013
DATE: 7/21/11
CREW: RV, PHH

BRIDGE NO. 03120
SHEET 20 OF 91

| REVISION | DATE | CREW |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 21 OF 91 |
| | CREW: RJ, PHH | |




TOP OF DECK - SPAN 2
NTS

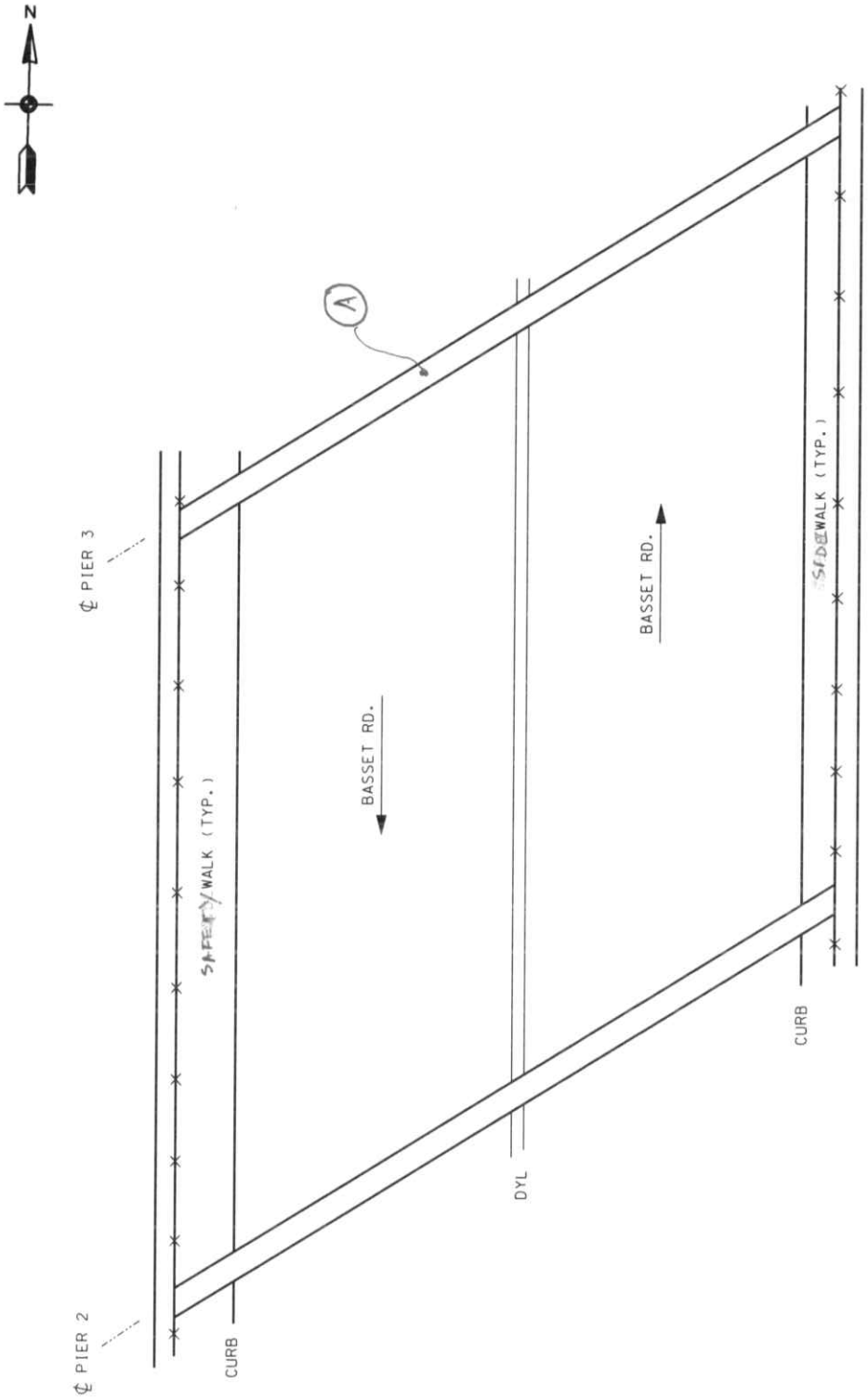
GENERAL NOTES:

- SEE SPAN 1 NOTES.

LEGEND:
SWL - SOLID WHITE LINE
DYL - DOUBLE YELLOW LINE
PPT. - PARAPET

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 22 OF 91 |
| | CREW: RV, PHH | |




TOP OF DECK - SPAN 3
NTS

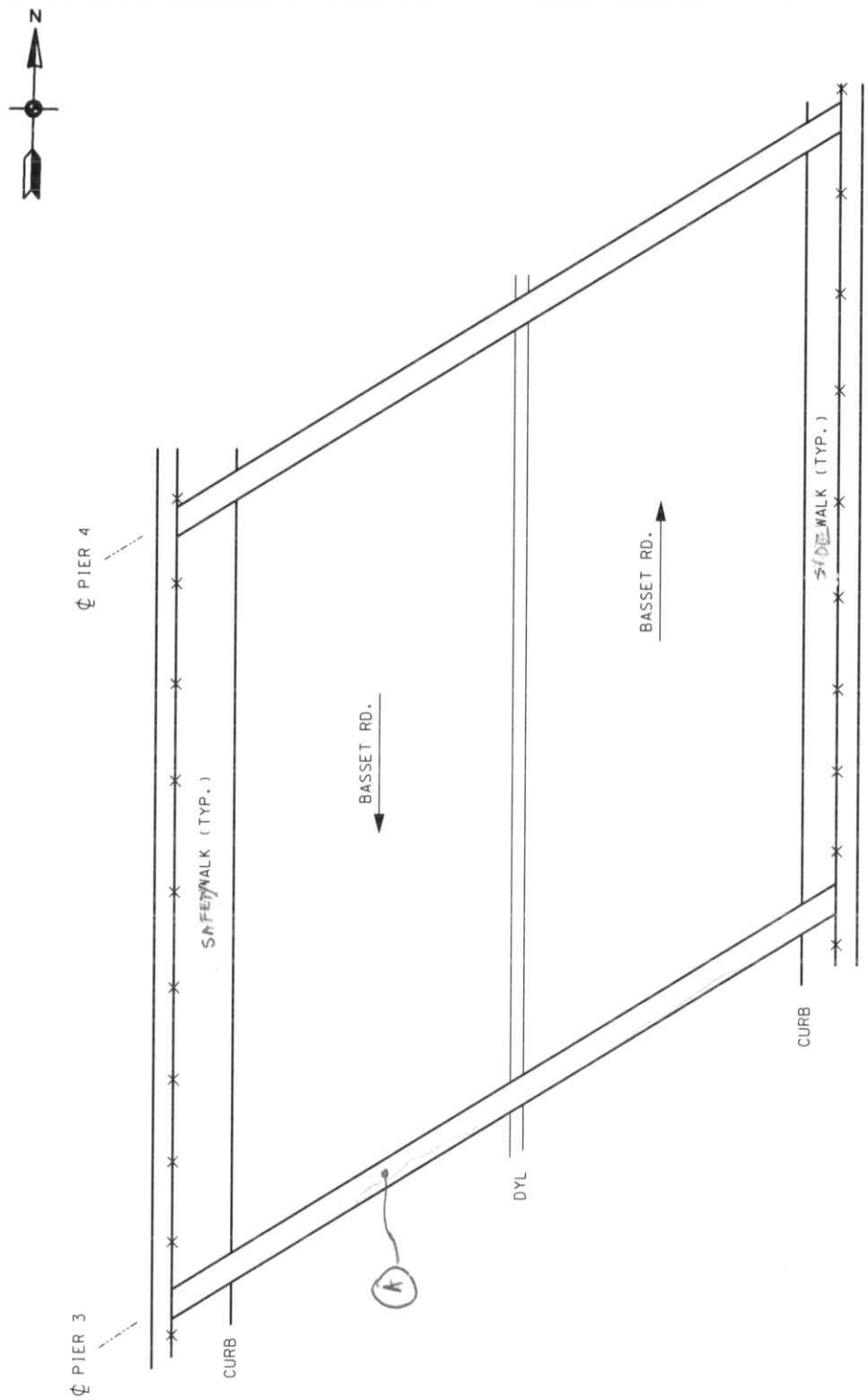
GENERAL NOTES:

- SEE SPAN 1 NOTES.

LEGEND:
SWL - SOLID WHITE LINE
DYL - DOUBLE YELLOW LINE
PPT. - PARAPET

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 23 OF 91 |
| | CREW: RV, PHH | |




TOP OF DECK - SPAN 4
NTS

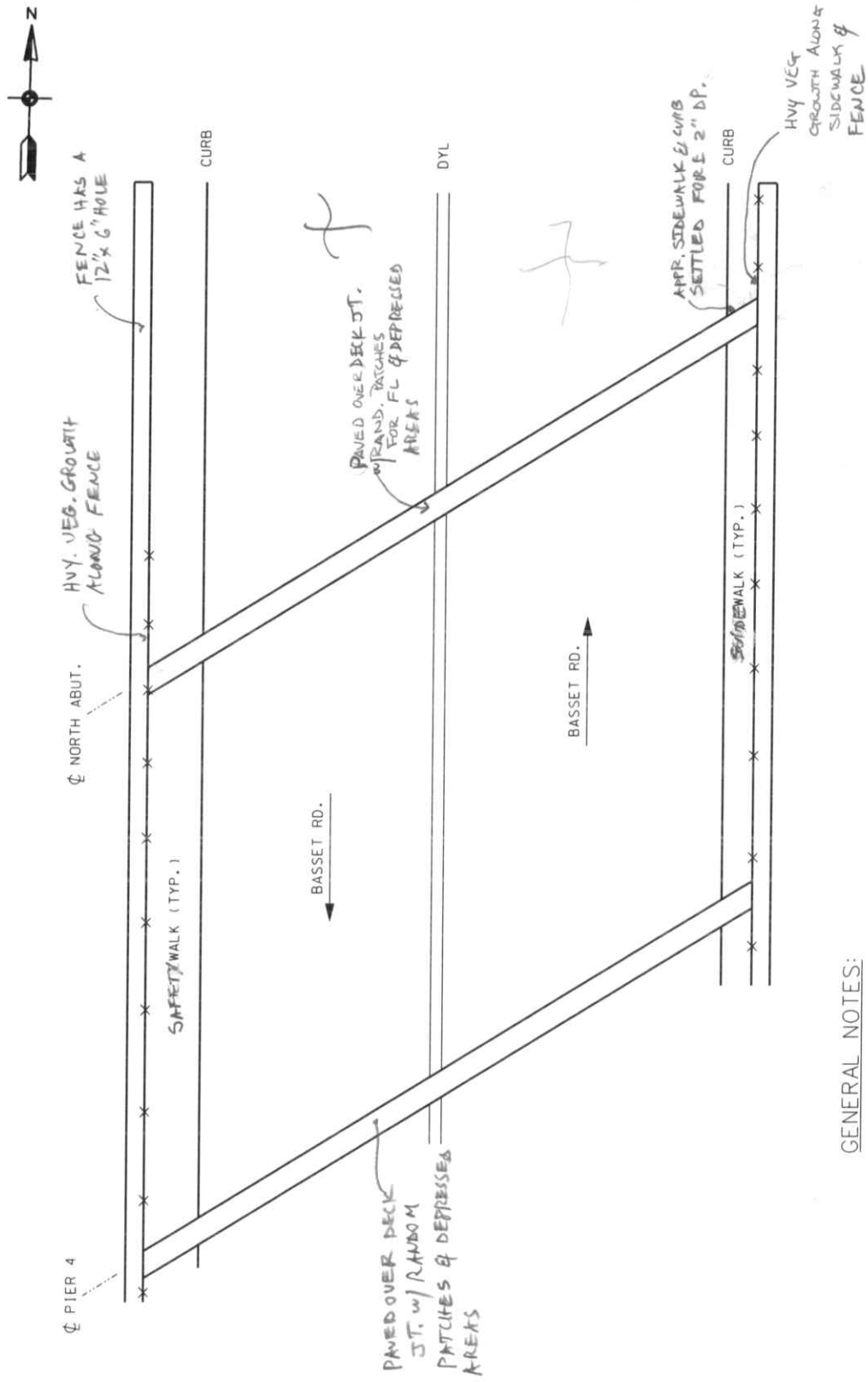
GENERAL NOTES:

SEE SPAN I NOTES.

LEGEND:
SWL - SOLID WHITE LINE
DYL - DOUBLE YELLOW LINE
PPT. - PARAPET

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO. 170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 24 OF 91 |
| | CREW: RV, PHH | |




TOP OF DECK - SPAN 5
NTS

GENERAL NOTES:

- N APPROACH PAVEMENT W/ RAND. CRK'S UP TO 1/4" W (FEW SEALED - REOPENED)
- SEE SPAN 1 NOTES.

LEGEND:
SWL - SOLID WHITE LINE
DYL - DOUBLE YELLOW LINE
PPT. - PARAPET

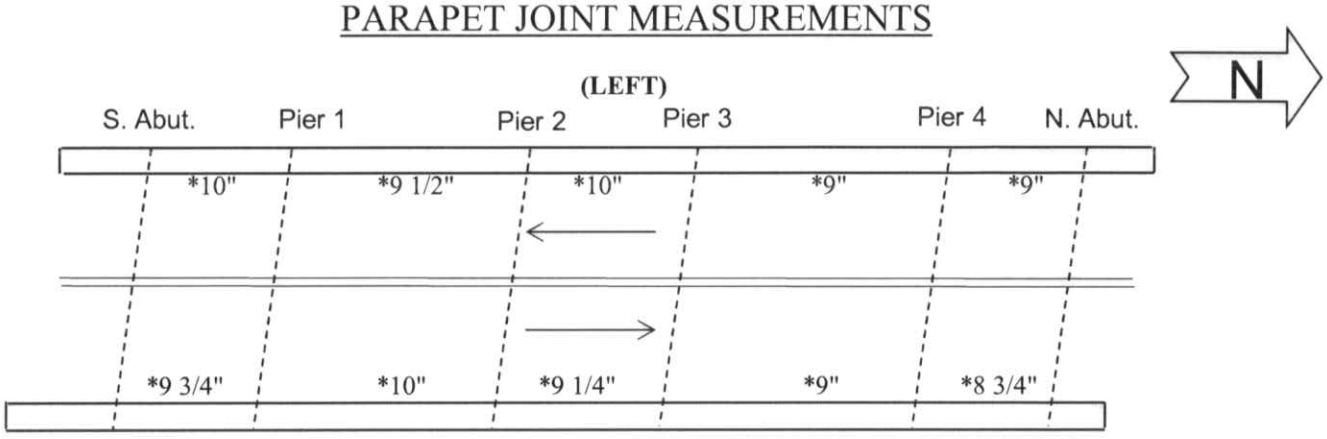
| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

HAKS

FIELD NOTES

| | |
|---|---|
| JOB NO. 170-3013 | DATE: 7/21/11 |
| BRIDGE NO. 03120 | SHEET: 25 of 91 |
| CREW : RV, PHH, MA | |

# PARAPET JOINT MEASUREMENTS




* = Curb Reveal

**(RIGHT)**

| LOCATION | WINTER MEASUREMENT | | | | SUMMER MEASUREMENT > 50° F | | | | JOINT TYPE |
|---|---|---|---|---|---|---|---|---|---|
| | LEFT | RIGHT | TEMP | DATE | LEFT | RIGHT | TEMP | DATE | |
| South Abut. | 1 10/16 | 1 10/16 | 77°F | 6/23/2009 | 1 8/16 | 1 9/16 | 88°F | 7/21/2011 | Paved Over |
| Pier 1 | 1 7/16 | 1 12/16 | 77°F | 6/23/2009 | 1 3/16 | 1 10/16 | 88°F | 7/21/2011 | Poured Sealer |
| Pier 2 | 1 14/16 | 1 11/16 | 77°F | 6/23/2009 | 1 10/16 | 1 8/16 | 88°F | 7/21/2011 | Poured Sealer |
| Pier 3 | 1 7/16 | 1 8/16 | 77°F | 6/23/2009 | 1 5/16 | 1 7/16 | 88°F | 7/21/2011 | Poured Sealer |
| Pier 4 | 8/16 | 10/16 | 77°F | 6/23/2009 | 7/16 | 8/16 | 88°F | 7/21/2011 | Paved Over |
| North Abut. | 2 | 2 4/16 | 77°F | 6/23/2009 | 1 13/16 | 2 1/16 | 88°F | 7/21/2011 | Paved Over |
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GENERAL NOTES:

-Measurements were taken 3" from the top of the parapet at the inside face.

REGULAR INSPECTION ☑ SUMMER / WINTER JOINT MEASUREMENTS ☐

Date: 7/21/11

# JOINT MEASUREMENTS

Form BRI-17, Rev. 9/03

Measurements Taken By: RV

Measurements Reviewed By: PHH

**Bridge No.:** 03120 Bassett Road over Interstate 91 **Town:** North Haven

| Deck Joint Location | Deck Joint Type[1] | Effect Span[2] (ft.) | Winter Measurements Temp °F | Winter Date: 6/23/2009 Left (in.) | Winter Date: 6/23/2009 Right (in.) | Summer Measurements Temp °F | Summer Date: 7/21/2011 Left (in.) | Summer Date: 7/21/2011 Right (in.) | Differential Movements Actual Left (in.) | Differential Movements Actual Right (in.) | Differential Movements by Formula | Comments | Difference Between Actual & Calc'd Mov't Left (in.) | Difference Between Actual & Calc'd Mov't Right (in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S. Abut. | Paved Over | 36.5 | 77 | 1 10/16 | 1 10/16 | 88 | 1 8/16 | 1 9/16 | - 2/16 | - 1/16 | - 1/16 | Expansion | 1/16 | 0 |
| Pier 1 | Poured Sealer | 94.0 | 77 | 1 7/16 | 1 12/16 | 88 | 1 3/16 | 1 10/16 | - 4/16 | - 2/16 | - 1/16 | Fixed/Expansion | 3/16 | 1/16 |
| Pier 2 | Poured Sealer | 77.5 | 77 | 1 14/16 | 1 11/16 | 88 | 1 10/16 | 1 8/16 | - 4/16 | - 3/16 | - 1/16 | Fixed/Expansion | 3/16 | 2/16 |
| Pier 3 | Poured Sealer | 97.5 | 77 | 1 7/16 | 1 8/16 | 88 | 1 5/16 | 1 7/16 | - 2/16 | - 1/16 | - 1/16 | Fixed/Expansion | 1/16 | -0 |
| Pier 4 | Paved Over | 0.0 | 77 | 8/16 | 10/16 | 88 | 7/16 | 8/16 | - 1/16 | - 2/16 | 0 | Fixed/Fixed | 1/16 | 2/16 |
| N. Abut. | Paved Over | 36.5 | 77 | 2 | 2 4/16 | 88 | 1 13/16 | 2 1/16 | - 3/16 | - 3/16 | - 1/16 | Expansion | 2/16 | 2/16 |
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1. The "Deck Joint Type" should be "plug" for Asphaltic Plug joints, "strip" for Strip Seals, "seg." for Segmental Joints, etc.
2. The "Effective Span" is the length contributing to expansion at the joint. This should be 0 at fixed joints of single span bridges.

Comments: **Measurements were taken 3" from the top of the parapet at the inside face.**

**All measurements were double checked.**

7/21/11

Summer / Winter Joint Measurements: (IF ADDING OR REMOVING, SEND A COPY OF THIS FORM TO SUPERVISOR FOR REVIEW/APPROVAL WITH REASONS FOR CHANGE INDICATED)

☐ **ADD** TO SUMMER/WINTER LIST

☐ **REMOVE** FROM SUMMER/WINTER LIST

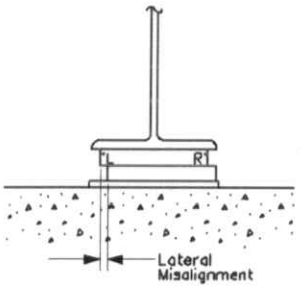
SUPERVISOR APPROVAL: _____

MASTER LIST ENTRY: _____

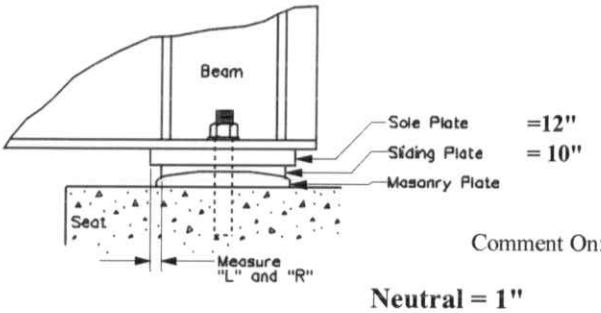
| HAKS FIELD NOTES | BRIDGE NO. 03120 | DATE : 7/21/2011 |
|---|---|---|
| | CREW : PHH, RV, MAA, OM | SHEET: 27 of 91 |

# SLIDING BEARING MEASUREMENTS

Form BRI - 14, Rev 9/01




FRONT VIEW




=12"
= 10"

SIDE VIEW

**Neutral = 1"**

Span No. = 1

Substructure Unit = South Abutment

Temperature = 88°F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds
- Condition of anchor bolts.

| Beam | Movement | | | | Condition | | | Comments |
|---|---|---|---|---|---|---|---|---|
| | " L " | " R " | Mode Exp. or Contr. | Lateral Misalign. | Bearing Frozen? | Normal Mov't | Rust ? H/M/L | |
| G1 | 15/16 | 2 1/8 | C | * | N | Y | L | |
| G2 | 1 9/16 | 1 7/16 | C | * | N | Y | L-M | |
| G3 | 1 11/16 | 1 1/2 | C | * | N | Y | L | |
| G4 | 1 11/16 | 1 7/8 | C | * | N | Y | L | |
| G5 | 1 1/2 | 1 1/16 | C | * | N | Y | L-M | |
| G6 | 1 1/8 | 1 1/8 | C | * | N | Y | L-M | Right anchor bolt is tilted. Masonry plate overhangs the pedestal by 5/16" at the north side. |
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**General Notes:**

1) * = Sliding plate is twisted up to 7/16" in relation to sole plate. Top of sliding plates are exposed due to misalignment.
2) Random bearings have up to 1/8" impacted rust between the bearing plates.

| HAKS FIELD NOTES | BRIDGE NO. 03120 | DATE : 7/21/2011 |
|---|---|---|
| | CREW: PHH, RV, MAA, OM | SHEET: 28 of 91 |

# ROCKER BEARING MEASUREMENTS

Form BRI - 15, Rev 9/97

Span No. = 2

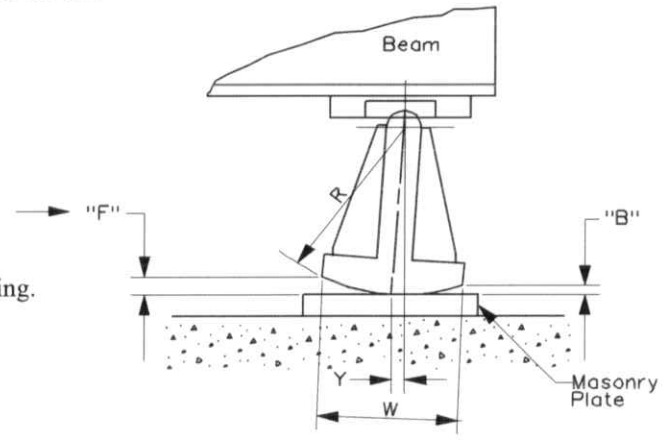
Substructure Unit = Pier 1

Temperature = 88 °F

$\theta = \text{Sin}^{-1}$ (F-B)/W

Y = R TAN θ

The "Front" of the bearing is the side facing the fixed bearing.




NOTE:
"F" & "B" should be measured at the left side corners of the rocker or on the side closest to the front face of the substructure on skewed bridges.

R = 10 inch

W = 8 1/2 inch

| Beam | " F " | " B " | Y | Cont. or Exp. | Comments |
|---|---|---|---|---|---|
| G1 | 1 3/16 | 1 | 4/16 | E | |
| G2 | 1 7/16 | 1 2/16 | 6/16 | E | |
| G3 | 1 7/16 | 15/16 | 9/16 | E | There is ±1/16" deep section loss at bottom of rocker. |
| G4 | 1 8/16 | 1 3/16 | 6/16 | E | |
| G5 | 1 4/16 | 1 1/16 | 4/16 | E | There is ±1/16" deep section loss at bottom of rocker. |
| G6 | 1 5/16 | 1 | 6/16 | E | |
| | | | | | |
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| | | | | | |

**General Notes:**

1) All bearings were measured at the right side, closest to the fixed bearings at Pier 2.
2) Most of the anchor bolts have section loss up to 40%.
3) Bearings have laminated rust and crushed rust below the rocker.

| HAKS FIELD NOTES | BRIDGE NO. 03120 | DATE : 7/21/2011 |
|---|---|---|
| | CREW: PHH, RV, MAA, OM | SHEET: 29 of 91 |

# ROCKER BEARING MEASUREMENTS

Form BRI - 15, Rev 9/97

Span No. = 3

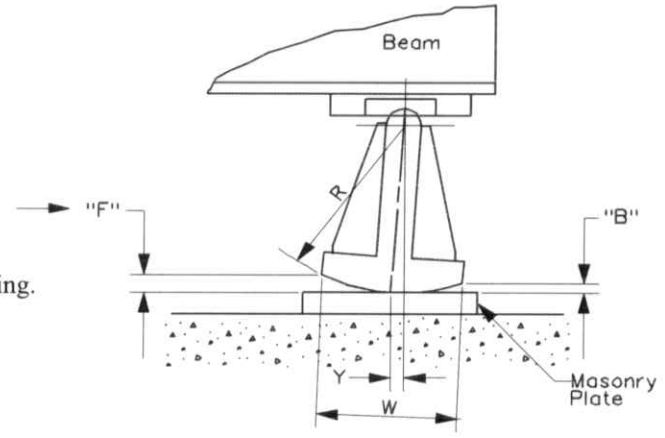
Substructure Unit = Pier 2

Temperature = 83 °F

$\theta = \text{Sin}^{-1}$ (F-B)/W

Y = R TAN θ

The "Front" of the bearing is the side facing the fixed bearing.




NOTE:
"F" & "B" should be measured at the left side corners of the rocker or on the side closest to the front face of the substructure on skewed bridges.

R = 10 inch
W = 8 1/2 inch

| Beam | " F " | " B " | Y | Cont or Exp. | Comments |
|---|---|---|---|---|---|
| G1 | 14/16 | 1 | - 2/16 | C | |
| G2 | 13/16 | 1 2/16 | - 6/16 | C | |
| G3 | 14/16 | 1 1/16 | - 4/16 | C | |
| G4 | 15/16 | 1 1/16 | - 2/16 | C | ±1/16" deep section loss at bottom of rocker. |
| G5 | 1 | 1 2/16 | - 2/16 | C | |
| G6 | 1 | 1 2/16 | - 2/16 | C | |
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**General Notes:**

1) All bearings were measured at the right side, closest to the fixed bearings at Pier 3.
2) All bearing anchor bolts have section loss up to 50%.
3) Most bearings have laminated rust and crushed rust below the rocker.

| HAKS FIELD NOTES | BRIDGE NO. 03120 | DATE : 7/20/2011 |
|---|---|---|
| | CREW: PHH, RV, MAA, OM | SHEET: 30 of 91 |

# ROCKER BEARING MEASUREMENTS

Form BRI - 15, Rev 9/97

Span No. = 4

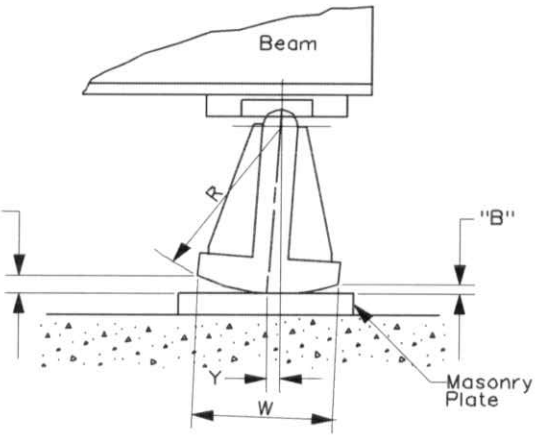
Substructure Unit = Pier 3

Temperature = 88 °F

$\theta = \text{Sin}^{-1}$ (F-B)/W

Y = R TAN θ

The "Front" of the bearing is the side facing the fixed bearing.




NOTE:
"F" & "B" should be measured at the left side corners of the rocker or on the side closest to the front face of the substructure on skewed bridges.

R = 10 inch

W = 8 1/2 inch

| Beam | " F " | " B " | Y | Cont or Exp. | Comments |
|---|---|---|---|---|---|
| G1 | 1 4/16 | 1 1/16 | 4/16 | E | |
| G2 | 1 6/16 | 1 | 7/16 | E | |
| G3 | 1 4/16 | 1 2/16 | 2/16 | E | |
| G4 | 1 9/16 | 1 1/16 | 9/16 | E | |
| G5 | 1 6/16 | 15/16 | 8/16 | E | |
| G6 | 1 9/16 | 1 | 11/16 | E | |
| | | | | | |
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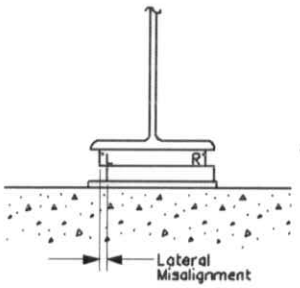
**General Notes:**

1) All bearings were measured at the right side, closest to the fixed bearings at Pier 4.
2) All bearing anchor bolts have section loss up to 50%.
3) Bearings have moderate to heavy rust with laminated rust and crushed rust below the rocker.
4) Bearings have up to 1/8" deep section loss at bottom of rocker except for girder G2 bearing.

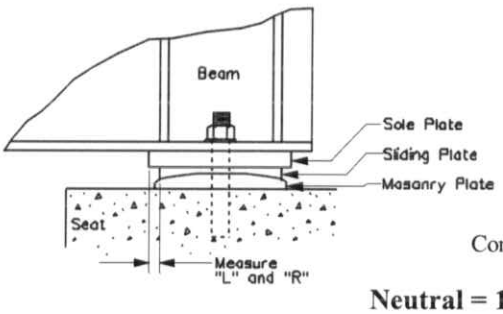
| HAKS FIELD NOTES | BRIDGE NO. 03120 | DATE : 7/20/2011 |
|---|---|---|
| | CREW : PHH, RV, MAA | SHEET: 31 of 91 |

# SLIDING BEARING MEASUREMENTS

Form BRI - 14, Rev 9/01




FRONT VIEW




=12"
= 10"

**Neutral = 1"**

SIDE VIEW

Span No. = 5

Substructure Unit = North Abutment

Temperature = 80°F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds
- Condition of anchor bolts.

| Beam | Movement | | | | Condition | | | Comments |
|---|---|---|---|---|---|---|---|---|
| | " L " | " R " | Mode Exp. or Contr. | Lateral Misalign. | Bearing Frozen? | Normal Mov't | Rust ? H/M/L | |
| G1 | 1 5/8 | 1 5/8 | C | 1/8" E | N | Y | L | |
| G2 | 1 7/16 | 1 5/8 | C | 1/4" E | N | Y | L | |
| G3 | 1 9/16 | 1 1/4 | C | * | N | Y | L | |
| G4 | 1 11/16 | 1 3/8 | C | * | N | Y | L | |
| G5 | 1 5/8 | 1 3/8 | C | * | N | Y | L-M | |
| G6 | 1 5/8 | 2 3/16 | C | * | N | N | M-H | Up to 1/4" impacted rust btwn. sole and sliding plates and up to 1/8" impacted rust btwn. sliding and masonry plates. |
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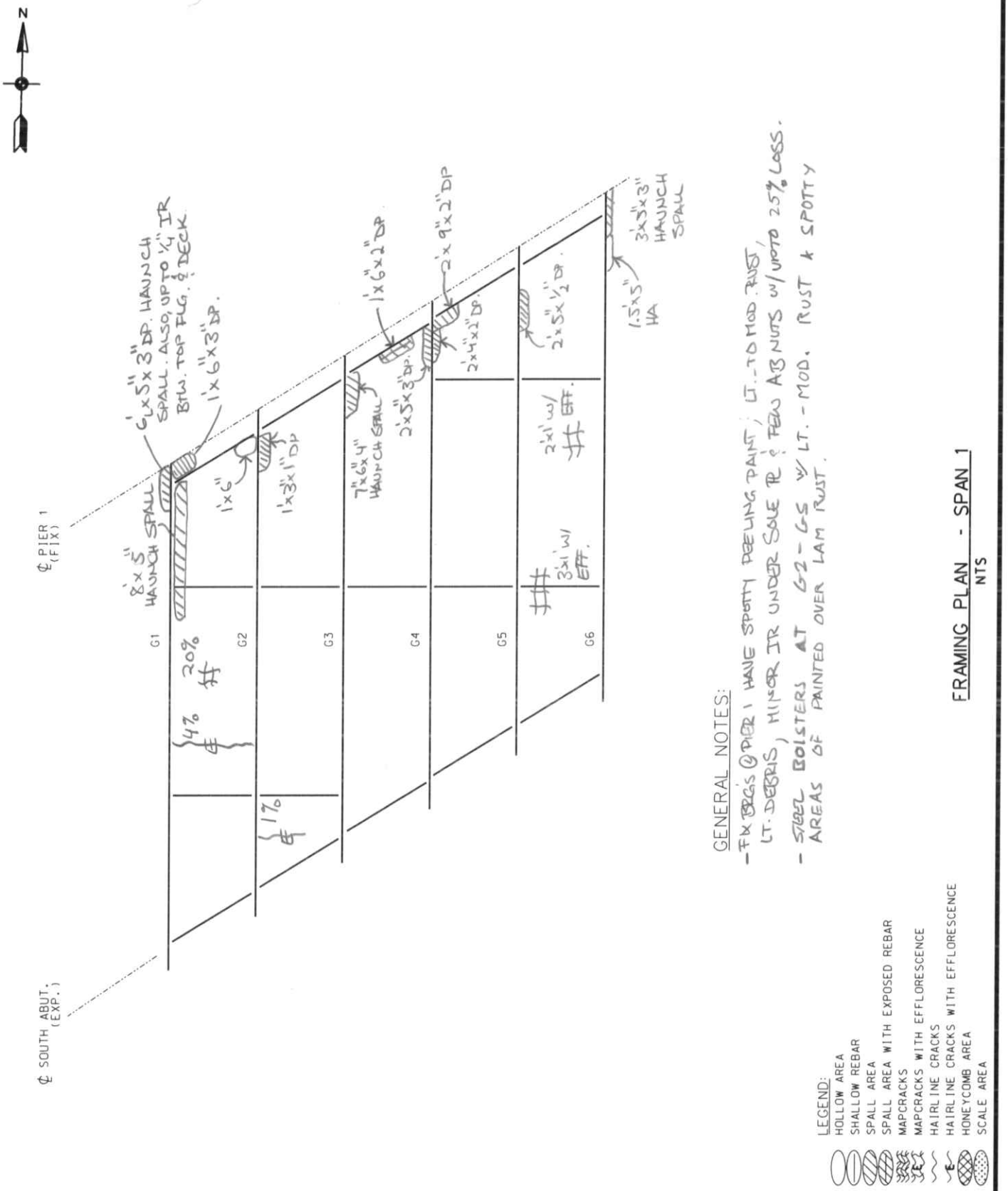
| | | | | | | | | |

**General Notes:**

1) * = Sliding plate is twisted up to 3/8" in relation to sole plate. Top of sliding plates are exposed due to misalignment.
2) Random bearings have up to 1/16" impacted rust between the bearing plates.

| HAKS FIELD NOTES | JOB NO. 170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 32 OF 91 |
| | CREW: MA, PHH, RV, OM | |




GENERAL NOTES:

- FIX BRGS @ PIER 1 HAVE SPOTTY PEELING PAINT; LT. - TO MOD. RUST, LT. DEBRIS, MINOR IR UNDER SOLE PL & FEW A325 NUTS W/ UPTO 25% LOSS.
- STEEL BOLSTERS AT G2 - G5 W/ LT. - MOD. RUST & SPOTTY AREAS OF PAINTED OVER LAM RUST.

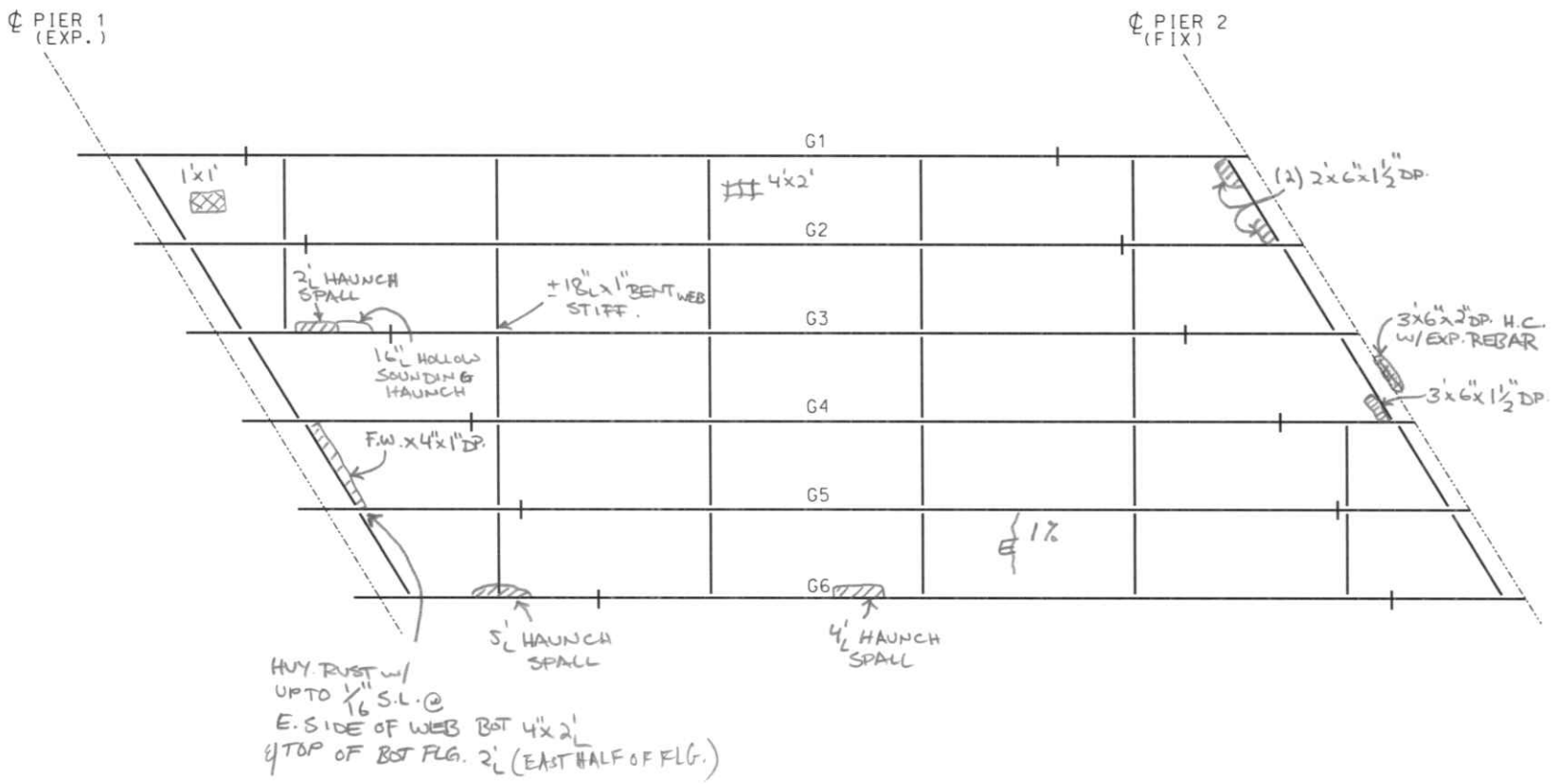
FRAMING PLAN - SPAN 1

NTS

LEGEND:

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |




LEGEND:

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA
- BOTTOM FLANGE TRANSITION

GENERAL NOTES:

- FIXED BRG's W/ SPOTTY LT.-MOD. RUST & SPOTTY BLEEDING RUST. ALSO, RANDOM A.B. NUTS W/ UP TO 60% LOSS.
- SPOTTY NEGL. (1/16" DP) PITTING ALONG TOP OF BOT. FLG. ENDS OF PIER 1.

FRAMING PLAN - SPAN 2

NTS

REVISION 1 DATE CREW

REVISION 2 DATE CREW

REVISION 3 DATE CREW

REVISION 4 DATE CREW

HAKS

FIELD NOTES

JOB NO. 170-3013

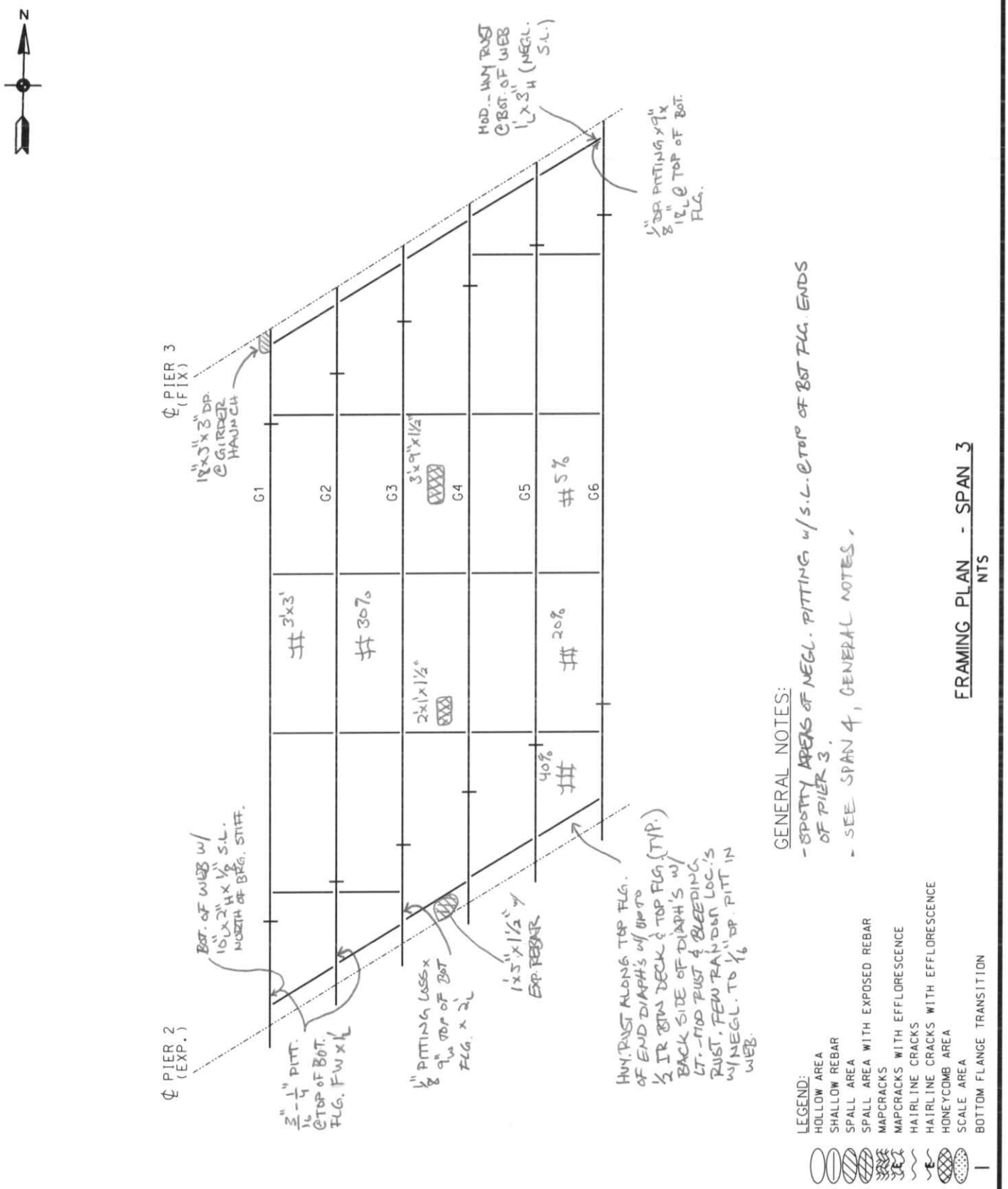
BRIDGE NO. 03120

DATE: 7/21/11

SHEET 33 OF 91

CREW: PHH, RV, MA, GM

| HAKS FIELD NOTES | JOB NO. 170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 34 OF 91 |
| | CREW: PHH, MA, RV, GM | |

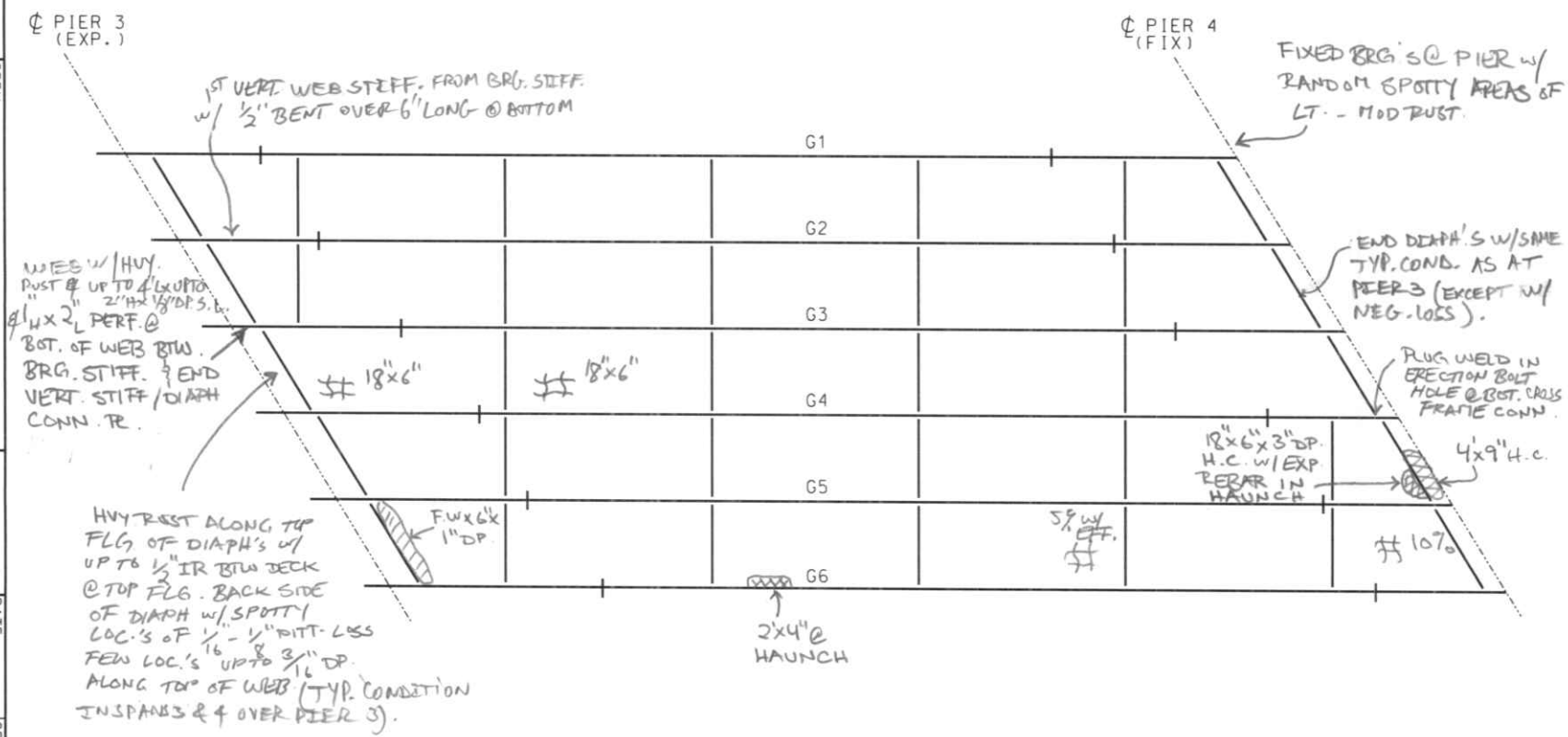



FRAMING PLAN - SPAN 3
NTS

GENERAL NOTES:
- SPOTTY AREAS OF NEGL. PITTING W/ S.L. @ TOP OF BOT FLG. ENDS OF PIER 3.
- SEE SPAN 4, GENERAL NOTES.

LEGEND:
HOLLOW AREA
SHALLOW REBAR
SPALL AREA
SPALL AREA WITH EXPOSED REBAR
MAPCRACKS
MAPCRACKS WITH EFFLORESCENCE
HAIRLINE CRACKS
HAIRLINE CRACKS WITH EFFLORESCENCE
HONEYCOMB AREA
SCALE AREA
BOTTOM FLANGE TRANSITION

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |




LEGEND:

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA
- BOTTOM FLANGE TRANSITION

GENERAL NOTES:

- UNDERSIDE OF DECK w/ FEW HLCRK's w/ & w/o EFFLO. & REBAR CHAIRS w/ HVY RUST.
- EXTENSIVE AREAS OF PEELING PAINT w/ LT.-MOD RUST. HVY. TO LAM. RUST AREAS @ BOT. FLG.'s
- SPOTTY AREAS OF LT. HONEYCOMBING.

FRAMING PLAN - SPAN 4

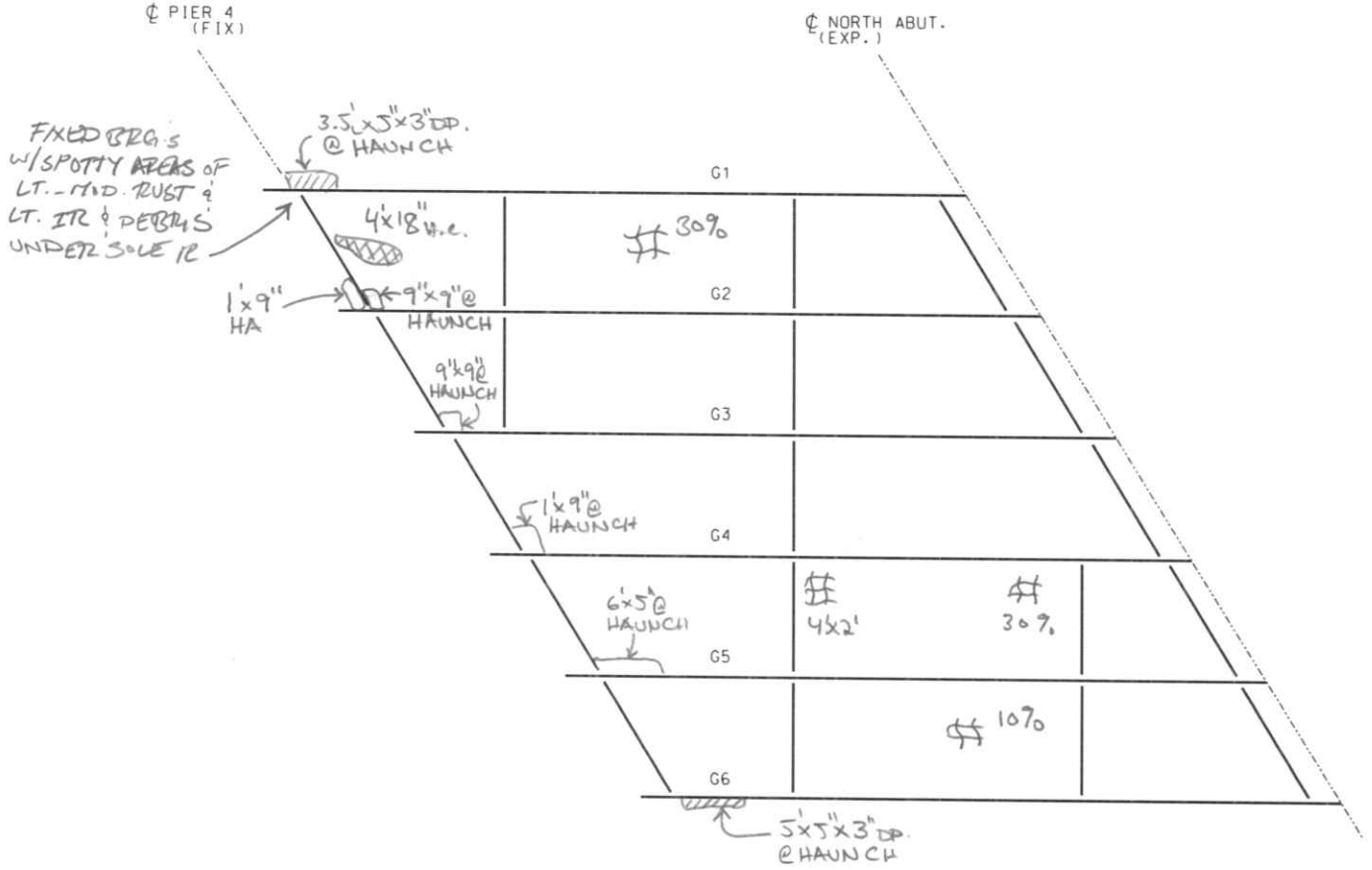
NTS

REVISION 1 DATE CREW
REVISION 2 DATE CREW
REVISION 3 DATE CREW
REVISION 4 DATE CREW

HAKS

FIELD NOTES

JOB NO. 170-3013
BRIDGE NO. 03120
DATE: 7/20/11
SHEET 35 OF 91
CREW: DHH, RV, MA, GM




GENERAL NOTES:

- BOLSTER PL'S G2-G5 W/SPOTTY AREAS OF LT. TO MOD. RUST.
- UNDERSIDE OF DECK W/ ISOLATED HLL'S W/O EFFLO.
- SEE SPAN 4 GENERAL NOTES.

LEGEND:

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

FRAMING PLAN - SPAN 5

NTS

REVISION 1 DATE CREW
REVISION 2 DATE CREW
REVISION 3 DATE CREW
REVISION 4 DATE CREW

HAKS

FIELD NOTES

JOB NO. 170-3013

DATE: 7/20/11

CREW: PHH, RJ, MA, GH

BRIDGE NO. 03120

SHEET 36 OF 91

37/91

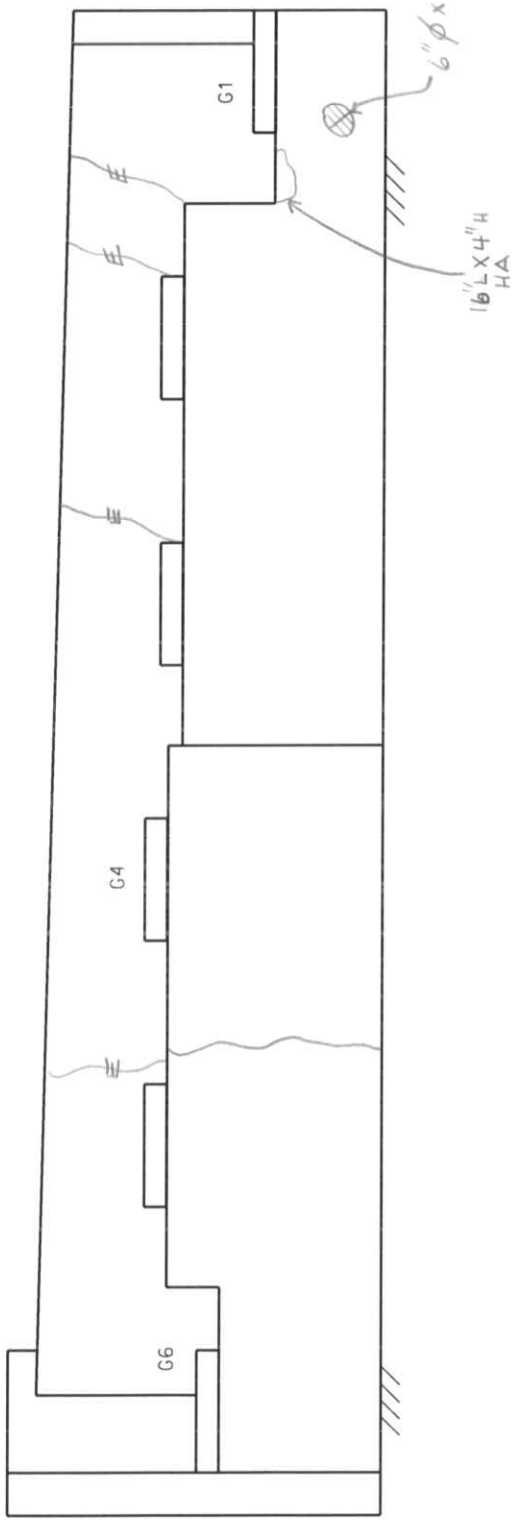
Bridge No.: 03120 Date: 10/2/11 Prepared By: MAA Checked By: ZM

# HAKS CONCRETE DETERIORATION WORKSHEET

Form BRI - 10, 9/01

| | Deterioration By Span - In Square Feet | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Span Number | | | | | | | | | | | |
| Deterioration Type | 1 | 2 | 3 | 4 | 5 | | | | | | | Total |
| Spalled and Delaminated Areas | Top:<br>Bot: 10 | Top:<br>Bot: 10.5 | Top:<br>Bot: 1 | Top:<br>Bot: 5 | Top:<br>Bot: 9 | | | | | | | Top:<br>Bot: 35.5 |
| Scale (Moderated to Severe Only) | Top:<br>Bot: | Top:<br>Bot: | Top:<br>Bot: | Top:<br>Bot: | Top:<br>Bot: | | | | | | | Top:<br>Bot: |
| Cracks: w/Efflorescence (use 6 in. width x length) | Bot: 10 | Bot: 2 | Bot: | Bot: 4 | Bot: 0 | | | | | | | Bot: 16 |
| w/o Efflo. (use 3 in. width x length) | Bot: | Bot: | Bot: | Bot: 6 | Bot: 6 | | | | | | | Bot: 12 |
| Map Cracking: w/Efflorescence (use full area) | Bot: 37 | Bot: | Bot: | Bot: 9 | Bot: | | | | | | | Bot: 46 |
| w/o Efflo. (use 50% of area) | Bot: | Bot: 4 | Bot: 58 | Bot: 12 | Bot: 41 | | | | | | | Bot: 115 |
| Honeycombed Areas (only areas more than 1 1/2 in deep) | Bot: | Bot: 1.5 | Bot: 5 | Bot: 4 | Bot: 6 | | | | | | | Bot: 16.5 |
| Total deterioration | 57 | 18 | 64 | 40 | 62 | | | | | | | 241 |
| Total Span Area (Square Feet) | 1445 | 3722 | 3069 | 3861 | 1445 | | | | | | | 13542 |
| % Spalled and Delaminated on Top | | | | | | | | | | | | |
| % Deterioration on Bottom | 3.9% | 0.5% | 2.1% | 1.0% | 4.3% | | | | | | | 1.8% |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 38 OF 91 |
| | CREW: MAA, PHH, RV, OM | |




SOUTH ABUTMENT ELEVATION
NTS

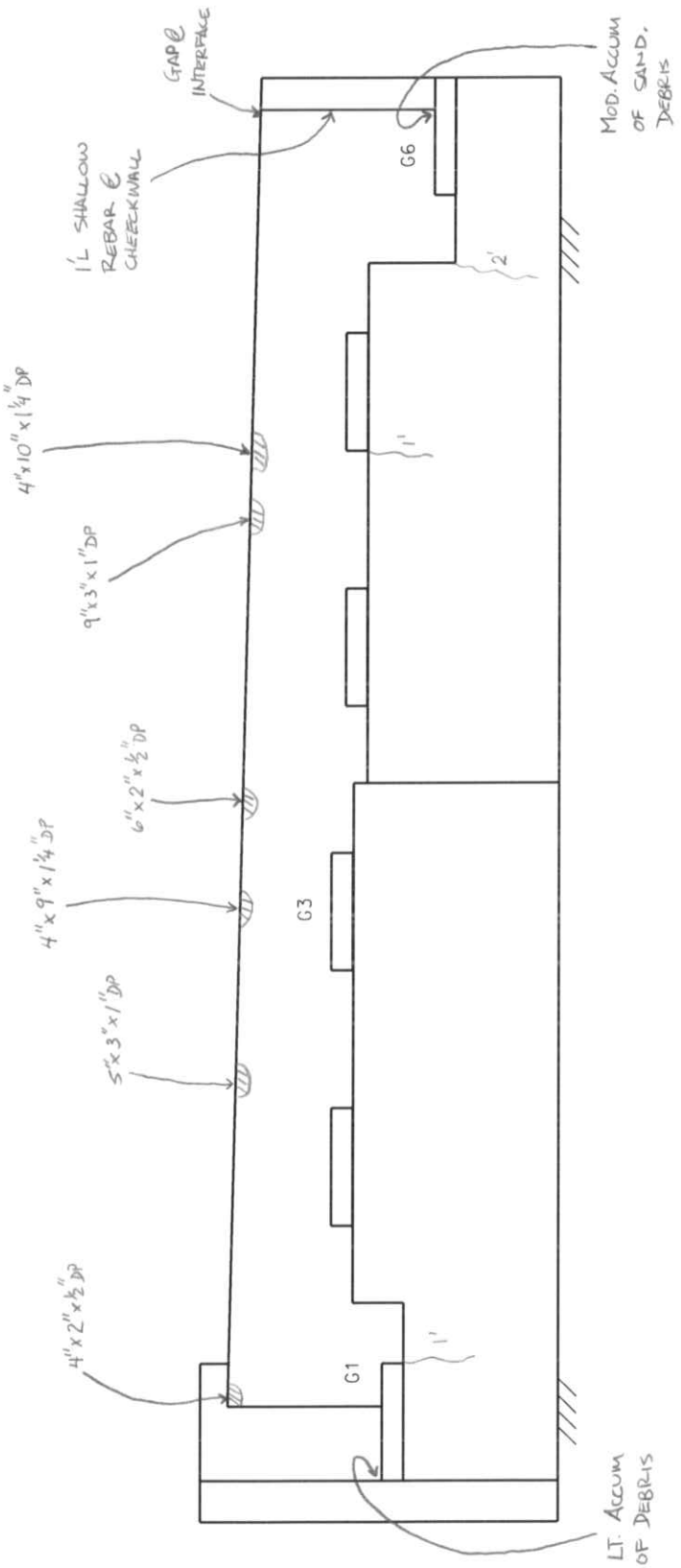
GENERAL NOTES:

- RAND. PEELING PROT. CONC. COATING @ ABUT STEM

LEGEND:
HOLLOW AREA
SHALLOW REBAR
SPALL AREA
SPALL AREA WITH EXPOSED REBAR
MAPCRACKS
MAPCRACKS WITH EFFLORESCENCE
HAIRLINE CRACKS
HAIRLINE CRACKS WITH EFFLORESCENCE
HONEYCOMB AREA
SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 39 OF 91 |
| | CREW: MAA, RV, PHH | |



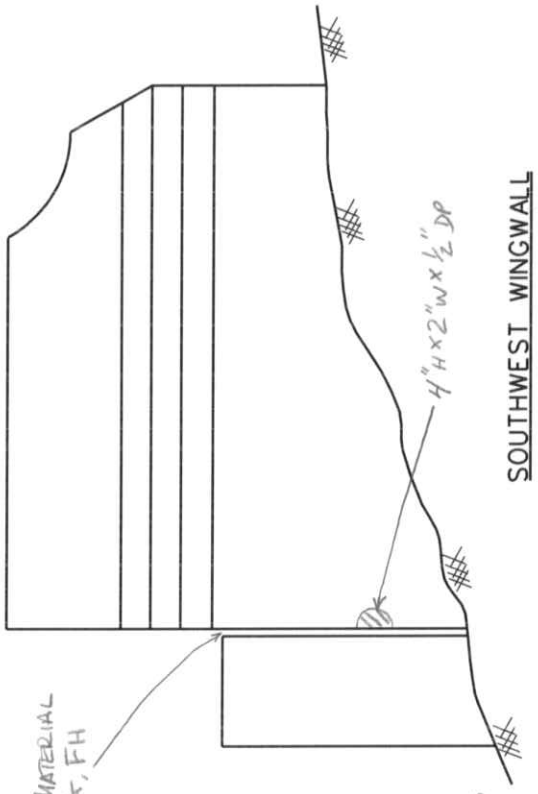

NORTH ABUTMENT ELEVATION
NTS

GENERAL NOTES:

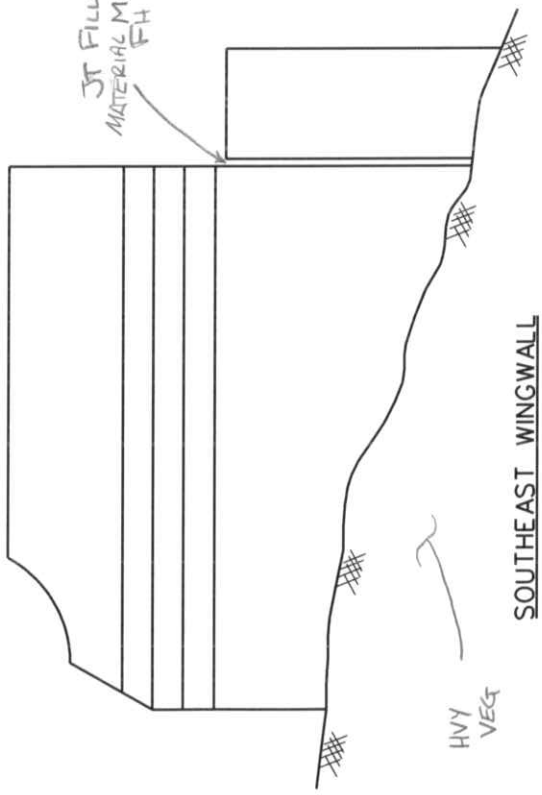
LEGEND:
HOLLOW AREA
SHALLOW REBAR
SPALL AREA
SPALL AREA WITH EXPOSED REBAR
MAPCRACKS
MAPCRACKS WITH EFFLORESCENCE
HAIRLINE CRACKS
HAIRLINE CRACKS WITH EFFLORESCENCE
HONEYCOMB AREA
SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO. 170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 40 OF 91 |
| | CREW: MAA, PHH, RV, OM | |




SOUTHWEST WINGWALL




SOUTHEAST WINGWALL

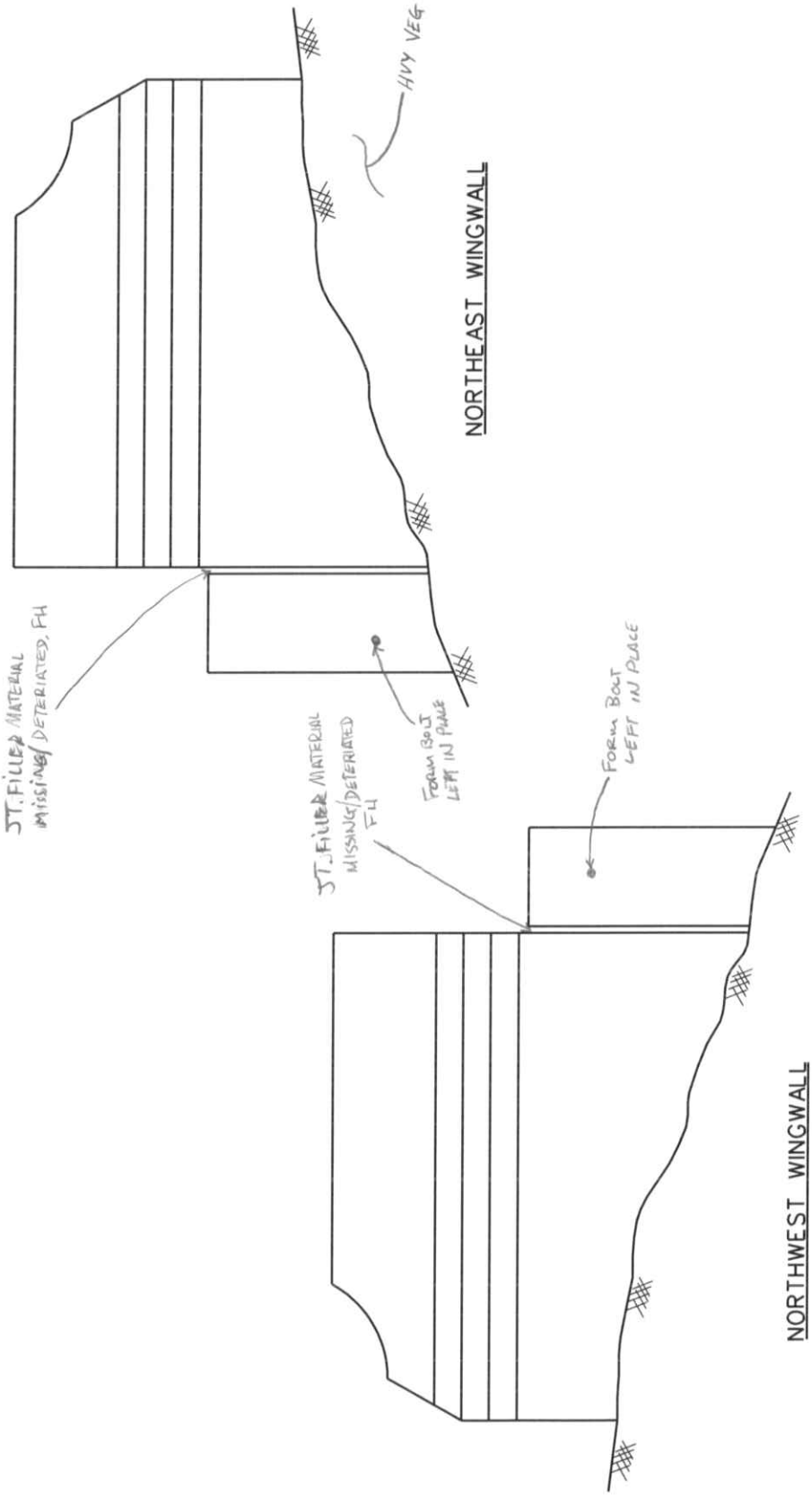
SOUTHEAST & SOUTHWEST WINGWALLS
NTS

GENERAL NOTES:

LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO. 170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 41 OF 91 |
| | CREW: MAA, RV, PHH | |



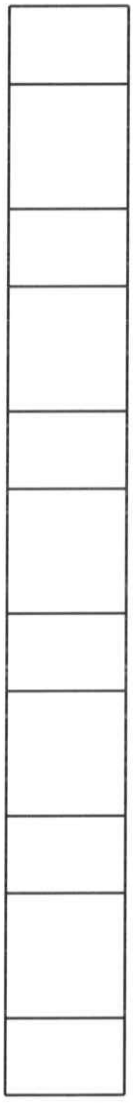

NORTHWEST & NORTHEAST WINGWALLS
NTS

GENERAL NOTES:

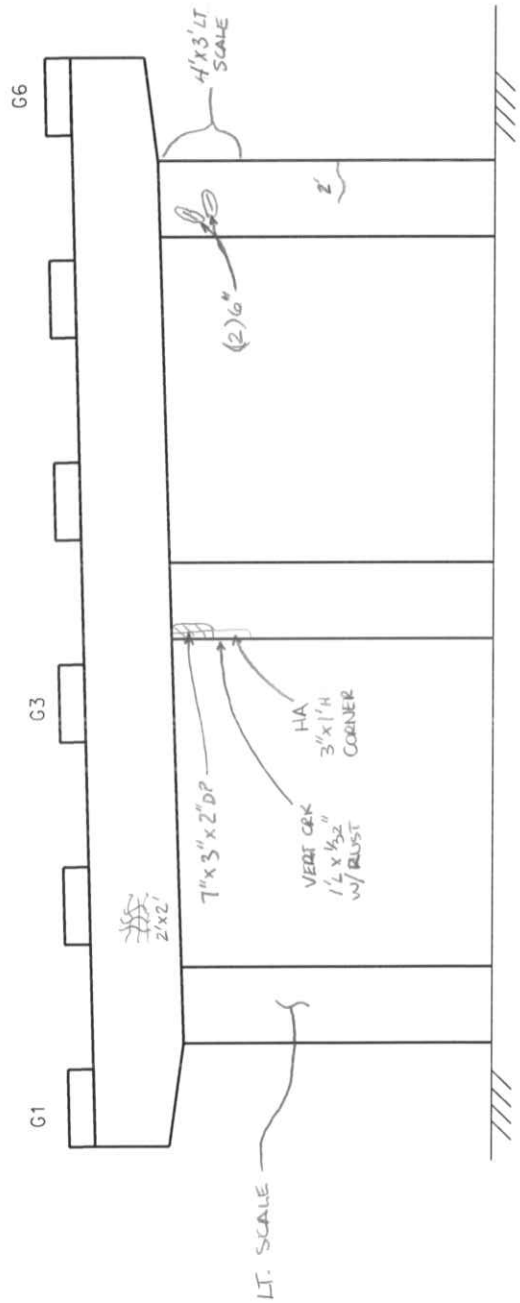
LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 42 OF 91 |
| | CREW: MAA, PHH, RV, OM | |



PLAN VIEW



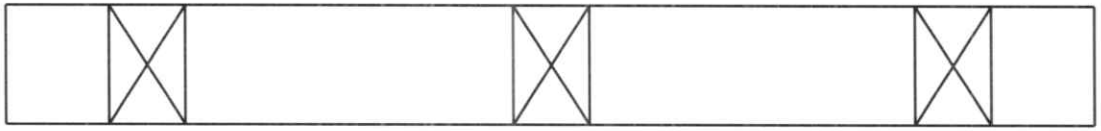

PIER 1 - SOUTH ELEVATION
NTS

GENERAL NOTES:

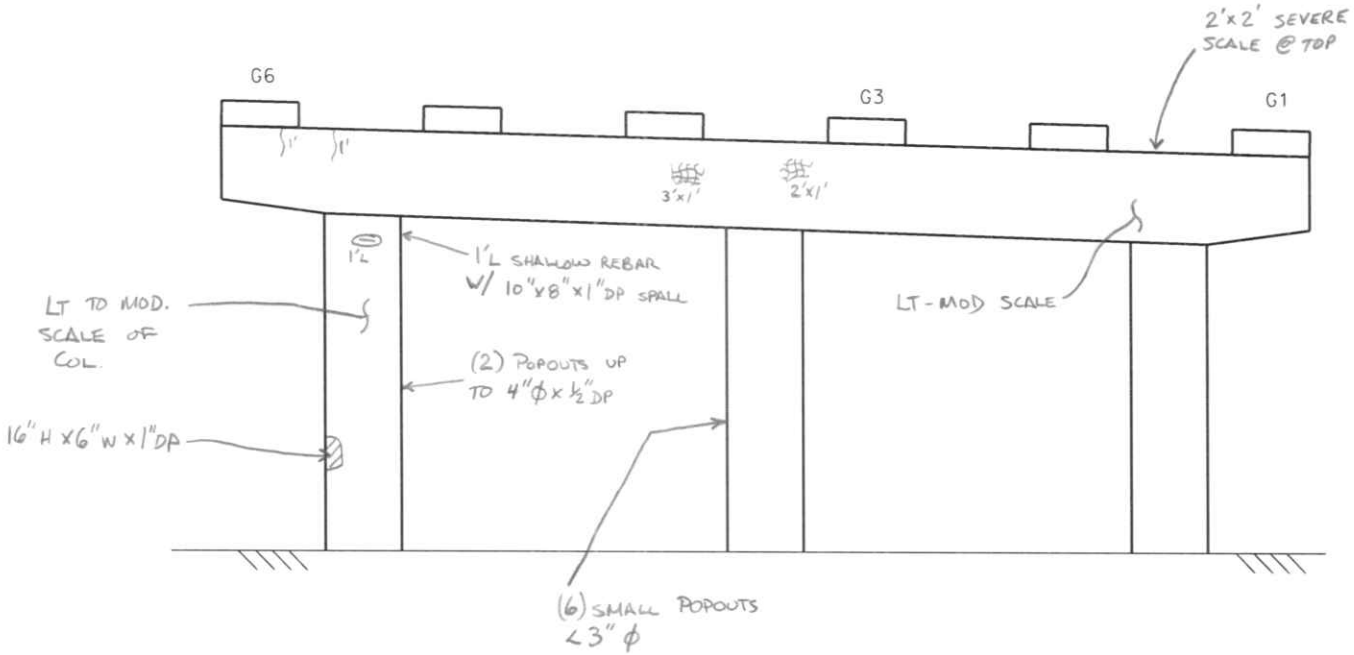
- EVID. OF LKG/SLCT STAINING

LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |



UNDERSIDE OF CAP




GENERAL NOTES:

LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

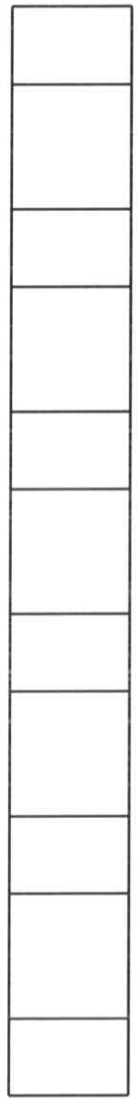
PIER 1 - NORTH ELEVATION
NTS

HAKS

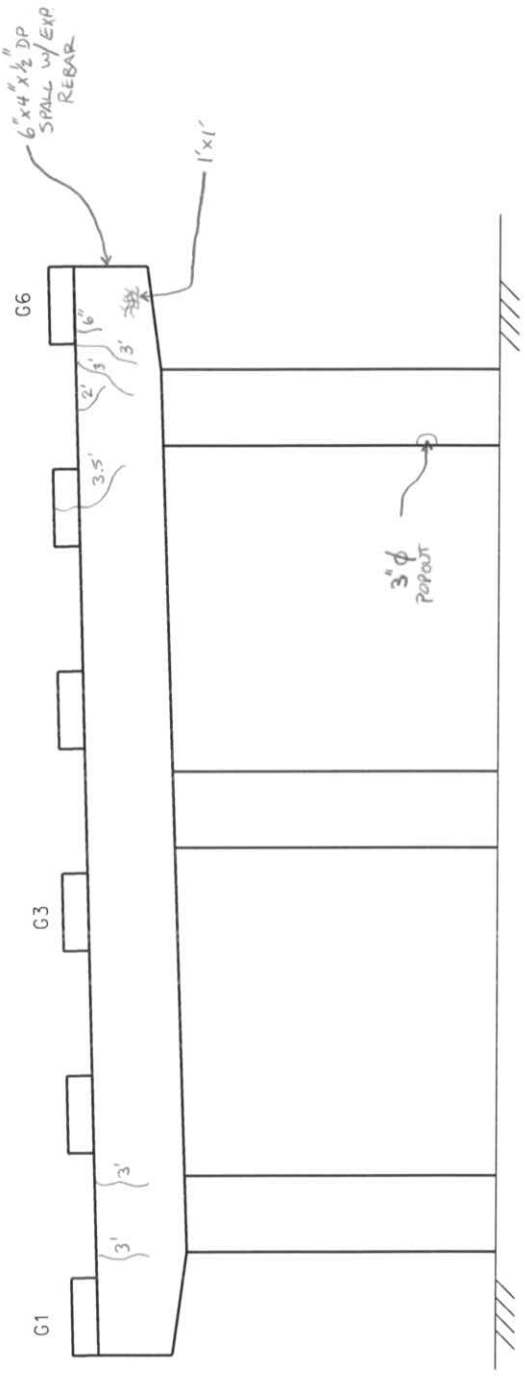
FIELD NOTES

JOB NO. 170-3013
BRIDGE NO. 03120
DATE: 7/21/11
SHEET 43 OF 91
CREW: MAA, PHH, RV, OM

| HAKS FIELD NOTES | JOB NO. 170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/21/11 | SHEET 44 OF 91 |
| | CREW: RV, PHH, MAA, OM | |



PLAN VIEW



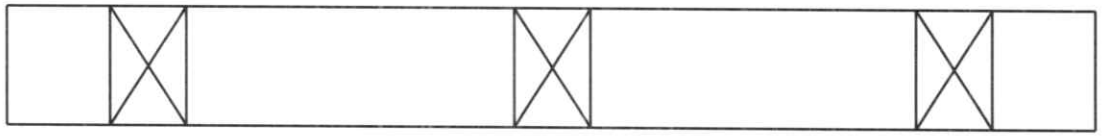

GENERAL NOTES:

- RAND. SHORT SHALLOW TIE WIRE (±6"L)

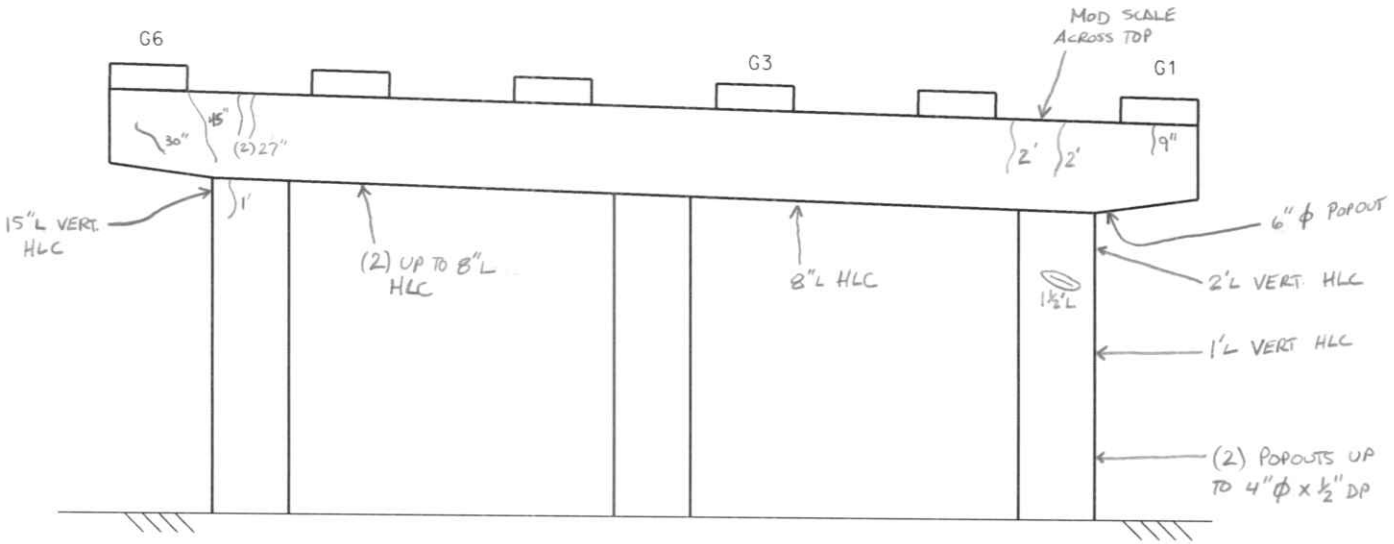
PIER 2 - SOUTH ELEVATION
NTS

LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |



UNDERSIDE OF CAP




GENERAL NOTES:

- RAND. SHORT SHALLOW TIE WIRE (<6"L)

LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

PIER 2 - NORTH ELEVATION
NTS

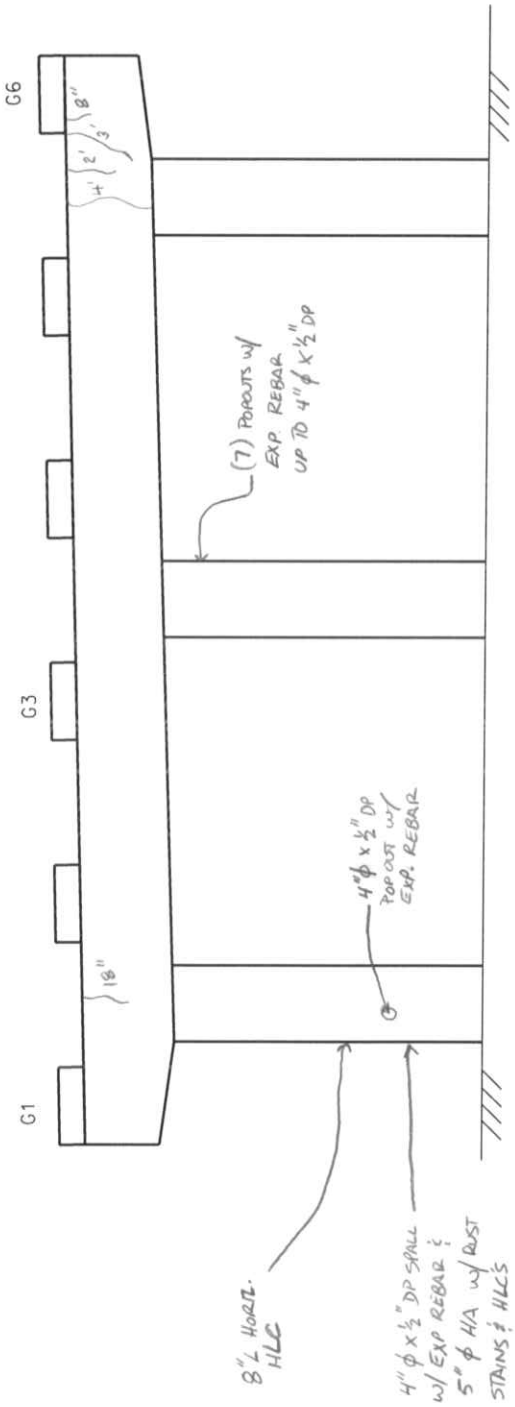
HAKS FIELD NOTES

JOB NO. 170-3013
DATE:
CREW:

BRIDGE NO. 03120
SHEET 45 OF 91

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 46 OF 91 |
| | CREW: MAA, PHH, RV | |

PLAN VIEW



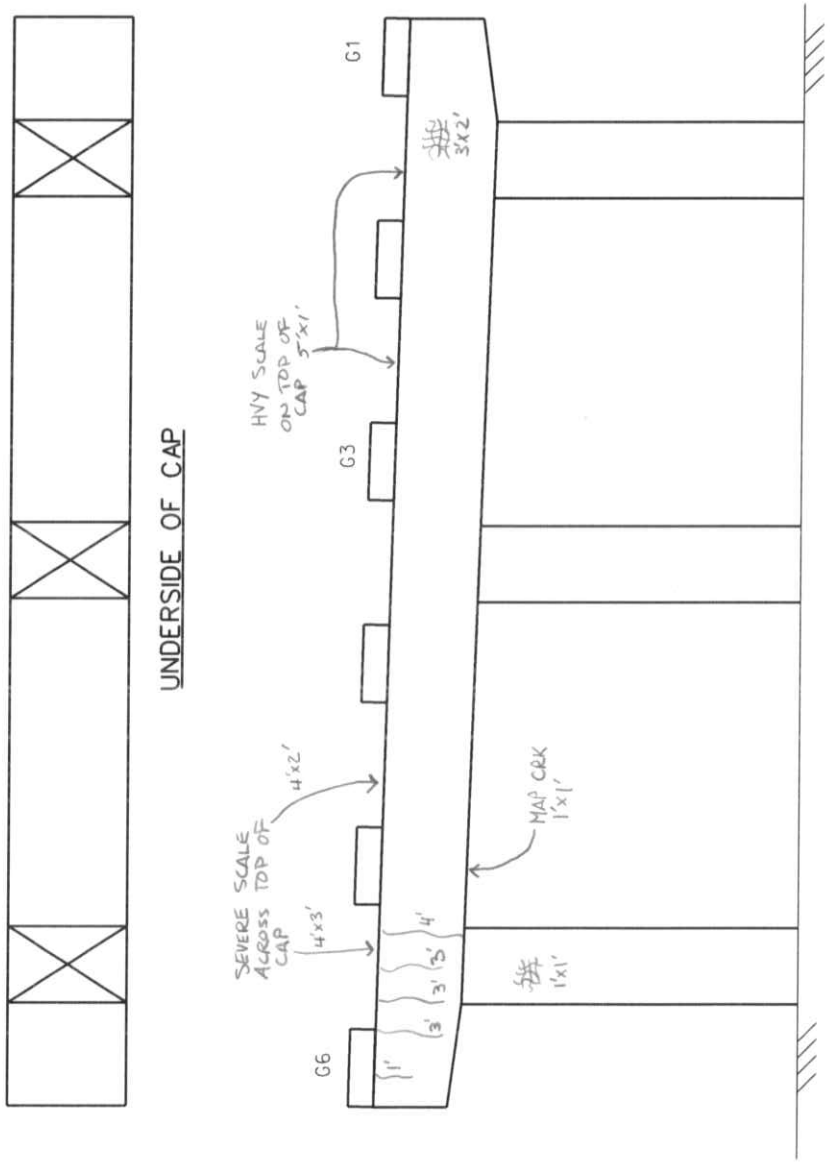

PIER 3 - SOUTH ELEVATION
NTS

GENERAL NOTES:

LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 47 OF 91 |
| | CREW: MAA, PHH, RV | |




PIER 3 - NORTH ELEVATION
NTS

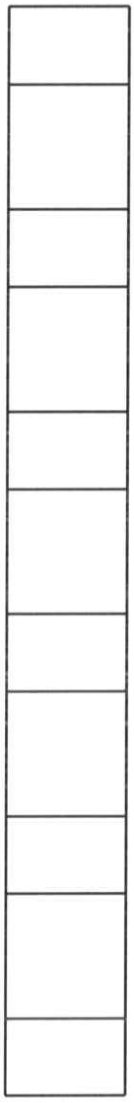
GENERAL NOTES:

- LT - MOD SCALE ON CAP

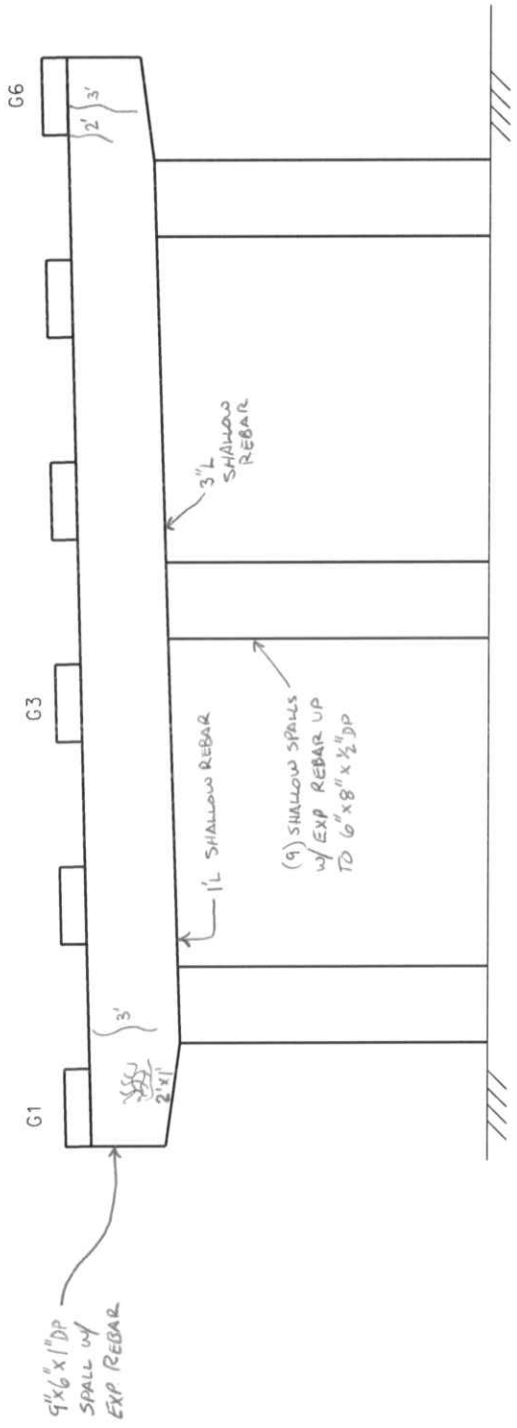
LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 48 OF 91 |
| | CREW: MAA, PHH, RV | |



PLAN VIEW




GENERAL NOTES:

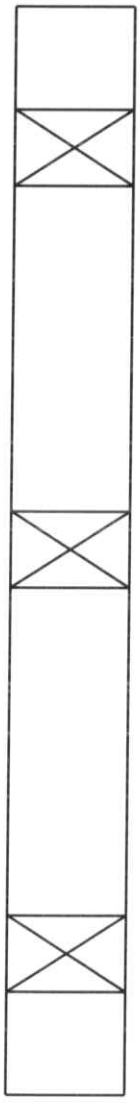
• LT SCALE ACROSS TOPS OF CAPS TYP.

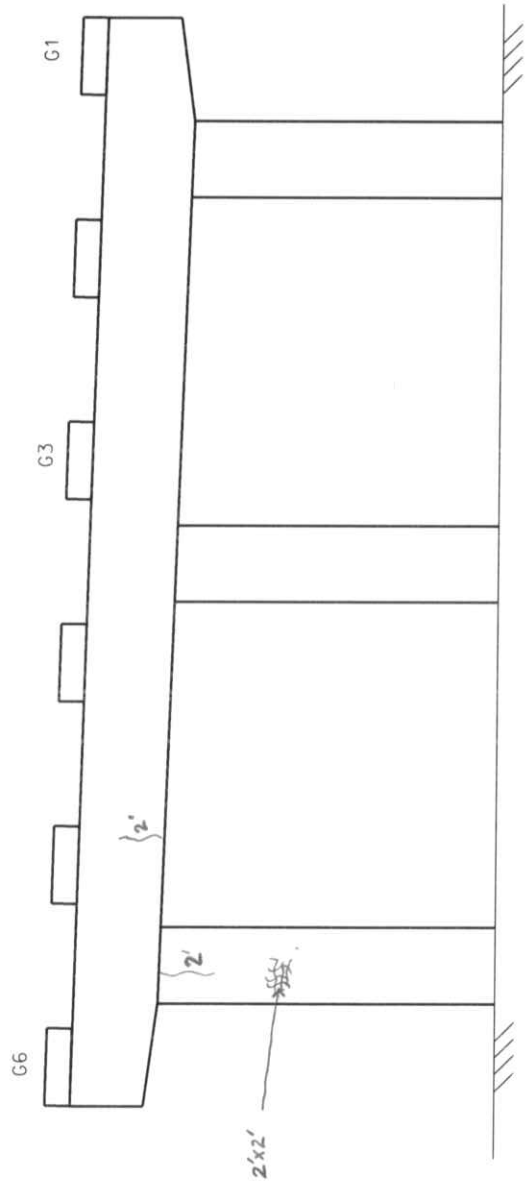
PIER 4 - SOUTH ELEVATION
NTS

LEGEND:
HOLLOW AREA
SHALLOW REBAR
SPALL AREA
SPALL AREA WITH EXPOSED REBAR
MAPCRACKS
MAPCRACKS WITH EFFLORESCENCE
HAIRLINE CRACKS
HAIRLINE CRACKS WITH EFFLORESCENCE
HONEYCOMB AREA
SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

| HAKS FIELD NOTES | JOB NO.170-3013 | BRIDGE NO. 03120 |
|---|---|---|
| | DATE: 7/20/11 | SHEET 49 OF 91 |
| | CREW: MAA, PHH, RV | |




PIER 4 - NORTH ELEVATION
NTS

GENERAL NOTES:

LEGEND:
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- MAPCRACKS WITH EFFLORESCENCE
- HAIRLINE CRACKS
- HAIRLINE CRACKS WITH EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

| REVISION 1 | DATE | CREW | REVISION 3 | DATE | CREW |
|---|---|---|---|---|---|
| REVISION 2 | DATE | CREW | REVISION 4 | DATE | CREW |

# PHOTO LOG

Form BRI-13, Rev. 9/97

50/91

**Bridge Information System**

**Image Inventory**

Bridge No. 03120 Date 7/20/11

Town: NORTH HAVEN Photographer: PHH

Carried / Crossed: BASSET RD / I-91

| Film Frame # | Image Description |
|---|---|
| 1,2. | EAST ELEVATION OF BRIDGE. |
| 3. | BRIDGE ID. |
| 4. | U.S. OF SPAN 4. |
| 5. | SOUTH SIDE OF PIER 4. |
| 6. | NORTH ABUT. |
| 7. | U.S. OF SPAN 5. |
| 8. | NORTH ABUT. BRG. #1 |
| 9. | NORTH ABUT. BACKWALL W/ EVID. OF LKG. |
| 10. | TYP. INTERIOR DIAPH. SPAN 5. |
| 11. | NORTH ABUT. STEM CONDITION. |
| 12. | NORTH ABUT. BRG. #5. |
| 13. | N.E. WINGWALL W/ HVY. VEG. & VINE GROWTH |
| 14. | N.W. WINGWALL |
| 15. | NORTH ELEVATION OF PIER 3. |
| 16. | WEST ELEVATION OF SPANS 3-5. |
| 17. | TYP. INTERIOR DIAPH. IN SPAN 4. |
| 18. | TYP. CONDITION OF GIRDERS. SPAN 4, G5 SHOWN |
| 19. | TYP. BOTT. FLG. TRANSITION. |
| 20. | TYP. CONDITION OF PIER 4 CAP W/ LT. SCALE |
| 21. | FIXED BRG'S (#6) @ PIER 4. |
| 22. | FIXED BRG'S (#5) @ PIER 4. |
| 23. | SPAN 4, END DIAPH'S @ PIER 4. W/ IMP. |
| | RUST @ TOP OF CHANNEL BTWN. END HAUNCH. |
| | BAY 5 SPAWN. TYP. CONDITION @ PIERS |

# PHOTO LOG

Form BRI-13, Rev. 9/97

51/91

Bridge Information System

Image Inventory

Bridge No. 03120 Date 7/20/11

Town: NORTH HAVEN Photographer: DHH

Carried / Crossed: BASSET RD / I-91

| Film Frame # | Image Description |
|---|---|
| 24 | SPAN 4, BAY 4 @ PIER 4, H.C. @ DECK |
| | END. HAUNCH W/ EXP. WIRE |
| 25. | TYP. U.S. OF DECK W/ RUSTED REBAR |
| | CHAIR STAINS. |
| 26. | PIER 4 CENTER COLUMN W/ SPALLS. |
| 27. | SPAN 4, G-6 BRG. @ PIER 3 (EXP.) |
| 28. | SPAN 3, G-6 BRG. @ PIER 3 (FIXED) |
| 29. | SPAN 4, PIER 3 BAY 5. IMP. RUST |
| | ALONG TOP OF DIAPH. CHANNEL W/ HAUNCH SP |
| 30. | U.S. OF DECK W/ FINE H.L. MPCR |
| 31. | EXP. BRG. #5, SPAN 4 @ PIER 3. |
| | LAM. RUST ON ROCKER U.S. W/ 1/16" ± S.L. |
| 32. | SPAN 4. BRG. 4 @ PIER 3. S.L. @ U.S. |
| | OF ROCKER. |
| 33,34. | SPAN 4 G-3 @ PIER 3, WEST ELEV. (WEB PERF.) |
| 35,36 | " " EAST ELEV. OF WEB PERF. |
| 37,38. | SPAN 4, G2 WEST SIDE @ 1st VERT. |
| | WEB STIFF. FROM BRG. STIFF. W/ MINOR |
| | BEND @ BOTT. |
| 39. | SPAN 4, BRG. 1 @ PIER 3 |
| 40. | PIER 3 CAP W/ LT. SCALE & END. OF LEG. |
| 41. | U.S. OF SPAN 3. |
| 42. | NORTH ELEV. OF PIER 2. |
| 43,44 | SPAN 3, G-6 WEST SIDE @ PIER 3. |

# PHOTO LOG

Form BRI-13, Rev. 9/97

52/91

**Bridge Information System**

**Image Inventory**

Bridge No. 03120 Date 7/21/11

Town: NORTH HAVEN Photographer: PMA

Carried / Crossed: BASSETT RD / I-91

| Film Frame # | Image Description |
|---|---|
| 45, 46. | WEST ELEV. OF SPANS 1-3 |
| 47. | U.S. OF SPAN 2. |
| 48. | NORTH ELEV. OF PIER 1. |
| 49. | U.S. OF DECK W/ HPCR IN SPAN 2. |
| 50. | SPAN 2, HAUNCH SP. BAY 5, W. SIDE OF G-6 OVER CENTER LN. |
| 51. | PIER 2 CAP W/ DECK JT. DEBRIS 4"H± |
| 52. | SPAN 2 FIXED BRG. @ PIER 2 (G-1). |
| 53. | " " G-2. |
| 54. | SPAN 2, BAY 1 @ PIER 2 U.S. OF JT. W/ MATERIAL HANGING. |
| 55. | SPAN 3, G-1 EXP. BRG. @ PIER 2. |
| 56. | " " G-2 BRG. IN CONTR. MODE |
| 57. | SPAN 3, G-1 (EAST SIDE) @ PIER 2. |
| 58. | SPAN 3, G-2 EXP. BRG. @ PIER 2. |
| 59. | TYP. END DIAPH'S @ PIER 2. SPAN 3 SIDE SHOWN |
| 60. | DECK JT. 'DEBRIS' ON PIER 2. |
| 61. | SOUTH ABUTMENT. |
| 62. | U.S. OF SPAN 1. |
| 63. | S.E. WINGWALL W/ HVY. VEG. GROWTH |
| 64. | EXP. BRG. #1 @ S. ABUT. W/ IMP. RUST BTWN. PLS |
| 65. | EXP. BRG #2 @ S. ABUT. TYP. LATERAL MISALIGN. |
| 66. | SOUTH ABUT. BACKWALL W/ FIX. HLCR'S |
| 67. | SOUTH ABUT. STEM W/ CR. @ WEST END. |
| 68 | S.W. WINGWALL. |

# PHOTO LOG

Form BRI-13, Rev. 9/97

53/91

**Bridge Information System**

**Image Inventory**

Bridge No. 03120 Date 7/21/11

Town: NORTH HAVEN Photographer: PAH

Carried / Crossed: BASSETT RD / I-91

| Film Frame # | Image Description |
|---|---|
| 69. | BRIDGE ID. |
| 70,71 | SPAN 2, BAY 2, WEST SIDE OF G-3 @ 2ND INT. DIAPH. FROM PIER 1. BENT WEB STIFF. |
| OLD MEMO ITEM 72. | SPAN 2, WEST SIDE OF G-6 NEAR PIER 1 HAUNCH HAS BEEN REMOVED ✓ ADJACENT CONC. IS SOUND. |
| 73 | SPAN 1, G-1 FIXED BRG. @ PIER 1. |
| 74. | SPAN 2, EXP. BRG. 1 @ PIER 1. |
| 75. | SPAN 2, EAST SIDE OF G-1 OVER RIGHT SHOULDER. NO LOOSE HAUNCH ✓✓ |
| 76. | SPAN 1, WEST SIDE OF G-1 OVER RT. SHDR. |
| 77. | G-2, SPAN 1 @ PIER 1 (FIXED). |
| 78. | SPAN 2, G-2 @ PIER 1 (EXP). |
| 79. | SPAN 2, G-3 EXP. BRG @ P-1. NOTE S.L. @ BOTT. OF RADIGER. |
| OLD MEMO ITEM 80. | SPAN 2, WEST SIDE @ G-3 NEAR PIER 1. HOLLOW HAUNCH REMOVED BY HAKS CREW W/ 16"L HOLLOW SOUNDING (NOT LOOSE) W/ REMAINING OVER RT. NB SHDR/MDN. |
| 81. | PIER 1 CAP W/ EVID. OF LKG. |
| 82. | SPAN 2, G-5 EAST SIDE @ PIER 1. |
| 83 | SPAN 2, WEST SIDE OF G-6 NEAR P-1. |
| 84. | PIER 1 COLUMN W/ A FEW SPALLS. |
| | |
| | |
| | |

PREVIOUSLY NOTED → WRONG LOCATION.

PREVIOUSLY NOTED → WRONG LOCATION.

# PHOTO LOG

Form BRI-13, Rev. 9/97

54/91

**Bridge Information System**

**Image Inventory**

**Bridge No.** 03120 **Date** 07/20/11

**Town:** NORTH HAVEN **Photographer:** RV

**Carried / Crossed:** BASSET ROAD / I-91

| Film Frame # | Image Description |
|---|---|
| 1. | SPAN-5, ↓ SPAN-5 ↓. |
| 85. | SP-5, TYP. EXP. BRG @ N-ABUTMENT (G1 SHOWN) |
| 86 | SP-5, G3 BRG - TYP VIEW |
| 87 | SP-5 " - WEST SIDE |
| 88 | SP-5 " - EAST SIDE |
| 89 | " " - FRONT U/S OF SOLE PL SHOWING EVID OF MOVM'T |
| 90 | " G4 BRG - SKEWED |
| 91-93 | " G6 - WEST & EAST SIDE VIEW W/ PACK RUST |
| 94, 95 | " " - EAST SIDE SHOWING PACK RUST B/N BRG PL'S |
| 96 | " TYP. COND OF BACKWALL, SAY 5 SHOWN @ N-ABUT |
| 97 | SP-5, TYP. U/S OF DECK AT N-ABUT |
| 98 | NE CORNER @ CHEEK WALL |
| 99 | NE CORNER @ ABUT SEAT W/ ACCUM OF SAND DEBRIS |
| 100 | SAME LOC AS PHOTO #14 |
| 101 | TYP COND OF N-ABUT STEM. |
| 102 | BAY 2, SPALL @ TOP OF BACKWALL |
| 103 | NW CORNER OF BACKWALL @ N-ABUT |
| 104 | NW WING WALL - TYP COND. |
| 105 | NW CORNER @ CHEEK WALL. |
| 106 | NW CORNER @ N-ABUT STEM W/ DEBRIS ACCUM. |
| 107 | P-4 - NORTH ELEV |
| 108 | SP-5 - TYP CONFIG + COND. OF SUPER STR. |
| 109 | SP-5 TYP. COND. OF U/S OF DECK - BAY 1 SHOWN |

# PHOTO LOG

Form BRI-13, Rev. 9/97

55/91

Bridge Information System

Image Inventory

Bridge No. 03120 Date 07/20/11

Town: NORTH HAVEN Photographer: RV

Carried / Crossed: BASSETT RD / I-91

| Film Frame # | Image Description |
|---|---|
| 110 | SPAN-5, LT HC AREA NEAR P-4 IN BAY 1 |
| 111 | SP-4, P-3, MIDDLE COLUMN - EAST ELEVATION W/ RAND. |
| | PIP-OUTS W/ SHALLOW EXP. REBAR. |
| 112 | P-3 - TYP COND OF U/S OF CAP B/N 1ST & 2ND POL. |
| | FROM W-END. |
| 113. | P-3, W-END COLUMN W/ SPALL & HA W/ HLC's & RUST |
| | STAINS ON W-FACE OF COL. BOTTOM. |
| | |
| 07/21/11 ↓ | 07/21/11 RV, PHH, MAA |
| 114 | SP-3, P-2 - NORTH ELEVATION |
| 115 | SP-3, P-2, MIDDLE COLUMN (WEST SIDE) W/ MINOR SPALLS |
| 116 | SP-3, TYP CONFIG & COND OF SUPERSTR. |
| 117 | SP-3, BAY 2, U/S OF DECK W/ AREA OF HC ON EAST SIDE OF G2 |
| 118 | " , BAY 1, U/S OF DECK W/ AREA OF MPCK & DAMPNESS |
| 119 | " " , TYP. COND OF U/S OF DECK |
| | |
| | ↓ TOD ↓ |
| 120 | BRIDGE FROM S-APPR. |
| 121, 122 | SE MBR ATTM'T |
| 123 | TYP COND OF SE APPR SIDEWALK & MBR W/ HVY VEG GROWTH |
| 124 | HVY SAND ACCUM ALONG SE APPR SIDEWALK |
| 125-127 | SE APPR SIDEWALK SETTLED W/RT0 BRIDGE SIDEWALK |
| 128 | S. APPR PVM'T W/ RAND. LONG. & TV CRK's |
| 129, 130 | SE PPT JT, BTM SEALED BUT HAS OPENING |

# PHOTO LOG

Form BRI-13, Rev. 9/97

56/91

**Bridge Information System**

**Image Inventory**

**Bridge No.** 03120 **Date** 7/21/11

**Town:** NORTH HAVEN **Photographer:** RV

**Carried / Crossed:** BASSET RD / I-91

| Film Frame # | Image Description |
|---|---|
| 131,132 | SE FENCE IN SPAN 1 W/ IMP. DMG. & (1) BENT POST |
| | DISCONN FROM STANCHION @ BTM |
| 133 | HVY VEG. GROWTH ALONG FENCE @ SE APPR |
| 134 | TYP. COND. OF SIDEWALK CURB SEALANT, DET @ RAND. LOC'S |
| 135 | S. ABUT PAVED OVER DECK JT W/ NUM. BIT PATCHES |
| 136 | SPAN 1 OVERLAY W/ NUM. CRK's (MOSTLY SEALED) & RAND. BIT. PATCHES |
| 137-141 | P-1 DECK JT |
| 142 | P-1 SIDEWALK JT |
| 143 | AT P-1 JT, EAST SIDE PPT & FENCE - HVY VINE GROWTH |
| 144 | TYP. CONFIG & COND. OF BRIDGE PPT, SIDEWALK & CURB (EAST SIDE) |
| 145 | TYP. COND. OF CURBS |
| 146 | TYP. COND OF SIDEWALK |
| 147 | SP-2 OVERLAY |
| 148 | SP-2, TYP. COND. OF PPT W/ SAND AT HLC's |
| 149, 150 | SP-2 OVERLAY W/ BIT PATCHES |
| 151-153 | P-2, DECK JT & SIDEWALK JT |
| 154 | SP-3 OVERLAY |
| 155 | SP-3 OVERLAY (NB) W/ BIT PATCH |
| 156-158 | P-3 DECK JT |
| 159 | P-3 SIDEWALK JT |
| 160 | P-4 DECK JT |
| 161 | P-4 SIDEWALK JT |
| 162 | SP-5 OVERLAY |
| 163 | N-ABUT DECK JT |

# PHOTO LOG

Form BRI-13, Rev. 9/97

57/91

**Bridge Information System**

**Image Inventory**

**Bridge No.** 03120 **Date** 7/21/11

**Town:** NORTH HAVEN. **Photographer:** RU

**Carried / Crossed:** BASSET RD/ I-91

| Film Frame # | Image Description |
|---|---|
| 164 | N. APPR. PVMT. |
| 165-167 | NE APPR. SIDEWALK SETTLED UP TO 2" BIT RAMP INSTALLED |
| 168,169 | NE PPT. JT & NE SIDE W/ HVY VINE GROWTH |
| 170,171 | NE MBR ATTMT |
| 172,173 | NW MBR ATTM'T |
| 174 | NW SIDEWALK JT @ N-ABUT, JOINT SEAL DETERIORATED |
| 175 | BRIDGE I.D. |
| 176 | BRIDGE FROM N-APPR. |
| 177 | TYP CONFIG. & COND. OF W-SIDE BRIDGE CURB, PPT, |
| | FENCE & SIDEWALK |
| 178 | TYP. COND. OF W-SIDE SIDEWALK W/ BIT/SAND DEBRIS |
| 179 | N-APPR FROM BRIDGE |
| 180 | TYP COND OF RAND. STANCHIONS W/ SEALANT @ |
| | BASE DETERIORATED |
| 181 | RAND. STANCHIONS AB NUTS IN FLUSH W/ AB |
| 182-184 | SP-2 - SP5, TYP. COND. ALONG W-SIDEWALK, OVERLAY |
| | W/ RAVELLING |
| 185 | S-APPR. FROM BRIDGE |
| 186 | TYP. COND. OF CURBS ALONG WEST SIDEWALK |
| 187,188 | EAST FENCE, @ 3RD STANCHION FROM S-APPR, ATTMT |
| | R TO POST W/ MINOR CRK's |
| 189 | TYP COND OF CURB SEALANT, |
| 190,191 | SW MBR ATTM'T |
| | |

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 1: Bridge Identification Number.**

**Photo # 2: West elevation of bridge (Spans 1-3 shown).**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 3: West elevation of bridge (Spans 3-5 shown).**

**Photo # 4: East elevation of bridge.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

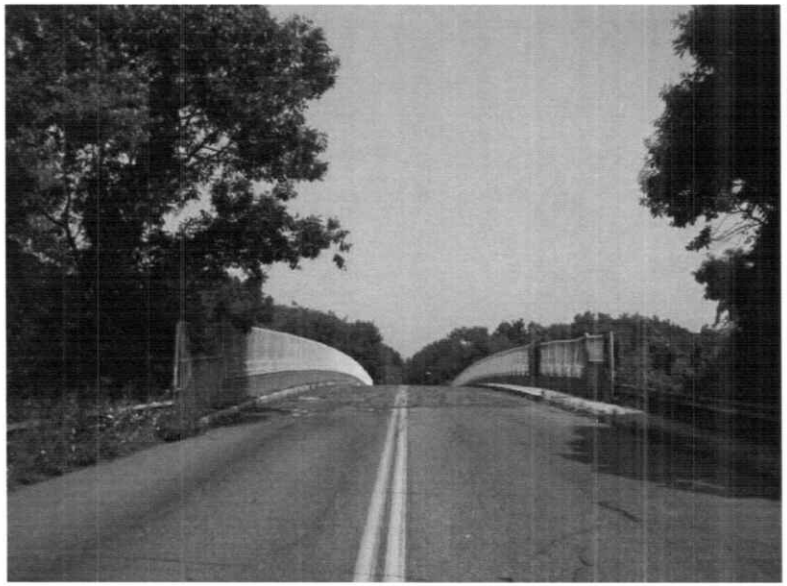


**Photo # 5: Bridge from south approach.**

**Photo # 6: South approach from bridge.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

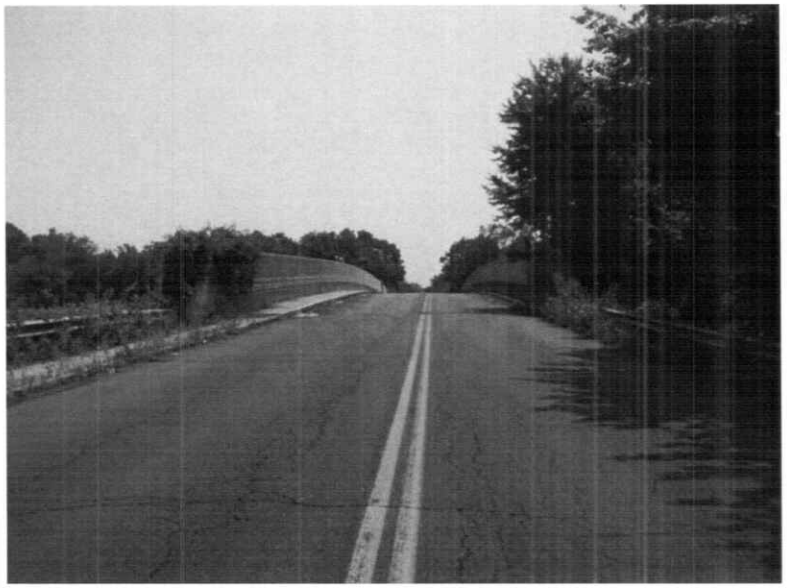


**Photo # 7: Bridge from north approach.**

**Photo # 8: North approach from bridge.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 9: Typical configuration and condition of the underside of deck and superstructure in Spans 2-4; Span 4 shown.**

**Photo # 10: Typical configuration and condition of the underside of deck and superstructure in Spans 1 and 5; Span 5 shown.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 11: Typical condition of the bituminous overlay. There are extensive sealed cracks, numerous bituminous patches with areas of light to heavy raveling throughout.**

**Photo # 12: Span 5 bituminous overlay. There are random areas of concrete pumping through the cracks and bituminous patches. Similar condition at other spans.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

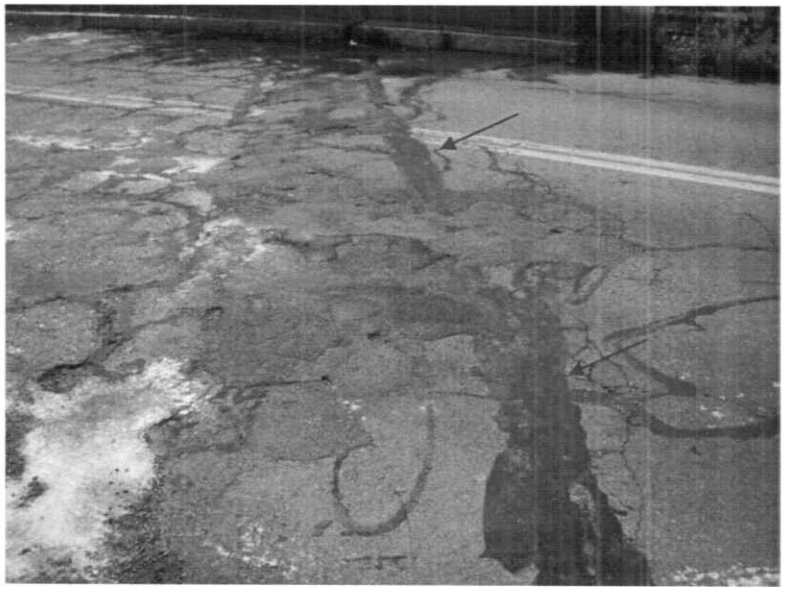


**Photo # 13: North abutment paved over deck joint. The joint and the adjacent overlay has numerous bituminous patches and asphaltic sealer with depressed areas.**

**Photo # 14: Pier 4 paved over deck joint. Joint has random bituminous patches and asphaltic sealer with depressed areas.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

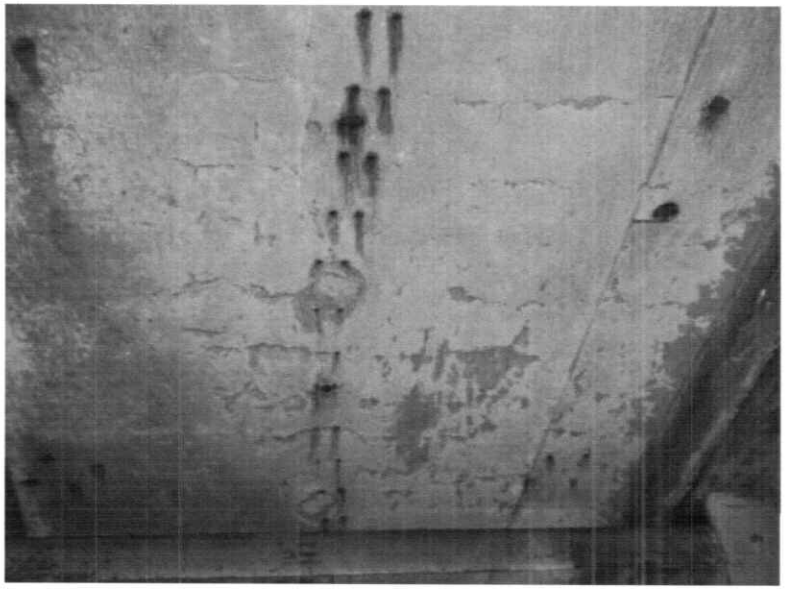


**Photo # 15: Typical condition of the underside of deck with areas of map cracks; Span 2, bay 1 shown.**

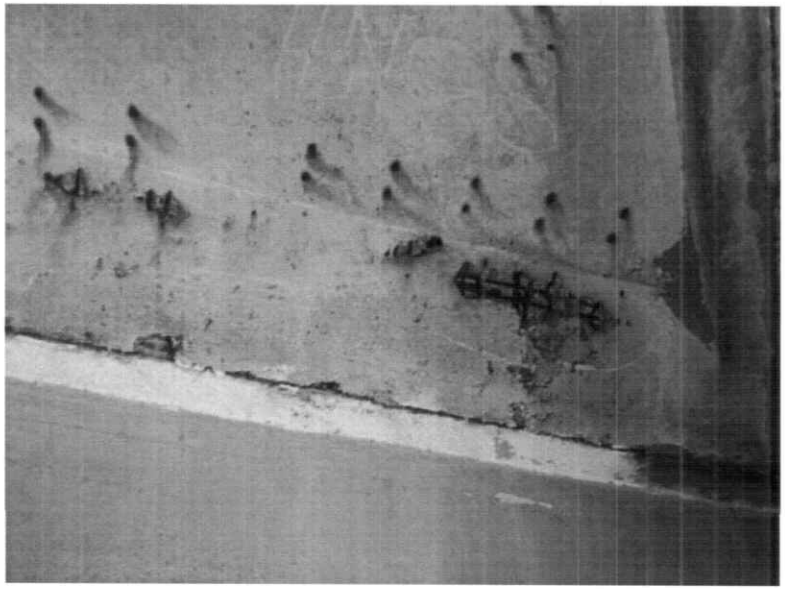


**Photo # 16: Span 4, bay 4 at Pier 4. The underside of deck has honeycomb areas with exposed rebar.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

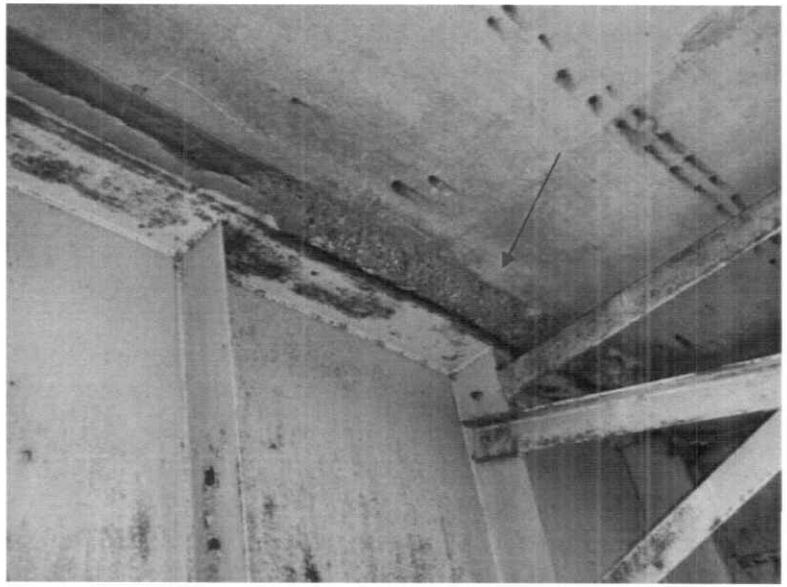


**Photo # 17: Span 2, west side of girder G6 near Pier 1. The area of loose haunch over the right shoulder has been removed since the last inspection.**

**Photo # 18: Span 2, west side of girder G3 near Pier 1. The loose haunch over the right shoulder was removed during this inspection. The adjacent 16 inches of haunch is hollow sounding and is tight.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 19: Typical east granite curb, sidewalk, parapet, bridge railing and fence configuration and condition.**

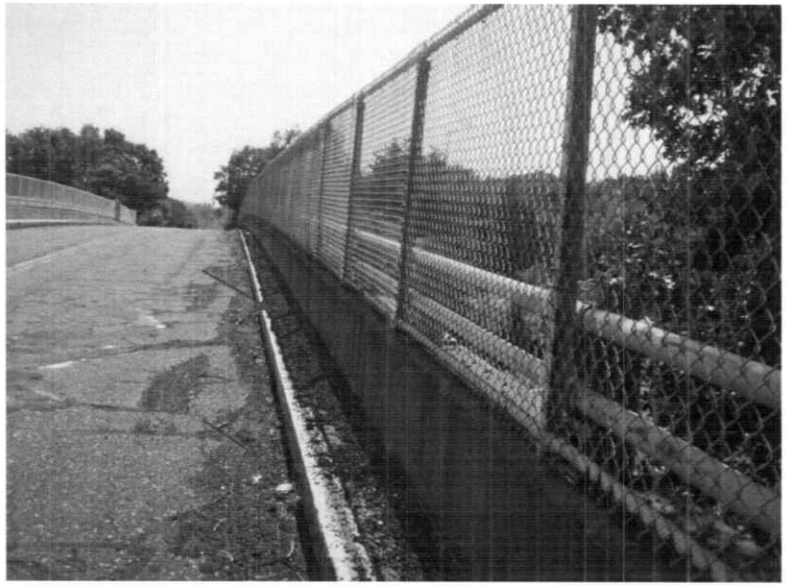


**Photo # 20: Typical west granite curb, safetywalk, parapet, bridge railing and fence configuration and condition.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 21: Typical condition of the sealant between the curbs and the sidewalk/safetywalk. There are random locations of deteriorated sealant with some loose/missing sections.**

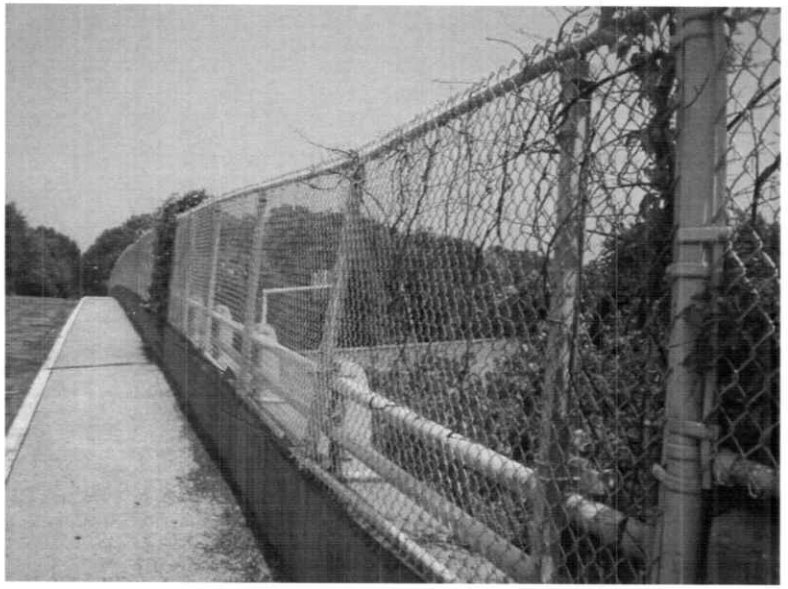


**Photo # 22: Span 1, east fence has impact damage at the bottom. The 2nd post from the south abutment has a broken bracket at the bottom connection and the post is tipped and disconnected from the bottom of the bridge railing stanchion. The 3rd post bottom connection bracket is cracked/bent.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 23: Close-up of the 2nd post in photo # 22.**

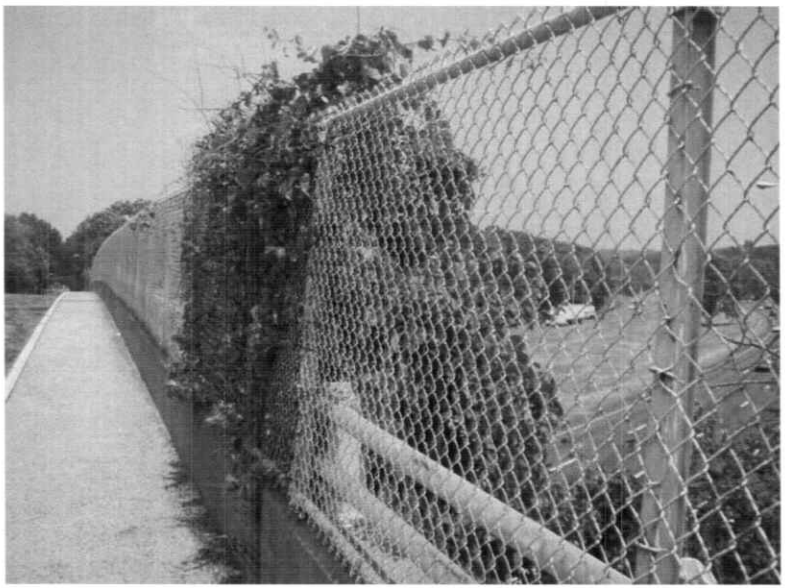


**Photo # 24: East fence at Pier 1 has heavy vine and vegetation growth. Similar condition at all four corners.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

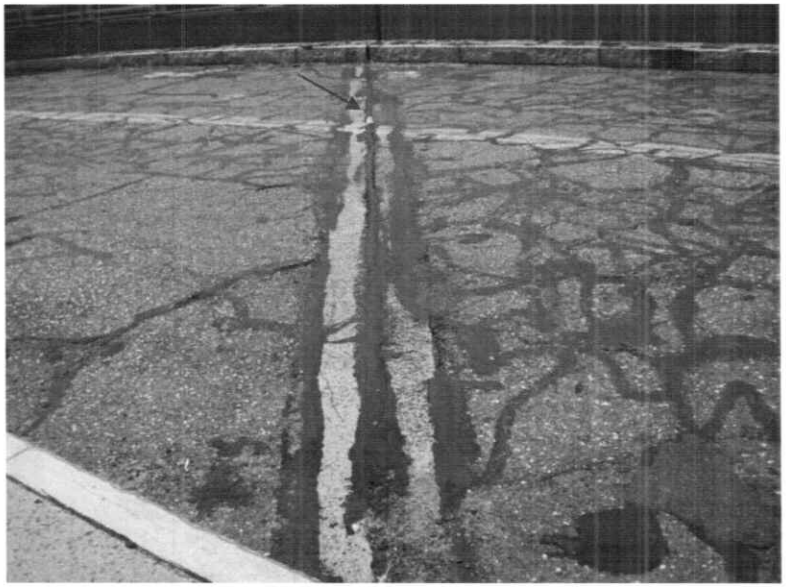


**Photo # 25: Pier 1 deck joint. Typical configuration and condition of Pier 1-3 joints with poured sealer and concrete headers. There is one location of exposed backer rod in the southbound lane.**

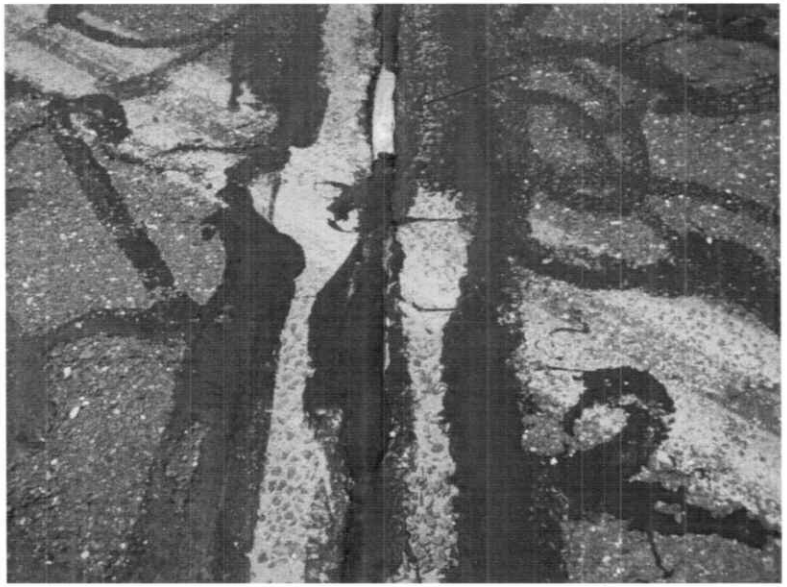


**Photo # 26: Close-up of the exposed backer rod in the previous photo.**

| | | | |
|---|---|---|---|
| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

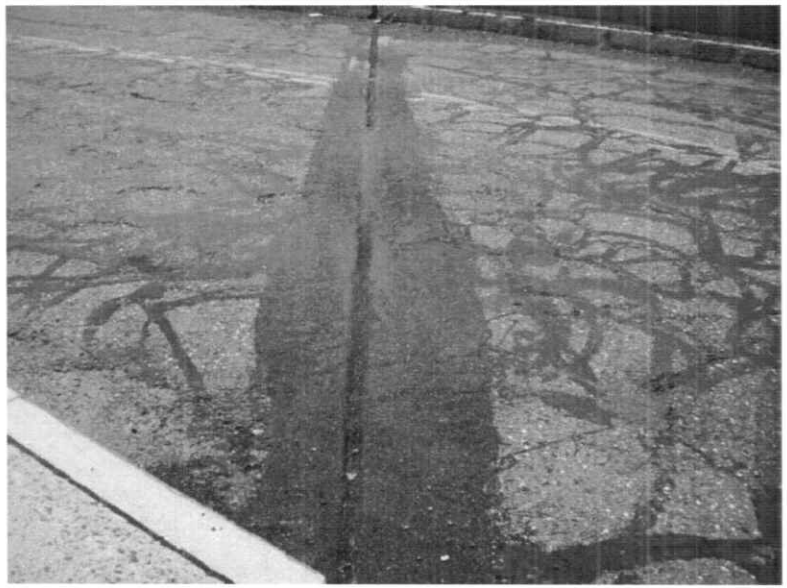


**Photo # 27: Pier 2 poured sealer joint with concrete headers. Sealer is depressed at various locations and has failed for ±20' long, mostly in the southbound lanes.**

**Photo # 28: Sidewalk expansion joint at Pier 3 is deteriorated and cracked. Typical condition at sidewalk and safetywalk joints.**

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| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
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| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 29: Span 1, girder G2 sliding bearing at South abutment. Typical condition of sliding bearings at the abutments. There is impacted rust between bearing plates and there is lateral misalignment.**

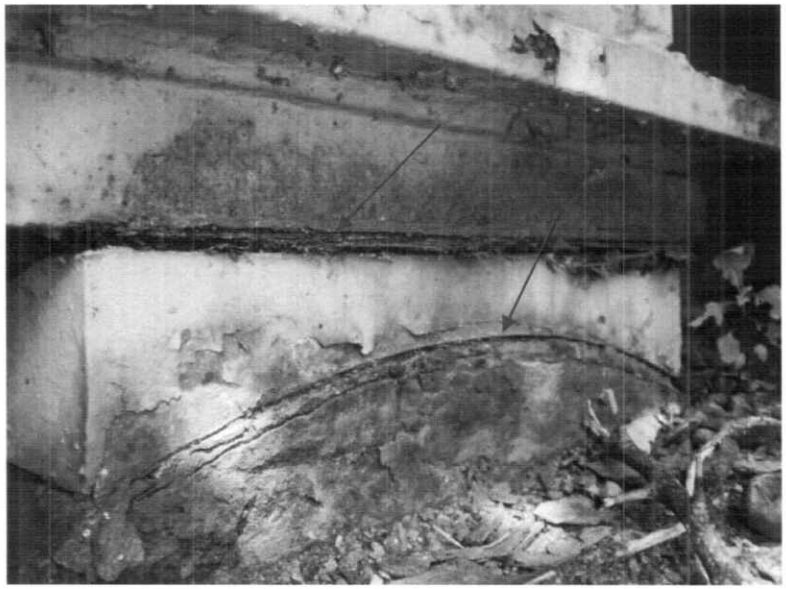

**Photo # 30: Girder G6 bearing at North abutment. There is heavy rust with areas of laminated rust and up to 1/4" impacted rust between bearing plates.**

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| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
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| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 31: Span 4, girder G6 rocker bearing at Pier 3. Typical condition of rocker bearings. There is laminated rust with crushed rust below the rocker. Most of the anchor bolt nuts have up to 50% section loss.**

**Photo # 32: Span 4, girder G5 rocker bearing at Pier 3. Typical section loss at the underside of the rocker at the front of the bearing.**

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| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

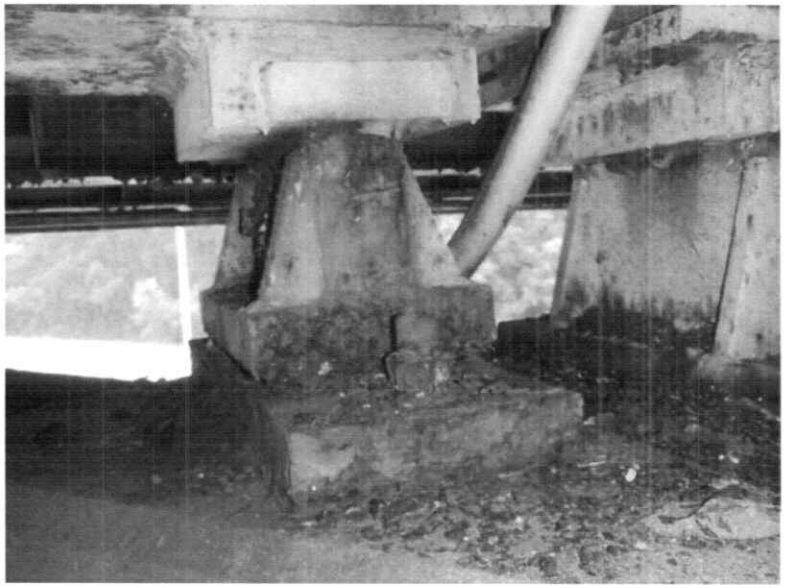

**Photo # 33: Span 3, girder G2 rocker bearing at Pier 2. Typical rocker bearing in contraction mode at 83°F.**

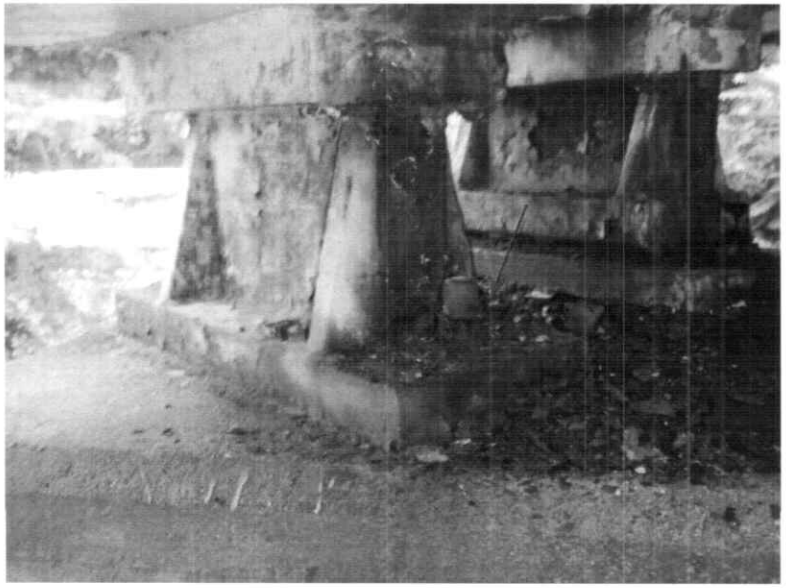

**Photo # 34: Span 2, girder G1 fixed bearing at Pier 2. Typical condition of bearings. There is peeling paint with light to heavy rust and areas of laminated rust. Few anchor bolt nuts with up to 60% section loss.**

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| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 35: Typical configuration and condition of fixed bearings and rolled beam end bolsters at Pier 4.**

**Photo # 36: Typical configuration and condition of girders in Spans 2-4. Peeling paint with light to heavy rust throughout. Span 5, girder G5 shown.**

Span 4

RHH
12/15/11

| | | | |
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| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

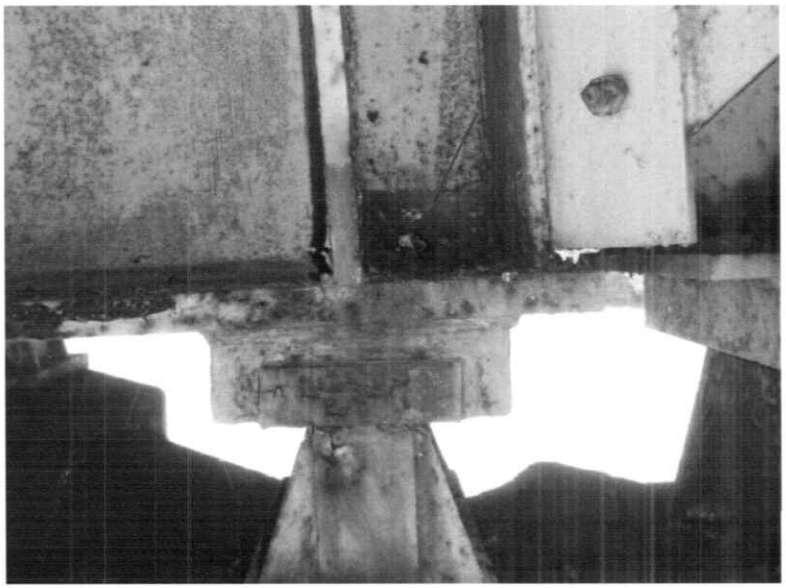

**Photo # 37: Span 4, girder G3 at Pier 3, west side. The web end at the bottom between the bearing stiffeners has areas of pitting loss and a perforation.**

**Photo # 38: Same location as previous photo, east side.**

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| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 39: Span 3, girder G6 bottom flange at Pier 3. Typical section loss at girder end.**

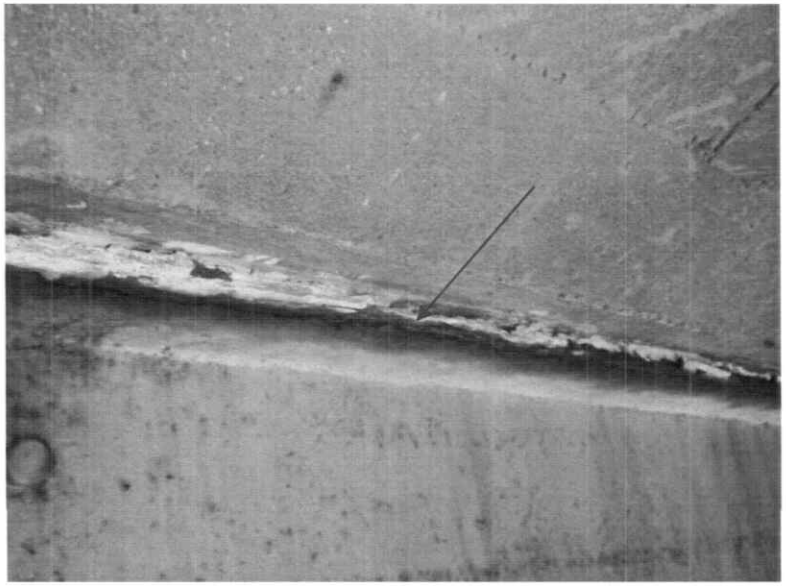

**Photo # 40: Span 4, bay 5 at Pier 4. Typical impacted rust/gap between end diaphragm top flange and deck haunch.**

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| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

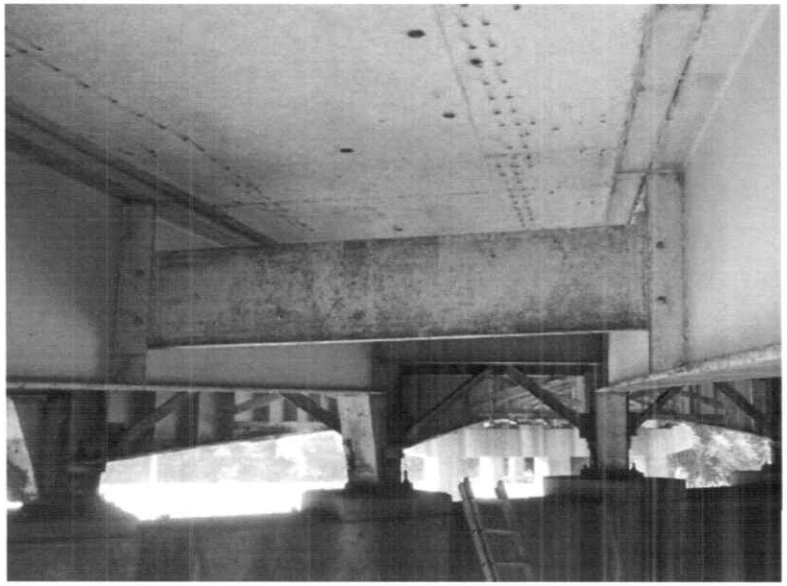

**Photo # 41: Typical configuration and condition of the intermediate diaphragms in Spans 1 and 5.**

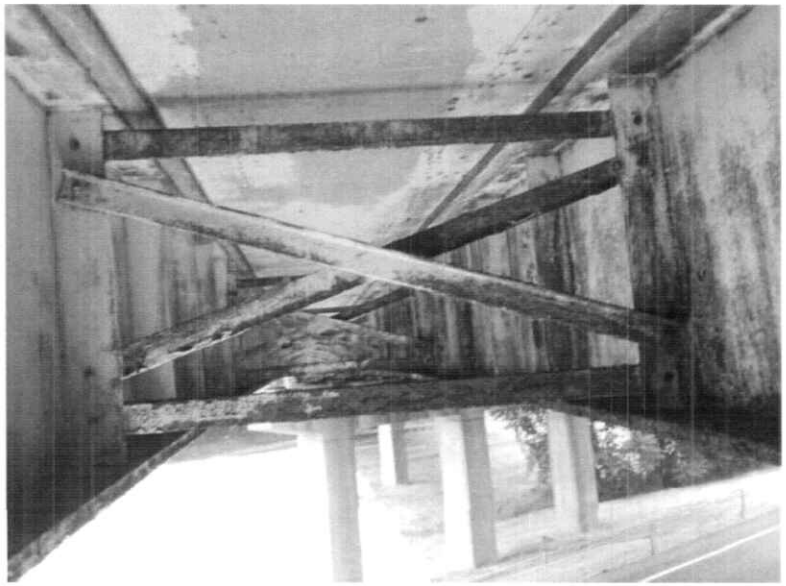

**Photo # 42: Typical configuration and condition of the intermediate diaphragms/cross frames in Spans 2-4.**

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| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

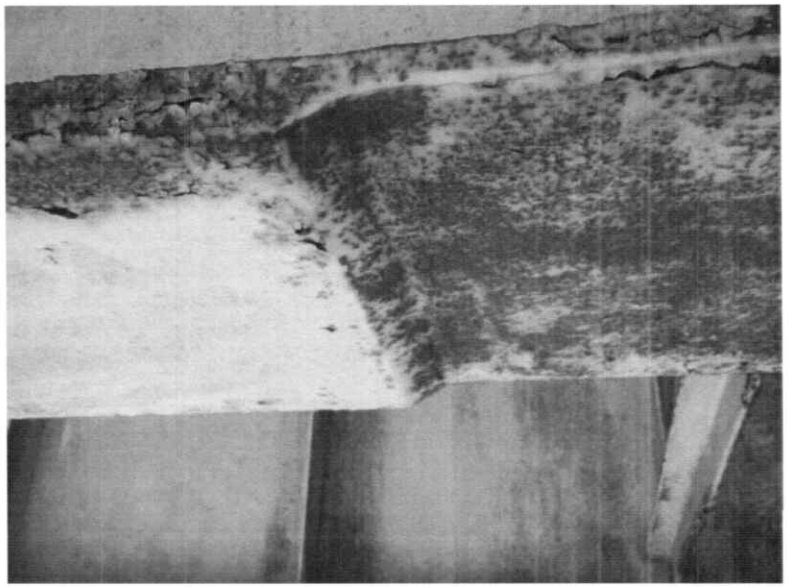

**Photo # 43: Typical bottom flange transition in Spans 2-4.**

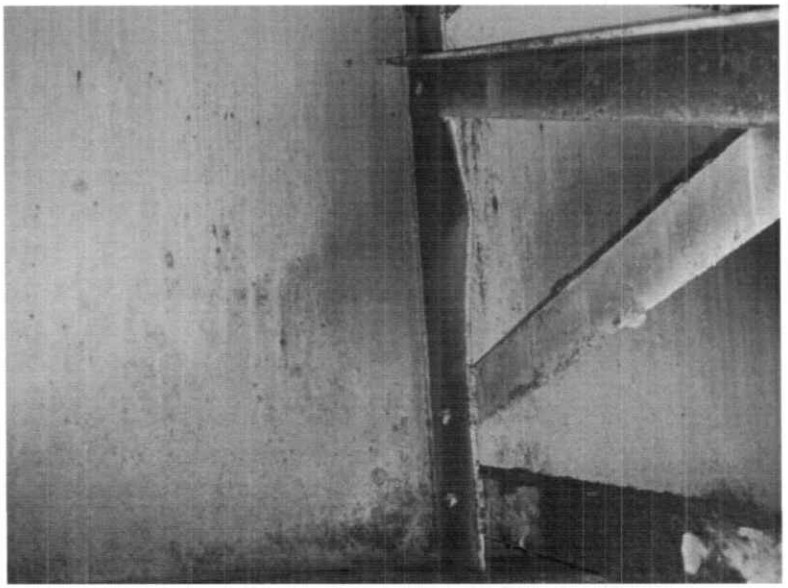

**Photo # 44: Span 2, west side of girder G3 at 2nd intermediate diaphragm from Pier 1. The web stiffener is bent by 1" over 18" long.**

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| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

**Photo # 45: North abutment elevation.**

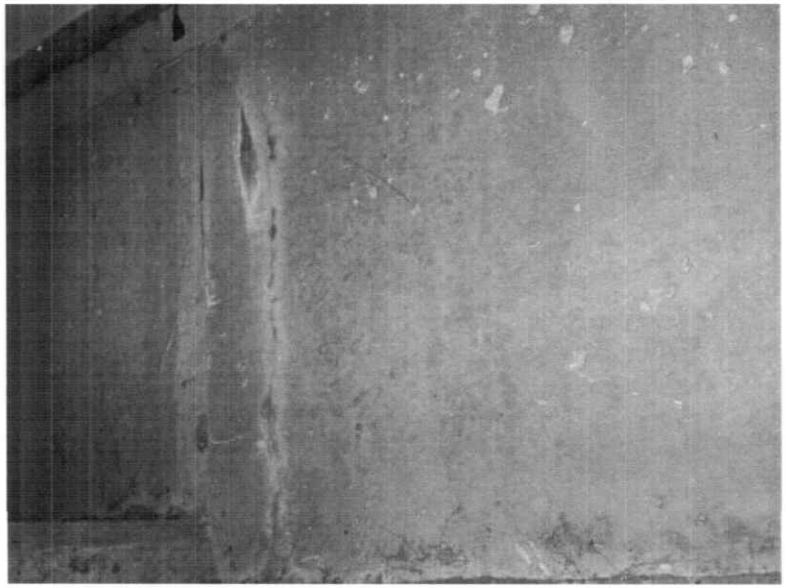

**Photo # 46: South abutment backwall in Bay 1 has a full height hairline crack with efflorescence.**

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| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

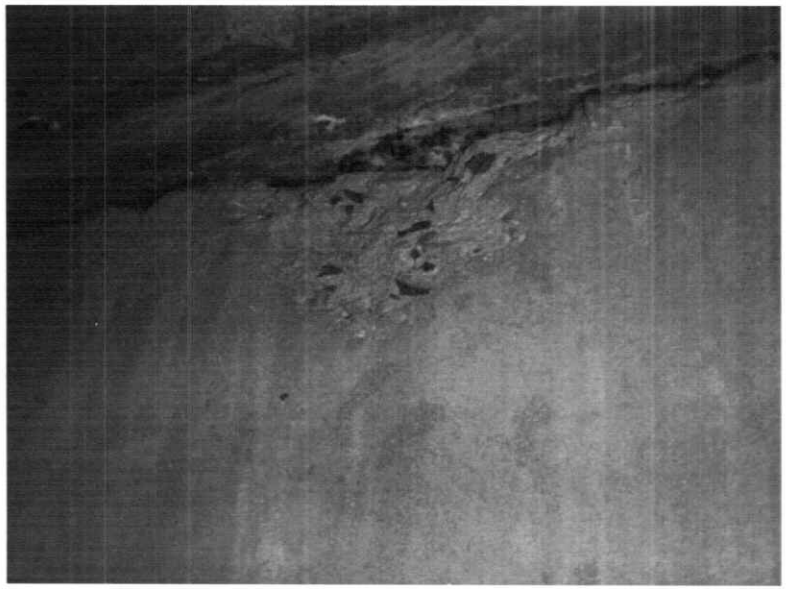

**Photo # 47: North abutment backwall, has random spalls at the top.**

**Photo # 48: Northwest wingwall elevation.**

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| **Town:** | North Haven | **Inspected by:** | Raghu Vuppula |
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**Photo # 49: Pier 2, north elevation. Typical configuration and condition.**

**Photo # 50: Pier 3, column 2. Typical popouts with exposed rebar at columns.**

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| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

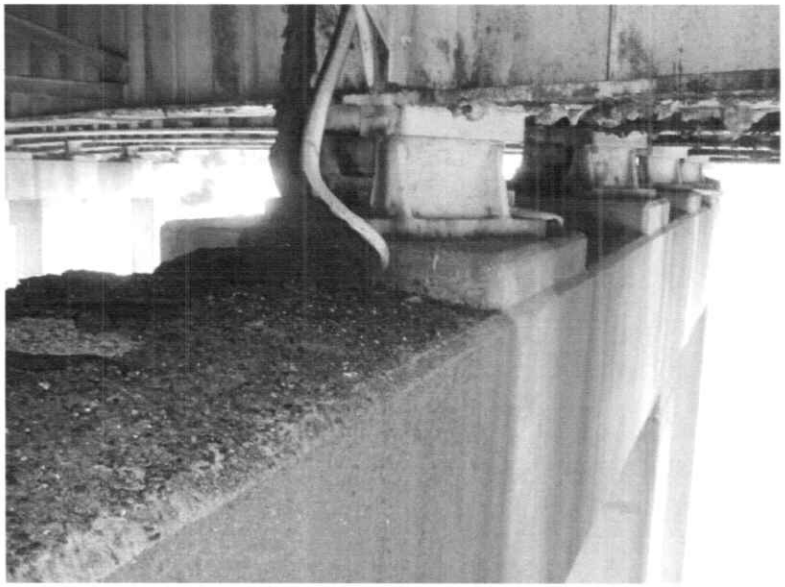

**Photo # 51: Pier 2 cap has an accumulation of sand and deck joint material.**

**Photo # 52: Southeast approach guide rail (leading end) has minor impact scrapes and dents. Typical configuration and condition of transition at all approaches.**

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**Photo # 53: Northwest approach. Typical configuration and condition of metal beam rail.**
**There is no transition curb in place. End of curb/safetywalk is a blunt end. Southwest corner is similar.**

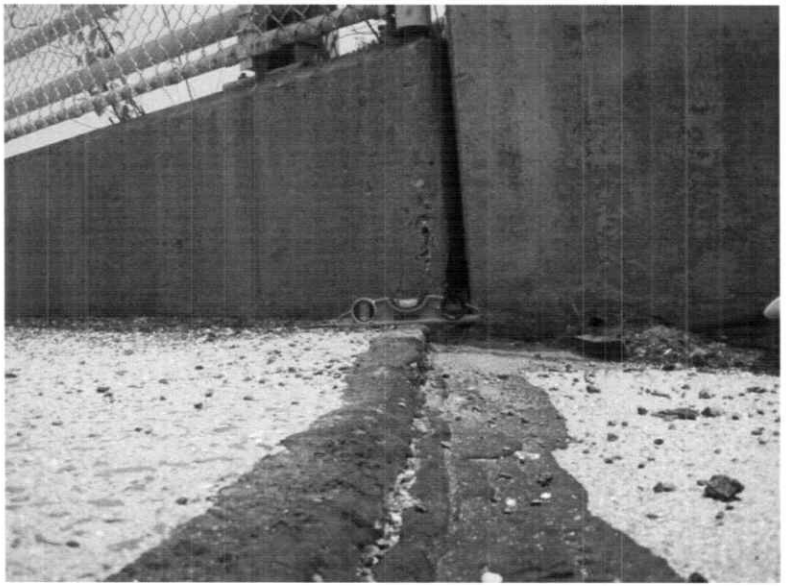

**Photo # 54: Southeast approach sidewalk and curb have settled at the bridge. Similar condition at Northeast approach sidewalk and curb.**

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| **Bridge No.** | 03120 | **Inspected by:** | Paul H. Holmes |
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| **Feature Carried:** | Basset Road | **Date Inspected:** | 7/20/11 |
| **Feature Crossed:** | Interstate 91 | **Project No.:** | 170-3013 |

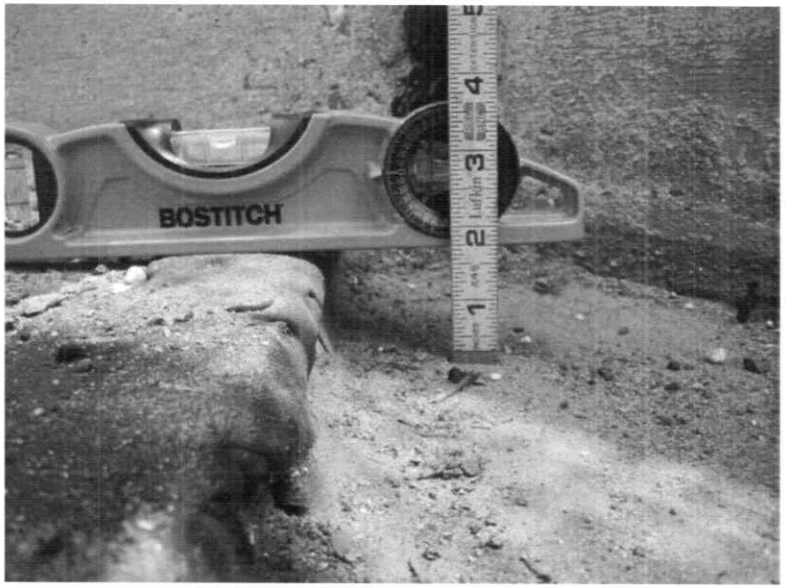
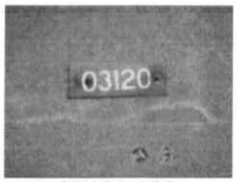



**Photo # 55: Close-up of photo # 54.**

**Photo # 56: North approach pavement. There are random longitudinal and transverse cracks; some have been previously sealed. South approach is similar.**

03120-001

03120-002



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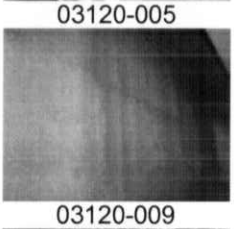
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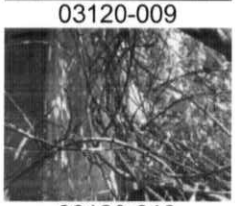
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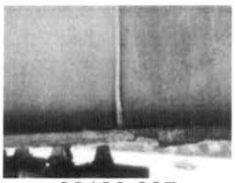
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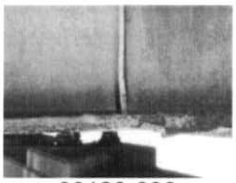
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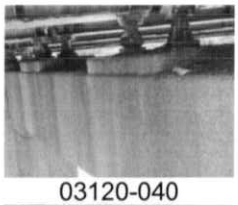
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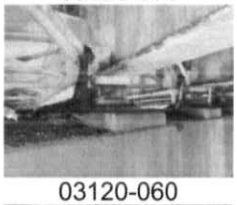
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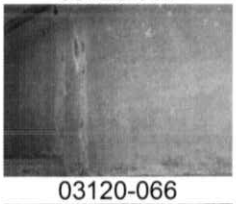
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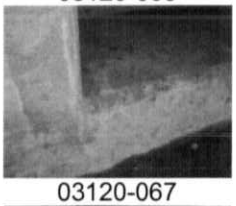
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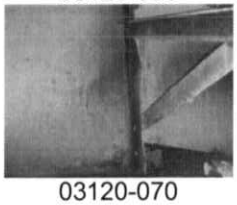
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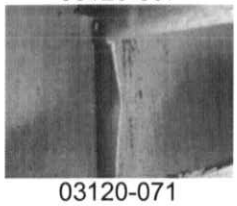
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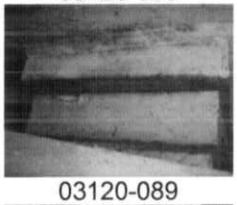
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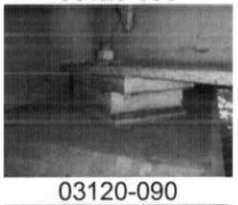
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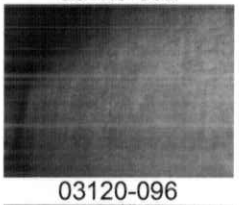
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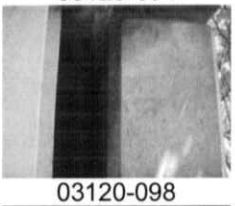
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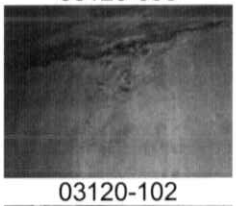
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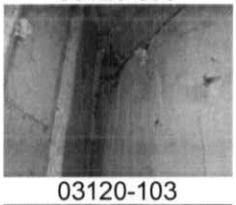
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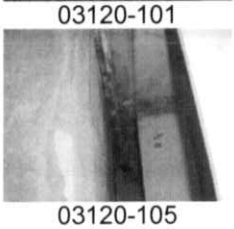
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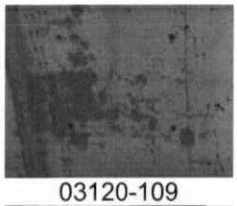
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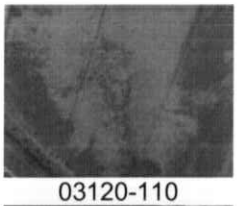
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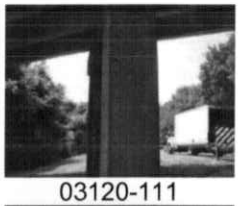
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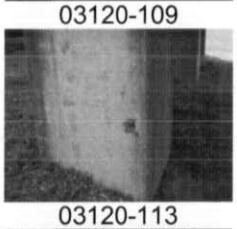
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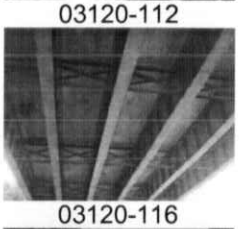
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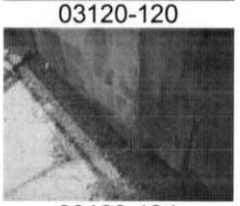
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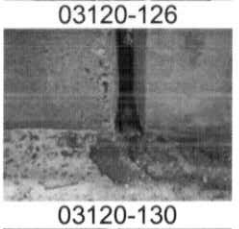
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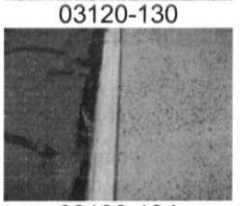
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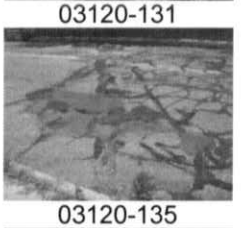
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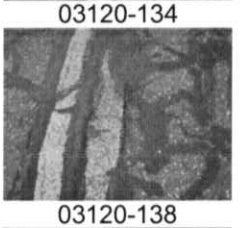
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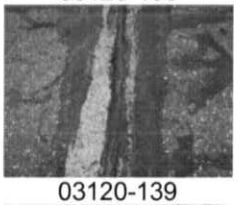
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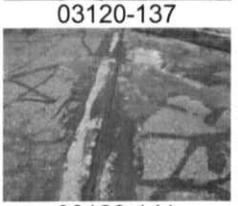
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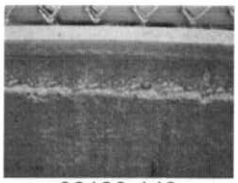
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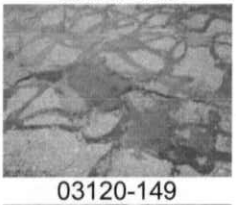
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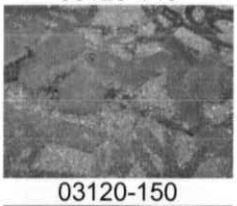
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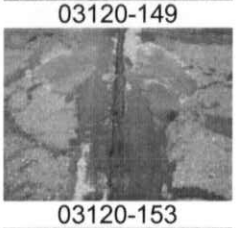
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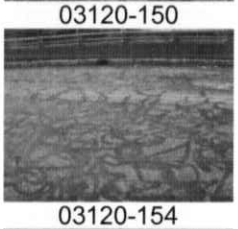
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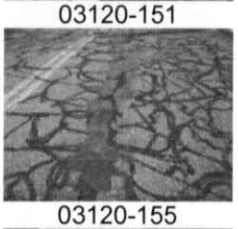
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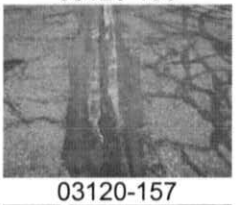
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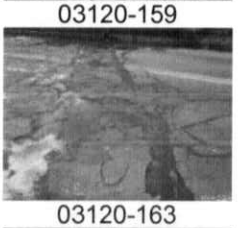
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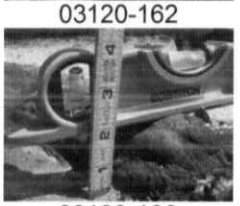
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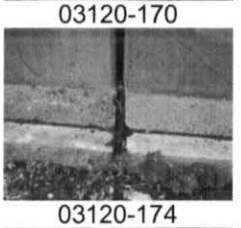
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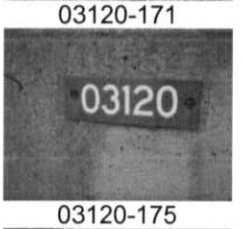

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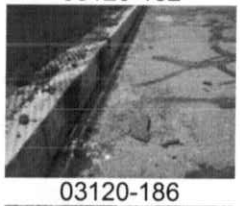
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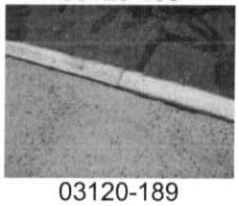
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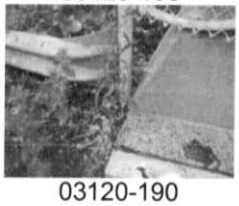
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**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

# *MEMORANDUM*

***subject:*** **BMM No.**
Bridge No. 03120
Bassett Road over Interstate 91
North Haven

***date:***

***to:*** Transportation Maintenance Administrator
Bureau of Highway Operations

***from:*** Ronald D. Jantzen Jr.
Transportation Engineer 3
Bridge Safety and Evaluation
Bureau of Engineering and Construction

Attached are two copies of our most recent inspection report for the subject structure. The following deficiencies were found:

1. The southeast and northeast approach sidewalks and curbs have settled up to 2 inches at the bridge.

Please direct persons under your jurisdiction to:

1. Install a bituminous ramp at southeast and northeast approach sidewalks to provide a smooth transition to the bridge sidewalk (<1 TON).

The above item should be considered Priority C. There may be other deficiencies which are considered routine maintenance and should be corrected.

The attached inspection report also notes that the following items were issued under a previous BMM and have not been addressed.

| BMM No. | Item |
|---|---|
| **09-484** | 3. There is a hole in the web of Beam No. 3, in Span No. 4 at Pier No. 3. (Priority E) |

Bridge Safety and Evaluation believes that these repairs are structurally important and should be addressed.

All repairs shall be performed utilizing appropriate, approved materials and tried and proven methods unless otherwise specified.

If you have any further questions concerning these repairs, please contact me at 203-656-0143 or at 860-594-3181. Please notify this section when the work has been completed.

Attachments

Paul H. Holmes/rdj

cc: Scott A. Hill – Robert P. Zaffetti – Sandra A. Dumas – Ronald D. Jantzen Jr.
HAKS Engineers, P.C.
File