

STRUCTURE NO. 03312

INTERSTATE-84 EB

over

ROUTE 72, QUINN RV, B&M, RT

PLAINVILLE

Routine & Special Inspection

on

4/22/2014

Inspected by GM2 Oncall - 28

for Area 5

TEAM:	Forwarded to TE3 Steve Keedy	Date	8/4/2014
TE3:	Reviewed by TE3 Steve Keedy	Date	8/6/2014
	BMM Required	Yes	
	Town Bridge	No	
	Rating <= 5 (Items 58,59,60 or 62)	Yes	
	Rating Change 2 or More Values	No	
	Forwarded to Supervisor Steve Keedy	Date	8/6/2014
	Forwarded to "To Be Copied Drawer" <input type="checkbox"/>	Date	
	Date BRI-19 Entered		8/6/2014
SUPERVISOR:	Reviewed by Supervisor Steve Keedy	Date	8/6/2014
SUPPORT:	Date Copies Made 8/6/14	BMM No	14-557
	Scanned By: MKR	Date Scanned 8/6/14	PDF Box No

NBI: Yes

NHS: Yes



FIELD
NOTES

JOB NO. 170-3224

BRIDGE NO. 03313

DATE: 4/22/14

SHEET —

CREW: SRD, AKL, PAH, OJS

CROSS FRAME WELD CRACK SCHEDULE

Span	Girder	Cross Frame No.	Cracked/Broken/Missing Weld at Cross Frame	Other Comments
1	2	2	Yes	
1	2	3	Yes	
1	3	3	Yes	
2	6	2	Yes	
2	4	1	Yes	
2	6	4	Yes	
2	1,5,7	Pier 2 Cross Frames	Yes	
2	7	3	Yes	
3	1 - 5	Pier 2 Cross Frames	Yes	
3	2	1	Yes	Two lower horizontal welds.
3	2	4	Yes	
3	3	1	Yes	
3	3	4	Yes	Two lower horizontal welds.
3	4	1 & 4	Yes	
3	5	3	Yes	
3	7	3	Yes	
3	3 - 5	Pier 3 Cross Frames	Yes	
4	1	4	-	Weld at upper connection plate with 4" crack.
4	6	1	Yes	
4	7	1	Yes	
5	1 & 2	Pier 5 Cross Frames	Yes	
6	1	Pier 5 Cross Frames	Yes	
6	2	Pier 5 Cross Frames	Yes	One cracked weld & one missing weld.
6	3	1	Yes	
6	3	2	Yes	Two lower horizontal welds.
6	4	4	Yes	
6	5	3	Yes	
6	6	2	Yes	
7	2	Pier 7 Cross Frame	-	Missing weld at upper vertical gusset plate.
7	5	1 & Pier 6 Cross Frame	Yes	
8	3	3	Yes	
8	4	E. Abut. Cross Frame	Yes	
8	5	E. Abut. Cross Frame	Yes	

Notes:

- Cracks shown above are typically located at the lower horizontal weld strut connections to the cross frame connection plates. Cracks are typically in the overhead welds.
Erection bolts are typically in place
- There is typically only one weld per location, unless noted in comments above.

REVISION	▲	DATE	CREW	REVISION	▲	DATE	CREW
REVISION	▲	DATE	CREW	REVISION	▲	DATE	CREW

BRIDGE SAFETY INSPECTION

STATE PROJECT NO. 170-3224

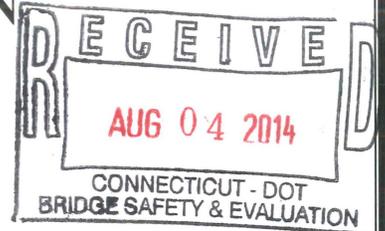
BRIDGE NO. 03312
INTERSTATE 84 EASTBOUND
OVER

RT 72, RT 372, PAN AM RAILROAD AND QUINNIPIAC RIVER
PLAINVILLE, CONNECTICUT

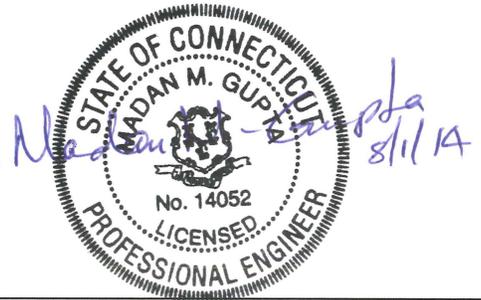
ROUTINE AND SPECIAL INSPECTION

APRIL 22, 2014

Last day of inspection: June 7, 2014



Prepared By:
GM2 Associates, Inc.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033



STRUCTURE NO. 03312 TOWN Plainville

Inspectors SRD, AKC, BJS, PAH, CAW Date 4/22/2014

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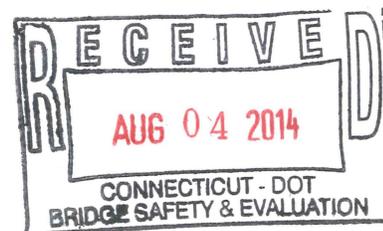
<u>Loose forms (not bound in report)</u>	<u>No. of Sheets</u>
	<u>Enclosed</u>
Maintenance Memo	4
Flagging Memos	-
Plan Sheets Project No. 109-74 (1966) & Project No. 109-127 (1989) <input checked="" type="checkbox"/> Check here if already on file	-

Bound Report Pages

	<input checked="" type="checkbox"/> <u>Sheet Numbers</u>
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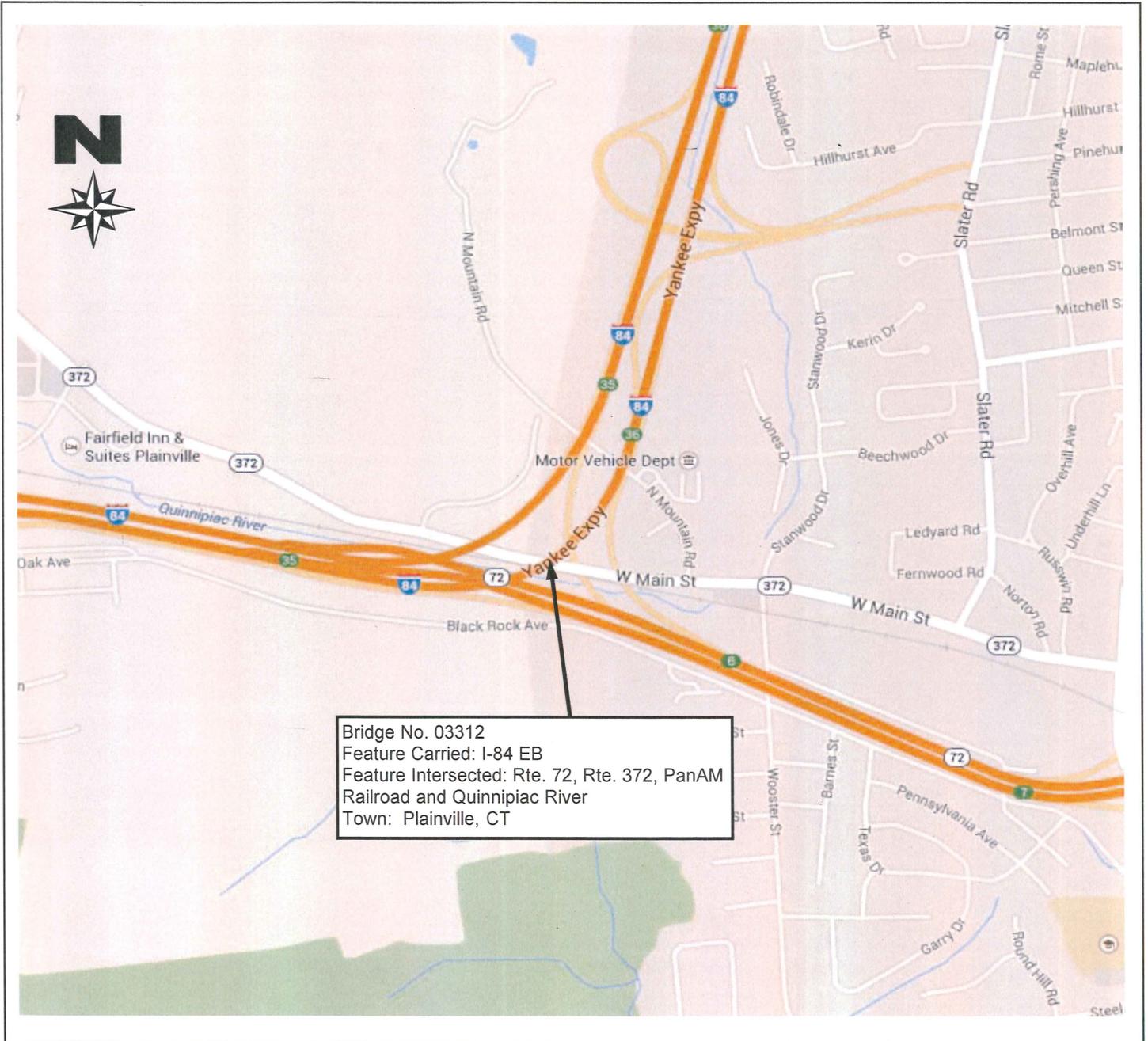
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LOCATION MAP



EXECUTIVE SUMMARY

Bridge No. 03312 carries Interstate 84 Eastbound over Route 72, Route 372, Pan AM Railroad and Quinnipiac River in Plainville, CT. This eight span bridge consists of steel multi-girders and a reinforced concrete deck. The superstructure is supported by reinforced concrete abutments, post-tensioned concrete hammerhead piers and one pier with a steel pier cap. The bridge was constructed in 1969 and rehabilitated in 1990. The overall length is 853 feet and the curb-to-curb width is 51 feet. According to information on file with Connecticut Department of Transportation, the bridge has an inventory load rating capacity of 49 tons for AASHTO HS vehicle. Due to the section losses present in the steel a re-analysis of this structure may be warranted. During this routine inspection completed in June of 2014 the bridge was found to be in poor condition.

The deficiencies found on the bridge are as follows:

Deck: (Rated - 6)

1. There are hollow areas at the underside of deck and the concrete pier caps over the roadway as follows:
 - Span 2, Girder G1 near the first cross frame from Pier 2: Dull/hollow haunch, 2' long (Route 72 EB left lane).
 - Span 2, Girder G1 at Pier 2: Dull/hollow haunch, 3' long (Route 72 EB left shoulder).
 - Span 2, Bay 5 near Pier 2: Hollow area, 1' x 4" (Route 72 EB right shoulder).
 - Span 3, Bay 6 at Pier 2: Hollow area in end cross frame haunch, 8" x 4" (Route 72 EB right shoulder).
 - Spans 4 and 5, Girder G7 at Pier 4: Dull/hollow haunch up to 2' long (Route 72 WB right shoulder).
 - Span 5, Bay 5 at Pier 4: Hollow area in end cross frame haunch, 1 square foot (Route 72 WB right shoulder).
 - Span 7, Bay 1 near mid-span: 1.5' x 8" hollow area at the corner of patch (Route 372 WB lane).
 - Pier 3, underside of cap, 1.5' x 1.5' hollow area/spalled area (Route 72 WB left lane).

These conditions have been previously submitted for repair under Item No. 1 of BMM No. 12-382 and has not been addressed.

2. The double pipe metal bridge railing exhibit random areas of impact damage. There are gaps up to 1/2" between base plates and top of parapet at random locations. The south railing near Pier 6 has an isolated 2" x 1" rusted through hole in the lower rail. Isolated anchor bolt nuts are missing or not fully engaged due to short bolts. These conditions have been previously submitted for repair under Item No. 4 of BMM No. 06-221 and have not been addressed.
3. The compression seal joints are depressed at random locations up to 1 1/2" deep and exhibit light accumulation of sand at random locations. There is a total of 5' of separated/torn seals in the deck joints at the West Abutment and Pier 2. The concrete header of deck joint at Pier 4 and the East Abutment has minor spalls up to a 2.5' x 5" x 1/2" deep. The deck joints at the abutments do not fully extend to the south parapet and the overlay exhibits minor potholes and filled with sand. Areas of active leakage noted below at random locations. These items have been previously submitted for repair under Item No. 2 of BMM No. 06-221 and have not been addressed.

Superstructure: (Rated - 4)

1. The pot bearings for girders exhibit light to heavy rust with laminar rust and minor section losses. These conditions have been previously submitted for repair under Item No. 3 of BMM No. 12-382 and have not been addressed.
2. Girder G1 flanges exhibits areas of heavy rust with laminar rust and section losses up to 5/16" in the bottom flanges, typically on the south leg, resulting in section loss up to 11% in high tension zones. Girder ends exhibit section loss up to 1/16" deep in the webs (less than 5% loss in shear) and section losses in the bearing stiffeners resulting in up to 15.6% loss in web bearing area (buckling). These conditions have been previously submitted for repair under Item No. 3 of BMM No. 12-382 and have not been addressed.
3. There are impacted rust and/or gaps up to 9/16" between the hinge plates and the girder webs at Pier 2 in Spans 2 and 3. Girder webs have areas of heavy to laminated rust with section losses at both sides of the webs adjacent to the hinge connections to the steel pier cap at Pier 2, resulting in up to 14% web loss in this critical area. There could be additional section losses concealed by the impacted rust. These conditions have been previously submitted for repair under Item No.5 of BMM No. 06-221 and have not been addressed.
4. There is a total of 57 cracked, broken, missing, short, not fused or otherwise significantly sloppy welds at the connection between cross frames and web stiffeners. The defective welds are primarily the bottom horizontal welds between bottom member of cross frames and girder web stiffeners. These conditions have been previously submitted for repair under Item No.1 of BMM No. 06-221 and have not been addressed.

Substructure: (Rated - 5)

1. The post tensioned concrete pier caps exhibit horizontal and vertical hairline cracks (some cracks up to 3/16" wide near end faces), hollow areas up to 3' x 2' and spalls up to 4.5' x 1.5' x 5" deep with or without exposed rebar. These conditions have been previously submitted for repair under Item No.2 of BMM No. 12-382 and have not been addressed.
5. Pier 2 cap girder webs have areas of active rust with up to 1/16" deep section loss, resulting in less than 5% web loss. Isolated web stiffeners exhibit section losses with rust holes (located away from the bearing). The girder bottom flanges have areas of active rust with up to 5.5" wide x 3/16" deep section losses, resulting in up to 4.7% bottom flange loss. These conditions have been previously submitted for repair under Item No. 3 of BMM No. 12-382 and have not been addressed.

Bridge Number **03312**

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

Inspected By: S. DONTULA & AMIT K

Sufficiency Rating **61.67**
Previous Inspection Date **4/10/2012**

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

BS&E Received Data Entry By: Steve Kneedy
Copies Made Data Entry Date: 8/6/14

SHEET _____ OF _____

90) Inspection Date 042214	Inspection Team 21 28	91) Freque 24	Class: 03
Indepth Insp 4/10/2012	Deck Survey 3/31/1994	Access 33	Flagman 99*
CRITICAL FEATURE INSPECTIONS			
Type	Frequency	Team	Date
Fracture: J	24	20 28	4/10/2012 4/22/14
Uwater:			
Special: A	24	20 28	4/10/2012 4/22/14

RED FLAG

IDENTIFICATION

Bridge Name _____
Town Name **PLAINVILLE** Town Code **60120**

5) Inventory Route:
A) Record Type **1** D) Route Number **00084**
B) Signing Prefix **1** Interstate High E) Directional Suffix **2** East
C) Level of Service **1** Mainline

6) Feature Intersected **ROUTE 72, QUINN RV, B&M, RT**

7) Facility Carried: **INTERSTATE-84 EB**

9) Location **I-84 EXIT 35**

11) Milepoint **50.23** Miles

16) Latitude **41deg 40 min 6.23 sec** deg min sec
17) Longitude **72deg 49 min 31.19 sec** deg min sec

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

99) Border Bridge Structure No _____

STRUCTURE TYPE AND MATERIAL

43) Structure Type, Main:
A) Material **3** Steel B) Design Type **2** Stringer/Multi-beam

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

45) Number of Spans, Main Unit **8**

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 **2** Preformed Fabric
C) Type of Deck Protection **0** None

AGE AND SERVICE

27) Year Built **1969** 106) Year Reconstructed **1990**

42) Type of Service:
A) On **1** Highway B) Under **8** HIGHWAY-WATER

28) Number of Lanes:
A) On **3** B) Under **6**

29) Average Daily Traffic **37400** Half ADT?: **-Yes** **Y**

109) Percent Truck **14%**

30) Year of ADT **2010**

19) Bypass, Detour Length **1** miles

GEOMETRIC DATA

48) Length of Max Span **108**ft

49) Structure Length **853**ft

50) Curb or Sidewalk Widths:
A) Left **1.5**ft B) Right **0.5**ft

51) Brg Rdwy width, curb-curb **51.0**ft

52) Deck Width, Out-Out **55.5**ft

32) Approach Roadway Width **51**ft

33) Bridge Median **0** No Median

Deck Area **47341** sqft

34) Skew Angle **0**deg

35) Structure Flared **0**

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

47) Log Inv. Rte. Total Horiz Clr.: **51.0**ft

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

53) Min Vert Clearance Over Bridge **99**ft **99**in

54) Min Vert Under Clearance **H** Ref **16**ft **2**in **Ref**

55) Min Lat Under Clearance on Right **H** Ref **8.7**ft **Ref**

56) Min Lat Under Clearance on Left **0.0**ft

BRIDGE COMMENTS

**PAN AM FLAGMAN NEEDED TO INSPECT SPAN OVER RR.*

→ Rte 372 h/rte 72

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH
03312	PLAINVILLE	True 853
FACILITY CARRIED	FEATURE CROSSED	
INTERSTATE-84 EB	ROUTE 72, QUINN RV, B&M, RT	

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

INVENTORY ROUTE
UNDER STRUCTURE EVALUATION

FORM BRI-25 REV 10/00

INSPECTED BY: SURESH DONTULA
AMIT KC

REVIEWED BY: SK DATE: 8/6/14

SHEET _____ OF _____ (INSP. REPORT)

IDENTIFICATION

DESCRIPTION:

5) INVENTORY ROUTE:

- A) RECORD TYPE
- B) ROUTE SIGNING PREFIX State Highway
- C) DESIGNATED LEVEL OF SERVICE Mainline
- D) ROUTE NO.
- 11) MILE POINT (INV.RTE)

AGE & SERVICE

- + 28B) NUMBER OF INV.ROUTE LANES
- * 29) ADT (INV. RTE)
- * 109) TRUCK ADT % (INV.RTE)
- * 30) YEAR OF ADT (INV. RTE)
- * 41) INV ROUTE OPERATIONAL STATUS Open, no restriction
- 19) BYPASS DETOUR LENGTH Miles

GEOMETRIC DATA

- + 10) INV. RTE. MIN. VERT. CLEARANCE ft in
- + 47) LOG INV. RTE. TOTAL HORIZ CLR. ft ft ✓
- + 47) RLOG INV. RTE. TOTAL HORIZ CLR. ft ft ✓
- + LOG MIN VERT CLR OVER INV ROUTE ft in
- + RLOG MIN VERT CLR OVER INV ROUTE ft in
- + 55) MIN LAT UNDERCLR ON RIGHT ft
- + 56) MIN LAT UNDERCLR ON LEFT ft

CLASSIFICATION

- 26) INV. RTE. FUNCT CLASSIFICATION Urban Minor Arterial
- 100) DEFENSE HIGHWAY DESIGNATION Route is on a Interstate S
- ** 102) DIRECTION OF TRAFFIC 2-way traffic
- 104) HIGHWAY SYSTEM OF INV. ROUTE On System
- 110) DESIGNATED NATIONAL NETWORK Not on national network

POSTED SIGNS

+ POSTED VERT. CLR UNDER BRIDGE ft in

COMMENTS:

↑
LEAVE BLANK

* 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

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 03312

Inspection Date: 04/22/2014

Inspection Type:	Routine	Previous Inspection Date:	4/10/2012	Snooper Required:	Yes
Inspection Performed By:	GM2 On-call	Feature Carried:	INTERSTATE-84 EB	Snooper Used:	Yes
Town:	PLAINVILLE	Feature Intersected:	ROUTE 72, QUINN RV, B&M, RT	Year Built:	1969
Location:	I-84 EXIT 35	Main Design:	Stringer/Multi-beam or Girder	Year Rebuilt:	1990
Main Material:	Steel				

Visits

Inspectors:

Visit Date:	Temp:	Start Time:	End Time:	Inspector:	Task:
4/22/2014	60	8:00:00 AM	3:00:00 PM	A. KC	Inspector
4/28/2014	60	8:30:00 AM	3:00:00 PM	B. Swanson	Inspector
4/29/2014	50	8:30:00 AM	3:00:00 PM	P. Haefner	Inspector
5/15/2014	60	8:30:00 AM	3:30:00 PM	S. Dontula	Lead Inspector
6/2/2014	70	8:30:00 AM	3:00:00 PM		
6/3/2014	70	8:00:00 AM	3:00:00 PM		
6/4/2014	70	8:00:00 AM	3:00:00 PM		
6/6/2014	70	7:30:00 AM	3:00:00 PM		
6/7/2014	70	6:45:00 AM	12:30:00 PM		

DECK: - **Overall Rating:** 6

Rating

OVERLAY:	7	The bituminous concrete overlay exhibits areas of light to moderate raveling, isolated longitudinal cracks open up to 1/8" wide, areas of map cracking with cracks open up to 1/4" wide (mostly in shoulders) and paving seams are separating up to 1/2" wide. There are isolated depressed areas up to 3' x 5' x 1" deep, a 4' x 1' x 1" deep pothole in right shoulder in Span 1 and a 6" x 6" x 1/2" deep pothole near the north end of deck joint at the West Abutment. There are random concrete patches in the overlay. See Field Notes Sheets 9, 10 and 11 and Photo No. 8.
DECK-STR. CONDITION:	6	The underside of deck has transverse hairline cracks with and without efflorescence, areas of hairline map cracking with and without efflorescence, honeycomb areas and shallow rebar. Also, there are random hollow areas and spalls up to 2 1/2" deep with isolated exposed rebar in the girder haunches, end cross frames haunches, and at the underside of joints. Hollow

		<p>areas over or adjacent to roadways are as follows:</p> <ul style="list-style-type: none"> • Span 2, Girder G1 near the first cross frame from Pier 2: Dull/hollow haunch, 2' long (Route 72 EB left lane). • Span 2, Girder G1 at Pier 2: Dull/hollow haunch, 3' long (Route 72 EB left shoulder). • Span 2, Bay 5 near Pier 2: Hollow area, 1' x 4" (Route 72 EB right shoulder). • Span 3, Bay 6 at Pier 2: Hollow area in end cross frame haunch, 8" x 4" (Route 72 EB right shoulder). • Spans 4 and 5, Girder G7 at Pier 4: Dull/hollow haunch up to 2' long (Route 72 WB right shoulder). • Span 5, Bay 5 at Pier 4: Hollow area in end cross frame haunch, 1 square foot (Route 72 WB right shoulder). • Span 7, Bay 1 near mid-span: 1.5' x 8" hollow area at the corner of patch (Route 372 WB lane). <p>The underside of the deck deterioration covers a maximum of 7.4% of Span 2 deck area and 5% of the total deck area. See Field Notes Sheets 32, 36 through 45 and Photo Nos. 9 through 12.</p>
CURBS:	7	<p>There are vertical faced granite curbs along both parapets, which exhibit minor edge spalls and scrapes at random locations.</p> <p>Average South Curb Reveal: 8" Average North Curb Reveal: 7 1/4"</p> <p>See Field Notes Sheet 9 through 12 and Photo Nos. 13 and 14.</p>
MEDIAN:	N	-
SIDEWALKS:	7	<p>There is a concrete safety walk along the north fascia only, which exhibits areas of light scaling and random hairline cracks. See Field Notes Sheets 9, 10 and 11 and Photo No. 14.</p>
PARAPET:	6	<p>There are concrete parapets along both fasciae, which exhibit random shallow rebar, scrapes and hairline cracks with efflorescence. There are isolated hollow areas up to 1.5' x 6" and spalls up to 2' x 1' x 2 1/2" deep. See Field Notes Sheets 9, 10 and 11 and Photo Nos. 13 and 14.</p>
RAILING:	6	<p>There are double pipe metal bridge railing on top of both parapets, which exhibit random areas of light to heavy rust. A few rails are bent and posts exhibit dents due to impact damage at random locations. Random posts exhibit gaps up to 1/2" high under the base plates. Isolated anchor bolt nuts are missing or not fully engaged due to short bolts. The south railing near Pier 6 has an isolated 2" x 1" rusted through hole in the lower rail. See Field Notes Sheets 9, 10 and 11 and Photo Nos. 13, 14 and 15.</p>
PAINT:	7	<p>Less than 10% of the railing paint is deteriorated. See above item entitled "RAILING".</p>
FENCE:	N	-
DRAINS:	7	<p>PVC deck weep pipes: No significant deficiencies noted. Scupper grates exhibit light accumulation of debris. See Field Notes Sheets 9, 10, 11, 32, 36 through 44.</p>
LIGHTING STANDARD:	7	<p>There are light standards mounted on the east parapet in Spans 1, 4 and 6, which exhibit missing anchor bolt covers and missing screws in handhole cover (but taped). The junction box covers have up to 10 of 12 screws missing (but secure). See Field Notes Sheets 9, 10 and 11 and Photo No. 15.</p>
UTILITIES TYPE/SIZE:	N	-
CONSTR JOINTS:	N	-
EXPANSION JOINTS:	5	<p>There are compression seal joints at the abutments and piers. The joint seals are depressed at random locations up to 1 1/2" deep and exhibit light accumulation of sand at random locations. There is a total of 5' of separated/torn seals in the deck joints at the West Abutment and Pier 2. The</p>

concrete header of deck joint at Pier 4 and the East Abutment has minor spalls up to a 2.5' x 5" x 1/2" deep. Previously noted spalls in the concrete headers of Piers 2 and 3 have been repaired since the last inspection. The deck joints at the abutments do not fully extend to the south parapet and the overlay exhibits minor potholes and filled with sand. Areas of active leakage were noted below at random locations. See Field Notes Sheet 9, 10 and 11 and Photo Nos. 16 through 19.

59. SUPERSTRUCTURE:

Overall Rating: 4

Rating

BEARING DEVICES: 5

Girder Pot Bearings:
 There are guided expansion pot bearings at both abutments, at Pier 1 in Span 2, Pier 3 in Span 3, Pier 4 in Span 4, Pier 5 in Span 5, Pier 6 in Span 6 and Pier 7 in Span 7. The expansion bearings exhibit areas of peeling paint with light to heavy rust with laminar rust and minor section losses. Random expansion bearings have teflon shavings at the top of the piston. Lateral measurements were taken at the keys at all bearings. Expansion bearings exhibit evidence of movement.

There are fixed pot bearings at both abutments, at Pier 1 in Span 1, Pier 2 in Spans 2 and 3, Pier 3 in Span 4, Pier 4 in Span 5, Pier 5 in Span 6, Pier 6 in Span 7 and Pier 7 in Span 8. The fixed bearings exhibit peeling paint with light to heavy rust with laminar rust and minor section losses.

See Field Notes Sheets 14, 15, 17 through 22, 36 through 44 and Photo Nos. 20 and 21.

Cap Girder Bearings at Pier 2:
 There is a sliding expansion bearing at the south column of Pier 2, which exhibits tilted anchor bolts, the bearing plates are slightly rotationally misaligned, and there is up to 3/16" gap/impacted rust between the sliding and masonry plates. Bearing measurements did not change since the last inspection (10 degrees Fahrenheit difference in temperature). However, since it is a short span between Pier 2 Columns, minimal movement is expected. There is a fixed bearing at the north column of Pier 2, which exhibits light rust, isolated areas of laminar rust, bent/tipped anchor bolts, one missing nut, and backed off anchor bolt nuts, one shimmed with several spacers.

See Field Notes Sheet 16 and Photo Nos. 22 and 23.

Fixed Hinges at Pier 2 in Spans 2 and 3:
 There are areas of up to 9/16" impacted rust and/or gaps between the hinge plates and the girder webs. There is also bleeding rust at the hinge plate/web junctions. There are gaps up to 1/4" between the pin nuts and the hinge plates at isolated locations. Isolated nuts exhibit evidence of movement in the past. All cotter pins are in place. All measurements were within 1/16" of previous measurements, except the "V" measurements for Girders G5 and G7 in Span 3 where the "V" measurement decreased by 1" (possibly due to the fact that measurements were taken on the wrong side of the girder and measurements were taken on both sides of the girders at these locations of discrepancies in measurements). There is no signs of distress were noted at the time of inspection. Also note that all pins were ultrasonically tested as part of previous inspection, and no defects were noted.

See Field Notes Sheets 23 through 31 and Photo Nos. 24, 25 and 26.

STRINGERS: N

-

GIRDERS: 4

The superstructure consists of seven welded steel plate girders in all spans. Girder G1 exhibits areas of heavy rust with laminar rust and section loss up to 5/16" in bottom flanges, typically on the south leg, resulting in section loss up to 11% in high tension zones (maximum section loss noted in Span 8). Also, top flanges of Girder G1 exhibit section loss up to 5/16" deep (but less critical area). Random web stiffeners at these locations have section loss up 1/8"

		<p>remaining.</p> <p>Girder G1 previously had section losses with rusted through holes at the pier locations that resulted in isolated locations of stiffener and web buckling. Welded repair plates had been installed previously in the web at all locations with heavy section losses. At some locations, all stiffeners have not been repaired, however the addition of plates at other stiffeners and the webs is considered to restore the original overall cross section. At Pier 6, bearing stiffeners exhibit section losses up to knife edge remaining with buckled webs and bearing stiffeners (but welded plates added to the web over bearing area should have arrested these conditions). Also, there is section losses up to 1.5' long x 3 1/2" high x 1/4" deep along the bottom of web in front of the bearing (less than 5% loss in shear). Girder G1 at Pier 1 in Spans 1 and 2 exhibits section loss in the bearing stiffeners up to full height x full width x 1/4" remaining with an isolated 1/4" diameter rust hole, resulting in up to 15.6% loss in web bearing area (buckling) (no repairs at these locations). Random bearing stiffeners and web ends at other locations exhibit section loss up to 1/8" deep.</p> <p>Webs near the hinges: Girder webs have areas of heavy rust with laminar rust with section losses on both sides of the webs adjacent to the hinge connections to the steel pier cap at Pier 2. The worst loss was noted in Girder G1 web in Span 3, which has up to 1/8" deep section loss on both sides of the web adjacent to the hinge, resulting in approximately 14% web loss in the critical area. Also, the bottom edge of the Girder G1 web in Span 3 at Pier 2 has up to 1/4" deep estimated loss along the bottom edge between the hinge plates. Note that there is impacted rust between the girder web plates and hinge plates (difficult to remove) which may be concealing additional section loss.</p> <p>See Field Notes Sheets 32 through 44 and Photo Nos. 25 through 33.</p>
FLOOR BEAMS:	N	-
TRUSSES-GENERAL:	N	-
TRUSSES-PORTALS:	N	-
TRUSSES-BRACING:	N	-
PAINT:	5	Less than 50% of the painted surfaces have deterioration. See above items entitled "BEARING DEVICES" and "GIRDERS".
RUST:	4	See above items entitled "BEARING DEVICES" and "GIRDERS".
MACHINERY MOV SPAN:	N	-
RIVETS & BOLTS:	7	Bolted retrofits are in place at random previously cracked cross frame weld locations. These bolts exhibit areas of light rust. See Field Notes Sheet 32 through 44.
WELDS - CRACKS:	5	<p>There is a total of 57 cracked, broken, missing, short, not fused or otherwise significantly sloppy welds at the connection between cross frames and web stiffeners. The defective welds are primarily the bottom horizontal welds between bottom member of cross frames and girder web stiffeners. There are isolated locations of previously added bolted retrofits at the locations of cracked welds (old repair). See attached crack schedule sheet for the summary of defective welds.</p> <p>Bottom flange transitions along the girders and fracture critical cap girders at Pier 2 were checked hands-on and no significant deficiencies were noted. No deficiencies were noted to the weep pipe support bracket welds in the webs (fatigue category 'E'). No deficiencies were noted to the stitch welded web stiffeners near the girder ends (most likely jacking stiffeners).</p>

		See Field Notes Sheets 32, 33, 36 through 44 and Photo Nos. 34 through 37.
TIMBER DECAY:	N	-
CONCRETE CRACKING:	N	-
COLLISION DAMAGE:	8	-
MEMBER ALIGNMENT:	6	See above items entitled "BEARING DEVICES".
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? N/A

60. **SUBSTRUCTURE:** Overall Rating:

Rating

ABUTMENTS-STEM:	7	Abutment stems have areas of silt staining, isolated locations of shallow rebars, and vertical hairline cracks with and without rust and efflorescence. The pedestal for Girder G7 at the West Abutment has a 4" x 2" x 1" deep spall. The north portion of the West Abutment is misaligned 1/4" to the east of the center portion (no change since the last inspection) and the vertical joint is open up to 1/8" wide at this location. Vertical joints in the East Abutment stem are open 1/8" and 1/2" wide (no change since the last inspection). See Field Notes Sheets 40 and 42 and Photo No. 38.
ABUTMENTS-BACKWALL:	7	The backwalls have areas of slit staining, hairline cracks with efflorescence, and spalls up to 1" deep along the top of the backwall. There are voids in the East Abutment backwall near the cheekwalls due to missing joint fill material (no change). One vertical joint at the West Abutment backwall is open up to 1/8" wide. The vertical joints at the East Abutment backwall are open up to 3/16" and 5/8" wide (no change since the last inspection). See Field Notes Sheets 46 and 47 and Photo No. 38.
ABUTMENTS-FOOTINGS:	N	Not visible.
ABUTMENTS-SETTLEMENT:	6	See above items entitled "ABUTMENTS-STEM" and "ABUTMENTS-BACKWALL" for lateral misalignment of the West Abutment and opened joints at the abutment stems and backwalls.
ABUTMENTS-WINGWALLS:	7	Wingwalls exhibit missing joint filler material, isolated hairline cracks with efflorescence and minor corner spalls. See Field Notes Sheets 48 and 49 and Photo No. 39.
PIERS/BENTS-CAPS:	5	Post tensioned concrete hammerhead pier caps (Piers 1 and 3-7): The post tensioned concrete pier caps have heavy silt stains, popouts, shallow tie wires, horizontal hairline cracks with or without efflorescence and an isolated full height vertical hairline crack. Pier caps exhibit hollow areas up to 3' x 2' and spalls up to 4.5' x 1.5' x 5" deep with or without exposed rebar. Pier 3 cap has 1.5' x 1.5' hollow area with adjacent 1.5' x 1.5' x 2" deep spall over the left lane of Route 72 westbound.

		<p>The pier cap end faces adjacent to the grout pockets exhibit cracks up to 3/16" wide with rust and efflorescence, hollow areas and spalls up to 2' x 9" x 1 1/2" deep. Random pedestals have hairline cracks, some of which extend from the caps. See Field Notes Sheets 50, 51, 52 and 55 through 64 and Photo Nos. 40 through 43.</p> <p>Steel pier cap at pier 2: Cap girder webs have areas of heavy rust with up to 1/16" deep section loss, resulting in less than 5% web loss. Random web stiffeners exhibit section loss at the bottom up to 3/16" deep and isolated web stiffener with section loss down to knife edge remaining section loss and a 3" diameter rust hole (located away from the bearing). The girder bottom flanges have areas of active rust with up to 5 1/2" wide x 3/16" deep section losses, resulting in up to 4.7% bottom flange loss. Inside faces of the cap have peeling paint with active rust. See Field Notes Sheets 53 and 54 and Photo Nos. 44, 45 and 46.</p>
PIERS/BENTS-PILE BENT:	N	-
PIERS/BENTS-COLUMNS:	7	Concrete pier columns have popouts and shallow tie wires at random locations. Pier 7 column has random shrinkage cracking. See Field Notes Sheets 50 through 64 and Photo Nos. 40 and 44.
PIERS/BENTS-FOOTING:	7	Pier 5 footing is exposed up to 1.5' high and has minor chipping along the edges. As per plans, footing is founded on piles. See Field Notes Sheet 59 and Photo No. 47.
PIERS/BENTS-SETTLMT:	8	None noted.
EROSION-SCOUR:	6	The drainage swale at the base of the Northwest Wingwall is broken out and eroded up to 3' x 2' x 1' deep. There is also a 6' x 2' x 6" deep erosion area at the Northeast Wingwall. Pier 5 footing is exposed up to ±1.5' high (no change since last inspection) and has rip rap around it. This appears to be as-built condition but as per plans, this footing is founded on piles and is not to be exposed. See Field Notes Sheets 49 and 59 and Photo No. 47.
CONCRETE CRACK-SPALL:	5	See above items entitled "ABUTMENTS-STEM", "ABUTMENTS-BACKWALL", "ABUTMENTS-WINGWALL", "PIERS/BENT-CAPS" and "PIERS/BENT-COLUMNS".
STEEL CORROSION:	5	See item above entitled "PIERS/BENTS-CAP".
PAINT:	5	Less than 50% of Pier 2 cap girder paint is deteriorated.
TIMBER DECAY:	N	-
COLLISION DAMAGE:	8	-
DEBRIS:	7	There are areas of light to moderate accumulation of debris on top of pier caps and abutment seats at random locations. See Field Notes Sheets 46, 47 and 50.

61. CHANNEL & CHANNEL PROTECTION:

--

Overall Rating:

7

Rating

CHANNEL SCOUR:

7	Drop line measurements taken at the upstream fascia during this inspection indicates that there is no significant change in channel profile since the last inspection. Water depth was approximately 6" at the time of inspection.
---	--

		Previously noted aggradation in the channel below the bridge was not found during this inspection. See Field Notes Sheets 65 and 66.
EMBANKMENT EROSION:	7	Embankments exhibit undercutting up to 3' high and there is heavy growth of vegetation. The exposed Pier 5 footing appears to be construction related, not erosion. See Field Notes Sheets 59 and 65 and Photo Nos. 47, 48 and 49.
DEBRIS:	8	-
VEGETATION:	7	There is heavy growth of vegetation along both embankments. There are random trees overhanging the channel at the upstream and downstream sides. See Field Notes Sheet 65 and Photo Nos. 48 and 49.
CHANNEL CHANGE:	7	See above item entitled "CHANNEL SCOUR".
FENDER SYSTEM:	N	-
SPUR, DIKES & JETTIES:	N	-
RIP RAP:	8	Rip rap is in place at the pier bases adjacent to the channel. See Field Notes Sheet 65 and Photo Nos. 47, 48 and 49.

62. CULVERTS & RETAINING WALL:

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Overall Rating:

65. APPROACH CONDITION

--

Overall Rating:

Rating

APPROACH SLAB:	6	Paved over. Rating is based on the condition of the approach pavement. See item below entitled "APPROACH PAVEMENT".
RELIEF JOINTS:	N	-
APPROACH GUIDE RAIL:	6	There is a concrete barrier at the southwest approach, which exhibit no significant deficiencies. There is a metal beam guiderail at the northwest, northeast and southeast corners. The approach guiderail at the northeast and southeast corners exhibit impact damage with minor dents and random tipped posts for 100' long. The northwest approach guiderail has minor collision damage with a 1" x 1/2" tear near the transition. See Field Notes Sheets 9, 10 and 11 and Photo No. 50.
APPROACH PAVEMENT:	6	The west approach pavement exhibit random transverse and longitudinal cracks open up to 1" wide. The east approach pavement has longitudinal cracks up to 1/2" wide, transverse cracks up to 3/4" wide, areas of moderate raveling in the right shoulder depressed areas up to 10' long x 2' wide x 2" deep. There are isolated minor potholes up to 1" deep in the right shoulder near the East Abutment deck joint. See Field Notes Sheets 9, 10 and 11 and Photo No. 51.
APPROACH EMBANKMENT:	6	At the northeast corner at ± 20' away from the bridge, there is a 20' long x 4' wide x 1' deep erosion (partially filled with riprap) along the approach embankment, which extends 2' into the shoulder. See Field Notes Sheet 11 and Photo No. 52.

**TRAFFIC SAFETY
FEATURES**

Rating

BRIDGE RAILINGS:	Last Inspection: 0 Current: 0	Do not meet current standards for NHS bridges (<42" high solid concrete).
TRANSITIONS:	Last Inspection: 0 Current: 0	Do not meet current standards (northwest rub rail is not attached to the parapet). See Photo No. 50.
APPROACH GUARDRAILS:	Last Inspection: 0 Current: 0	Do not meet R-B standards (thin posts with metal spacers).
APPR. GUARDRAIL ENDS:	Last Inspection: 1 Current: 1	Continuous with highway rails.

**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: 16' 2" Current: 16' 2"	16'-6" at Route 72 Eastbound left lane, shoulder clearance is 16'-2". See Field Notes Sheet 5 through 8.
POSTED CLR. UNDER BRIDGE:	Last Inspection: -' Current: -' -"	-
POSTED CLR. ON BRIDGE:	Last Inspection: -' Current: -' -"	-
ADVANCED WARNING (YES/NO):	No	-
SPEED LIMIT (IF ANY):	Last Inspection: - Current: -	-
CHARACTER OF TRAFFIC:	Heavy volume, mixed vehicles.	

ADDITIONAL NOTES:

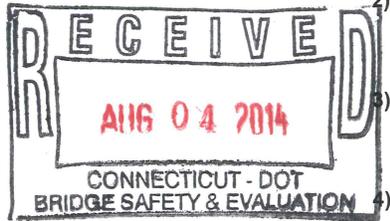
1. Bridge identification number is clear and legible.
2. The bridge is logged from west to east and the girders are numbered from north to south, which is consistent with the previous inspection report.
3. Bridge was inspected using 60' snooper, 60' man lift, 40' lift truck and extension ladders.
4. State troopers were utilized for lane closures on I-84 EB and Route 72. New Britain police were utilized for shoulder closure/lane shifts on Route 372.
5. Pan Am railroad flagman was used for the railroad span.
6. Inspection in conjunction with Bridge Nos. 03311, 03313 and 03320.

ADDITIONAL COMMENTS:

There is a BMM submitted along with this report.

Inspectors' Signatures: 1) D. Sarah Keddy

Date: 8/1/2014



2) [Signature]

Date: 8/1/2014

3) _____

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

4) _____

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

P.E. Signature: Madan M. Gupta

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

P.E. #: 14052

Date: 8/1/14

Reviewed by:

Stephen King conndot

Date: 8/6/14



JOB NO. 170-3224

BRIDGE NO. 03312

SUPPLEMENTAL SHEET

DATE: (SEE BELOW)

SHEET 1 OF 74

DESCRIPTION: TIME LOG

DATE:	DESCRIPTION		TIME AT SITE	
4/22/2014	WEATHER: Sunny, 60°F	CREW: SRD, BJS	8:00 AM	TO 3:00 PM
EQUIP. LIST: GM2 Inspection Van	LIFT:			TO
	TROOPER:			TO
VISITORS: Rick Prescott 11:10 AM - 11:20 AM.				TO
TC & NOTES:	Inspected E. Abutment, part of Span 8 and Channel.			
	Inspected in conjunction with Bridge Nos. 03311, 03313 & 03320.			

DATE:	DESCRIPTION		TIME AT SITE	
4/28/2014	WEATHER: Sunny, 60°F	CREW: SRD, AKC, BJS	8:30 AM	TO 3:00 PM
EQUIP. LIST: GM2 Inspection Van	LIFT: 40' (E-L)		8:30 AM	TO 3:00 PM
	MPT: McClain		8:30 AM	TO 3:00 PM
	TROOPER: Rheiner (#1156)		8:45 AM	TO 3:00 PM
VISITORS:				TO
TC & NOTES:	Right & left lane closures on Rte. 72 EB. Inspected Span 2, part of Spans 1 & 3, Piers 1 & 2 and W. Abutment.			
	Inspected in conjunction with Bridge No. 03311.			

DATE:	DESCRIPTION		TIME AT SITE	
4/29/2014	WEATHER: Sunny, 50°F	CREW: SRD, AKC, BJS, CAW	8:30 AM	TO 3:00 PM
EQUIP. LIST: GM2 Inspection Van	LIFT: 2 - 40' (E-L)		8:30 AM	TO 3:00 PM
Ladders	MPT: McClain		8:30 AM	TO 3:00 PM
	TROOPER: Santa (#990)		8:45 AM	TO 2:30 PM
VISITORS:				TO
TC & NOTES:	Right & left lane closures on Rte. 72 WB. Inspected part of Spans 4 & 5 and Pier 4.			
	Inspected in conjunction with Bridge Nos. 03311 & 03313.			

DATE:	DESCRIPTION		TIME AT SITE	
5/15/2014	WEATHER: Sunny, 60°F	CREW: SRD, AKC, PAH, BJS	8:30 AM	TO 3:30 PM
EQUIP. LIST: GM2 Inspection Van	SNOOPER: 60' (McClain)		8:30 AM	TO 3:30 PM
	MPT: McClain (2 Crews)		8:30 AM	TO 3:30 PM
VISITORS:	TROOPER: Foley (#745)		8:45 AM	TO 1:45 PM
	TROOPER: Zup (#745)		8:45 AM	TO 3:15 PM
TC & NOTES:	Right & left lane closures on Rte. 72 WB & right lane closure on I-84 EB. Inspected part of Spans 1, 2, 3, 6 & 7, Span 5 & Piers 1 - 6. Inspected in conjunction with Bridge Nos. 03311 & 03313.			



JOB NO. 170-3224

BRIDGE NO. 03312

SUPPLEMENTAL SHEET

DATE: (SEE BELOW)

SHEET 2 OF 74

DESCRIPTION: TIME LOG

DATE:	6/2/2014		DESCRIPTION	TIME AT SITE	
WEATHER:	Sunny, 70°F	CREW:	SRD, AKC	8:30 AM	TO 3:00 PM
EQUIP. LIST:	GM2 Inspection Van	LIFT:	40' (E-L)	8:30 AM	TO 3:00 PM
		MPT:	McClain	8:30 AM	TO 3:00 PM
		TROOPER:	Such (#1302)	8:45 AM	TO 3:00 PM
VISITORS:		TROOPER:	Cipriano(#1383)	8:45 AM	TO 3:00 PM
TC & NOTES:	Right & left lane closures on I-84 EB & WB. Inspected top of deck. Inspected in conjunction with Bridge Nos. 03311 & 03313.				

DATE:	6/3/2014		DESCRIPTION	TIME AT SITE	
WEATHER:	Sunny, 70°F	CREW:	SRD, AKC, BJS	8:00 AM	TO 3:00 PM
EQUIP. LIST:	GM2 Box Truck	LIFT:	60' Manlift (Above & Beyond)	8:00 AM	TO 3:00 PM
		LIFT:	40' Lift (E-L)	8:00 AM	TO 3:00 PM
		TROOPER:	Sliter (New Britain PD)	8:45 AM	TO 1:00 PM
VISITORS:					TO
TC & NOTES:	Partial right lane closure on Rte. 372 WB & EB. Inspected part of Span 7, & part of Pier 7. Inspected in conjunction with Bridge Nos. 03313 & 03320.				

DATE:	6/4/2014		DESCRIPTION	TIME AT SITE	
WEATHER:	Sunny, 70°F	CREW:	SRD, AKC	8:00 AM	TO 3:00 PM
EQUIP. LIST:	GM2 Box Truck	LIFT:	60' Manlift (Above & Beyond)	8:00 AM	TO 3:00 PM
		TROOPER:	Cybulski (#795)	9:00 AM	TO 1:00 PM
VISITORS:					TO
TC & NOTES:	Partial right lane closure on Rte. 372 WB & EB. Completed Span 7. Inspected in conjunction with Bridge No. 03311.				

DATE:	6/6/2014		DESCRIPTION	TIME AT SITE	
WEATHER:	Sunny, 70°F	CREW:	SRD, AKC, PAH, BJS	7:00 AM	TO 3:00 PM
EQUIP. LIST:	GM2 Inspection Van	SNOOPER:	60' (McClain)	8:30 AM	TO 3:00 PM
	GM2 Box Truck	MPT:	McClain	8:30 AM	TO 3:00 PM
VISITORS:		TROOPER:	Gutierrez (#1404) & Dowe (#940)	8:45 AM	TO 3:00 PM
		FLAGMAN:	Phil Lane (PanAM RR)	7:00 AM	TO 3:00 PM
TC & NOTES:	Right shoulder closure on I-84 TR 815. Inspected Spans 5, 6, 7 and Piers 5 & 6. Inspected in conjunction with Bridge Nos. 03311 & 03313.				



JOB NO. 170-3224

BRIDGE NO. 03312

SUPPLEMENTAL SHEET

DATE: (SEE BELOW)

SHEET 3 OF 74

DESCRIPTION: TIME LOG

DATE:	DESCRIPTION		TIME AT SITE	
6/7/2014	WEATHER: Sunny, 70°F	CREW: SRD, AKC, PAH, BJS	6:45 AM	TO 12:30 PM
	EQUIP. LIST: GM2 Inspection Van	SNOOPER:		TO
	GM2 Box Truck	MPT:		TO
		TROOPER:		TO
VISITORS:	FLAGMAN: Phil Lane (PanAM RR)		7:00 AM	TO 12:00 PM

TC & NOTES: No TC. Channel details and Misc. Photos.

Inspected in conjunction with Bridge Nos. 03311 & 03320.

DATE:	DESCRIPTION		TIME AT SITE	
	WEATHER:	CREW:		TO
	EQUIP. LIST:	LIFT:		TO
		LIFT:		TO
		TROOPER:		TO
VISITORS:				TO

TC & NOTES:

DATE:	DESCRIPTION		TIME AT SITE	
	WEATHER:	CREW:		TO
	EQUIP. LIST:	LIFT:		TO
		LIFT:		TO
		TROOPER:		TO
VISITORS:				TO

TC & NOTES:

DATE:	DESCRIPTION		TIME AT SITE	
	WEATHER:	CREW:		TO
	EQUIP. LIST:	LIFT:		TO
		LIFT:		TO
VISITORS:		TROOPER:		TO
				TO

TC & NOTES:

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: JAC

BRIDGE NO. 03312

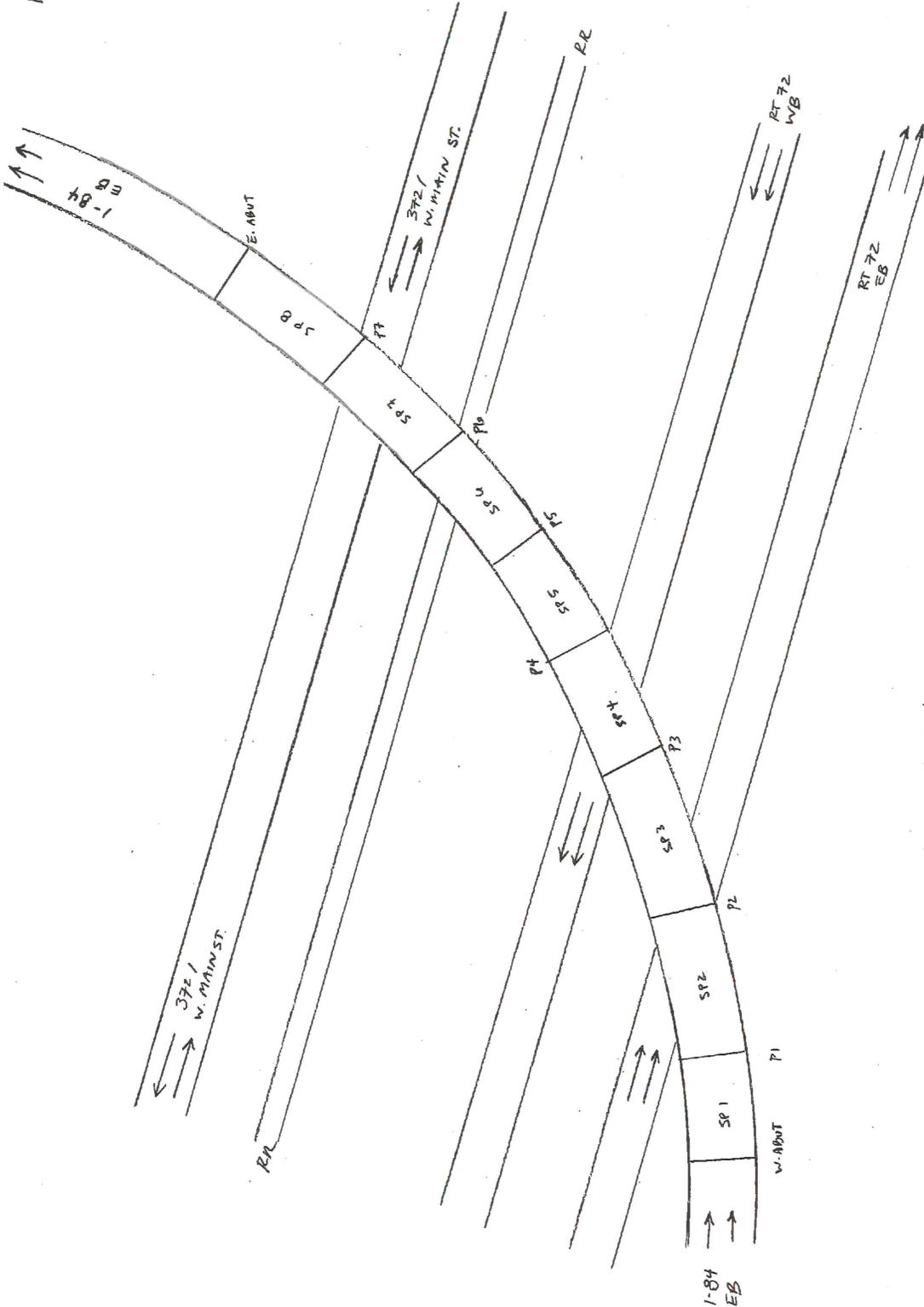
DATE:

CREW: MJO, BH

SHEET 16/104 4/24

DESCRIPTION: KEY PLAN

← Z



△ - NO CHANGE

△ S.R.D. AKL, PAH, BJS (GM2)-4/22/14

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

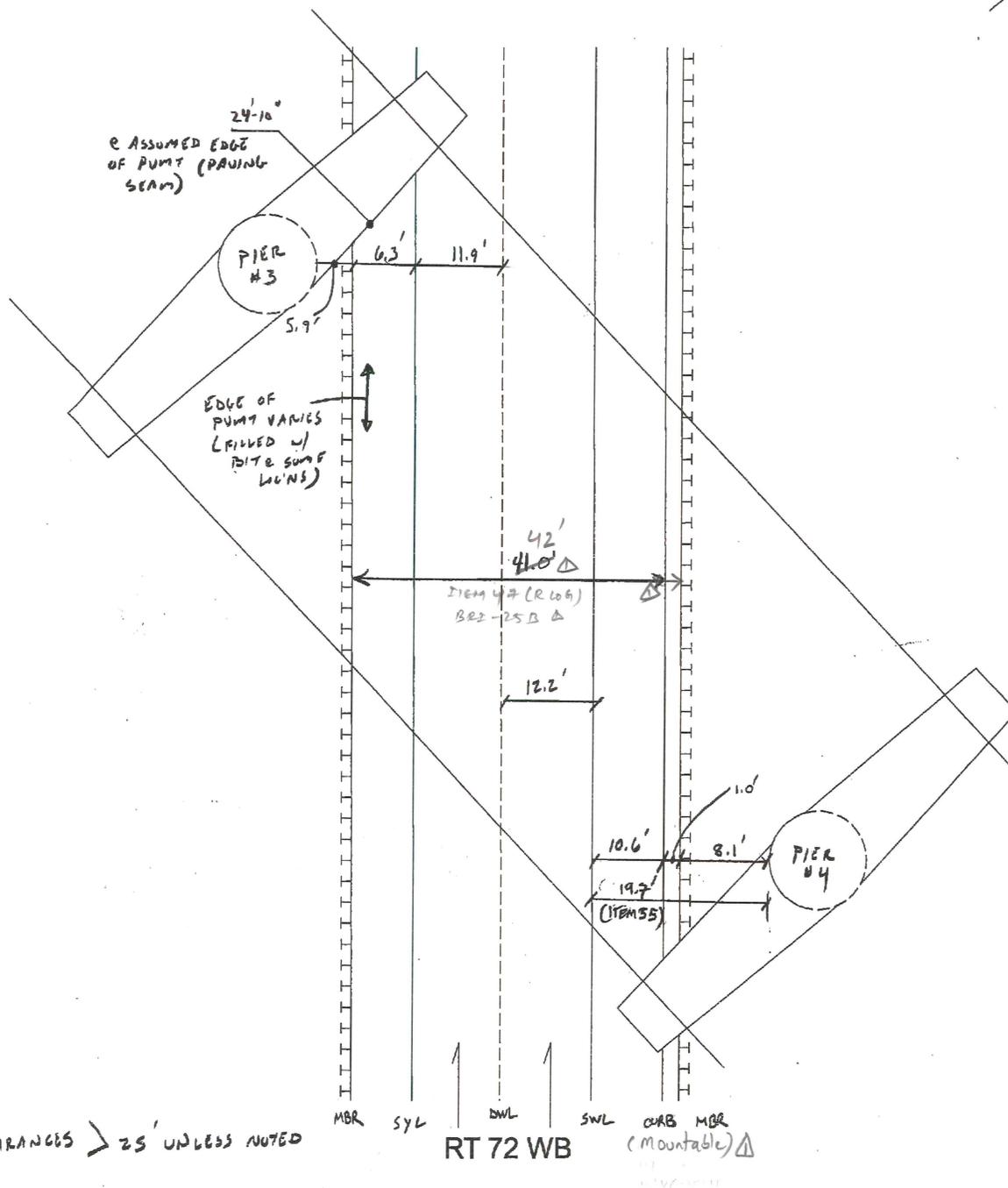
BRIDGE NO. 3312

DATE: 4/13/12

CREW: WJU/BA

SHEET 18109-6/74

DESCRIPTION: CLEARANCE DIAGRAM - SPAN 3



GEN
 • VT CLEARANCES > 25' UNLESS NOTED

CLEARANCE DIAGRAM
 (SPAN 3)

UPDATE NO.	DATE	COMPANY	CREW
△	4/29/14	GM2	SED, AKC, BJS, CAW
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

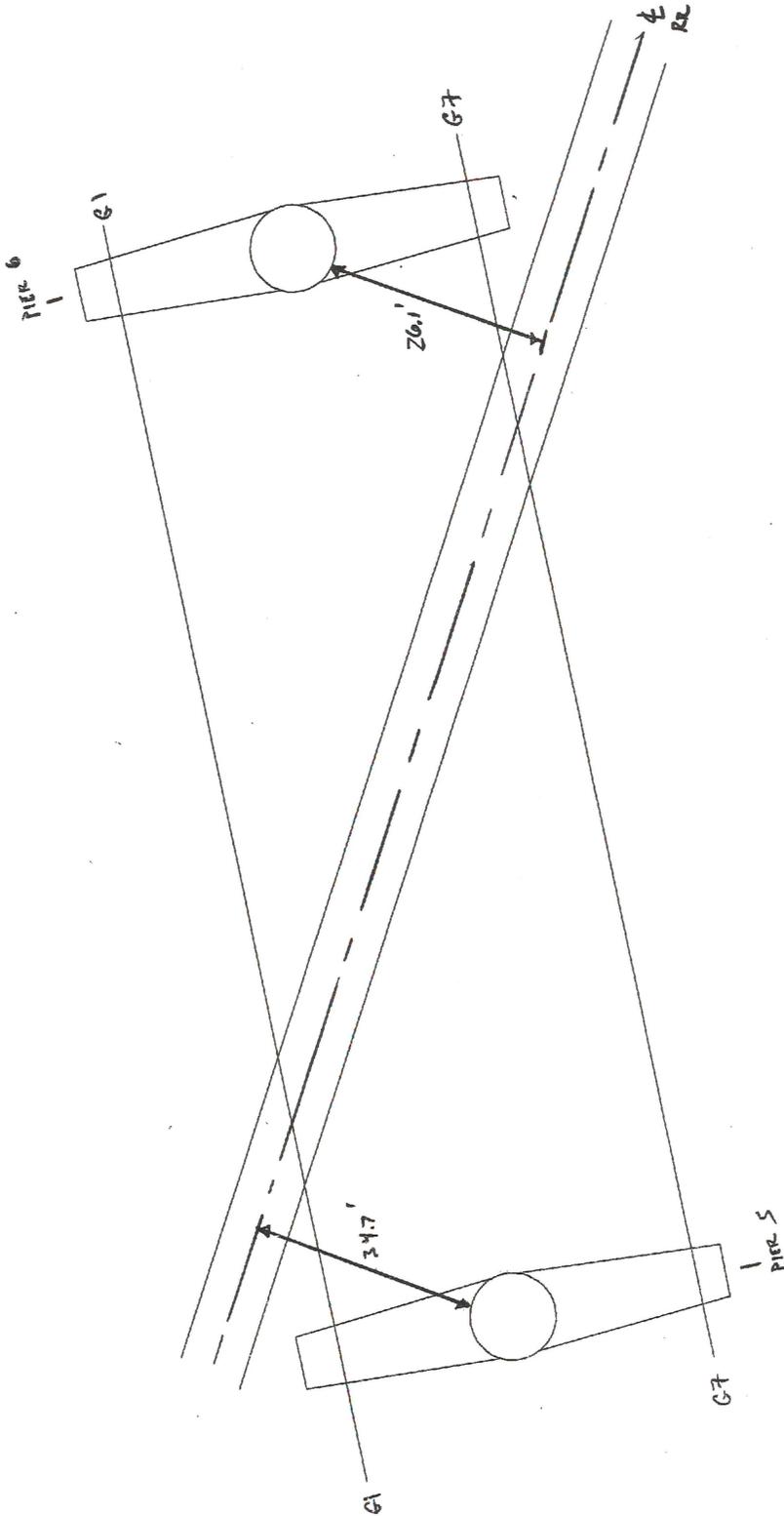
BRIDGE NO. 3312

DATE: 4/10/12

CREW: MTU/PB

SHEET 19/109 7/44

DESCRIPTION: CLEARANCE DIAGRAM - SPAN 6



CLEARANCE DIAGRAM - SPAN 6

△ NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
△	6/6/14	Gm2	SPD, ALC, PAM, BJS
△			
△			
△			

NOTE:
ALL VERTICAL CLEARANCES ARE 725'

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

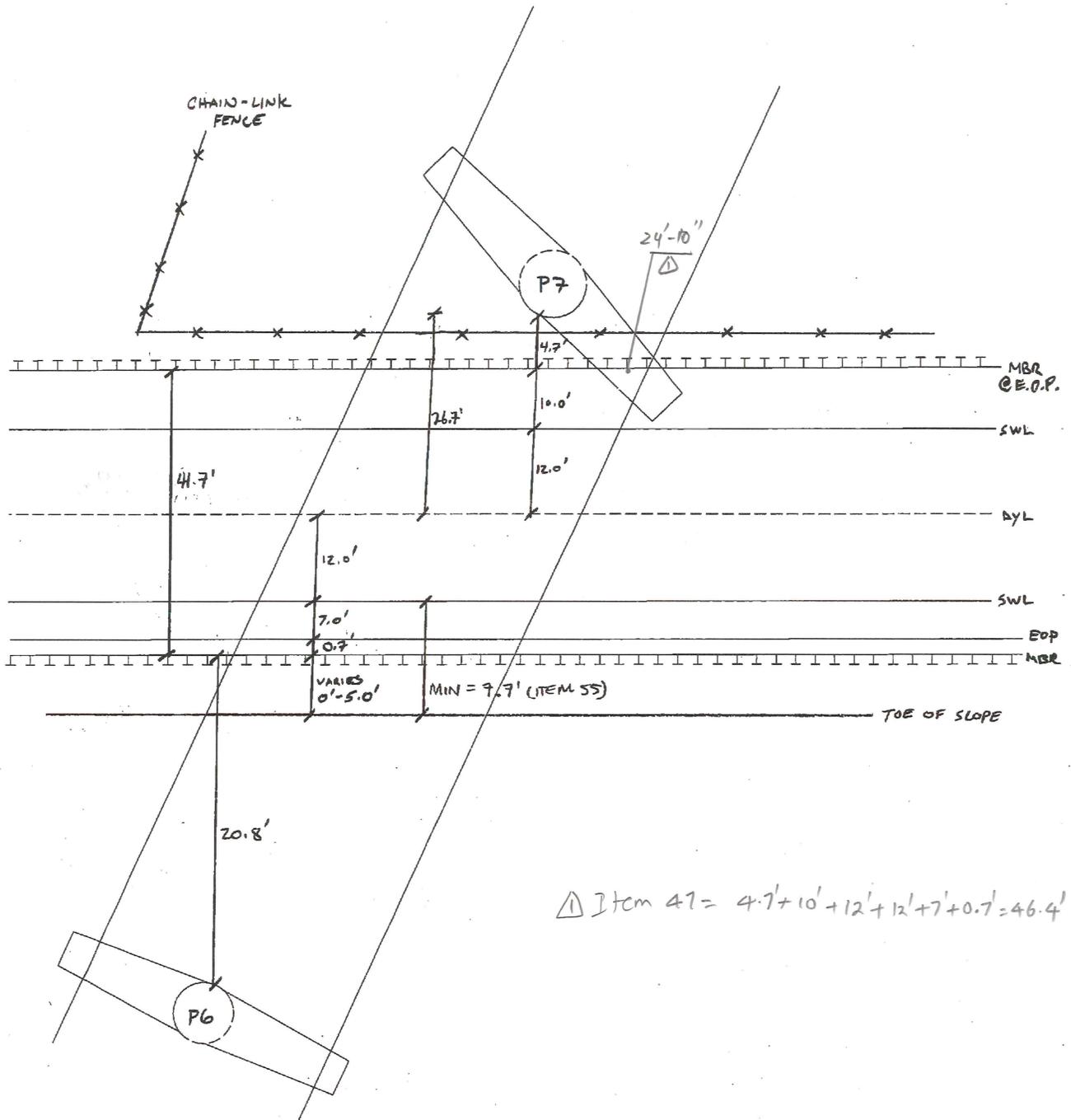
BRIDGE NO. 3312

DATE: 4/11/12

CREW: MJD, PB, JAI

SHEET 20/109 8/74

DESCRIPTION: SP #7 CLEARANCES

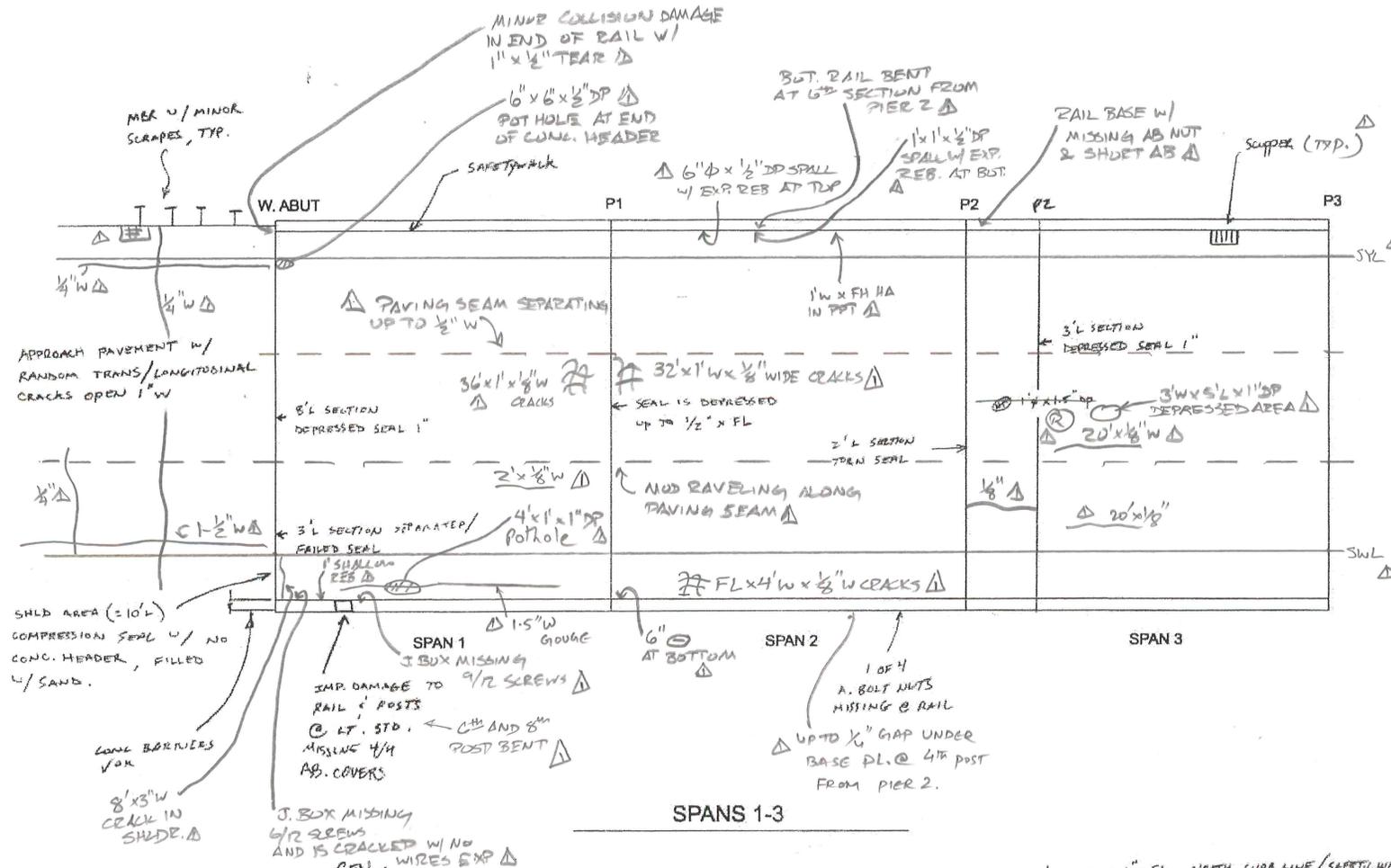


△ Item 47 = 4.7' + 10' + 12' + 12' + 7' + 0.7' = 46.4'

NOTE:
ALL VERTICAL CLEARANCES > 25'

UPDATE NO.	DATE	COMPANY	CREW
△	6/3/14	G M 2	SRD, AKC, BJS.
△			
△			
△			

STRUCTURE CURVE NOT SHOWN FOR SIMPLIFICATION



LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

- NEWER OVERLAY, LIGHT RAVELING AT SHLD.
- CONCRETE HEADERS W/ ISOL. FW TRANSVERSE HLC'S.
- CONCR. SEAL JOINTS W/ AREAS OF LT-MOD SAND.
- RANDOM BRIDGE RAILS W/ BENDS FROM IMPACT DAMAGE; RUST.
- RANDOM GAPS UP TO 1/2" BTWN BASE IR'S + PARAPET.
- PARAPETS W/ AREAS OF SHALLOW REBARS, WT HLC'S W/ EFFLO; IMPACT SCRAPES.
- JUNCTION BOX COVERS MISSING UP TO 10 OF 12 SCREWS (SECURE).
- CURBS W/ MINOR EDGE SPALLS; SCRAPES

• SAND/DEBRIS = 1" x PL NORTH CURB LINE/SAFETY WALK
 • SAFETY WALK W/ LT. SCALE AREAS + HLC'S

= REPAIRED

UPDATE NO.	DATE	COMPANY	CREW
△	5/15/14	GMZ	SRD, AIC, DAN, BJS
△			
△			
△			

DESCRIPTION: Top of Deck

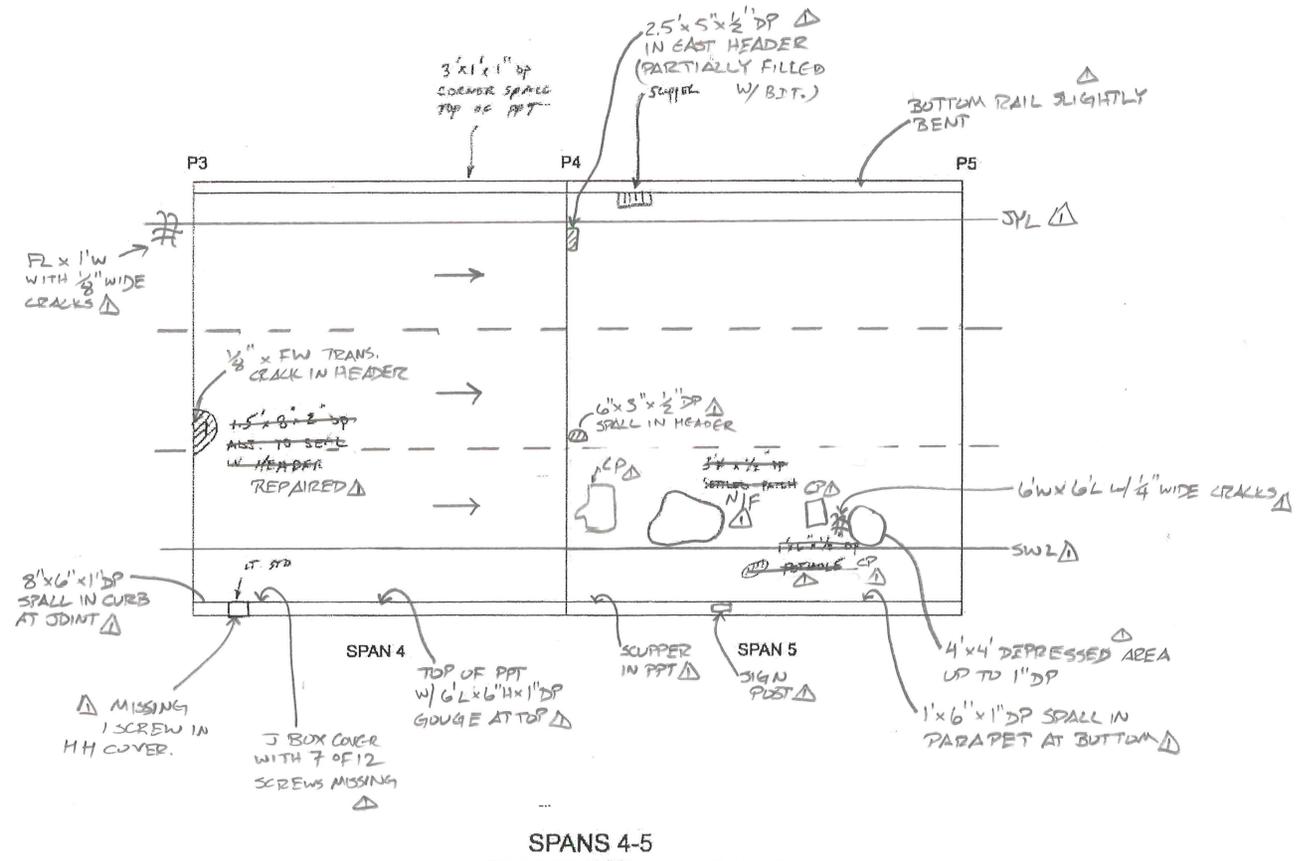
Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 0331A
 CREW: PB, M50

DATE: 4/16/2012
 SHEET 24/104 9/14

STRUCTURE CURVE NOT SHOWN FOR SIMPLIFICATION



GEN
• SEE SPANS 1-3

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (H, V, M, OR L)
- WITH EFFLORESCENCE
- TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	5/15/14	GMZ	SRD, AKC, DAN, BTJ
△			
△			
△			

DESCRIPTION: TOP OF DECK

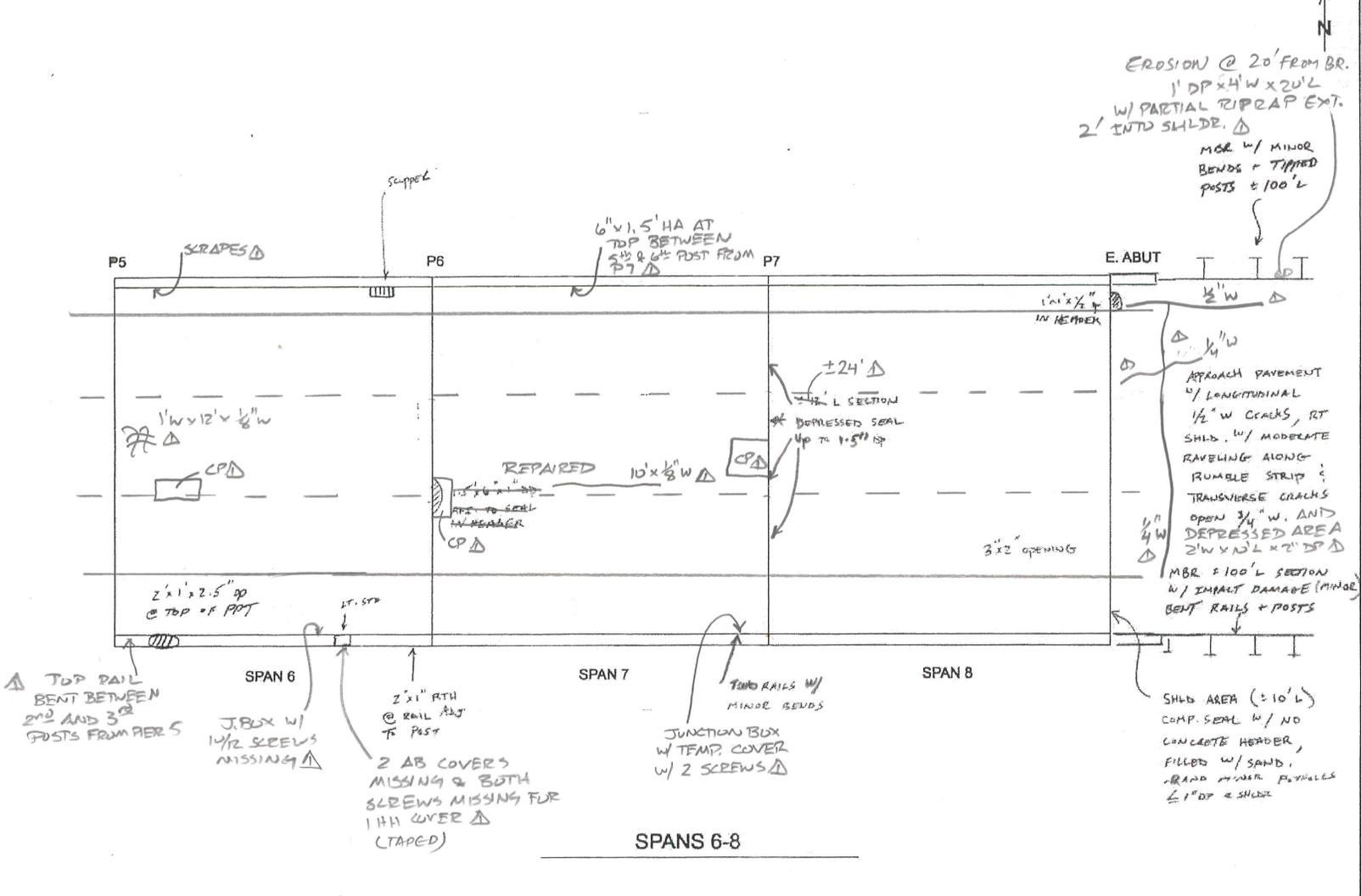
Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 03312
CREW: PB, MTD

DATE: 4/16/2012
SHEET 27/104-10/74

STRUCTURE CURVE NOT SHOWN FOR SIMPLIFICATION



EROSION @ 20' FROM BR.
 1' DP x 4' W x 2' L
 W/ PARTIAL RIPRAP EXT.
 2' INTO SLIDE. Δ
 MBR W/ MINOR
 BENDS + TIPPED
 POSTS ± 100' L

- LEGEND**
- HOLLOW AREA
 - SHALLOW REBAR
 - ▨ SPALL AREA
 - ▩ SPALL AREA WITH EXPOSED REBAR
 - ▧ MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
 - ~ HAIRLINE CRACK (HLC) OR CRACKS (CRK)
 - ⊞ HONEY COMB AREA
 - ⊞ SCALE AREA (HVY, MED OR LT)
 - ✱ WITH EFFLORESCENCE
 - + TRANSITION WELD

GEN
 • SEE SPANS 1-3

DESCRIPTION: TOP OF DECK

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 03312
 CREW: PG, MTD

DATE: 4/16/2012
 SHEET 23/109 11/44

UPDATE NO.	DATE	COMPANY	CREW
Δ	5/15/14	GMZ	SRD, AKC, PAH, BJS
Δ			
Δ			
Δ			

SUPPLEMENTAL SHEET

BRIDGE NO. 03312

DATE: 4/16/2012

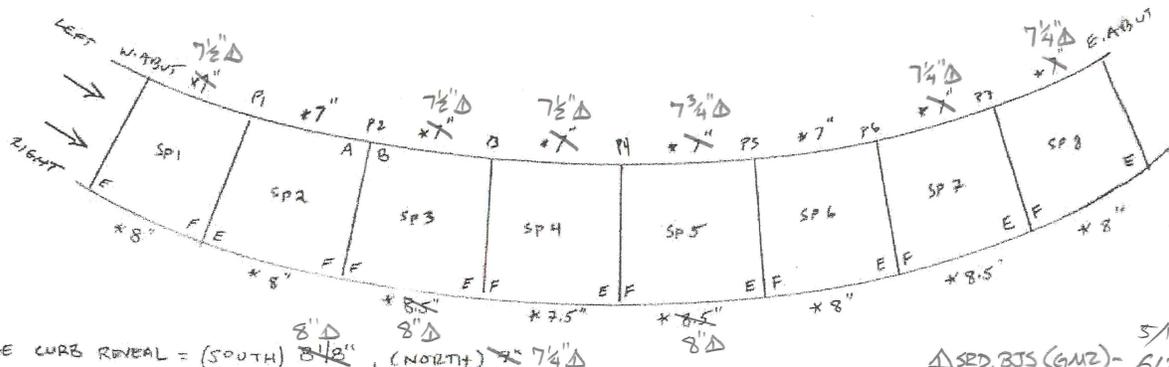
FIELD ORIGINAL

TRANSCRIBED BY: _____

CREW: PB, MJD

SHEET 24/104 12/14

DESCRIPTION: PARAPET JOINT MEASUREMENTS



LOCATION	MEASUREMENT $\leftarrow 50^{\circ} F$				MEASUREMENT $\rightarrow 50^{\circ} F$				JOINT TYPE
	LEFT	RIGHT	L/R TEMP	L/R DATE	LEFT	RIGHT	TEMP	DATE	
W. ABUT	$1\frac{3}{4}"$	$1\frac{3}{16}"$	$48^{\circ} F$ $70^{\circ} F$	$4/22/12$ $4/16/12$	$1\frac{9}{16}"$	$\frac{5}{8}"$	SEE BELOW	SEE BELOW	COMPRESSION SEAL
P1	$1\frac{3}{8}"$	$1\frac{1}{2}"$			$1\frac{1}{4}"$	$1\frac{1}{4}"$			
P2 A/B	$1\frac{3}{16}"$ $1\frac{1}{4}"$	$1\frac{1}{2}"$ $1\frac{1}{16}"$			$1\frac{5}{16}"$ $1\frac{3}{8}"$	$1\frac{5}{8}"$ $1\frac{3}{8}"$			
P3	$1\frac{1}{16}"$	$1\frac{1}{16}"$			$1\frac{13}{16}"$	$1\frac{5}{8}"$			
P4	$1\frac{13}{16}"$	$1\frac{1}{2}"$			$1\frac{1}{16}"$	$1\frac{3}{8}"$			
P5	$1\frac{1}{4}"$	$1\frac{3}{8}"$			$1\frac{1}{4}"$	$1\frac{1}{4}"$			
P6	$1\frac{1}{2}"$	$1\frac{1}{2}"$			$1\frac{5}{16}"$	$1\frac{3}{8}"$			
P7	$1\frac{5}{8}"$	$1\frac{1}{4}"$			$1\frac{1}{4}"$	$1\frac{1}{4}"$			
E. ABUT	$1\frac{1}{2}"$	$1\frac{1}{8}"$			$1\frac{7}{16}"$	$1"$			

GENERAL NOTES:

- MEASUREMENTS TAKEN 3" BELOW TOP OF PARAPET @ OUTSIDE FACE.
- LEFT MEASUREMENTS TAKEN ON 6/2/14 @ $70^{\circ} F$ AND RT. MEASUREMENTS TAKEN ON 5/25/14 @ $65^{\circ} F$ Δ
- All measurements were double checked. Δ

REGULAR INSPECTION

SUMMER / WINTER JOINT MEASUREMENTS

Date: 5/15/14

Summer Winter

JOINT MEASUREMENTS

Form BRI-17, Rev. 9/03

Measurements Taken By: SRD

Bridge No.: 03312 I-84EB/ Rt. 72, Rt. 372, Pan Am RR and Quinn. River

Town: Plainville

Measurements Reviewed By: AKC

Deck Joint Location	Deck Joint Type ¹	Effect Span ² (ft.)	2012 Measurements				2014 Measurements				Differential Movements		Comments	Difference Between	
			Temp °F	Date: 4/16/12		Temp °F	Date: 5/15/2014 6/2/2014		Actual		by Formula	Actual & Calc'd Mov't			
				Left (in.)	Right (in.)		Left (in.)	Right (in.)	Left (in.)	Right (in.)		Left (in.)		Right (in.)	
W. Abutment	Comp	91.8	48	1 3/4		70	1 9/16			3/16		3/16	Expansion	0	
Pier 1	Comp	106.1	48	1 3/8		70	1 1/4			2/16		3/16	Fixed/Expansion	- 1/16	
Pier 2A	Comp	0.0	48	1 7/16		70	1 5/16			2/16		0	Fixed	2/16	
Pier 2B	Comp	0.0	48	1 1/4		70	1 3/8			- 2/16		0	Fixed	- 2/16	
Pier 3	Comp	106.1	48	1 11/16		70	1 13/16			- 2/16		3/16	Expansion/Fixed	- 5/16	
Pier 4	Comp	106.1	48	1 13/16		70	1 11/16			2/16		3/16	Expansion/Fixed	- 1/16	
Pier 5	Comp	106.1	48	1 1/4		70	1 1/4			0		3/16	Expansion/Fixed	- 3/16	
Pier 6	Comp	106.1	48	1 1/2		70	1 5/16			3/16		3/16	Expansion/Fixed	0	
Pier 7	Comp	106.1	48	1 5/8		70	1 1/4			6/16		3/16	Expansion/Fixed	3/16	
E. Abutment	Comp	91.8	48	1 1/2		70	1 7/16			1/16		3/16	Expansion	- 2/16	
W. Abutment	Comp	91.8	70		13/16	65		5/8		3/16	- 1/16		Expansion		4/16
Pier 1	Comp	106.1	70		1 1/2	65		1 1/4		4/16	- 1/16		Fixed/Expansion		5/16
Pier 2A	Comp	0.0	70		1 1/2	65		1 5/8		- 2/16	0		Fixed		- 2/16
Pier 2B	Comp	0.0	70		1 1/16	65		1 3/8		- 5/16	0		Fixed		- 5/16
Pier 3	Comp	106.1	70		1 11/16	65		1 5/8		1/16	- 1/16		Expansion/Fixed		2/16
Pier 4	Comp	106.1	70		1 1/2	65		1 3/8		2/16	- 1/16		Expansion/Fixed		3/16
Pier 5	Comp	106.1	70		1 3/8	65		1 1/4		2/16	- 1/16		Expansion/Fixed		3/16
Pier 6	Comp	106.1	70		1 1/2	65		1 3/8		2/16	- 1/16		Expansion/Fixed		3/16
Pier 7	Comp	106.1	70		1 1/4	65		1 1/4		0	- 1/16		Expansion/Fixed		1/16
E. Abutment	Comp	91.8	70		1 1/8	65		1		2/16	- 1/16		Expansion		3/16

- The "Deck Joint Type" should be "plug" for Asphaltic Plug joints, "strip" for Strip Seals, "seg." for Segmental Joints, etc.
- The "Effective Span" is the length contributing to expansion at the joint. This should be 0 at fixed joints of single span bridges.

Reviewer's Comments:

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: _____

13/74

FIELD NOTES

BRIDGE NO. 3312

DATE: 4/17/12

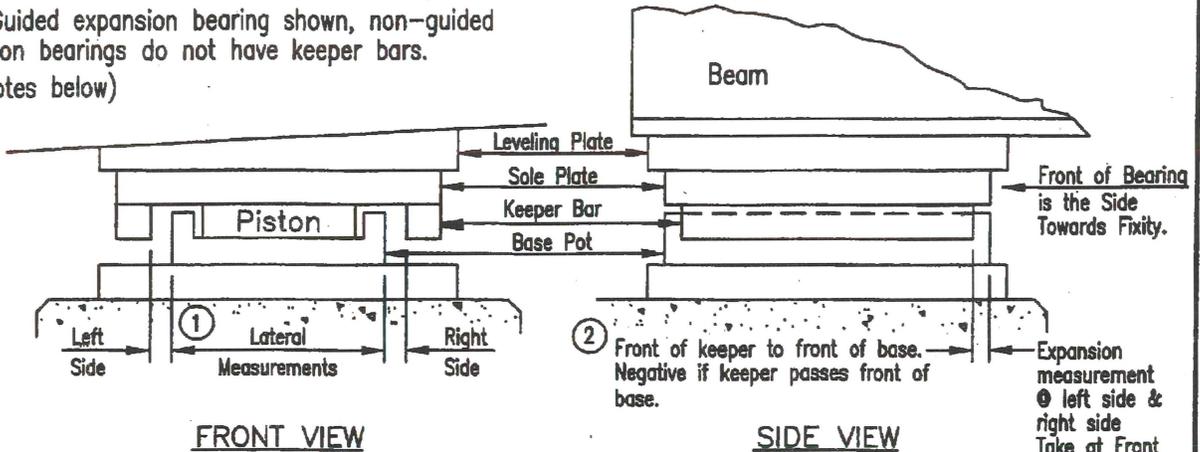
CREW: BAH, VS

SHEET 26/109-14/74

POT BEARING MEASUREMENTS

Form BRB-16, Rev. 9/97

Note: Guided expansion bearing shown, non-guided expansion bearings do not have keeper bars.
(see notes below)



- ① -Left & Right are determined when facing the Front of the Bearing.
-For non-guided bearings, measure from side of sole plate to side of piston @ center line of piston.
- ② -For non-guided bearings, measure expansion from front of sole plate to front of piston @ center line of bearing.

Span No. & Substructure Unit = SP #1 e w. ABUT

Temperature = 70 °F

Beam	Expansion			Lateral		Comments
	Exp. Measurement	Side of Brg.	Side of Brg. (N,S,E,W)	Left	Right	
	ℰ	℞				
	<u>SPAN 1 e w. ABUT</u>					
1	2 7/16"	-	E	3/16"	0	HVY LAM RUST, 10% S.L. ON KEEPER BAR.
3	2 3/8"	-	E	1/4"	0	
5	2 3/8"	-	E	1/4"	0	
7	2 1/16"	-	E	3/16"	0	LAM RUST ON MASS BR. GEN: RT-MOD RUST & PEELING PAINT. -LAT MEAS. TAKEN @ KEYWAY, TYP ALL SPANS
Δ	ARC. DATA (GMD) - 5/15/2014 @ 65°F					
1	2 9/16"	-	E	3/16"	0	SEE PREVIOUS NOTES ABOVE.
3	2 1/8"	-	E	1/4"	0	
5	2 1/4"	-	E	1/4"	0	
7	2 1/4"	-	E	3/16"	0	

FIELD NOTES

BRIDGE NO. 3312

DATE: 4/10/12

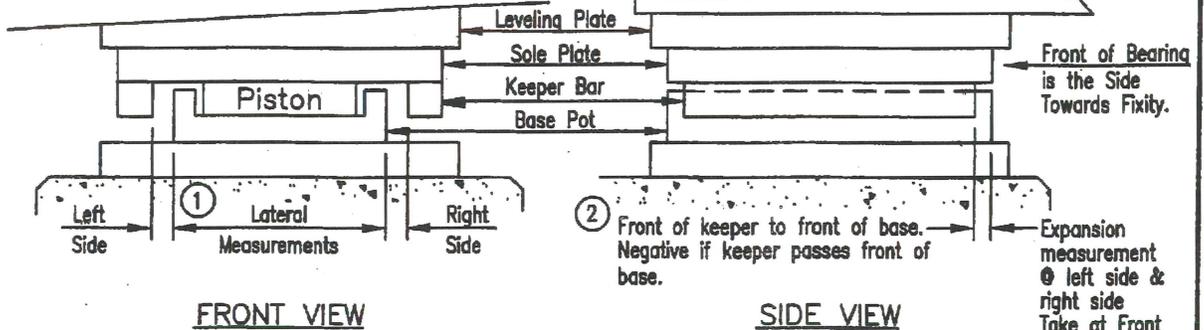
CREW: MTO, BH

SHEET 27/109 15/74

POT BEARING MEASUREMENTS

Form BRG-16, Rev. 9/97

Note: Guided expansion bearing shown, non-guided expansion bearings do not have keeper bars. (see notes below)



① -Left & Right are determined when facing the Front of the Bearing.
-For non-guided bearings, measure from side of sole plate to side of piston @ center line of piston.

② -For non-guided bearings, measure expansion from front of sole plate to front of piston @ center line of bearing.

Span No. & Substructure Unit = SP# 22 71

Temperature = 58°F
36WJF

Beam	Expansion		Side of Brg. (N,S,E,W)	Lateral		Comments
	Exp. Measurement			Left	Right	
	C	R				
		SP# 2	E	1 →	±80°	G3-67
1	3"	N/A	E	1/2"	5/8"	Peeling paint, heavy rust; 4/17/12 YS, BH T=68°
3	2 3/4"	N/A	E	1/8"	1/8"	PEELING PAINT, heavy RUST
5	2 3/4"	N/A	E	1/4"	0"	heavy LR & RRC
7	2 1/16"	N/A	E	3/16"	1/16"	SAME AS G3;
						OTHER BRGS w/ PEELING PAINT, heavy RUST
Δ	SRD, ALL, PAH, BJS (G.M.R) - 4/28/14 @ 60°F & 5/15/14 @ 65°F					
1	3 1/8"	-	E	1/2"	5/8"	SEE PREVIOUS NOTES ABOVE 4/28/14
3	3"	-	E	1/8"	1/8"	- 4/28/14
5	2 9/16"	-	E	1/4"	0"	- 5/15/14
7	2 5/8"	-	E	3/16"	1/16"	- 5/15/14

FIELD NOTES

BRIDGE NO. 3312

DATE: 4/13/12

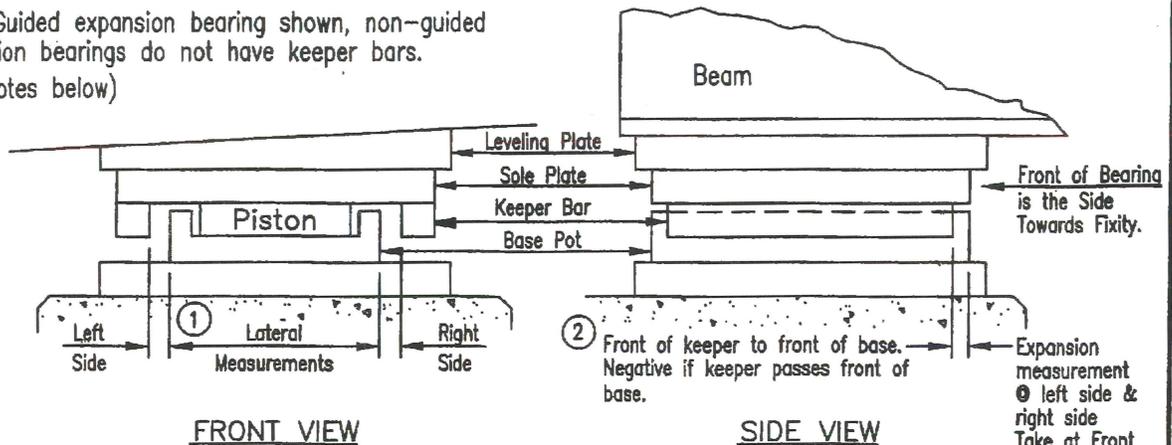
CREW: PB/MJD

SHEET 29/109 ¹⁷/₇₄

POT BEARING MEASUREMENTS

Form BRI-16, Rev. 9/97

Note: Guided expansion bearing shown, non-guided expansion bearings do not have keeper bars. (see notes below)



- ① -Left & Right are determined when facing the Front of the Bearing.
-For non-guided bearings, measure from side of sole plate to side of piston @ center line of piston.
- ② -For non-guided bearings, measure expansion from front of sole plate to front of piston @ center line of bearing.

Span No. & Substructure Unit = SP #3 @ PIER 3 Temperature = 65°F

Beam	Expansion			Lateral		Comments
	Exp. Measurement		Side of Brg. (N,S,E,W)	Left	Right	
	E	R				
1	2 3/4"	N/A	W	1/4"	1/16"	HUY TO LAM RUST
3	2 3/4"	}	}	3/16"	1/16"	LT RUST - MOD. RUST Δ
5	2 3/4"			0	1/4"	
7	2 3/4"			3/16"	0	
Δ	SRD, AKC, PAH, BJS (GM2)			4/28/14 @ 60°F & 5/15/14 @ 65°F		
1	2 9/16"	-	W	1/4"	1/16"	SEE PREVIOUS NOTES ABOVE: 5/15/14 - 5/15/14 - 5/15/14 - 4/28/14
3	2 3/8"	-	W	3/16"	1/16"	
5	2 3/8"	-	W	0	1/4"	
7	2 5/8"	-	W	1/8"	1/16"	

FIELD NOTES

BRIDGE NO. 3312

DATE: 4/16/12

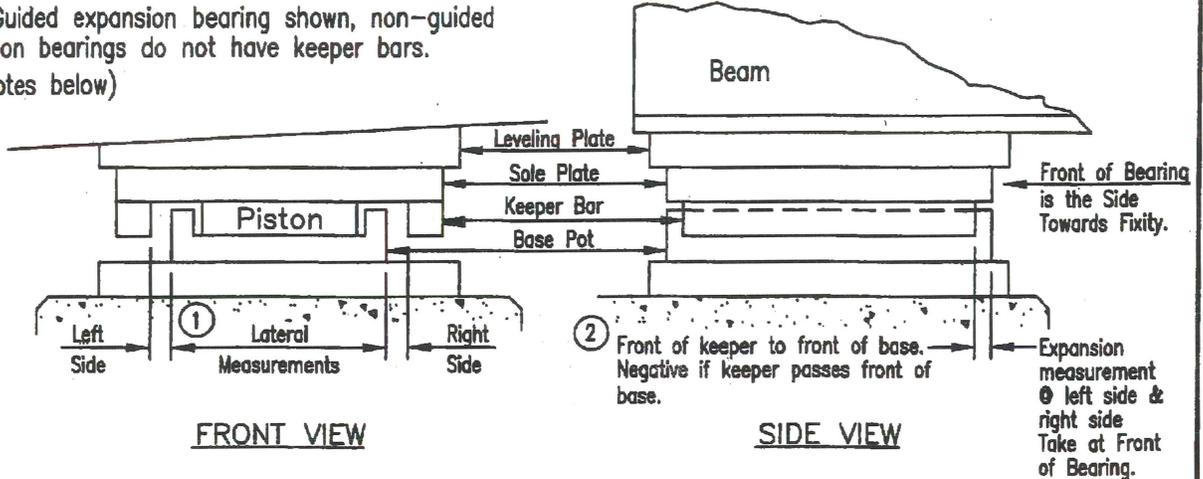
CREW: MTD/BH

SHEET 31/104 19/24

POT BEARING MEASUREMENTS

Form BR-16, Rev. 9/97

Note: Guided expansion bearing shown, non-guided expansion bearings do not have keeper bars. (see notes below)



① -Left & Right are determined when facing the Front of the Bearing.
 -For non-guided bearings, measure from side of sole plate to side of piston @ center line of piston.

② -For non-guided bearings, measure expansion from front of sole plate to front of piston @ center line of bearing.

Span No. & Substructure Unit = SP#5 e PS

Temperature = 80 °F

Beam	Expansion			Lateral		Comments
	Exp. Measurement		Side of Brg. (N,S,E,W)	Left	Right	
	←	→				
		SPAN	S e PIER 5	4/16/12	80° MTD/BH	LAM RUST
1	2 1/2"	N/A	W	1/16"	3/16"	
3	2 3/8"	}	}	1/8"	1/16"	
5	2 7/16"			0	3/16"	
7	2 1/4"			0	3/16"	HUY RUST (MUSSELY e MAG TE)
						GEN-TYP - BRGS w/ PEEL PAINT + RAMP HUY RUST
△ SRD, AHC, PAH, BJS (Gina?) - 5/15/14 @ 65° F						
1	2 3/16"	-	W	1/16"	3/16"	SEE ABOVE NOTES ABOVE.
3	2 1/4"	-	}	1/8"	1/16"	}
5	2 1/4"	-		1/8"	1/16"	
7	2 1/4"	-		0	3/16"	

FIELD NOTES

BRIDGE NO. 3312

DATE: 4/16/10

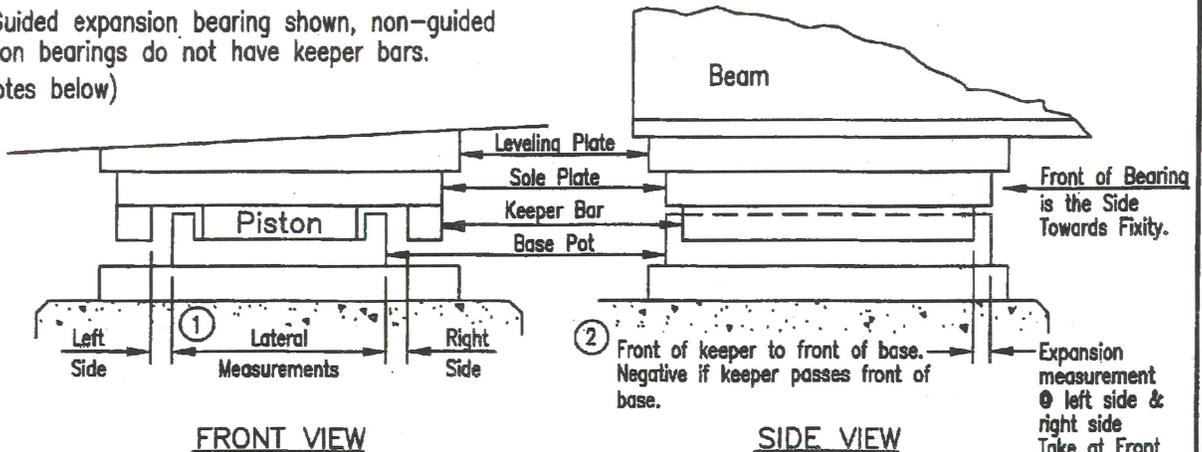
CREW: MJD/PP

SHEET 32/104 20/74

POT BEARING MEASUREMENTS

Form BPI-16, Rev. 9/97

Note: Guided expansion bearing shown, non-guided expansion bearings do not have keeper bars. (see notes below)



① -Left & Right are determined when facing the Front of the Bearing.
 -For non-guided bearings, measure from side of sole plate to side of piston @ center line of piston.

② -For non-guided bearings, measure expansion from front of sole plate to front of piston @ center line of bearing.

Span No. & Substructure Unit = SPAN 6 & PIER 6

Temperature = 50°F

Beam	Expansion		Side of Brg. (N,S,E,W)	Lateral		Comments
	Exp. Measurement			Left	Right	
	☐	R				
			SPAN 6 & PIER 6		- 50° -	4/16/10
1	2 7/16"	-	W	*	*	RAND LA
3	2 1/2"	-	W	*	*	LAM RUST
5	2 3/16"	-	W	1/8"	1/8"	LT RUST
7	2 7/16"	-	W	3/16"	1/16"	MOD-HY RUST
						* @ LR & KEY MAKES LAP MEAS DIFFICULT
						GEN: OTHER BRGS w/ LT SURF RUST TO LR
Δ-SRD BJS - 6/6/14 @ 70°F						
1	2 3/8"	-	W	*	*	SEE PREVIOUS NOTES ABOVE.
3	2 7/16"	-	↓	*	*	
5	2 1/2"	-		1/8"	3/16"	
7	2 7/16"	-		1/16"	1/8"	

FIELD NOTES

BRIDGE NO. 03312

DATE: 4/11/2012

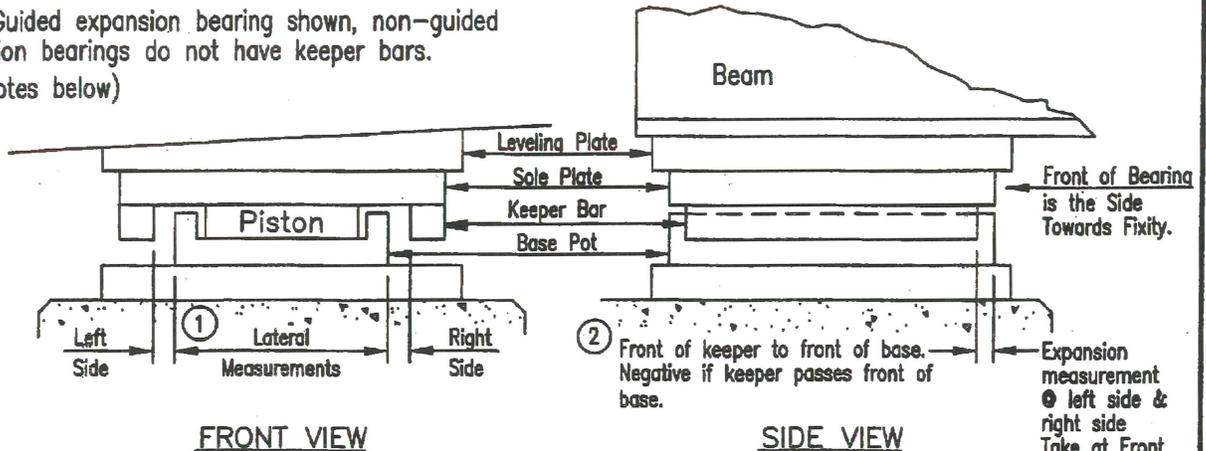
CREW: MJO, PB

SHEET 33/109 21/74

POT BEARING MEASUREMENTS

Form BR-16, Rev. 9/97

Note: Guided expansion bearing shown, non-guided expansion bearings do not have keeper bars. (see notes below)



① -Left & Right are determined when facing the Front of the Bearing.
 -For non-guided bearings, measure from side of sole plate to side of piston @ center line of piston.

② -For non-guided bearings, measure expansion from front of sole plate to front of piston @ center line of bearing.

Span No. & Substructure Unit = SP # 70 P7

Temperature = 55 °F

Beam	Expansion			Lateral		Comments
	Exp. Measurement		Side of Brg. (N,S,E,W)	Left	Right	
	☐	R				
1	2 1/16"	N/A	W	1/8"	1/8"	SEE GEN NOTES
3	2 3/4"	N/A	W	1/32"	3/16"	" "
5	2 3/4"	N/A	W	1/8"	1/16"	" "
7	2 1/16"	N/A	W	1/8"	1/16"	" "
FOR BRGS W/ MOD - MAY 12, 07 F CHECK BRGS W/ AREAS OF LR						
Δ- SRD, AUC BJS (GMM) - 6/3/14 @ 75°F SEE PREVIOUS NOTES ABOVE						
1	2 1/4"	-	W	1/8"	1/8"	* = COULD NOT VERIFY DUE TO IMP. RUST.
3	2 5/16"	-	W	1/16"	3/16"	
5	2 9/16"	-	W	*	*	
7	2 3/8"	-	W	1/8"	1/16"	

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

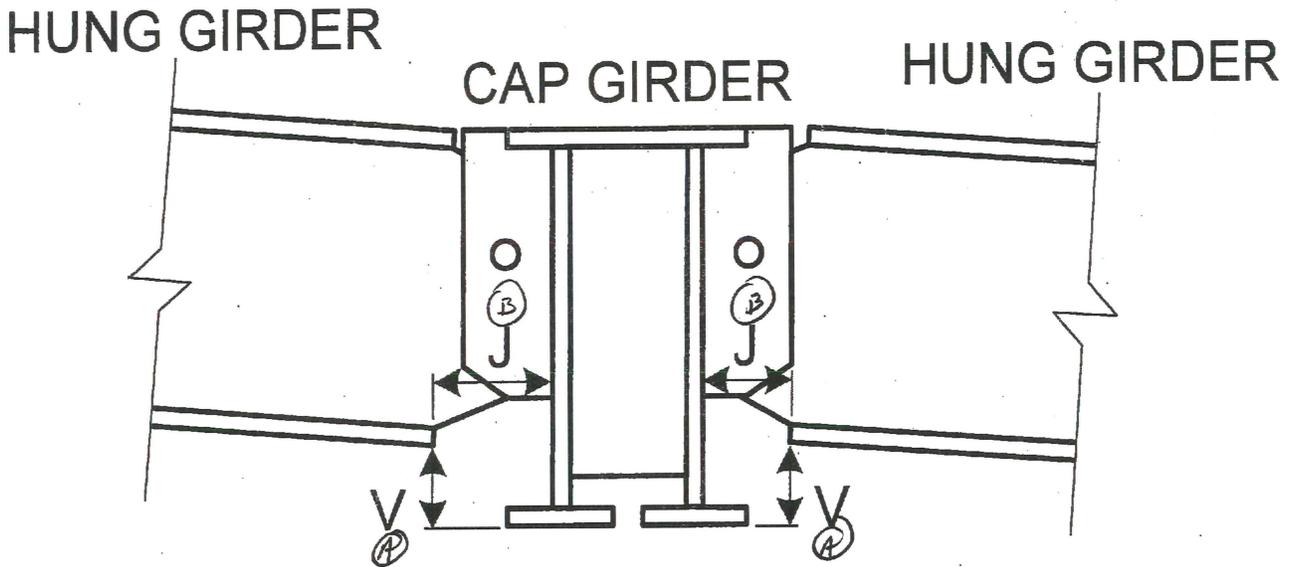
BRIDGE NO. 03312

DATE: 4/10/12

CREW: MJO, JAC

SHEET 35/109 23/74

DESCRIPTION: MEASUREMENT STANDARD AT HINGES.



"V" + "J" MEAS. @ PIER 2 CAP

(A) "V" MEAS TAKEN @ SOUTH (RIGHT) EDGE OF HUNG GIRDER BF'S TO A LEVEL LINE EXTENDED FROM THE CAP GIRDER BF (SAME AS PREV INSP).

• SOME "V" MEASUREMENTS TAKEN @ BOTH SIDES OF HUNG GIRDERS DUE TO DISCREPANCIES W/ PREV "V" MEAS.

(B) "J" MEAS TAKEN @ NORTH (LEFT) EDGE OF HUNG GIRDER BF'S (SAME AS PREV INSP)

△ - NO CHANGE

△ - 4/22/14 - SRD, AKL, BSS (GM2)

HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/28/14

Bridge No.: 03312 I-84 EB/RT. 72, RT 372, PANAM RR & QUINN RIVER Town: PLAINVILLE

Measurements Reviewed By: SRD Date: 4/28/14

Hinge Located: SPAN 2 @ PIER 2 Effective span for Movement: 0

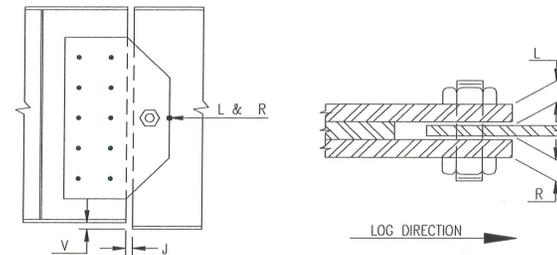
Page: 24 of 74

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
1	27 1/16"	16 1/4"	1 1/16"	1 1/8"	NONE	N/A	COTTER PIN	UP TO 3/8" I.R. BTWN. WEB & HINGE PLS.
2	28 3/4"	16 1/16"	1"	15/16"				UP TO 1/8" I.R. BTWN. WEB & HINGE PLS.
3	29 5/8"	16 13/16"	7/8"	15/16"				" " " " "
4	29 9/16"	16 1/4"	13/16"	13/16"				MOD-HVY RUST @ WEB & EDGE OF HINGE PL; BLEEDING RUST @ BOTH NUTS; 1/4" GAP @ SOUTH NUT
5	29 1/16"	16 5/16"	13/16"	1"				9/16" GAP BTWN. WEB & HINGE PL @ N. SIDE; ABRASION RUST @ SOUTH SIDE; S. NUT W/ EVIDENCE OF MOVEMENT
6	29 1/16"	16 9/16"	7/8"	1 1/8"				HVY. RUST @ WEB & EDGE OF HINGE PL; EVIDENCE OF MOVEMENT @ S. NUT; 1/4" GAP BTWN. WEB & HINGE PL @ S. SIDE; 7/16" GAP @ N. SIDE
7	29"	16 1/8"	7/8"	15/16"				3/8" GAP BTWN. WEB & HINGE PL @ N. SIDE; 1/4" GAP @ S. SIDE; 1/8" I.R. BTWN. WEB & PL @ SOUTH SIDE; 1/8" GAP @ SOUTH NUT

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V**: Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J**: Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.

← SEE SH. 23



HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/28/2014

Bridge No.: 03312

I-84 Eastbound over Rt 72, Rt 372, Pan Am RR and Quinn. River

Town: Plainville

Measurements Reviewed By: SRD Date: 4/28/2014

Hinge Located: Span 2 at Pier 2 Effective span for Movement: 0

Page: 25 of 74

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments - 2014
1	27 11/16	16 4/16	1 1/16	1 2/16	none	N/A	Cotter Pin	See previous sheet.
2	28 12/16	16 11/16	1	15/16	none	N/A	Cotter Pin	See previous sheet.
3	29 10/16	16 13/16	14/16	15/16	none	N/A	Cotter Pin	See previous sheet.
4	29 9/16	16 4/16	13/16	13/16	none	N/A	Cotter Pin	See previous sheet.
5	29 11/16	16 5/16	13/16	1	none	N/A	Cotter Pin	See previous sheet.
6	29 11/16	16 9/16	14/16	1 2/16	none	N/A	Cotter Pin	See previous sheet.
7	29	16 2/16	14/16	15/16	none	N/A	Cotter Pin	See previous sheet.

Notes:

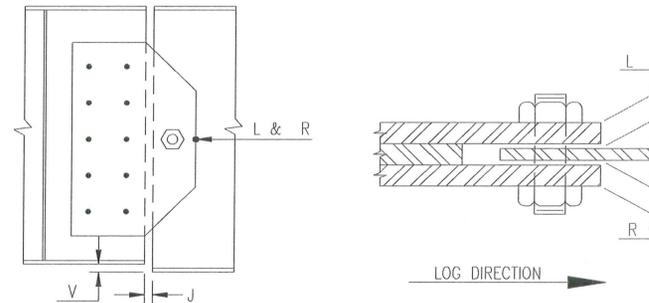
1) For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.

2) All measurements are taken in reference to log direction.

V : See sheet 23

J : See sheet 23

3) Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: YS Date: 4/17/2012

Bridge No.: 03312 I-84 Eastbound over Rt 72, Rt 372, Pan Am RR and Quinn. Ri Town: Plainville Measurements Reviewed By: WMK Date: 5/25/2012

Hanger Location: Span 2 at Pier 2 Effective span for Movement: 0 Page: 26 of 74

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments - 2012
1	27 12/16	16 4/16	1 1/16	1 2/16	none	N/A	Cotter Pin	See 2012 report for comments.
2	28 12/16	16 11/16	1	15/16	none	N/A	Cotter Pin	See 2012 report for comments.
3	29 10/16	16 13/16	14/16	15/16	none	N/A	Cotter Pin	See 2012 report for comments.
4	29 9/16	16 4/16	13/16	13/16	none	N/A	Cotter Pin	See 2012 report for comments.
5	29 11/16	16 5/16	13/16	1	none	N/A	Cotter Pin	See 2012 report for comments.
6	29 11/16	16 9/16	14/16	1 2/16	none	N/A	Cotter Pin	See 2012 report for comments.
7	29	16 1/16	14/16	15/16	none	N/A	Cotter Pin	See 2012 report for comments.

Notes:

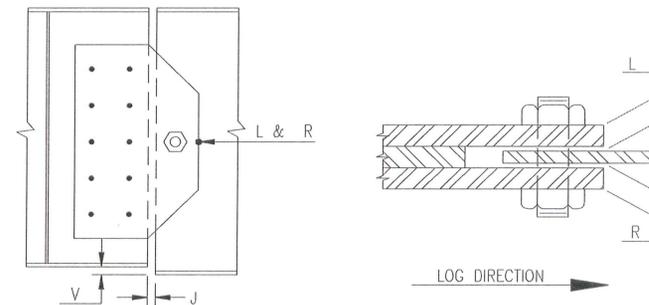
1) For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.

2) All measurements are taken in reference to log direction.

V : See sheet 23

J : See sheet 23

3) Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/28/2014

Bridge No.: 03312 I-84 Eastbound over Rt 72, Rt 372, Pan Am RR and Quinr Town: Plainville

Measurements Reviewed By: SRD Date: 4/28/2014

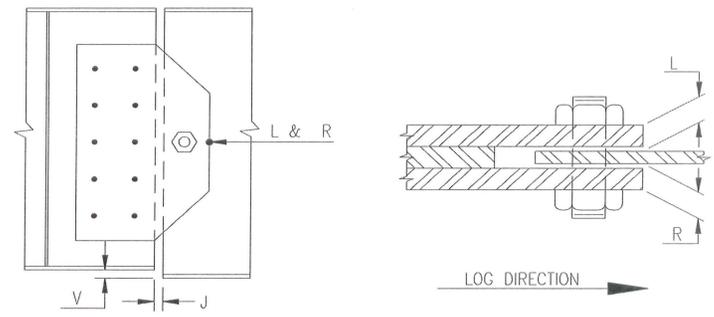
Hanger Location: Span 2 at Pier 2 Effective span for Movement: 0

Page: 27 of 74

Beam No.	Reviewer's Comments - Comparison			
	V (IN)	J (IN)	R (IN)	L (IN)
1	- 1/16	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	1/16	0	0

Additional Review Comments:

All measurements are within 1/16" of previous inspection
 All measurements were double checked. No signs of distress were noted.



HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/28/14

Bridge No.: 03312 I-84CB/RT. 72, ET 372, PANAMA RR & QUINN. RIVER Town: PLAINVILLE

Measurements Reviewed By: SRD Date: 4/28/14

Hinge Located: SPAN 3 @ PIER 2 Effective span for Movement: 0

Page: 28 of 74

Beam No.	LT./RT. V (IN)	J* (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
1	$29\frac{1}{16}$ " ① $27\frac{7}{8}$ "	$16\frac{3}{4}$ "	$1\frac{1}{16}$ "	$1\frac{1}{8}$ "	NONE	N/A	COTTER PIN	$\frac{1}{4}$ "- $\frac{1}{2}$ " I.R. BTWN. HINGE PL. & GIRDER WEB @ BOTH SIDES; LAM RUST ON GIRDER WEB.
2	$28\frac{7}{8}$ "	$16\frac{3}{4}$ "	1"	$7\frac{7}{8}$ "	}	}	}	
3	30"	$16\frac{7}{16}$ "	$7\frac{7}{8}$ "	$1\frac{1}{16}$ "				$\frac{1}{8}$ " GAP @ S. NUT; $\frac{1}{4}$ " GAP W/ I.R. BTWN. GIRDER WEB & BOT. HALF OF HINGE PL. ON N. SIDE.
4	$30\frac{5}{8}$ "	$16\frac{3}{8}$ "	$\frac{3}{4}$ "	$1\frac{1}{16}$ "				BLEEDING RUST THROUGH N. NUT W/ $\frac{1}{16}$ " GAP BTWN. WEB PL & NUT & HVY RUST AROUND S. NUT.
5	$30\frac{9}{16}$ " ① $29\frac{5}{8}$ "	$16\frac{1}{4}$ "	$1\frac{5}{16}$ "	1"				$\frac{3}{16}$ " (SOUTH) & $\frac{3}{8}$ " (NORTH) GAPS BTWN. GIRDER WEB & BOT. HALF OF HINGE PL.; BLEEDING RUST @ N. NUT.
6	$30\frac{5}{8}$ "	$16\frac{9}{16}$ "	1"	$1\frac{5}{16}$ "				$\frac{1}{4}$ " GAPS BTWN. WEB & BOT. HALF OF HINGE PL. ON BOTH SIDES; BLEEDING RUST AROUND NUT ON S. SIDE.
7	$30\frac{1}{4}$ " ① $29\frac{1}{4}$ "	$16\frac{5}{16}$ "	$7\frac{7}{8}$ "	$1\frac{1}{16}$ "				$\frac{3}{16}$ " (SOUTH) & $\frac{3}{8}$ " (NORTH) GAPS BTWN. GIRDER WEB & BOT. HALF OF HINGE PL.; GIRDER WEB W/ UP TO $\frac{3}{16}$ " I.R. ALONG HINGE PL. & UP TO 30"H X 1"W X $\frac{1}{16}$ " OP. SECTION LOSS

Notes:

1) For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.

2) All measurements are taken in reference to log direction.

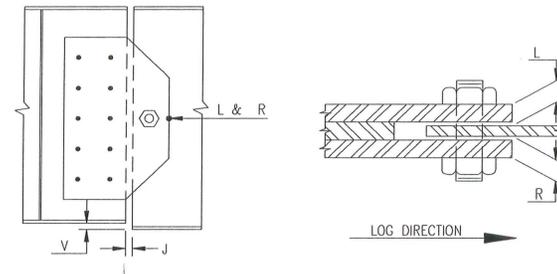
V: Vertical misalignment of girders @ left edge of girder's bottom flange.

J: Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.

3) Use a permanent marker to indicate locations of field measurements.

① MEAS. TAKEN @ BOTH SIDES DUE TO DIFFERENCE W/ PREV. MEAS. (SHOULD BE MEASURED @ RT. SIDE) AS PER SHEET 23

SEE SHT. 23



HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/28/2014

Bridge No.: 03312 I-84 EB over Rt 72, Rt 372, Pan Am RR and Quinn. River Town: Plainville Measurements Reviewed By: SRD Date: 4/28/2014

Hinge Located: Span 3 at Pier 2 Effective span for Movement: 0 Page: 29 of 74

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments - 2014
1	27 14/16	16 12/16	1 1/16	1 2/16	none	N/A	Cotter Pin	See previous sheet.
2	28 14/16	16 12/16	1	14/16	none	N/A	Cotter Pin	See previous sheet.
3	30	16 7/16	14/16	1 1/16	none	N/A	Cotter Pin	See previous sheet.
4	30 10/16	16 6/16	12/16	1 1/16	none	N/A	Cotter Pin	See previous sheet.
5	29 10/16	16 4/16	15/16	1	none	N/A	Cotter Pin	See previous sheet.
6	30 10/16	16 9/16	1	15/16	none	N/A	Cotter Pin	See previous sheet.
7	29 4/16	16 5/16	14/16	1 1/16	none	N/A	Cotter Pin	See previous sheet.

Notes:

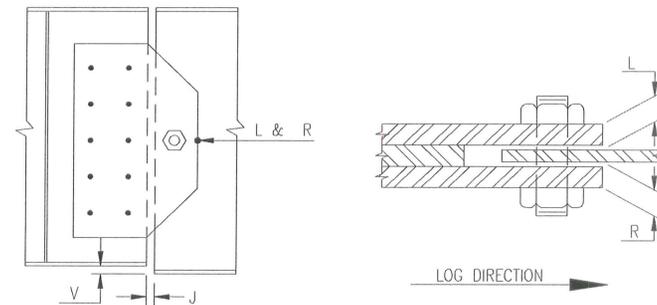
1) For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.

2) All measurements are taken in reference to log direction.

V : See sheet 23

J : See sheet 23

3) Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: YS Date: 4/17/2012

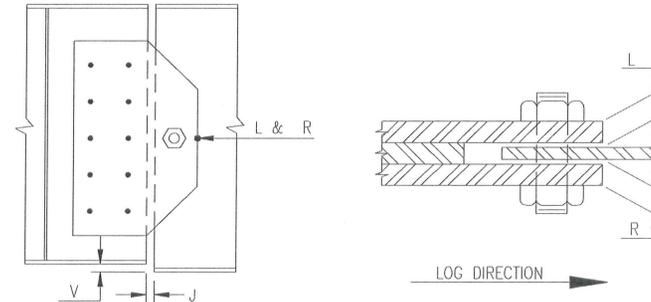
Bridge No.: 03312 I-84 EB over Rt 72, Rt 372, Pan Am RR and Quinn. River Town: Plainville Measurements Reviewed By: WMK Date: 5/25/2012

Hanger Location: Span 3 at Pier 2 Effective span for Movement: 0 Page: 30 of 74

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments - 2012
1	27 15/16	16 11/16	1 1/16	1 2/16	none	N/A	Cotter Pin	See 2012 report for comments.
2	28 14/16	16 12/16	1	14/16	none	N/A	Cotter Pin	See 2012 report for comments.
3	30	16 7/16	14/16	1 1/16	none	N/A	Cotter Pin	See 2012 report for comments.
4	30 10/16	16 6/16	12/16	1 1/16	none	N/A	Cotter Pin	See 2012 report for comments.
5	30 10/16	16 4/16	14/16	1	none	N/A	Cotter Pin	See 2012 report for comments.
6	30 10/16	16 9/16	15/16	15/16	none	N/A	Cotter Pin	See 2012 report for comments.
7	30 4/16	16 5/16	14/16	1 1/16	none	N/A	Cotter Pin	See 2012 report for comments.

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V** : See sheet 23
 - J** : See sheet 23
- Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/28/2014

Bridge No.: 03312 I-84 EB over Rt 72, Rt 372, Pan Am RR and Quinn. Ri Town: Plainville Measurements Reviewed By: SRD Date: 4/28/2014

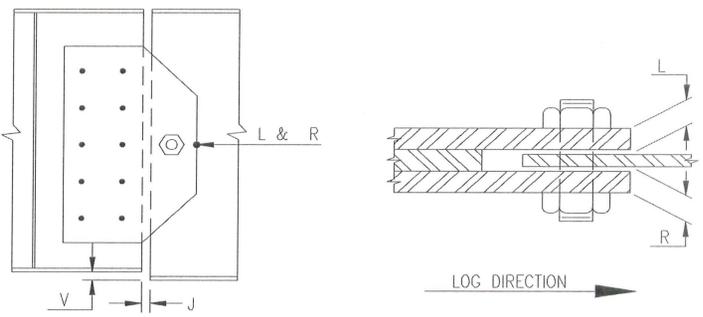
Hanger Location: Span 3 at Pier 2 Effective span for Movement: 0 Page: 31 of 74

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Reviewer's Comments - Comparison
1	- 1/16	1/16	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	-1	0	1/16	0	See additional comment below
6	0	0	1/16	0	
7	-1	0	0	0	See additional comment below

Additional Review Comments:

All measurements are within 1/16" of the previous inspection, except as highlighted above. All measurements were double checked. No signs of distress were noted.

Difference in "V" measurements is possibly due to the fact that measurements were taken on wrong side (supposed to be taken on right side as per sheet). Also, the additional measurement taken on the left side during this inspection is within reasonable limit of the previous measurement. Moreover, the difference in "V" measurements indicate that the girders did not drop but raised since the last inspection (which is not possible).



SUPPLEMENTAL SHEET

BRIDGE NO. 3312

DATE: VARIOUS

FIELD ORIGINAL

TRANSCRIBED BY: _____

CREW: VARIOUS

SHEET 44 OF 109 74

DESCRIPTION:

DECK / SUPERSTRUCTURE GEN NOTES

32

SUPERSTRUCTURE GENERAL NOTES

- AREAS OF PEELING PAINT + SURF RUST (NEG LOSS)
- GI W/ AREAS OF CR & FLGS (S.LLEG) + WED BASE TARU-OUT (SL'S NOTED)
- NUMEROUS WELDED IT'S & GI BOND SINCE LAST WSP @ CONLC PIERC (TYP SPOT PAINTED)
- STITCH WELDED WEB STIFF'S NEAR BRGS & CONLC PIERS (TYP).
- RAND MISSING ERECTION BOLTS
- RAND PIGEON DEBRIS
- BF'S W/ RAND GL'S ADJ TO PIER (NON-CRIT ZONBS)
- RAND SLOPPY "OVERHEAD" DIAPH WELDS
 ▲ CROSS FRAME

DECK ITEMS

- RAND 2' } W/RAND * @ DECK O.HANGLS
- WEBPS NOT SHOWN UNLESS DEFIC ← PVL DECK WEEP PIPES IN BAY 1 ▲
- * RANDOM PATCHES @ UNDERSIDE OF DECK ▲

UPDATE NO.	DATE	COMPANY	CREW
▲	4/22/14	GMA 2	SRD, AKC, PAT, BJS
▲			
▲			
▲			

▲ - NO CHANGE



FIELD
NOTES

JOB NO. 170-3224

BRIDGE NO. 03312

DATE: 4-22-14

SHEET 33 OF 74

CREW: SKO, AKC, BJ, PAH

CROSS FRAME WELD CRACK SCHEDULE

Span	Girder	Cross Frame No.	Cracked/Broken/Missing Weld at Cross Frame	Other Comments
1	2	2	Yes	
1	2	3	Yes	
1	3	3	Yes	
2	6	2	Yes	
2	4	1	Yes	
2	6	4	Yes	
2	1,5,7	Pier 2 Cross Frames	Yes	
2	7	3	Yes	
3	1 - 5	Pier 2 Cross Frames	Yes	
3	2	1	Yes	Two lower horizontal welds.
3	2	4	Yes	
3	3	1	Yes	
3	3	4	Yes	Two lower horizontal welds.
3	4	1 & 4	Yes	
3	5	3	Yes	
3	7	3	Yes	
3	3 - 5	Pier 3 Cross Frames	Yes	
4	1	4	-	Weld at upper connection plate with 4" crack.
4	6	1	Yes	
4	7	1	Yes	
5	1 & 2	Pier 5 Cross Frames	Yes	
6	1	Pier 5 Cross Frames	Yes	
6	2	Pier 5 Cross Frames	Yes	One cracked weld & one missing weld.
6	3	1	Yes	
6	3	2	Yes	Two lower horizontal welds.
6	4	4	Yes	
6	5	3	Yes	
6	6	2	Yes	
7	2	Pier 7 Cross Frame	-	Missing weld at upper vertical gusset plate.
7	5	1 & Pier 6 Cross Frame	Yes	
8	3	3	Yes	
8	4	E. Abut. Cross Frame	Yes	
8	5	E. Abut. Cross Frame	Yes	

Notes:

- Cracks shown above are typically located at the lower horizontal weld strut connections to the cross frame connection plates. Cracks are typically in the overhead welds. Erection bolts are typically in place
- There is typically only one weld per location, unless noted in comments above.

REVISION	DATE	CREW	REVISION	DATE	CREW
REVISION	DATE	CREW	REVISION	DATE	CREW

S.O. No. BR #3312

Subject: SECTION LOSS CALC'S



Sheet No. 46³⁴ of 10974

Drawing No. _____

Computed by MJD Checked By BIT Date MAY 2012

△ - 4/22/14 - SPD, ARC, PAN, BIS (GM2)

GEN

- FUL LOSSES CALC'D WHEN LOSSES APPROACH 5%
- WEB LOSS IN SHEAR CALC'D WHEN LOSSES APPROACH 10%
- WEB LOSS IN BRG CALC'D WHEN LOSSES APPROACH 25%
- NUMEROUS WELDED REPAIRS HAVE BEEN ADDED (MAINLY TO WEB + STIFF BASES) AND ARE ASSUMED TO RESTORE FULL SECTION; I.E. → NO CALC'S DONE

SP #1

- LOSSES DO NOT MEET ABOVE GUIDELINES FOR CALC'S

△ G1 @ PIER 1, → ORIG. BRG. STIFF = 6" x 1/2"; LW = 3/8"; LBS (LENGTH OF WEB BTWN. STIFFS) = 12.5"

- ORIG. WEB BRG. AREA = $((18 \times LW + 2 \times LBS) + LRS) \times LW + ABS = ((18 \times 3/8 + 2 \times 1/2) + 12.5) \times 3/8 + 4 \times 6 \times 1/2 = 19.59 \text{ IN}^2$

- S.L. IN STIFF = $5.75 \times 1/4 + 1/4 \times 1/2 + 6 \times 1/4 = 3.06 \text{ IN}^2$

⇒ LOSS IN WEB BRG. AREA (BULKING) = $\frac{3.06}{19.59} = 15.6\%$

SP #2

- GIRDER 1 (18" x 1 1/16" ORIG) CENTER SECTION - 30.4 IN²

- PANEL 4 BF

- LOSS = $8.5 (3/16) + 5 (3/32) = 2.1 \text{ IN}^2 / 30.4 \text{ IN}^2 = 7\% \text{ BF LOSS}$

- WEB & PL

- NOTE - THICKER WEB & PIN → LOSS < 10%

- PANEL 4 TF

- $6" \times 1/8" \text{ SL} = 0.75 \text{ IN}^2 / (16 \times 15/16 \text{ ORIG}) = 5\% \text{ TF LOSS}$

△ G1 @ PIER 1 → ± 11% LOSS IN WEB BRG. AREA (BULKING)

SP #3

- GIRDER 1 WEB @ HINGE → 1 7/8" WEB; WEB HT ADJ TO HINGE ± 52" (EST) DUE TO TAPEL

- ORIG = $52" \times 1 3/8" = 71.5 \text{ IN}^2$

- LOSS = $52" (1/8") + 30" (1/8") = 10.2 \text{ IN}^2 / 71.5 \text{ IN}^2 = 14\% \text{ WEB LOSS ADJ TO HINGE}$

- TF PANEL 2

- S. LEG W/ 3/32" LOSS = $3/64" \text{ AVE LOSS} / (5/16 \text{ ORIG}) = 5\% \text{ TF LOSS}$

△ G1, BOT. FLG ⇒ < 5% S.L

SP #4

- LOSSES DO NOT MEET ABOVE GUIDELINES FOR CALC'S & BF

- TF PANEL 4 - S. LEG W/ 1/8" LOSS = $1/16" \text{ AVE LOSS} / (15/16 \text{ ORIG}) = 7\% \text{ TF LOSS}$

△ G1, BOT. FLG < 5% S.L

S.O. No. BIL # 3312

Subject: SECTION LOSS CALC'S



Sheet No. 47³⁵ of 16974

Drawing No. _____

Computed by MSD Checked By BH Date May 2012

Δ = 4/22/14 - SRD, AUL, DAM, BSS (nm2)

SP #5

- BF e MID-PANEL
 - S. LEG w/ $1\frac{7}{16}$ " REM ($1\frac{11}{16}$ " ORIG)
 - $(1\frac{7}{16} + 1\frac{11}{16}) / 2 = 1\frac{9}{16}$ " AVE REM = $\frac{1}{8}$ " AVE LOSS / $1\frac{11}{16}$ " ORIG = 7% BF LOSS
- TF e MID-PANEL
 - S. LEG w/ $\frac{3}{16}$ " SL = $\frac{3}{32}$ " AVE LOSS / ($\frac{15}{16}$ " ORIG) = 10% TF LOSS

SP #6

- LOSSES DO NOT MEET GUIDELINES FOR CALC'S, G1, BOT. HQ < 5% S.L. Δ
- REF RE'S e G1 e PG CONSIDERED TO ADD ENOUGH SECTION TO COVER UNREP'D STIFF BASE LOSSES e BRG

SP #7

- G1 e PG - SAME AS SP #6, G1 e PG NOTE ABOVE
- BF PANEL 3
 - S. LEG w/ $1\frac{1}{2}$ " REM = $(1\frac{1}{2} + 1\frac{11}{16}) / 2 = 1.6$ " AVE REM → $(1\frac{11}{16} - 1.6) / 1\frac{11}{16} = 6\frac{2}{3}$ BF LOSS
- TF w/ 150# $\frac{1}{8}$ " = $\frac{3}{16}$ " SL e S. LEG
 - LOSS = $(\frac{5}{32}) \times \frac{1}{2} = \frac{5}{64}$ " AVE LOSS / ($\frac{15}{16}$ " ORIG) = 8% TF

SP #8

- BF NEAR MIDSPAN ($= 18' \times 1\frac{7}{16}$ " ORIG → 25.9, n2); $9' \times 1\frac{1}{8}$ " REM
- LOSS = $9' (\frac{5}{16}) = 2.8, n2$ LOSS / 25.9, n2 = 11% BF LOSS.
- TF LOSS = $\frac{1}{8}$ " TYP e S. LEG → $\frac{1}{16}$ " AVE LOSS / $\frac{3}{4}$ " ORIG = 8% TF LOSS
- G2, G3, G5 @ PIER 7, < 5% LOSS IN WEB BRG. AREA. Δ

Baker

DESCRIPTION: FRAMING NOTES

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 33/2
CREW: mwb/BA

DATE: 4/16/12
SHEET 48/109 36/114

FIXED BRGS w/
PEELING PRINT &
RAND BRGS w/
HUY TO LAM RUST

NE BRG STIFF.
FWX 2"H X UP TO
1/4" PITTING w/
a 1/4" Ø RUST HOLE

SE BRG STIFF. w/
FWX 2.5"H X 1/4" DP
S.L.

1/6 HA, OVER PIER 1
1'x4"x2" DP
8"x1.5' HA
6"x8"x1" DP
1'x6" HA

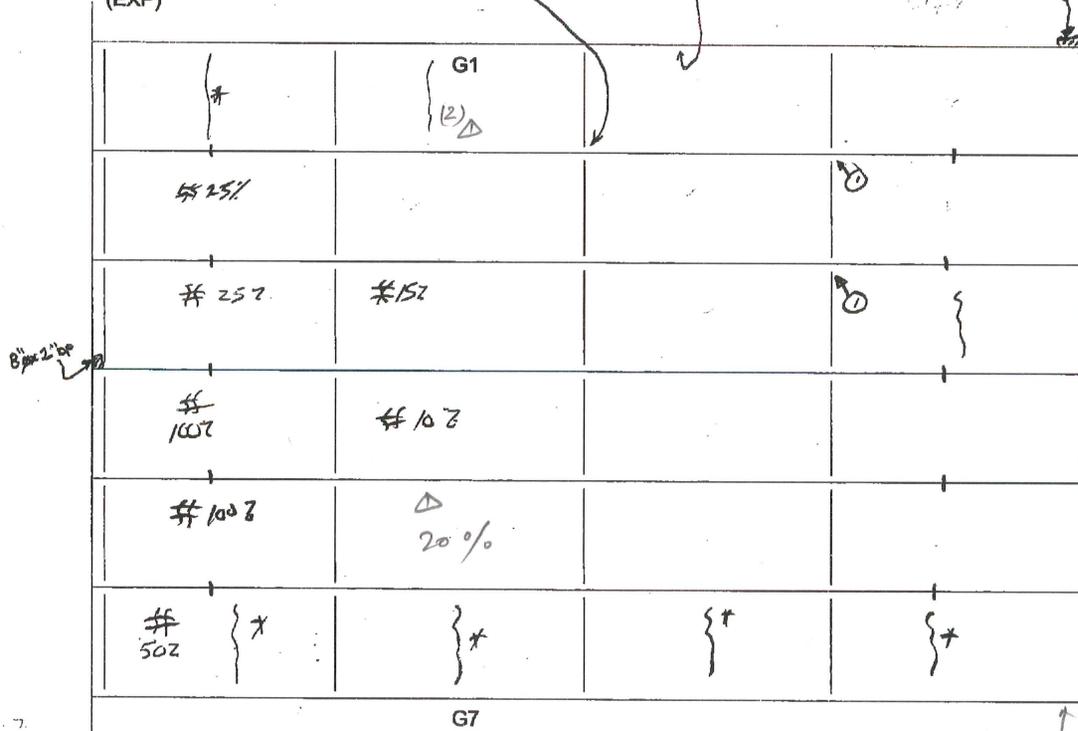
16" x 4" W x 1/16" - 1/8" DP SL
ALONG TOP FLG.

LT LR & FLG'S
PELLOSS

SLOPPY O. HEAD
WELD, ± 1" SHORT

W. ABUT
(EXP)

PIER 1
(FIX)



LEGEND

⊕ = MISS OHEAD WELD & DIAPA LOWER STRUT

SPAN 1

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- ▨ SPALL AREA
- ▨ SPALL AREA WITH EXPOSED REBAR
- ⊕ MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- ⊕ HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- ⊕ HONEY COMB AREA
- ⊕ SCALE AREA (HVY, MED OR LT)
- * WITH EFFLORESCENCE
- + TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	4/28/14 5/15/14	GMA 2	SRD, AKC, DAM, BJS
△			
△			
△			

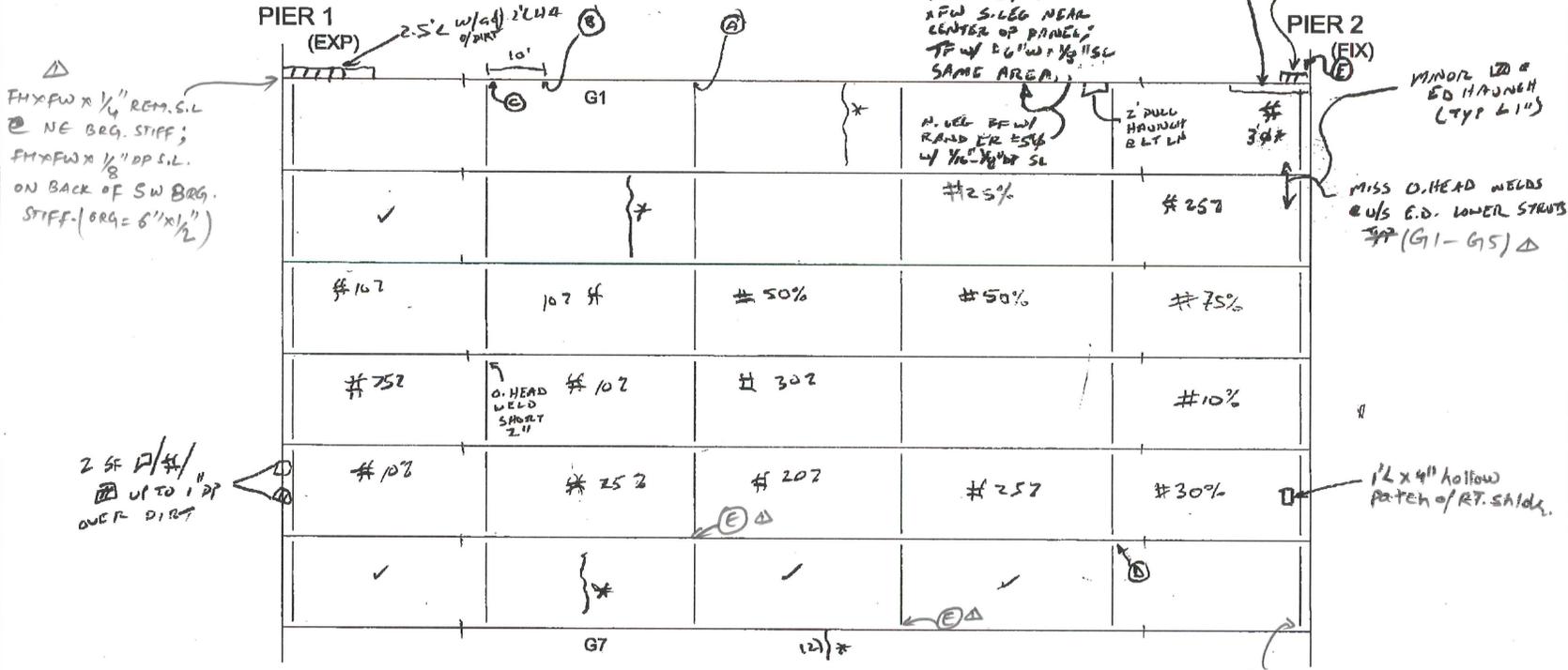
Notes:

- Ⓐ BF 4'L x 8.5"W x 1-9/16" min (rem) (1-1/16" orig)
 WEB 4'L x 8"W x 1/16" SL
 TF 3'L x 3"W x 1/8" dp SL
- Ⓑ BF 2'L x 8.5"W x 1-9/16" rem
 WEB 2'L x 2"W x 1/16" dp SL
 TF 2'L x 4"W x 1/8" dp SL

- Ⓒ BF 2'L x 8.5"W x 1-9/16" rem
 WEB 1'L x 6"W x 1/16" dp SL
 TF 1.5' x 4" x 1/8" dp
- Ⓓ CRACK LOWER HORIZ
 Diaph-to-stiff weld ← EXT. 1/4" ON Δ
 VERT. WELD ON BACK
- Ⓔ = BOT. HORIZ. WELD
 1" SHORT. Δ

Ⓔ = TOP 10" OF WEB & N. ELEV W/ LR 2.15"W
 W/ 1/16" EST LOSS; S. ELEV WEB W/
 2"H + 1"W LR W/ 1/16" EST LOSS
 (LR DIFFICULT TO REMOVE) RAND OTHER
 NON CRIT LOSSES THIS AREA

BF W/ LR THIS
 PANEL W/ 1/2" MIN
 XFW S-LEG NEAR
 CENTER OF PANEL;
 TF W/ 1/16" W/ 1/8" SL
 SAME AREA.



△ FH x FW x 1/4" REM. S.L.
 ⊙ NE BRG. STIFF;
 FH x FW x 1/8" DP S.L.
 ON BACK OF SW BRG.
 STIFF. (ORG = 6" x 1/2")

2 SF 12/4/
 UP TO 1" AT
 OVER DIRT

3' DULL HAUNCH OVER RT 72
 EB-LT SHOULDER
 2 HAUNCH (2)

MINOR ID #
 ED HAUNCH
 (TYP 6")

MISS O. HEAD WELDS
 @ US E.D. LOWER STEPS
 # (G1-G5) Δ

1/2 x 4" hollow
 patch @ RT. SLIDE.

SPAN 2

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- ▨ SPALL AREA
- ▩ SPALL AREA WITH EXPOSED REBAR
- ⊕ MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- ~ HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- ⊗ HONEY COMB AREA
- ⊙ SCALE AREA (HVY, MED OR LT)
- ⊕ WITH EFFLORESCENCE
- + TRANSITION WELD

FIELD NOTES

- RAND WEB STEPS @ F1 @ BOT FL LOSSES W/ ± 1/4" REM @ TOP & 5/16" REM @ BOTTOM.

DESCRIPTION: FRAMING NOTES

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 331C
 CREW: 0710, 124

DATE: 4/16/12
 SHEET 49/109 37/44

UPDATE NO.	DATE	COMPANY	CREW
△	4/23/14	GM2	SRO, ALC, PAH, BJS
△	5/15/14		
△			
△			

Baker

DESCRIPTION: FRAMELINE NOTES

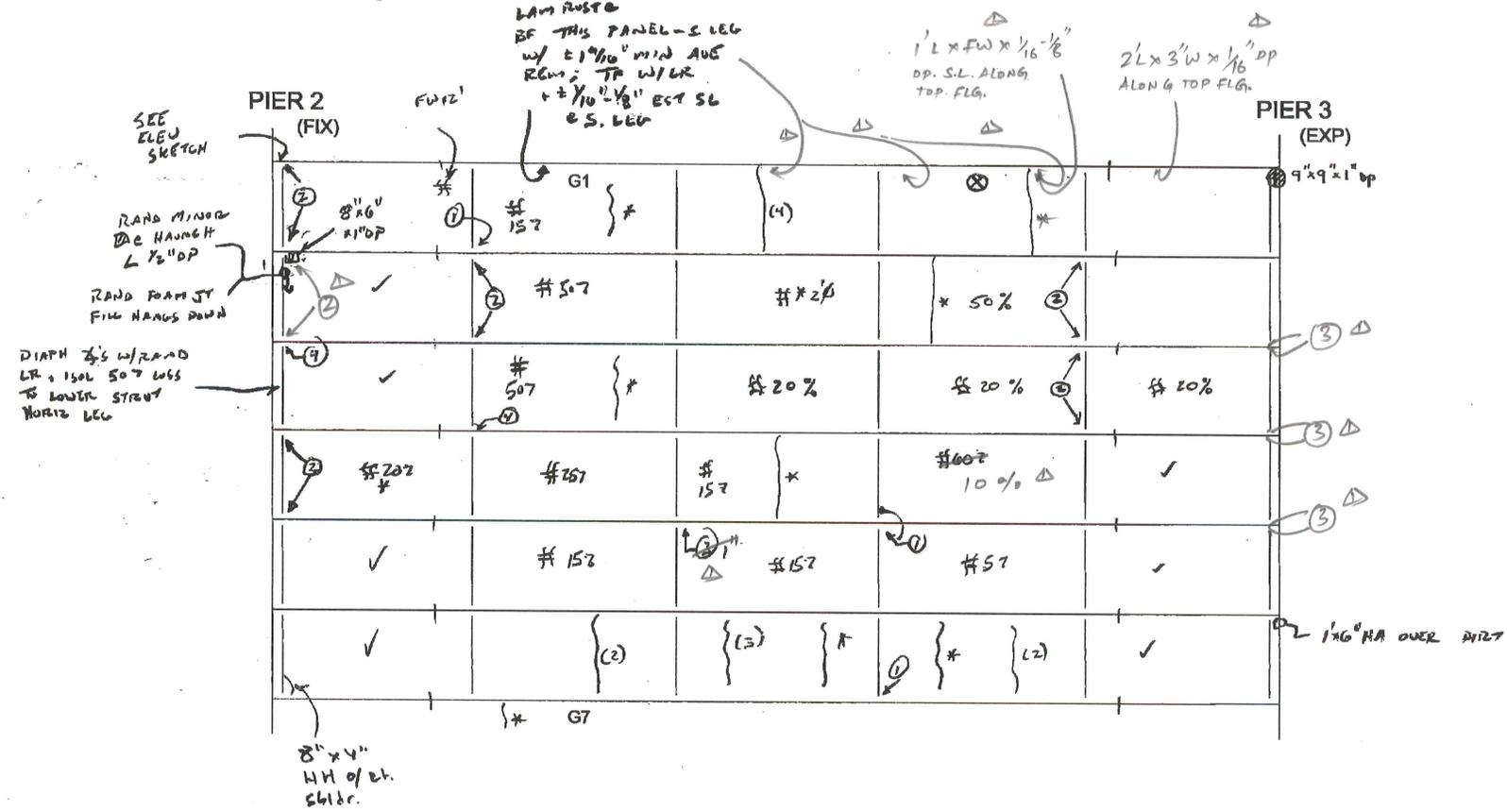
FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312
 CREW: P.B., M.G.

DATE: 4/13/12
 SHEET 50/100 38/44

LEGEND

- ① = DIAPH LOWER STRUT O.H. WELD SHORT (2"-3" TP)
- ② = MISSING DIAPH. LOWER STRUT O.H. WELD, 1/4"
- ③ = UT WELD B/W DIAPH & (LOWER STRUT) + UT GUS AT CORN'D
- ④ = O.H. DIAPH LOWER STRUT WELD BROKEN / LITTLE TO NO FUSION
SLOPPY WELD



SPAN 3

LEGEND

- HOLLOW AREA
 - SHALLOW REBAR
 - ▨ SPALL AREA
 - ▨ SPALL AREA WITH EXPOSED REBAR
 - ▨ MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
 - ▨ HAIRLINE CRACK (HLC) OR CRACKS (CRK)
 - HONEY COMB AREA
 - ▨ SCALE AREA (HVV, MED OR LT)
 - * WITH EFFLORESCENCE
 - + TRANSITION WELD
- ⊗ = SCUPPER

UPDATE NO.	DATE	COMPANY	CREW
△	4/23/14	GM2	SEDIALL, DATT, BJS
△	5/15/14		
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312

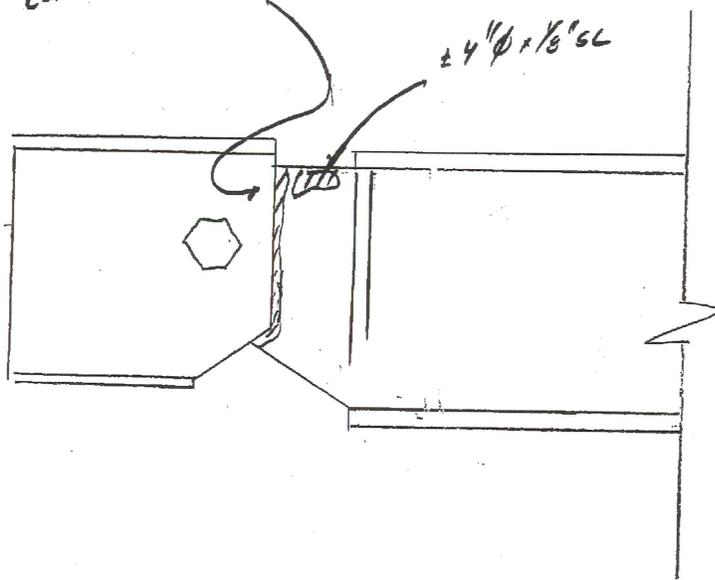
DATE: 4/20/12

CREW: MTD/BH

SHEET 51/109 39/74

DESCRIPTION:

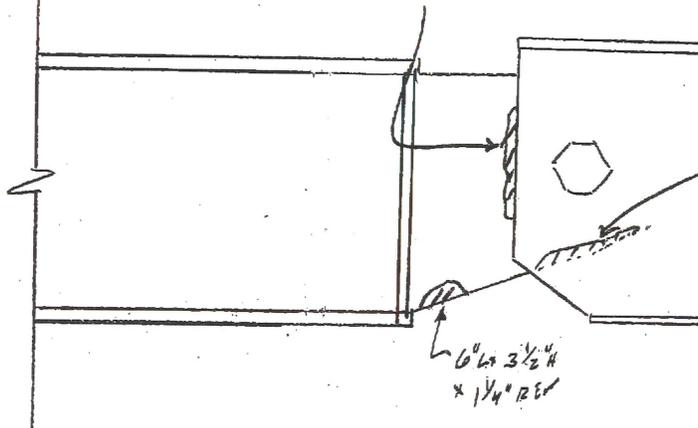
FH₁ UP TO 15" W LR
W/ 1/8" DP EST LOSS
(DIFFICULT TO REMOVE)



SEE HANG MEAS. SHT FOR
IR @ HANG RS

SPAN 3, GIRDER 1, @ PIER 2
SOUTH ELEVATION

25' HT UP TO 15" W LR W/
1/8" SL & AREAS REMOVED



BOT EDGE WGD
W/ 1/4" TOT LOSS
AS VIEWED FROM
BELOW

SPAN 3, GIRDER 1, @ PIER 2
NORTH ELEVATION.

UPDATE NO.	DATE	COMPANY	CREW
△	4/28/14	GML	SRD; ALL, BSI
△			
△			
△			

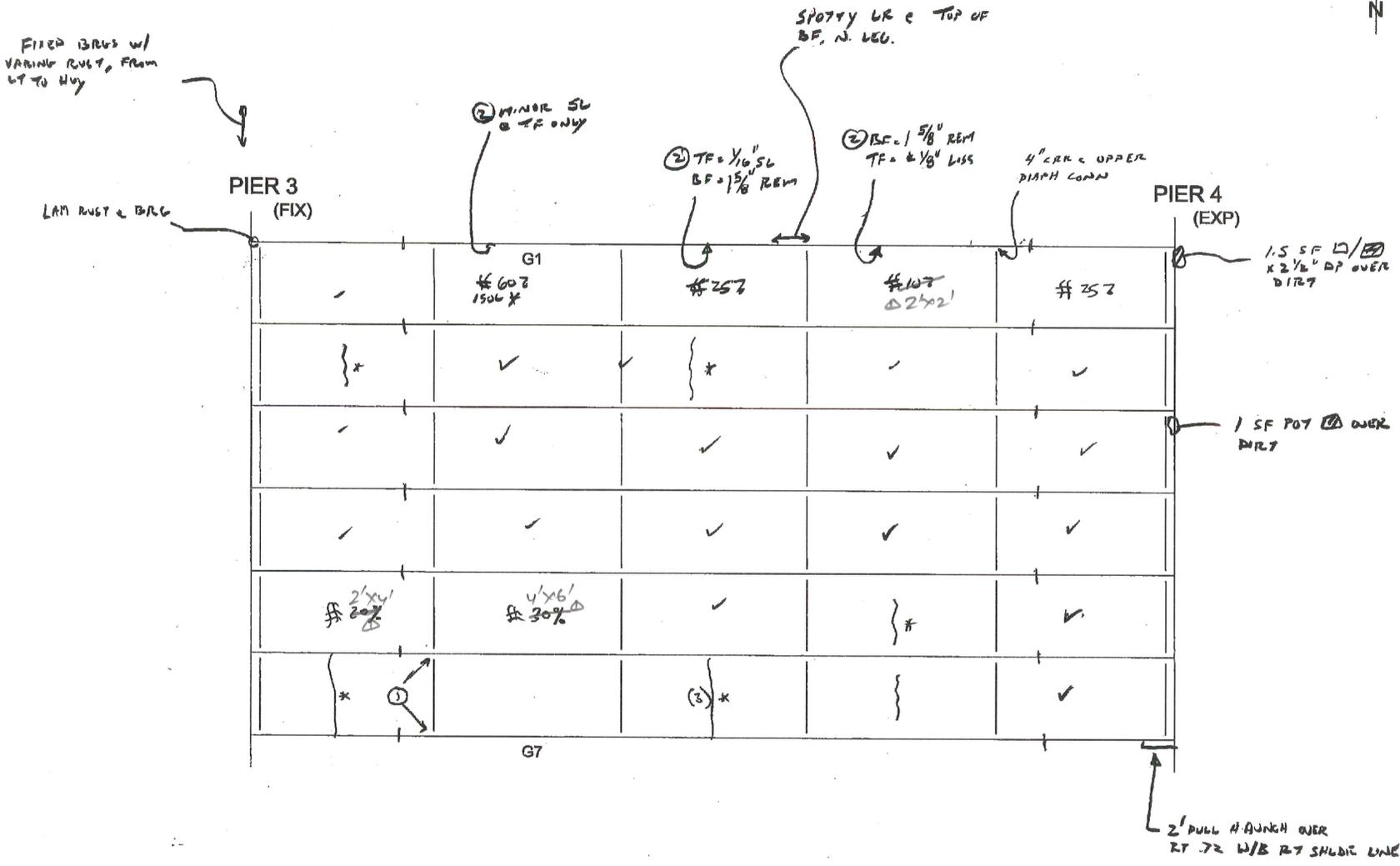
Baker

DESCRIPTION: FIRMING NOTES.

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 03312
 CREW: P3, M3

DATE: 4/13/12
 SHEET 52/109 of 44



SPAN 4

- LEGEND**
- HOLLOW AREA
 - SHALLOW REBAR
 - SPALL AREA
 - SPALL AREA WITH EXPOSED REBAR
 - MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
 - HAIRLINE CRACK (HLC) OR CRACKS (CRK)
 - HONEY COMB AREA
 - SCALE AREA (HVV, MED OR LT)
 - * WITH EFFLORESCENCE
 - + TRANSITION WELD

- LEGEND**
- ① = MISS O. HEAD WELD @ DIAPH LOWER STRUT
 - ② = LR @ TOP @ BF THIS PANEL IN AREAS UP TO 4', TF w/ ___ EST AVE LOSS @ S. LEG; BF w/ ___ AVE REM @ S. LEG

UPDATE NO.	DATE	COMPANY	CREW
▲	4/29/14 5/15/14	GM2	SRD, AKC, PAM, BJS
▲			
▲			
▲			

LEGEND

- ① = DIAPH. LOWER WELD CRK'D / NOT FULLED (SLOPPY)
- ② = MISSING WELD B/W DIAPH UPPER LWS PL + DIAPH BOT EDGE (W/GAP UP TO 3/16")

③ = LR & TF+BF UP TO 3/4" — REMR BF S. LEG ; — LOSS @ TR S. LEG ; WORST THIS PANEL

WEB BASE W. OF BRG W/ UP TO 1/2" X 3/2" H x 1/4" DP LOSS
TOP BEAR CORNER OF WEB W/ 7" H x 3/2" x 3/16" DP SL

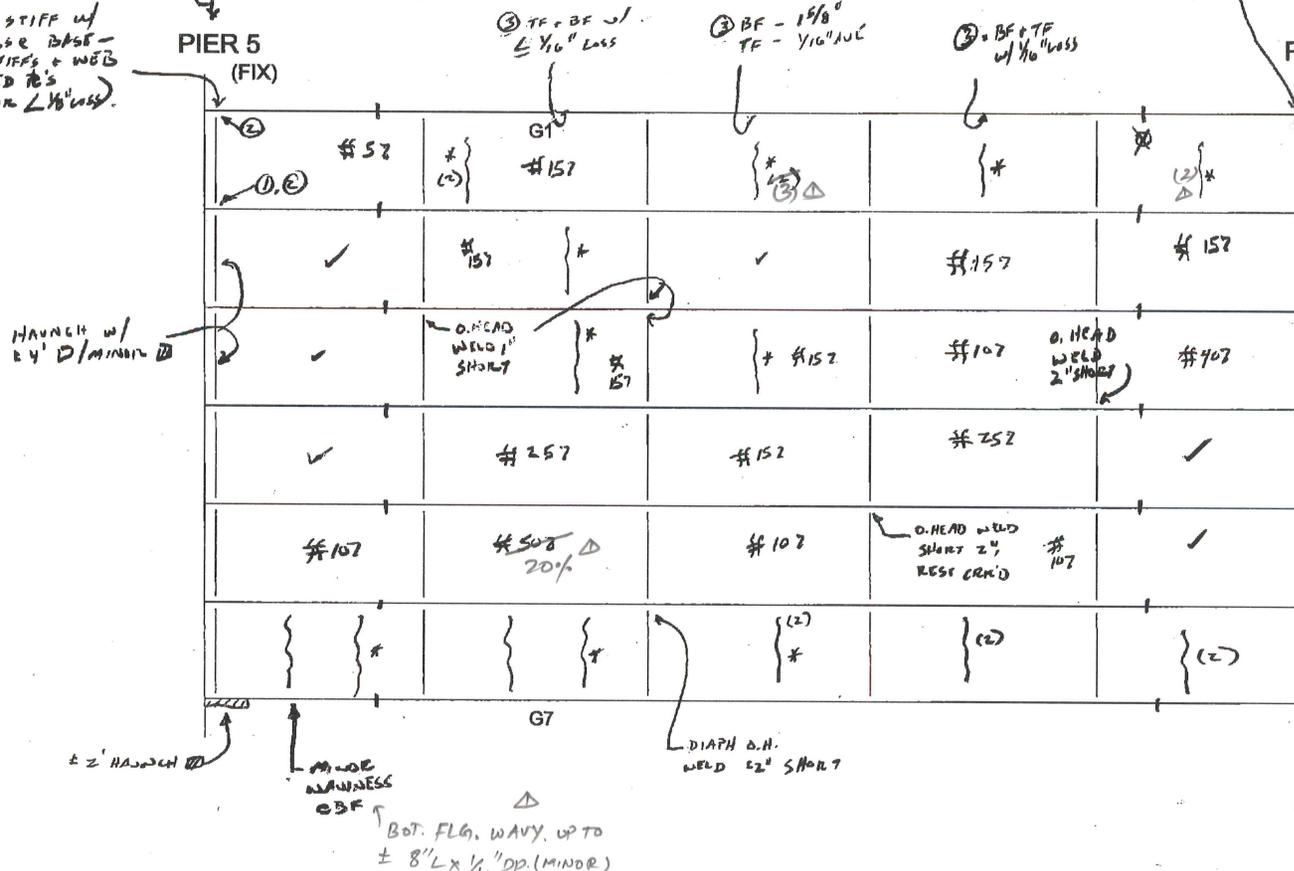
NW STIFF W/ 2 1/8" REMR BOT 1 1/2" ; REP IT'S ADDED TO WEB + RWD STIFF'S ; DP BENT UP 1/2" OVER BRG (PRES BUCKLING, NOW REP'D) W/ ADDED RB'S.

NE BRG STIFF W/ +50% LOSS BASE - OTHER STIFFS + WEB W/ WELDED RB'S (USUL MINOR L 1/8" LOSS)

FIXED BRG W/ PEELING PAINT - MOD - HVY RUST

PIER 5 (FIX)

PIER 6 (EXP)



SPAN 6

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- ▨ SPALL AREA
- ▨ SPALL AREA WITH EXPOSED REBAR
- ⊞ MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- ⊞ HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- ⊞ HONEY COMB AREA
- ⊞ SCALE AREA (HVY, MED OR LT)
- ✱ WITH EFFLORESCENCE
- ⊕ TRANSITION WELD

SCUPPER

DESCRIPTION: FRAMING NOTES

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312
CREW: mro/pjs

DATE: 4/10/12
SHEET 54/104 42/44

UPDATE NO.	DATE	COMPANY	CREW
△	5/25/14	Gm2	SPDIANC PAN, BJS
△			
△			
△			

ED HAVALGES + U/S JI W/ RWD D/10'S L1 SF EACH + 1/2" DP

Bot. FLG. WAVY. UP TO ± 8" L x 1/4" DP. (MINOR)

45/74

Bridge No.: 03312

Date: 4/22/14

Prepared By: BJS

Checked By: AKC

CONCRETE DETERIORATION WORKSHEET

Form BRI - 10, 9/01

Deterioration By Span - In Square Feet											
Span Number											
Deterioration Type	1	2	3	4	5	6	7	8			Total
Spalled and Delaminated Areas	Top: 0	Top:	Top:	Top:	Top:	Top:	Top:	Top:			Top: 0
	Bot: 4	Bot: 8	Bot: 2	Bot: 3	Bot: 5	Bot: 10	Bot: 10	Bot: 9			Bot: 51
Scale (Moderated to Severe Only)	Top: 0	Top: 0			Top: 0						
	Bot: 0	Bot: 0			Bot: 0						
Cracks: w/Efflorescence (use 6 in. width x length)	Bot: 21	Bot: 13	Bot: 27	Bot: 30	Bot: 64	Bot: 59	Bot: 21	Bot: 10			Bot: 244
w/o Efflo. (use 3 in. width x length)	Bot: 6	Bot: 0	Bot: 25	Bot: 2	Bot: 6	Bot: 13	Bot: 10	Bot: 1			Bot: 62
Map Cracking: w/Efflorescence (use full area)	Bot: 0	Bot: 0	Bot: 38	Bot: 105	Bot: 192	Bot: 0	Bot: 7	Bot: 0			Bot: 342
w/o Efflo. (use 50% of area)	Bot: 348	Bot: 424	Bot: 336	Bot: 96	Bot: 51	Bot: 233	Bot: 157	Bot: 0			Bot: 1645
Honeycombed Areas (only areas more than 1 1/2 in deep)	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 1	Bot: 0	Bot: 2	Bot: 1			Bot: 4
Total Deterioration (Square Feet)	379	445	427	236	319	315	207	21			2348
Total Span Area (Square Feet)	5607	6021	6021	6021	6021	6021	6021	5608			47341
% Spalled and Delaminated on Top	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%
% Deterioration on Bottom	6.8%	7.4%	7.1%	3.9%	5.3%	5.2%	3.4%	0.4%			5.0%

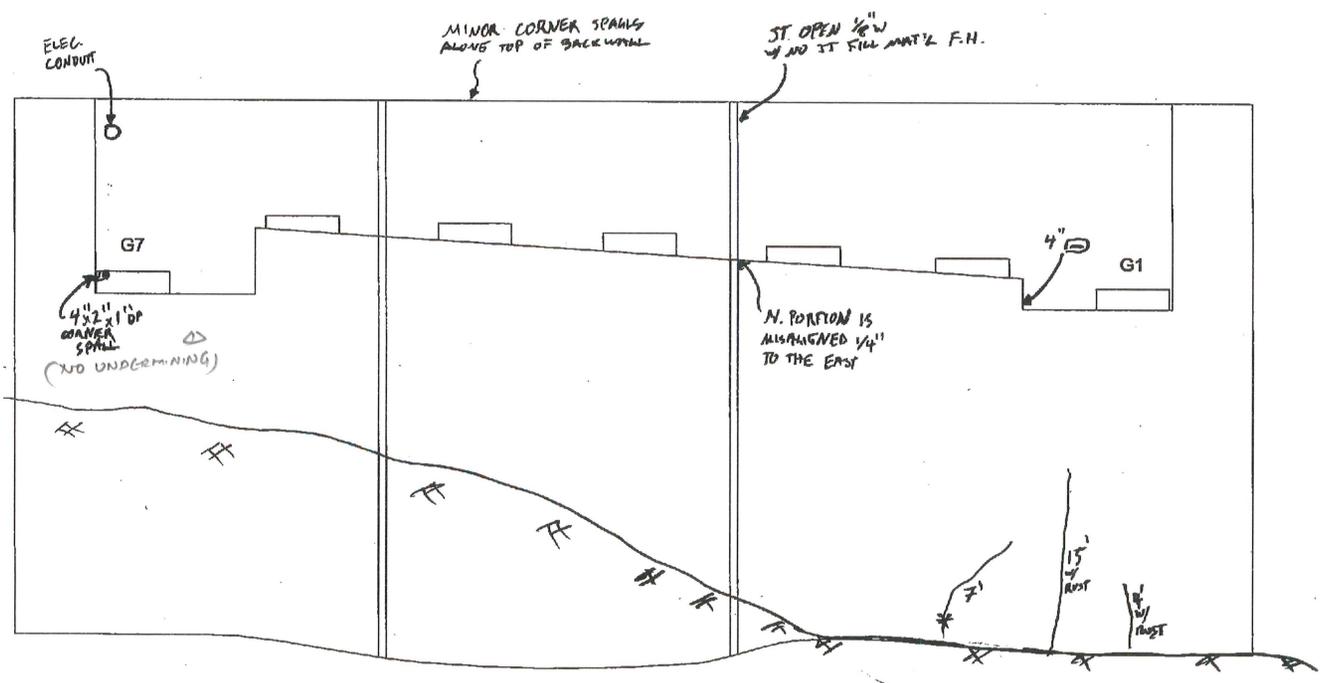
Baker

DESCRIPTION: SUBSTRUCTURE

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 03312
 CREW: BIL, MJD

DATE: 4/17/12
 SHEET 57/109 46/94



WEST ABUTMENT

- LT-MOD DEBRIS ON SEAT, TYP. @ FASCIAS.
- EVIDENCE OF PREVIOUS JT LEAKAGE (COPY ET.O.I.)
- PAINTED OVER GRAFFITI ON STEM
- Slope w/ BEDDEN STONES Δ
- AREAS OF ACTIVE LEAKAGE ON BACKWALL

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

UPDATE	DATE	COMPANY	CREW
Δ	5/15/14	GIMZ	SRD, AKL, PAH, BJS
Δ			
Δ			
Δ			

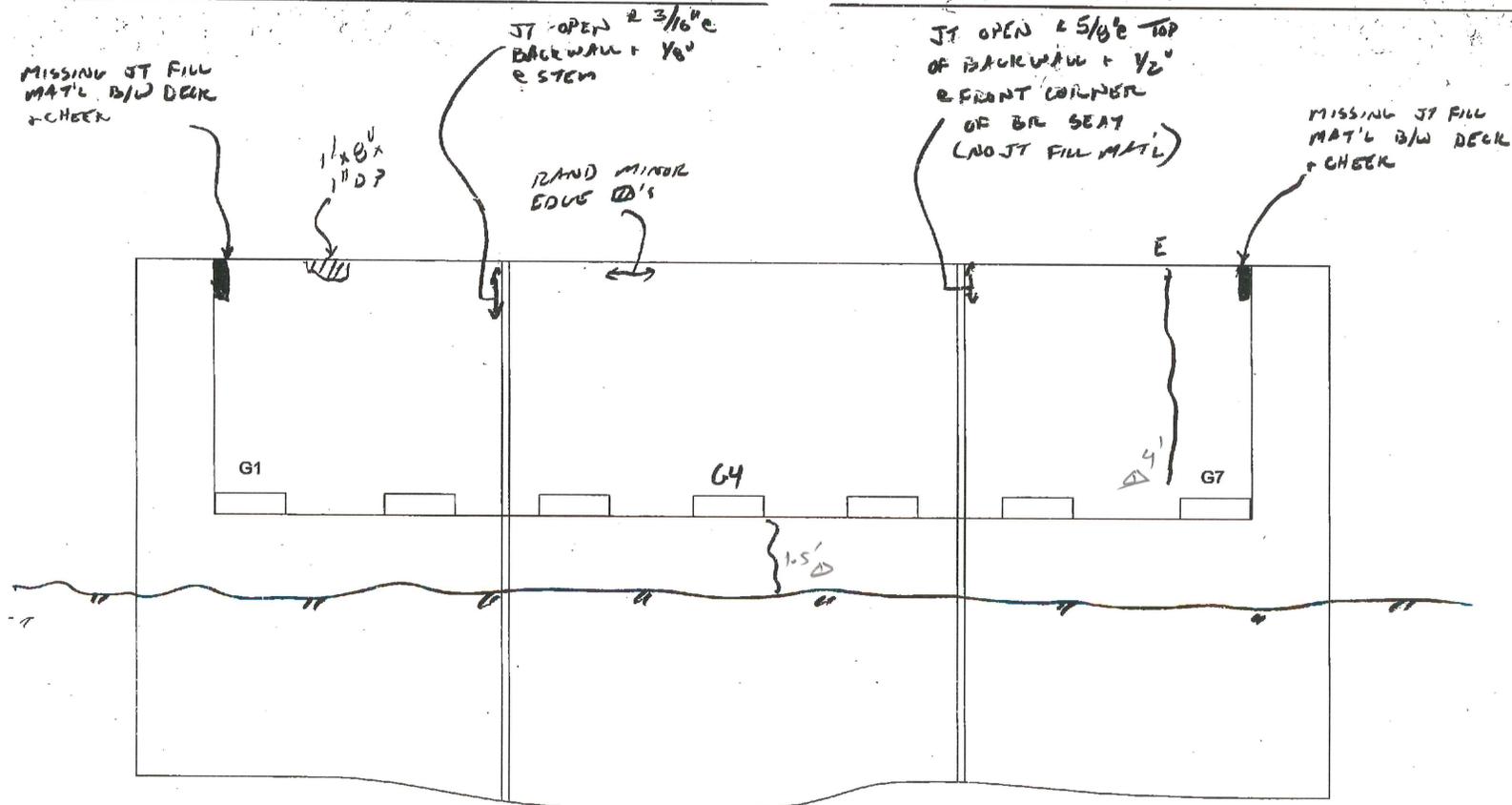
Baker

DESCRIPTION: SUBSTRUCTURE

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312
 CREW: msp/jac

DATE: 9/10/12
 SHEET 58/109 47/74



EAST ABUTMENT

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACK (HLc) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

GEN
 - SILT STAIN THROW OUT (NO ACTIVE LEAKAGE)
 - RAND LT DEBRIS & SEAT
 - EVIDENCE OF PREVIOUS LEAKAGE \triangle

UPDATE NO.	DATE	COMPANY	CREW
\triangle	4/22/14	Gm2	SRD, BJS
\triangle			
\triangle			
\triangle			

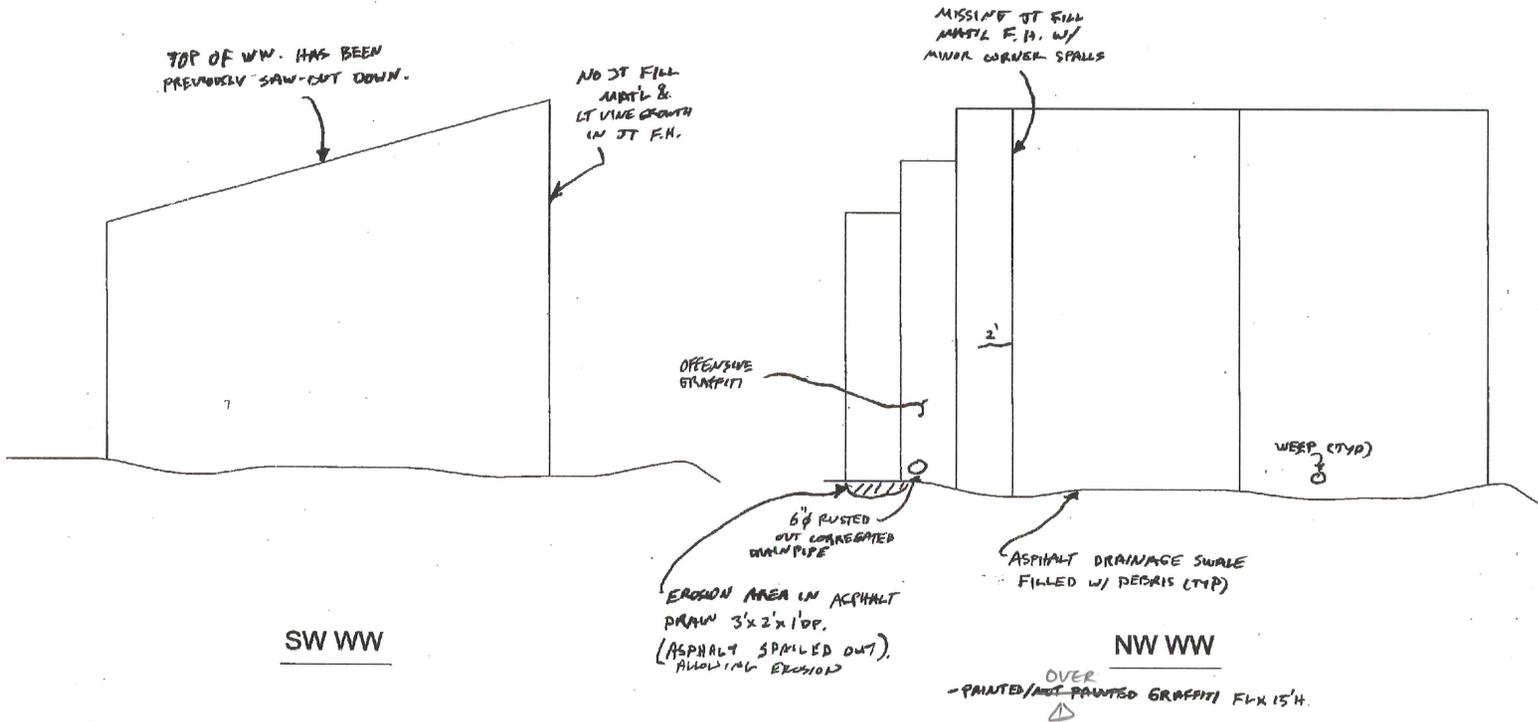
Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

DESCRIPTION: SUBSTRUCTURE

BRIDGE NO. 03312
CREW: BSA, YS

DATE: 4/17/12
SHEET 59/104 48/54



LEGEND

-  HOLLOW AREA
-  SHALLOW REBAR
-  SPALL AREA
-  SPALL AREA WITH EXPOSED REBAR
-  MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
-  HAIRLINE CRACK (HLC) OR CRACKS (CRK)
-  HONEY COMB AREA
-  SCALE AREA (HVV, MED OR LT)
-  * WITH EFFLORESCENCE
-  + TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	4.28/14	GIM2	SRD, AKC, BJS
△			
△			
△			

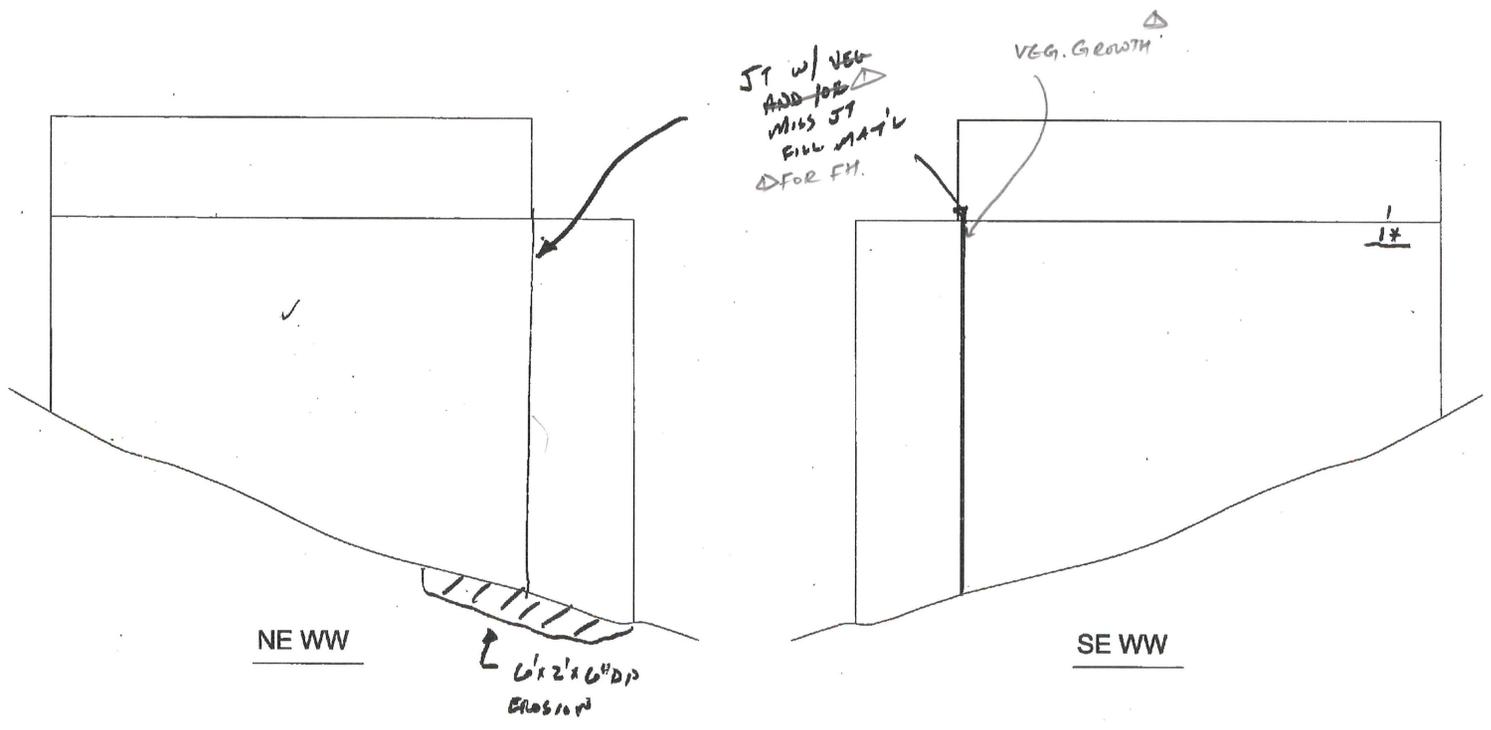
Baker

DESCRIPTION: SUBSTRUCTURE

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312
CREW: mro/jac

DATE: 4/10/12
SHEET 68/109 49/54



LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

GEN
• RAND CONCL PATCHES w/ { + RAND EFF

UPDATE NO.	DATE	COMPANY	CREW
△	4/22/14	GM2	SRD, BJS
△			
△			
△			

SUPPLEMENTAL SHEET

BRIDGE NO. 03312

DATE: VARIOUS

FIELD ORIGINAL

TRANSCRIBED BY: _____

CREW: VARIOUS

SHEET 61 OF 10974

DESCRIPTION: SUBSTRUCTURE GENERAL NOTES

50

SUBSTRUCTURE GENERAL NOTES

- PIER CAPS TYP w/:

- POPOUTS
- MUD SILT STRAINS
- RAND SHALLOW TIE WIRES

- Lt. to moderate accumulation of debris on top of pier caps. \triangle

- PIER COLUMNS

- RAND POPOUTS
- RAND SHALLOW TIE WIRES

UPDATE No.	DATE	COMPANY	CREW
\triangle	4/22/14	GM2	SRD, AIC, DAN, DKS
\triangle			
\triangle			
\triangle			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

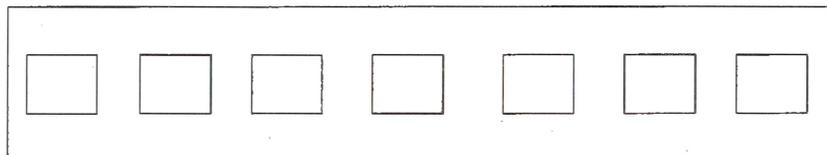
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DATE: 4/16/12

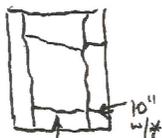
CREW: BH, MJO

SHEET 62/104 5/74

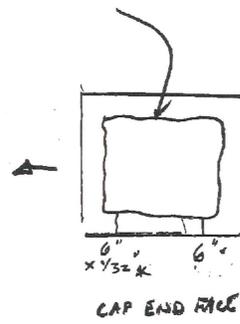
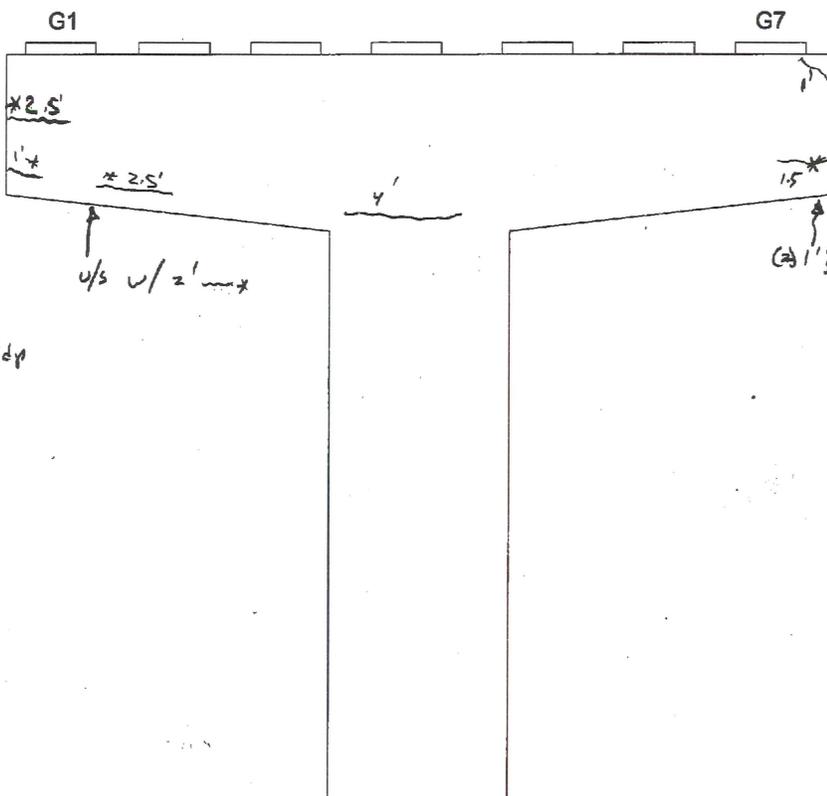
DESCRIPTION: SUBSTRUCTURE



CRKS UP TO 1/32" w/
EFFE PATCH BOUNDARY;
PATCH W/ RAN 3/4



CRKS UP TO
1/16" w along
patch boundary
w/ minor spalls
up to 3" x 2" x 1/2" dp



LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

WEST ELEVATION, PIER 1

△ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
△	4/28/14	GM2	SRD, ALC, BTS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

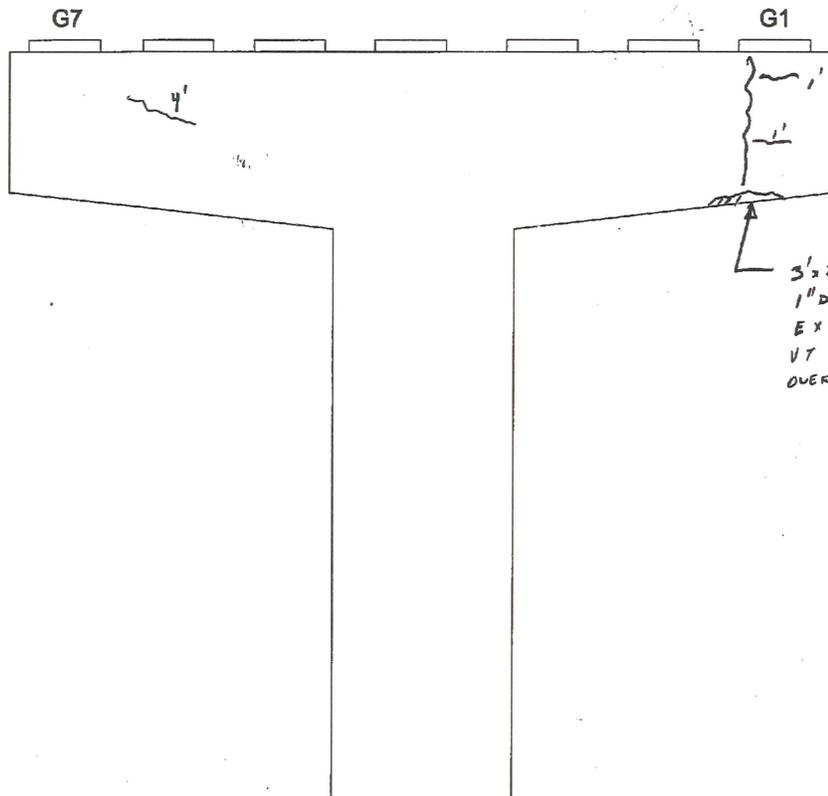
BRIDGE NO. 3312

DATE: 4/16/12

CREW: BH/MTO

SHEET 63/104 52/74

DESCRIPTION: SUBSTRUCTURE



EAST ELEVATION, PIER 1

LEGEND

-  HOLLOW AREA
-  SHALLOW REBAR
-  SPALL AREA
-  SPALL AREA WITH EXPOSED REBAR
-  MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
-  HAIRLINE CRACK (HLC) OR CRACKS (CRK)
-  HONEY COMB AREA
-  SCALE AREA (HVY, MED OR LT)
-  * WITH EFFLORESCENCE
-  + TRANSITION WELD

Δ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
Δ	4/28/14	GML	SRD, AKC, B, J
Δ			
Δ			
Δ			

Baker

DESCRIPTION: SUBSTRUCTURE

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312
CREW: YS, & H

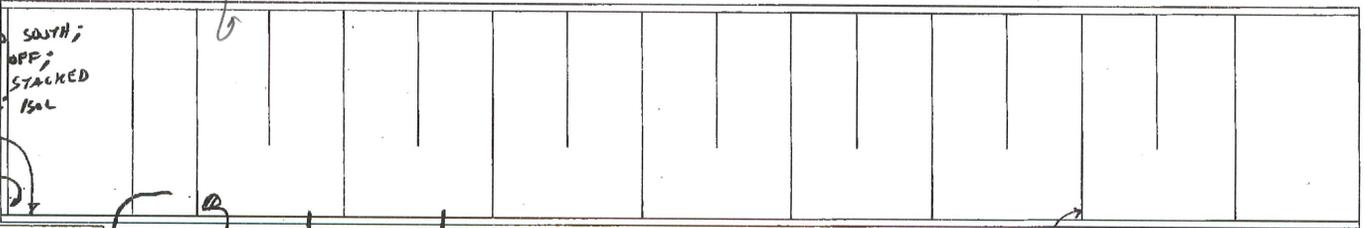
DATE: 4/17/12
SHEET 647104 53/54

1 1/2 x 9' w x 1/8" - 3/16" DP SL

G1 G2 G3 G4 G5 G6 G7

BOTH ADS TIPPED SOUTH;
N. NUT BACKED OFF;
S. NUT w/ 1/4" SHIMS w/ SR ISOL
LAM JUST

STIFF INSIDE w/ MINOR BEAD (CONSTR)



3 1/4" DP 1/4" DP SL
JET BOT COVER w/ ONLY 2 SCREWS

BF w/ PACKETS OF LR w/ 1/8" DP SL x UP TO 5" WIDE

ROT. SLIFF (INT.) w/ 4" x 4" x 5/16" REB

PIER 2 WEST ELEVATION

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

- Spotty areas of mod. hvy. rust @ BF'S (isol. LR)
- Isol. areas of hvy. pigeon debris @ Int. position, RAND LT SAND/DEBRIS
- Int. web + Flg's w/ peeling paint + mod rust

UPDATE NO.	DATE	COMPANY	CREW
△	4/28/11	Gm2	SRD, AKC, BJS
△			
△			
△			

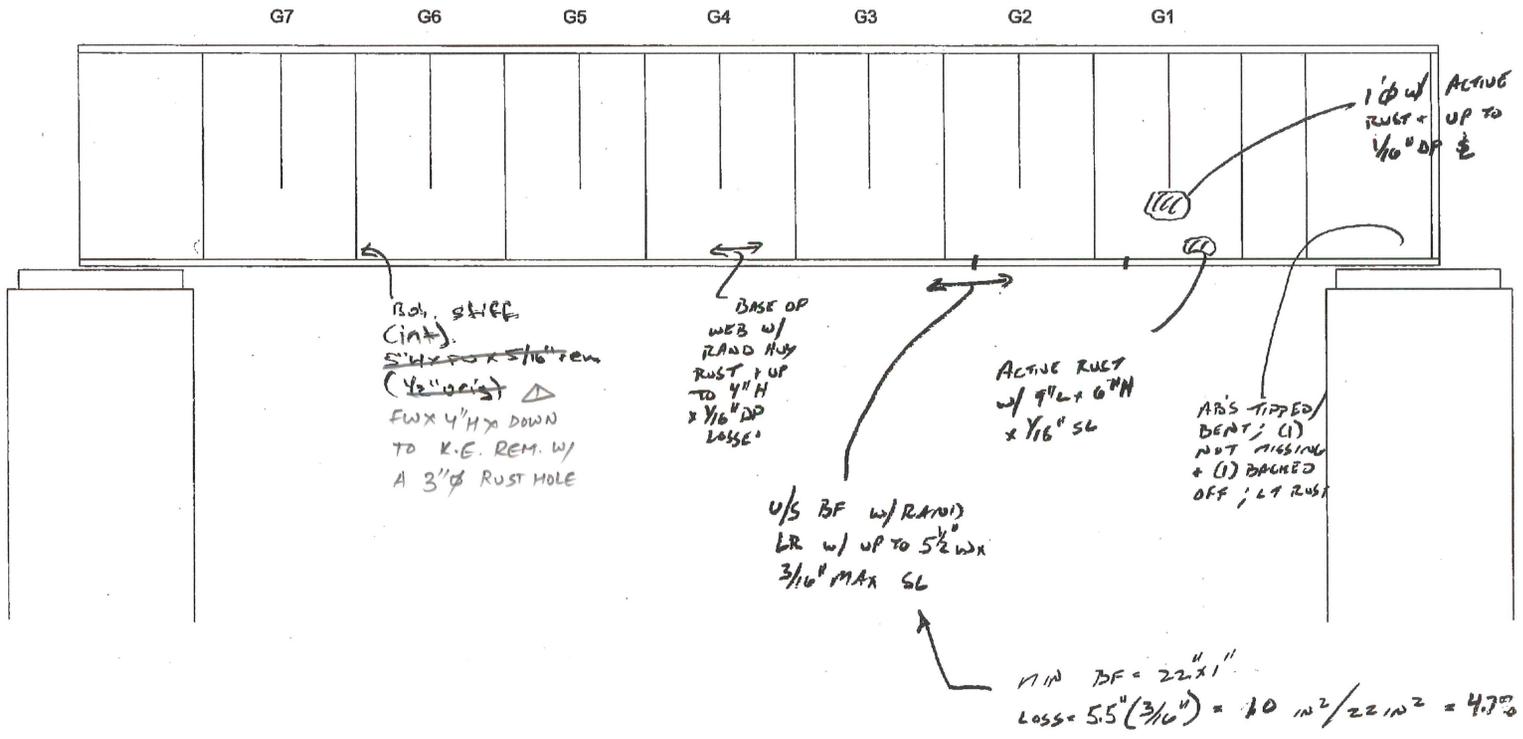
Baker

DESCRIPTION: SUBSTRUCTURE

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312
 CREW: YS, B11

DATE: 4/17/12
 SHEET 65/109 54/24



PIER 2
EAST ELEVATION

- Areas of peeling paint & mod-hug rust (most @ interior portions)
 - Isol. loc's of pigeon debris + nesting pigeons B/w CAP BEAM'

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	4/28/14	GM2	SRD, ALL, BJS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

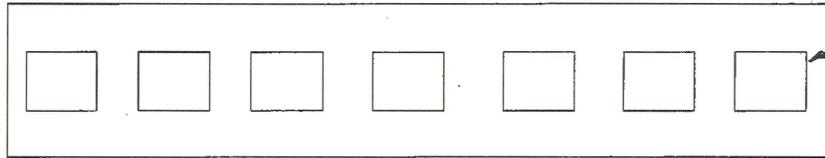
BRIDGE NO. 3312

DATE: 4/13/12

CREW: JB, WJO

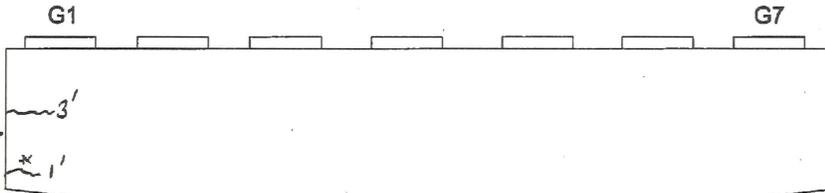
SHEET 66/109 55/74

DESCRIPTION: SUBSTRUCTURE



5" #4 REB W/
 {*, EXTENDING
 TO WAS TC

FH x FW HLC'S
 W/ EFFLO
 (EPOXY BUT RE-OPEN)



END FACE W/
 {* & PATCH
 PERIM + TRANS
 VT + DIAG {*
 NOT & PERIM

1.5' x 1.5' HA w/ ADS
 1.5' x 1.5' DP
 6' LT LANE
 1.5' x 1.5' x 2' DP
 ▲

1' LENG — *

WEST ELEVATION, PIER 3

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * WITH EFFLORESCENCE
- + TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
▲	5/15/14	G M 2	SAD, M.C. PAN, B.J.
▲			
▲			
▲			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

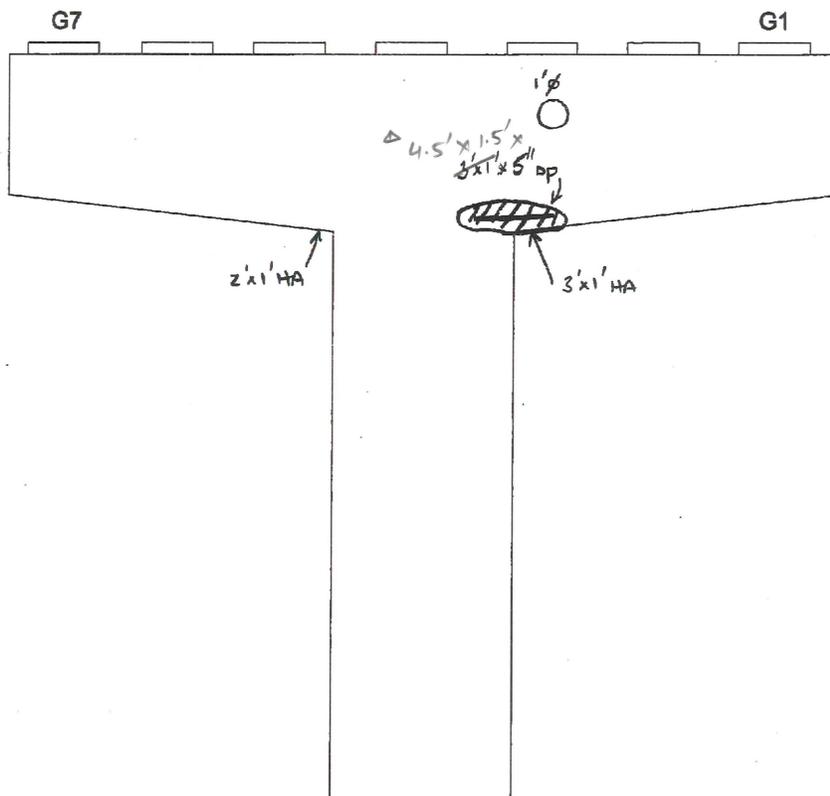
BRIDGE NO. 3312

DATE: 4/13/12

CREW: PB, MTU

SHEET 67/109 56/74

DESCRIPTION: SUBSTRUCTURE



EAST ELEVATION, PIER 3

LEGEND

-  HOLLOW AREA
-  SHALLOW REBAR
-  SPALL AREA
-  SPALL AREA WITH EXPOSED REBAR
-  MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
-  HAIRLINE CRACK (HLC) OR CRACKS (CRK)
-  HONEY COMB AREA
-  SCALE AREA (HVY, MED OR LT)
-  * WITH EFFLORESCENCE
-  + TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	5/15/14	GM2	S.R.D., A.L.C., DAN, B.J.S.
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

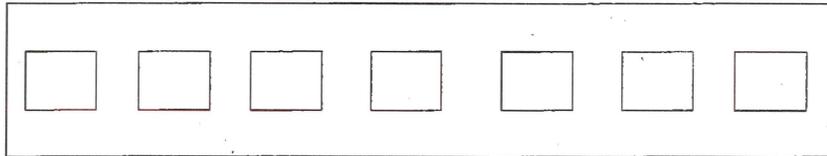
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DATE: 4/19/12

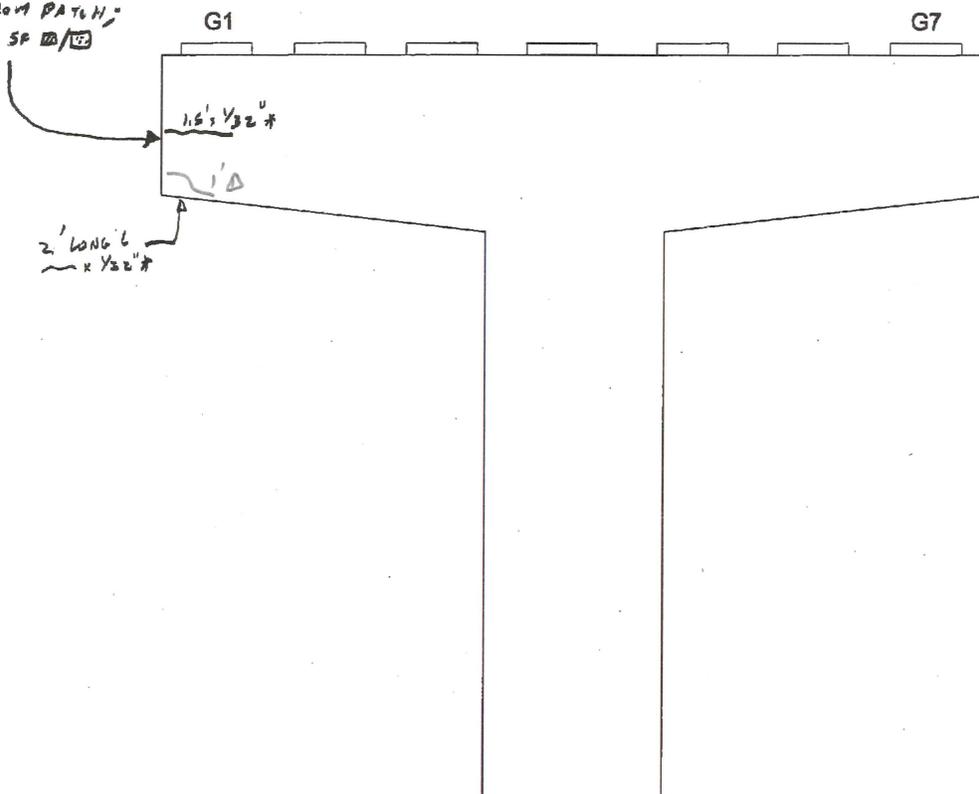
CREW: MJS

SHEET 68/109 57/74

DESCRIPTION: SUBSTRUCTURE



END FACE W/
AROUND PATCH
BOUNDARY + VT 3/4" S
EXTEND FROM PATCH =
ALSO 2 1 SP 1/2"
1" DP



WEST ELEVATION, PIER 4

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * WITH EFFLORESCENCE
- + TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	5/15/14	GM2	SBD, ALL, PAH, BJS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 3312

DATE: 4/16/12

CREW: VITO/BH

SHEET 69/109 58/74

DESCRIPTION: SUBSTRUCTURE

VT G#ALCR e END
FACE EXTENDS UNDER
SP#S UNAS ~~TC~~

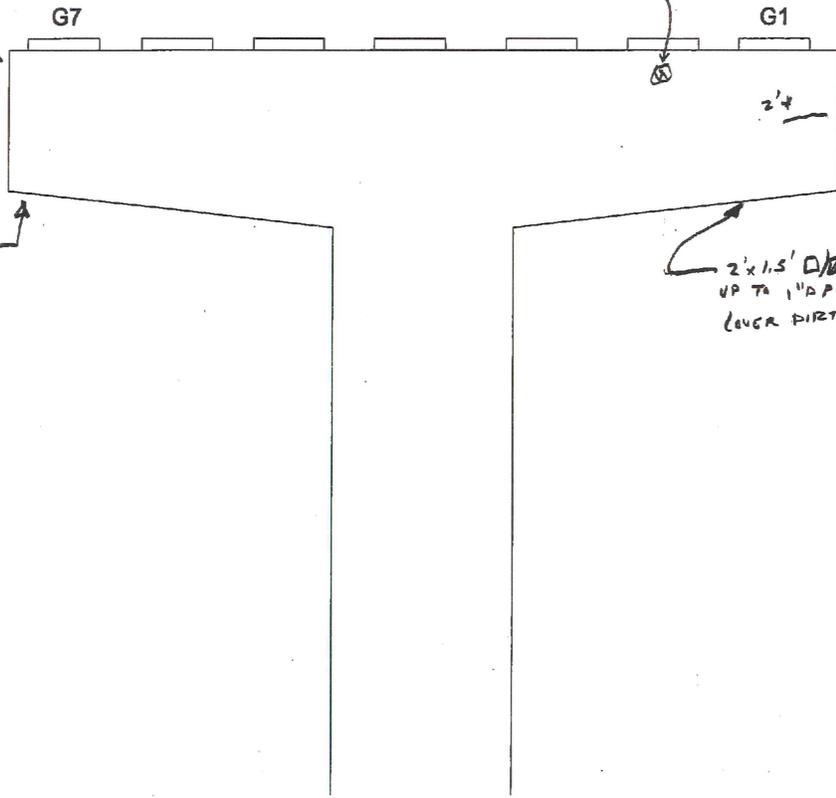
LONG PATCH E
END FACE W/
PERIM CRKS.
TYP

6" LONG L #

1/2" x 1/2"
DP

3/4

2' x 1.5' D/B
UP TO 1" DP
(LOWER PART)



EAST ELEVATION, PIER 4

LEGEND

-  HOLLOW AREA
-  SHALLOW REBAR
-  SPALL AREA
-  SPALL AREA WITH EXPOSED REBAR
-  MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
-  HAIRLINE CRACK (HLC) OR CRACKS (CRK)
-  HONEY COMB AREA
-  SCALE AREA (HVY, MED OR LT)
-  * WITH EFFLORESCENCE
-  + TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	5/15/14	GM2	SRO, ALC, PAN, BJS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

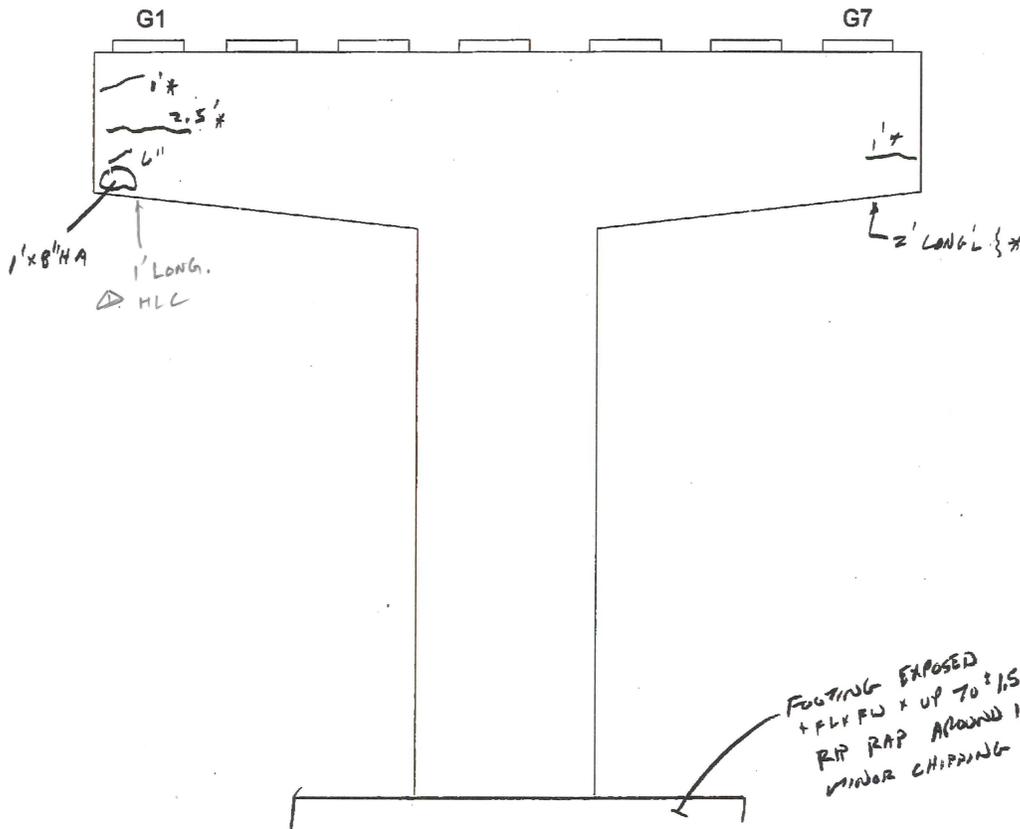
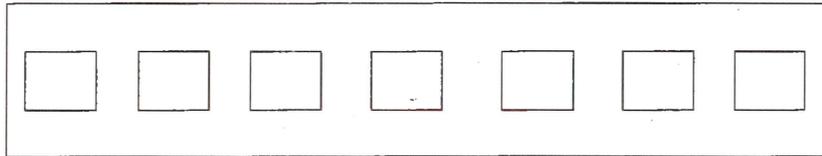
BRIDGE NO. 3312

DATE: 4/10/12

CREW: M70/BA

SHEET 70/109 59/74

DESCRIPTION: SUBSTRUCTURE



WEST ELEVATION, PIER 5

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

- MINOR GRAFFITI @ BASE OF COL.
- ACTIVE LEAKAGE ON PIER CAP @ RANDOM LOCATIONS.

UPDATE NO.	DATE	COMPANY	CREW
△	5/15/14	Gm2	SRO, AKL, PAH, BJS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

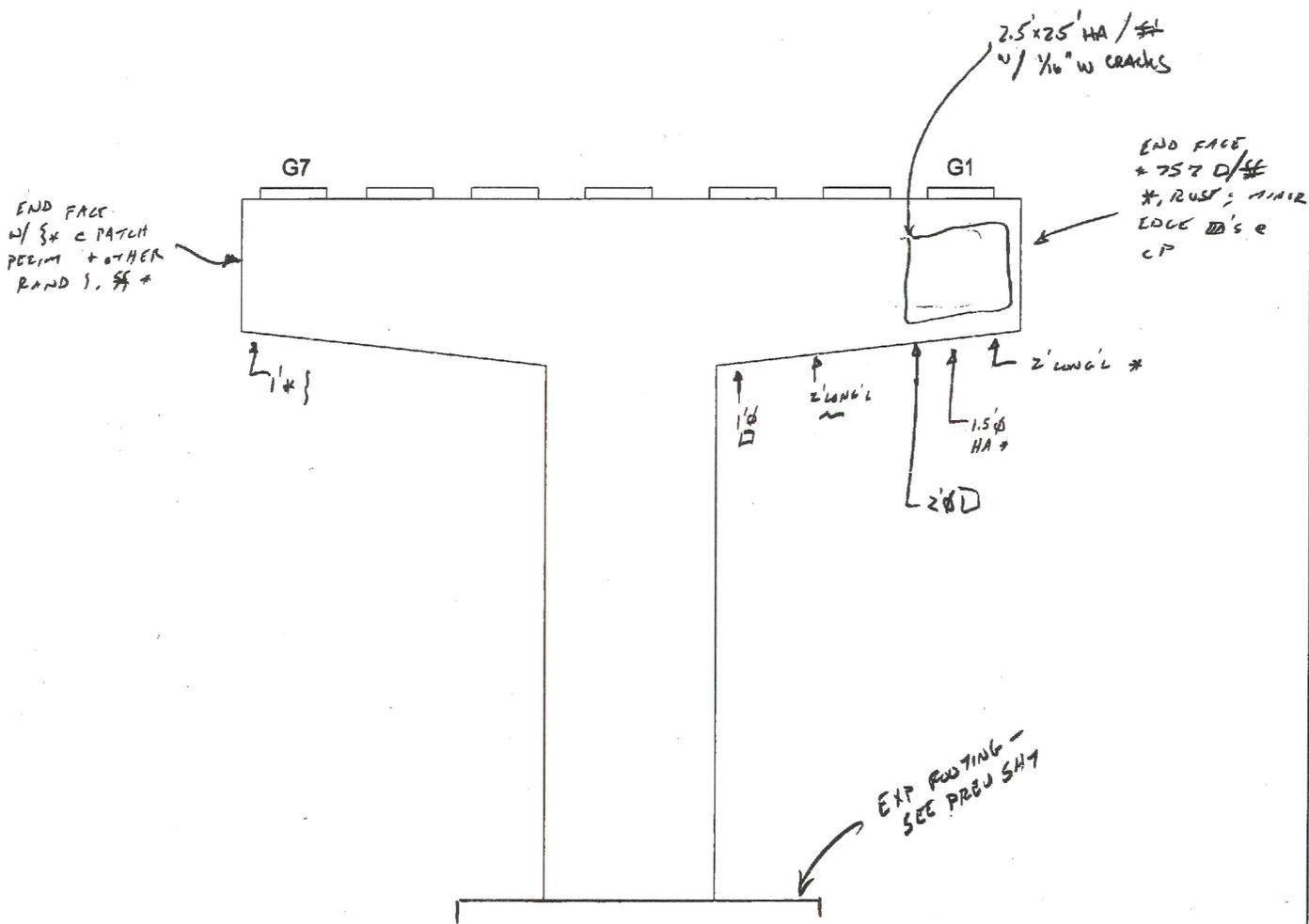
BRIDGE NO. 3312

DATE: 4/16/12

CREW: MTD/BA

SHEET 71/109 60/74

DESCRIPTION: SUBSTRUCTURE



EAST ELEVATION, PIER 5

LEGEND

-  HOLLOW AREA
-  SHALLOW REBAR
-  SPALL AREA
-  SPALL AREA WITH EXPOSED REBAR
-  MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
-  HAIRLINE CRACK (HLC) OR CRACKS (CRK)
-  HONEY COMB AREA
-  SCALE AREA (HVY, MED OR LT)
-  * WITH EFFLORESCENCE
-  † TRANSITION WELD

LT REBAR = CAP

△ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
△	5/15/14	GM2	SRO, ALC, PAH, BJS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

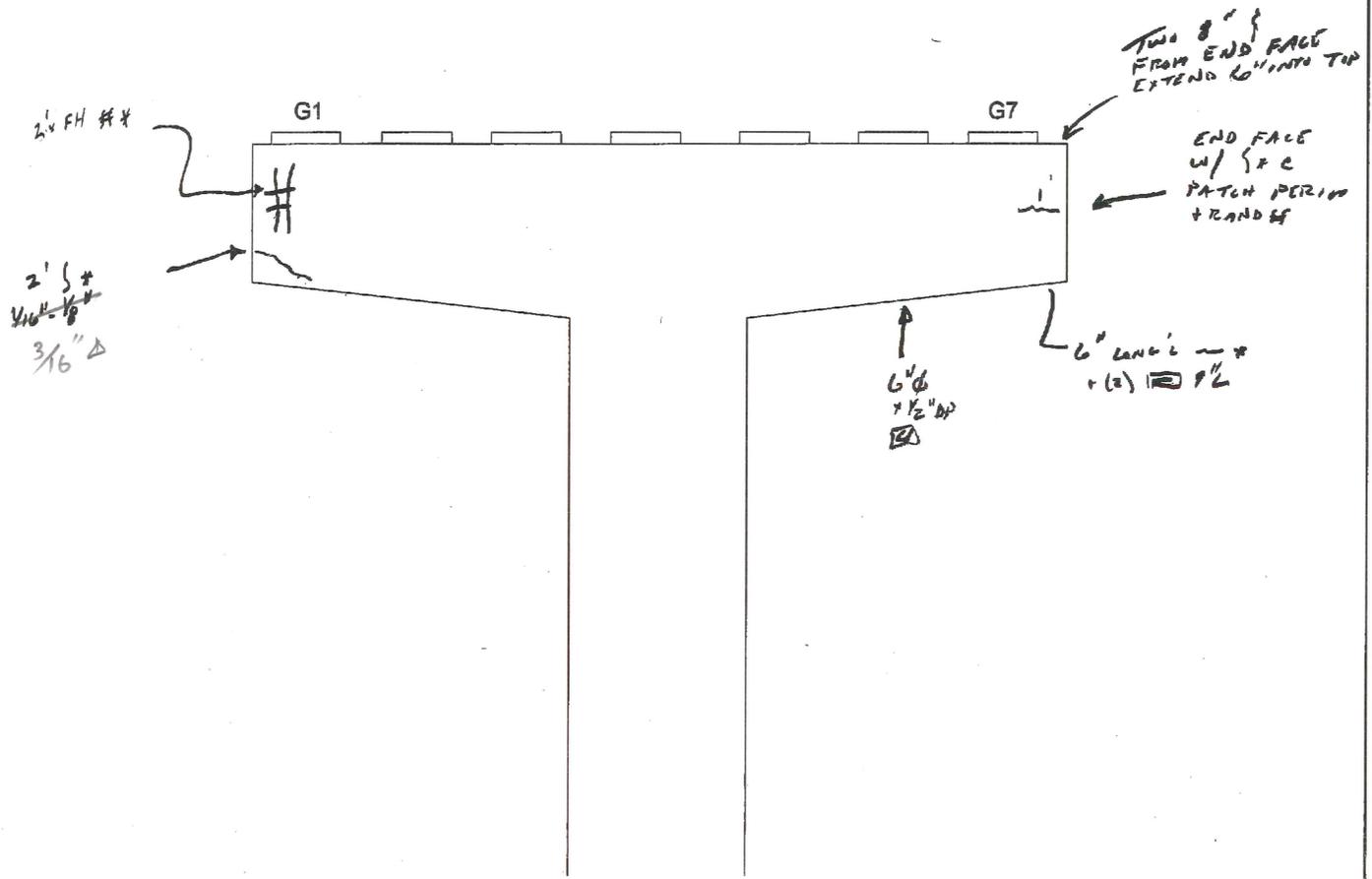
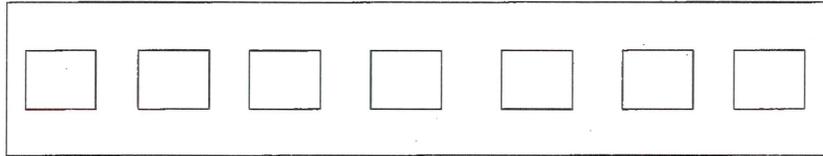
BRIDGE NO. 3312

DATE: 4/18/12

CREW: nro/PB

SHEET 72/109 61/74

DESCRIPTION: SUBSTRUCTURE



WEST ELEVATION, PIER 6

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * WITH EFFLORESCENCE
- + TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	6/6/14	GRANZ	SPD, ALLC, PAN, BJS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

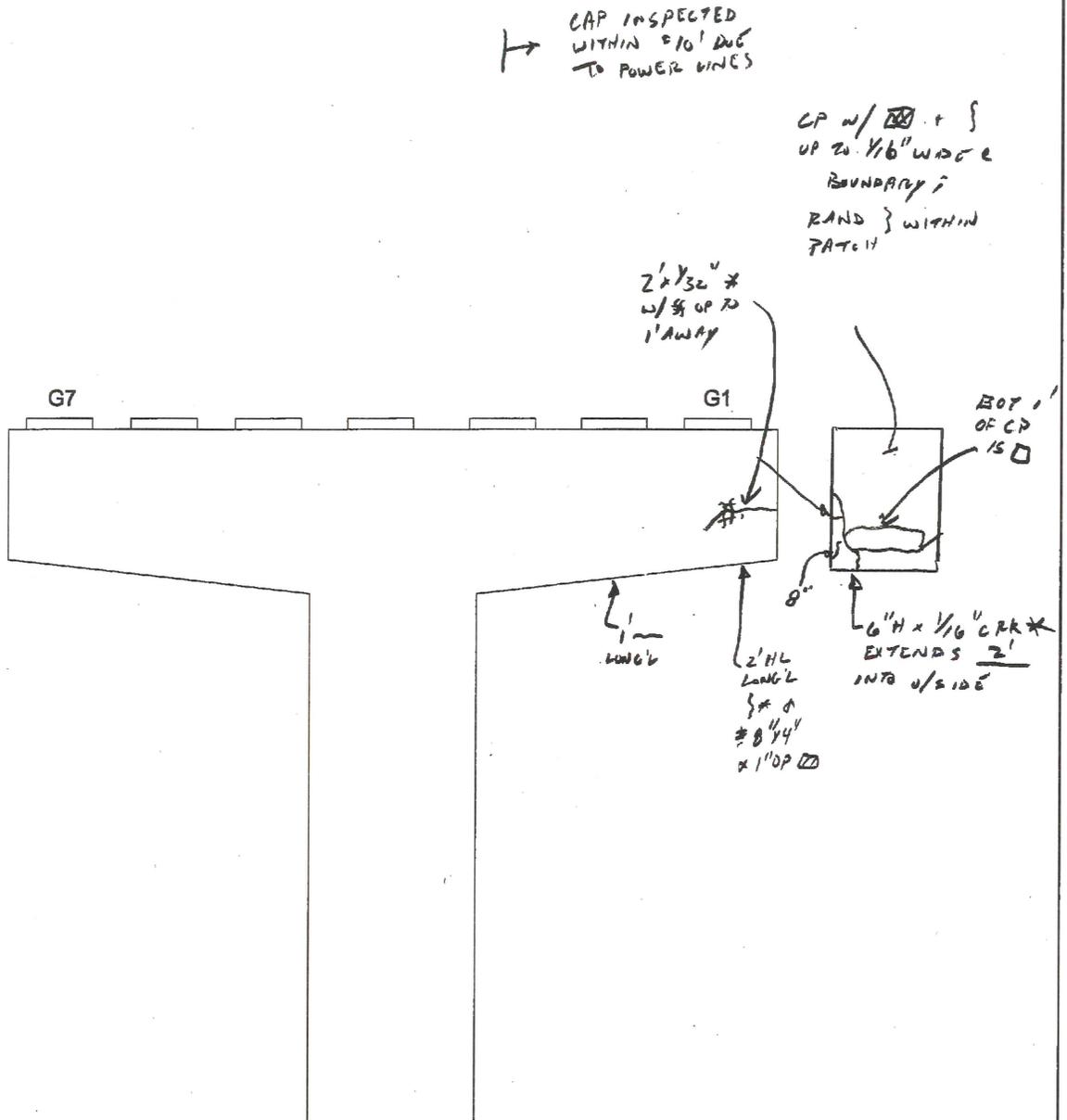
BRIDGE NO. 3312

DATE: 4/11/12

CREW: MTD/JM

SHEET 73/109 62/74

DESCRIPTION: SUBSTRUCTURE



EAST ELEVATION, PIER 6

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * WITH EFFLORESCENCE
- + TRANSITION WELD

- RAND SHALLOW TIC WIRES & CAP

△ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
△	6/6/14	Gm2	SRO, ALL, PIM, BTJ
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

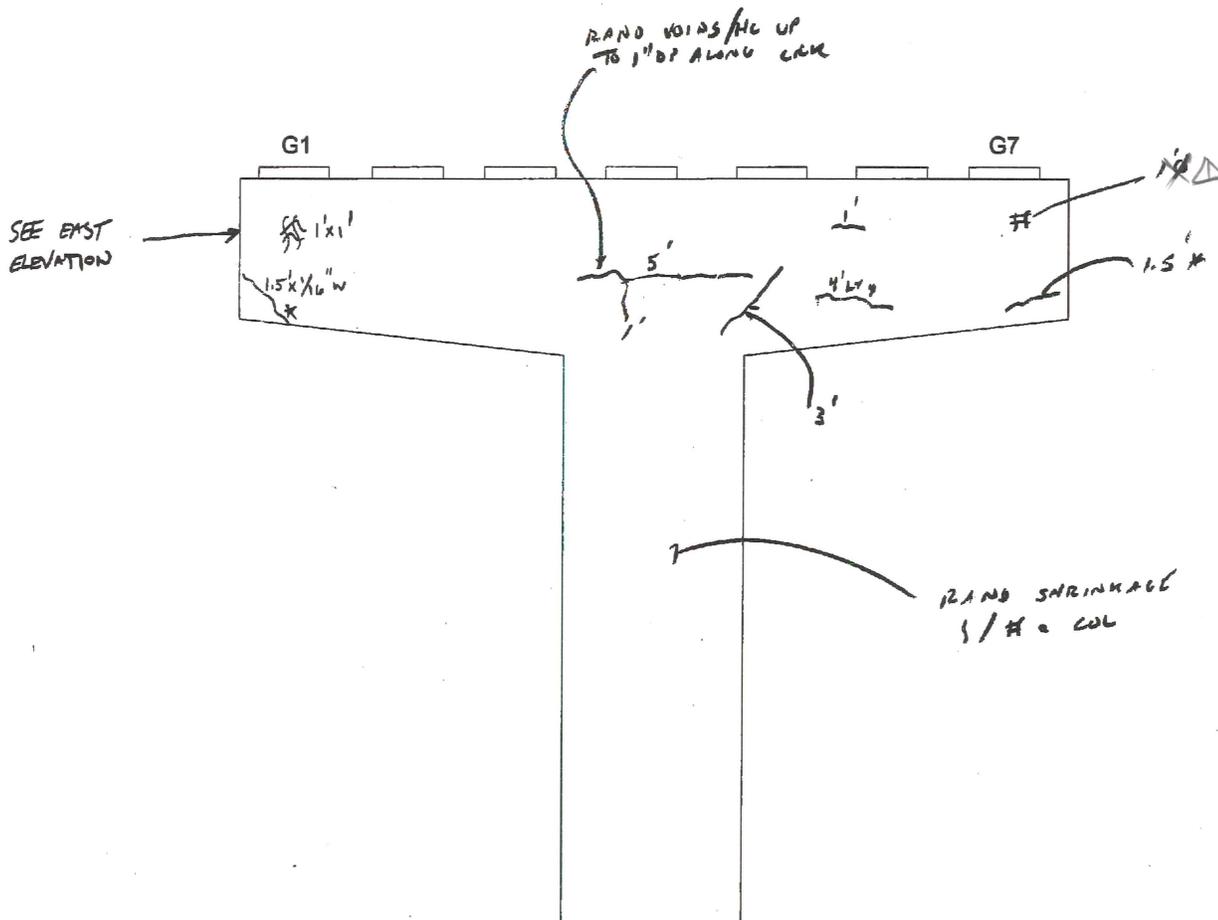
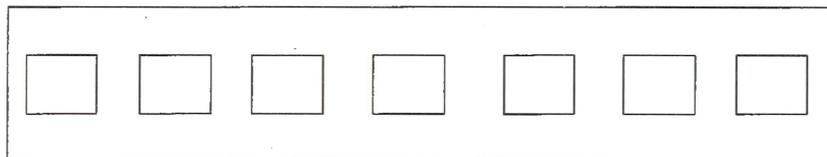
BRIDGE NO. 03312

DATE: 4/11/12

CREW: MJD/JAC/PB

SHEET 74/109 63/94

DESCRIPTION: SUBSTRUCTURE



WEST ELEVATION, PIER 7

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	6/3/14	GIM 2	SAD, ALG, BJS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 03312

DATE: 4/11/12

CREW: MSO/JAC/PB

SHEET 75/104 64/74

DESCRIPTION: SUBSTRUCTURE

GEN:

ENDS OF CAP W/ TYP
 HLIN'S AROUND P/T
 CRACK PACKET; RAND
 EFF & CRKS

CP e TOP w/ff

G7

G1

1' 10"

3' x 8" DULL/D;
 UP W/ 4' x 1/2" LANK'L
 W/ RUST + ADJ DULL
 CONC

1' x 1' HA
 2' x 9' x 1" DP

(3) up to
 6"

END OF CAP FHXFW
 DULL/HOLLOW W/
 1/16" W CRACKS, RUST
 SPALLS 2' x 9' x 1.5" DP
 & EFFLO

EAST ELEVATION, PIER 7

LEGEND

-  HOLLOW AREA
-  SHALLOW REBAR
-  SPALL AREA
-  SPALL AREA WITH EXPOSED REBAR
-  MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
-  HAIRLINE CRACK (HLC) OR CRACKS (CRK)
-  HONEY COMB AREA
-  SCALE AREA (HVY, MED OR LT)
-  WITH EFFLORESCENCE
-  TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△	3/15/14	GM2	SRO, ALL PAH, BTS
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: JAC

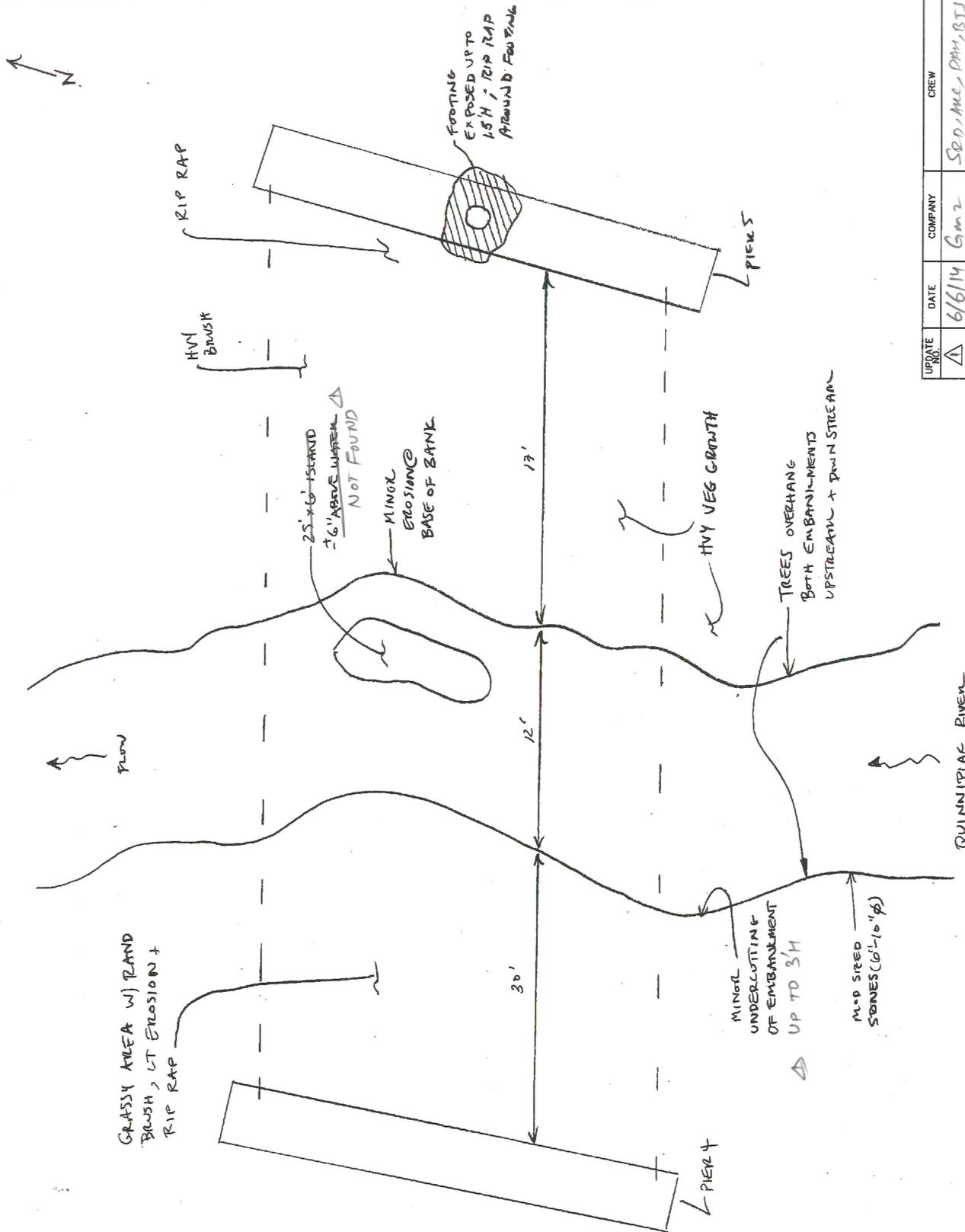
BRIDGE NO. 03312

DATE: 4/16/12

CREW: MJO, BH

SHEET 76/109 65/44

DESCRIPTION: CHANNEL PLAN - SPANS



UPDATE NO.	DATE	COMPANY	CREW
△	6/6/14	Gm2	SRD, MJC, DMH, BTJ
△			
△			
△			

Baker

FIELD ORIGINAL
 TRANSCRIBED BY: JAL

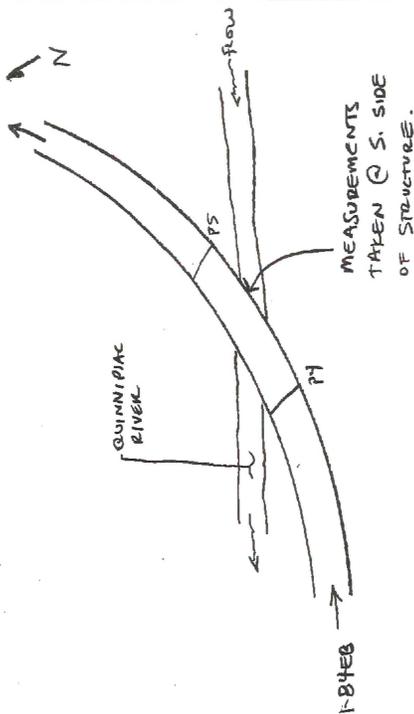
BRIDGE NO. 3312

DATE: 4/16/12

CREW: MTD/BH

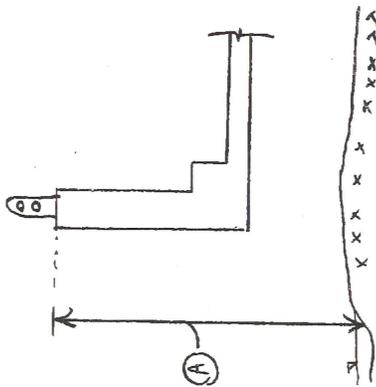
SHEET 77/109 66/74

DESCRIPTION:



SPAN 5, PLAN

UPDATE NO.	DATE	COMPANY	CREW
△	5/5/14	G.M.2	S.R.D., A.H.C.P.M.H., B.P.
△			
△			
△			



POST:	A 2012	A 2014
5 (2' FROM CITY LINE SIGN)	42.5'	42.4'
7	44.2'	44.4'
9	45.3'	45.4'
* 11	49.2'	49.4'
13	53.0'	52.5'
* 15	58.3'	58.1'
16	58.1'	49.6'

* = APPROX EDGE OF CHANNEL.

GEN
 POST 1 IS 2'-3" FROM JT OVER P4
 POST 16 IS 2'-3" FROM JT NEAR P5
 WATER DEPTH = 8" 6" △

PHOTO LOG

Form BRI-13, Rev. 9/97

67/74

Bridge Information System	
Image Inventory	
Bridge No. <u>03312</u>	Date <u>04/22/14</u>
Town: <u>Plainville</u>	Photographer: <u>SRD</u>
Carried / Crossed: <u>I-84 EB over Rte. 72, Rte. 372, @ Rivers RR</u>	
Film Frame #	Image Description
1.	NE Wingwall elev.
2	North elev
3	Exp. bry for G1 at East Abut.
4	East Abut. backwall in Bay 1.
5	East Abut. elev.
6	Southeast Wingwall elev.
7.	East elev. of Pier 7.
8	Underside of Span 8
9	Underside of Span 7
10	Bridge ID
11	Upstream View
12.	Downstream View
4/22/14 13.	North side of G1 BF b/w 1 st & 2 nd X-frames from Pier 2 in Span 2. Note SL.
14, 15	section loss in BF of G1 on south side b/w 1 st & 2 nd X-frames from Pier 2 in Span 2
16.	South side of G1 b/w 1 st & 2 nd X-frames from Pier 2 in Span 2. Note dull sounding launch, but not loose.
17	Fixed bry. for Pier 2 cap girder. Note AB not backed off up to 3".
18.	North face of Pier 2 cap girder.
19	West face of Pier 2 cap girder at Girder G1 in Span 2. Note section loss in top Flange
20	North side of G1 hinge conn. e Pier 2 in Span 2

PHOTO LOG

Form BRI-13, Rev. 9/97

68/74

Bridge Information System	
Image Inventory	
Bridge No. <u>03312</u>	Date <u>04/29/14</u>
Town: <u>Plainville</u>	Photographer: <u>AKC</u>
Carried / Crossed: <u>I-84 EB over Rte. 72, Rte. 372, O. River & RR.</u>	
Film Frame #	Image Description
21	South side of G1 hinge conn. at Pier 2 in Span 2
22, 23	South side of G1 at Pier 2 in Span 2. Note dull sounding haunch & rust in web along the base
24	East side of Pier 2 cap girder at north end.
25, 26	North side of G1 hinge conn. at Pier 2 in Span 3
27	Bottom of Pier 2 cap girder.
28	North side of Girder G3 hinge conn. at Pier 2 in Span 3
29	Missing weld at lower conn. b/w X-frame & stiffener on the north side of G3 at Pier 2 in Span 3.
30	South side of G3 at Pier 2, in Span 3. Typ. hinge conn. not.
31	North side of G4 hinge conn. at Pier 2 in Span 3
32	Crack weld at lower conn. b/w X-frame to stiffener on south side of G3 at Pier 2 in Span 3
33	section loss in BF on south side of G1 b/w 1 st & 2 nd X-frames from Pier 2 in Span 3
34	Exp. brg br 47 at Pier 3 in Span 3.
35	Fixed brg br 42 at Pier 1 in Span 1.
36	South side of G1 @ Pier 1 in Span 1. Note SL in brg. stiffener.
37	North side of G1 @ Pier 1 in Span 1. Note SL in brg. stiffener.
38	North side of G1 @ Pier 1 in Span 2. Note SL in brg. stiffener.
39	Fixed brg br 41 at Pier 1 in Span 2.
40	Missing weld on south side of G4 at lower conn. of 1 st X-frame from Pier 1 to stiffener in Span 2.
41	Hollow area & spall in Pier 1 cap at north end.

PHOTO LOG

Form BRI-13, Rev. 9/97

69/74

Bridge Information System	
Image Inventory	
Bridge No. <u>03312</u>	Date <u>09/29/14</u>
Town: <u>Plainville</u>	Photographer: <u>AKC</u>
Carried / Crossed: <u>I-84 EB over Rte. 72, Rte. 372, Cl. River & RR.</u>	
Film Frame #	Image Description
42, 43	section loss in G1 bottom flange on south side, at 2nd X-frame from Pier 1 in Span 2.
44, 45	Cracked weld at lower conn. b/w 1 st X-frame from Pier 2 and stiffener on south side of G6 in Span 2.
46	South side of G4 hinge conn. at Pier 2 in Span 2. Note bleeding rust & gap between nut & web plate.
47	South side of G5 hinge conn. at Pier 2 in Span 2. Note bleeding rust & evidence of movement of nut.
48	South side of G6 hinge conn. at Pier 2 in Span 2. Note rust & evidence of movement of nut.
49	Exp. by for Pier 2 cap girder @ S. end.
50	section loss in bottom of stiffener on east side of cap girder in span 2 at Pier 2 b/w G6 & G7.
51	Rust in stiffener between G6 & G7 in the west face of Pier 2 cap girder in Span 3.
52	South side of G7 hinge conn. at Pier 2 in Span 3.
53	Underside of deck & framing in Span 3.
54	West elev. of Pier 3.
55	East elev of Pier 3
56	Northwest wingwall elev.
57	West Abut - elev.
58	West elev. of Pier 1.
59	Exp. by for G7 at West Abut.
4/29/14 60	Fixed by. for G6 at Pier 4 in Span 5.

PHOTO LOG

Form BRI-13, Rev. 9/97

70/74

Bridge Information System

Image Inventory

Bridge No. 03312

Date 04/29/14

Town: Plainville

Photographer: SRD

Carried / Crossed: I-84 EB over Rte. 72, Rte. 373, Q. River & RR

Film Frame #	Image Description
61	Fixed brg. for G7 at Pier 4 in Span 5
62	Exp. brg. for G5 at Pier 4 in Span 4
63	Cracked weld e top conn. b/w 1 st X-frame from Pier 4 & stiffener in span 4 on south side of G1.
64	section loss in TF & BR of G1, south side in Span 4 b/w 1 st & 2 nd X-frames from Pier 4.
5/15/14 65	Exp. brg. for G5 at West Abut
66	Deck end spall in Bay 5, Span 1 at Pier 1.
67, 68	^{HTS} Spall in Pier 3 cap underside below Bay 1 (HTK on left lane)
69	Pier 2 east elev.
70	Missing weld e lower conn. b/w 1 st X-frame from Pier 3 and stiffener on south side of G3 in span 3
71	Heavy rust w/ SL in TF of G1 on south side at 2 nd X-frame from Pier 4 in span 5.
72, 73	SL in BR of G1 on south side @ mid span of Span 5
74	Spall in deck end in Bay 6 @ Pier 7 in Span 8.
75	section loss in brg. stiffener on south side of G5 at Pier 7 in span 8
76	New stiffeners w/ tack welds in Bay 3 @ Pier 7 in Span 8.
77	south side of G2 at Pier 7 in Span 8. Note SL in brg. stiffeners & BF.
78	South side of G1 in Span 8, 5-5' from 2 nd X-frame from E. Abut. Note SL in BF.
—	—

PHOTO LOG

Form BRI-13, Rev. 9/97

71/74

Bridge Information System

Image Inventory

Bridge No. 03312

Date 05/15/14

Town: Plainville

Photographer: AKC

Carried / Crossed: I-84 EB over Rte. 72, Rte. 372, Q. Rivers RR

Film Frame #	Image Description
79.	South side of G1 in span 4 @ 16' from 1 st x-frame from E. Abut. note SL in top flange.
80, 81	South side of G1 in span 4 @ 16' from 1 st x-frame from E. Abut. Note SL in BF.
82.	Spall in Pier 3 cap east face below Bay 3 near the col.
83	Tack welded stiffener on south side of G3 at pier 3 in span 4
84	Lam. rest on TF & BF of G1 on south side in span 3 near 2nd x-frame from pier 3
85, 86	West app. pavement
87	Bridge from West app.
88	Deck Jt at W. Abut
89	Ovalay in rt. shoulder of span 1.
90	Junction box cover in South parapet in span 1.
91, 92	5th post from W. Abut in span 1 of south bndg railing.
93.	Railing, apt's curb on south side.
94	Deck Jt. at pier 1.
95	Ovalay in span 1
96	Ovalay in span 2.
97	Deck Jt at pier 2
98	Deck Jt at pier 3
99	Ovalay in span 5
100	Deck Jt at pier 4
101	Map cracking & depressed area in ovalay of span 5, near pier 5
102.	Deck Jt. @ pier 5

PHOTO LOG

Form BRI-13, Rev. 9/97

7/2/14

Bridge Information System	
Image Inventory	
Bridge No. <u>03312</u>	Date <u>5/15/14 & 6/2/14</u>
Town: <u>Plainville</u>	Photographer: <u>SKD</u>
Carried / Crossed: <u>I-84 EB over Rte. 72, Rte. 372 @ River & RR</u>	
Film Frame #	Image Description
103	south side parapet in span 6
104	Lfd. str. on south parapet in span 6
105	Deck Jt. at pier 6
106	Deck Jt. at pier 7
107	East appr. from the bridge
108	Appr. guard rail at the southeast corner.
109	Deck Jt. e East Abut.
110	East appr. pavement in the rt. shoulder.
6/2/14 111	Br. from east appr.
112	Erosion in northeast appr. embankment
113	Deck Jt. e E. Abut
114, 115	East appr. pavement
116	Deck Jt. e pier 7
117	Deck Jt. e pier 6
118	Overlay in span 6
119	Deck Jt. e pier 5
120	Deck Jt. e pier 4
121	North parapet in span 4. Note spalls/gauges.
122	Deck Jt. at pier 3
123	Deck Jt. @ pier 2. Also note the depressed area in the overlay in span 3.
124	Bridge railing, app. & curb along north fascia in span 2. Note 4 ft's shallow rebar in app. & bent rail.
125	Deck Jt. at pier 1.

PHOTO LOG

Form BRI-13, Rev. 9/97

73/74

Bridge Information System	
Image Inventory	
Bridge No. <u>03312</u>	Date <u>6/2/14, 6/3/14, 6/6/14</u>
Town: <u>Plainville</u>	Photographer: <u>SRD</u>
Carried / Crossed: <u>I-81 EB over Rte 72, Rte 372, Q. River & RR</u>	
Film Frame #	Image Description
126	Deck Jt at W. Abut.
127	Appr. sidewalk at the Northwest corner.
128	West appr. from the bridge.
6/3/14 129	Pier 6 cap east face at the north end
130-133	Northside of G1 at Pier 6 in span 7. Note buckled brg. stiffener w/ repairs.
134	Bridge ID
135	Underside of deck's framing in Span 7
136	East elev. of Pier 6
137	Exp. brg for G3 at Pier 7 in span 7
138	HA in patch in Bay 1 of span 7 & mid-span over Rte. 372 WB lane.
06/06/14 139	short weld at lower conn. b/w 1 st X-frame from Pier 6 and stiffener in span 7 on south side of G5.
140	North face of G1 web @ Pier 6 in span 6. Note section loss & repair plate.
141	Section loss in north face of web of G1 at Pier 6 in span 6 in front of the bearing.
142	Crack in the north end of Pier 6 west face below h.l.
143	Exp. brg for G3 at Pier 6 in span 6
144	Missing weld at top conn. b/w X-frame to stiffener on southside of G1 at Pier 5 in span 6.
145	Erosion around Pier 5 footing.
146	South elevation



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 1: Bridge Identification Number.



Photo # 2: South elevation.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 3: North elevation.



Photo # 4: Bridge from the west approach.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinipiac River	Project No.:	170-3224



Photo # 5: West approach from the bridge.



Photo # 6: Bridge from the east approach.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 7: East approach from the bridge.

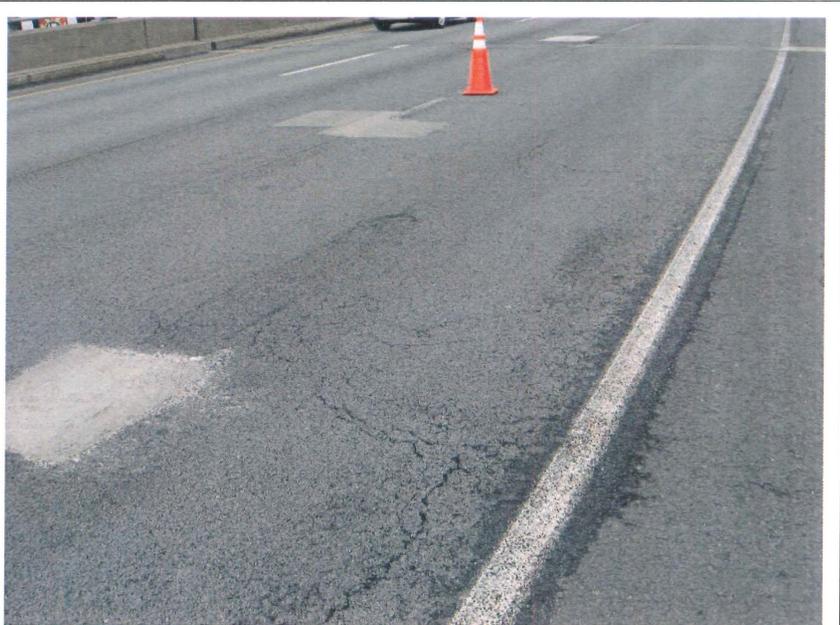


Photo # 8: Overlay in Span 5. Note the cracks and random patches in the overlay.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 9: Underside of the deck and framing in Span 3.



Photo # 10: Hollow haunch on south side of Girder G1 at Pier 2 in Span 2 over left shoulder of Route 72 EB.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 11: Hollow area at the corner of the patch near mid-span in Bay 1 of Span 7.



Photo # 12: Hollow area/spall with exposed rebar in the deck end at Pier 1 in Bay 5 of Span 2.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 13: Curb, parapet and railing along the south fascia in Span 4. Note the spall, scrapes in the parapet and bent top railing.



Photo # 14: Curb, safetywalk, parapet along the north fascia in Span 4. Note the spall and gouges in the parapet.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 15: Collision damage in the railing posts along the east fascia in Span 1. Also note the missing anchor bolt covers of the light standard.

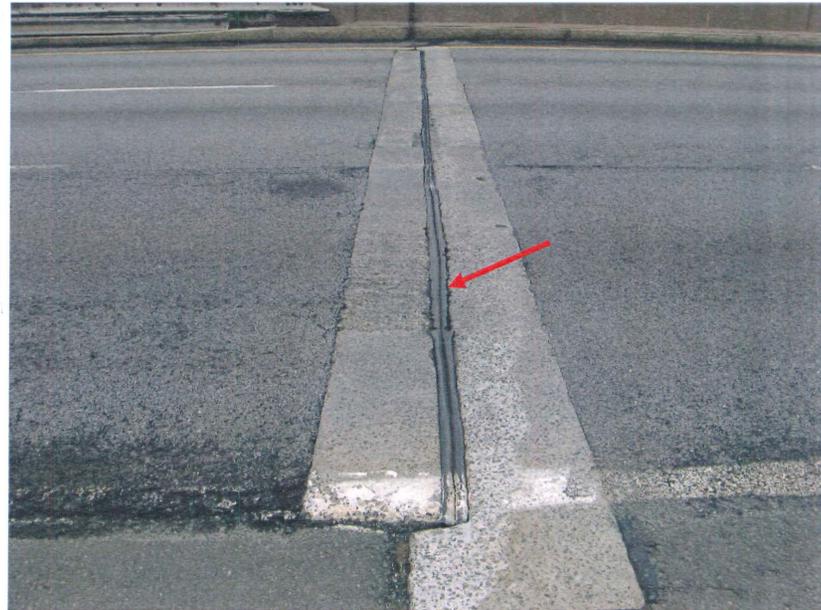


Photo # 16: Deck joint at the West Abutment. Note the separated joint seal.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224

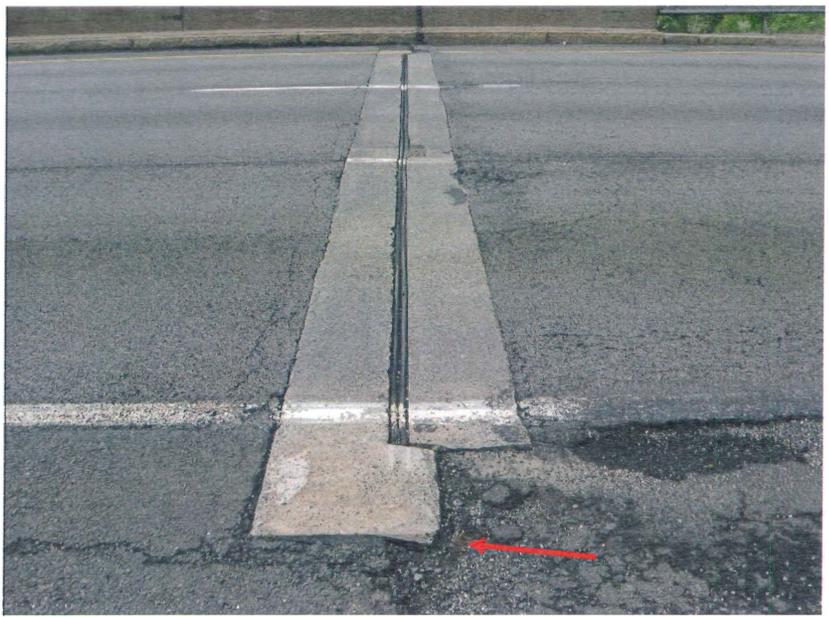


Photo # 17: Deck joint at the East Abutment. Note that the deck joint does not extend for full length and the overlay exhibits minor potholes in the right shoulder.

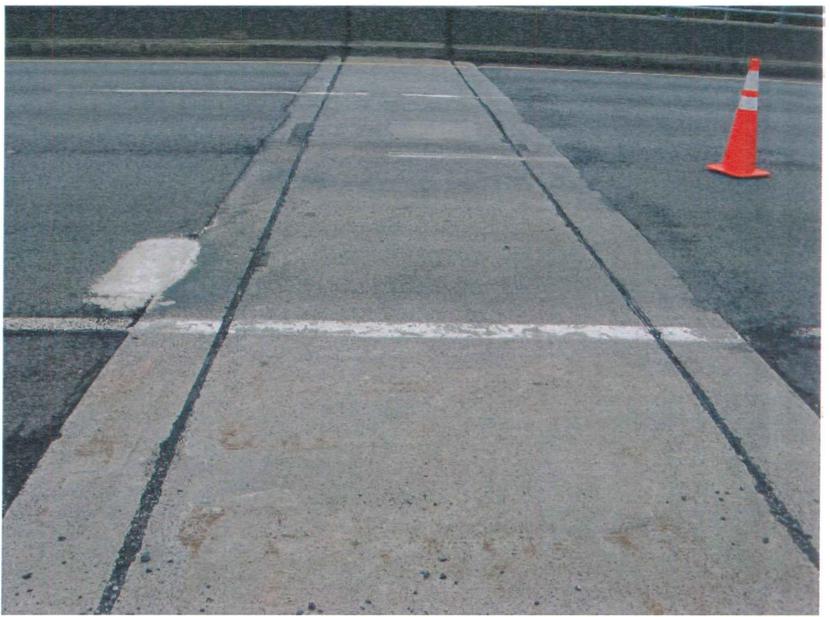


Photo # 18: Deck joint at Pier 2. Note the accumulation of sand in the joint.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224

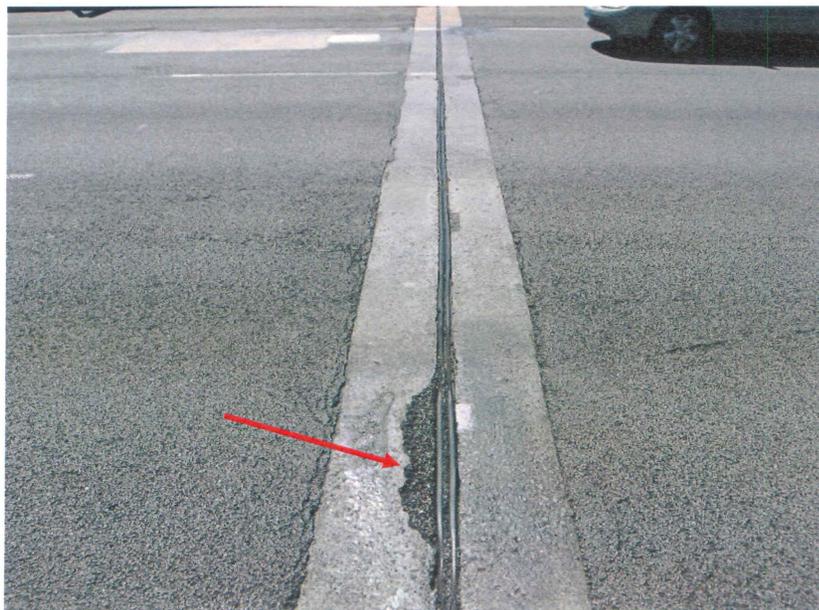


Photo # 19: Deck joint at Pier 4. Note the spall in the concrete header.



Photo # 20: Expansion pot bearing for Girder G1 at the East Abutment. Note the areas of peeling paint with rust.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 21: Fixed pot bearing for Girder G2 at Pier 7 in Span 8. Note the areas of peeling paint with rust.



Photo # 22: Expansion bearing for cap girder at the south column of Pier 2. Note that the bearing plates are slightly misaligned.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 23: Fixed bearing for cap girder at the north column of Pier 2. Note the backed off anchor bolt nut and stack of washers.



Photo # 24: North side of the hinge for Girder G4 at Pier 2 in Span 3. Note the areas of rust around the nut and bleeding rust on the hinge plate.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 25: South side of the hinge for Girder G7 at Pier 2 in Span 3. Note the areas of rust with section loss in the girder web.



Photo # 26: South side of the hinge for Girder G6 at Pier 2 in Span 2. Note the areas of rust in the girder web and evidence of movement of the nut.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 27: South side of Girder G1 in Span 2 at the 2nd cross frame from Pier 1. Note the section loss in the bottom flange. Typical condition.



Photo # 28: South side of Girder G1 in Span 8 on the west side of 2nd cross frame from Pier 7. Note the section loss in the bottom flange and bottom of web stiffener.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinipiac River	Project No.:	170-3224



Photo # 29: South side of Girder G1 in Span 5 at the 2nd cross frame from Pier 4. Note the heavy rust with section loss in the top flange.



Photo # 30: North side of Girder G1 hinge connection to Pier 2 cap girder in Span 3. Note the areas of heavy rust with section loss.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 31: North side of Girder G1 at Pier 6 in Span 6. Note the section loss with rust hole in the web, but repair plate was previously added at this location. Also note the section loss along the bottom of web in front of the bearing.



Photo # 32: North side of Girder G1 at Pier 6 in Span 7. Note the section loss and buckling in the bearing stiffeners (web plate previously added at this location).



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 33: North side of Girder G1 at Pier 1 in Span 1. Note the section loss in the bearing stiffener with a 1/4" diameter rust hole.



Photo # 34: North side of Girder G3 at Pier 2 in Span 3. Note the missing bottom horizontal weld at the connection between the cross frame and web stiffener.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 35: South side of Girder G6 in Span 2 at the 1st cross frame from Pier 2. Note the cracked bottom horizontal weld (extends 1/4" at bottom of vertical weld on the back).



Photo # 36: South side of Girder G1 in Span 4 at the 1st cross frame from Pier 4. Note the cracked top horizontal weld at the cross frame connection to the web stiffener.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 37: Stitch welded stiffener on south side of Girder G3 at Pier 3 in Span 4 (typical).



Photo # 38: West Abutment elevation.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 39: Northwest Wingwall elevation.



Photo # 40: East elevation of Pier 6.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 41: Hollow area and spall at the underside of Pier 3 cap in Bay 1 (over left lane of Route 72 WB).



Photo # 42: Spall on the east face of Pier 3 cap below Bay 3.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 43: East face of Pier 6 cap at the north end. Note the crack on the face and crack along the edge of patch.



Photo # 44: East elevation of Pier 2.



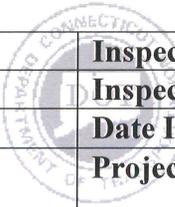
Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 45: Underside of Pier 2 cap girder. Note the areas of rust with section loss in the bottom flange.



Photo # 46: Section loss with rust hole at the bottom of interior web stiffener in Bay 6 on the west side of east cap girder at Pier 2.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 47: Exposed footing of Pier 5.

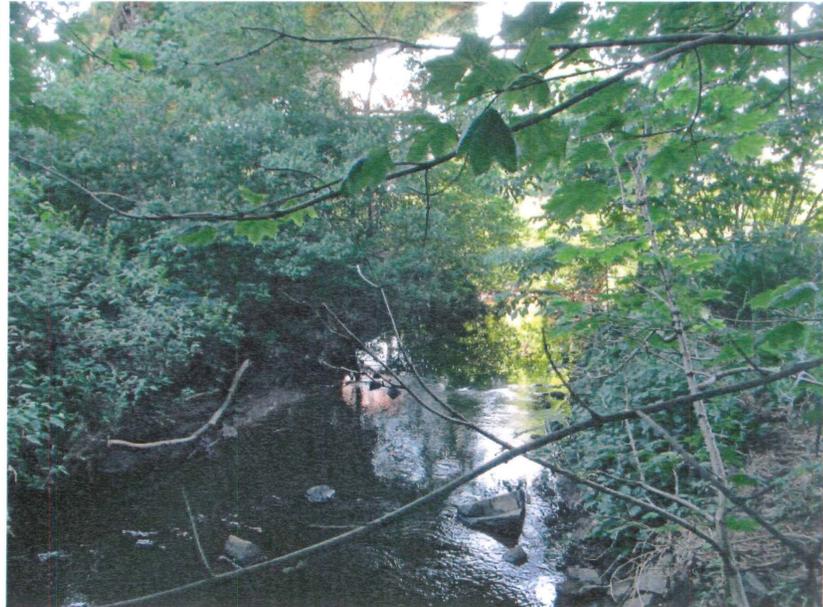


Photo # 48: Upstream view.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 49: Downstream view.



Photo # 50: Approach guiderail at the southwest corner. Note the collision damage.



Bridge No.:	03312	Inspected by:	Suresh Dontula
Town:	Plainville, CT	Inspected by:	Amit KC
Feature Carried:	I-84 EB	Date Inspected:	April 22, 2014
Feature Crossed:	Rte. 72, Rte. 372, Pan Am RR & Quinnipiac River	Project No.:	170-3224



Photo # 51: East approach pavement in the right shoulder. Note the random cracks and potholes.



Photo # 52: Erosion along the northeast approach embankment.

Your Agency Name

Your Office Name
Your Department Name

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 03312	Agency ID: 03312	SR: 62.6 SD/FO: SD
-------------------	------------------	--------------------

IDENTIFICATION			
State 1:	09 Connecticut	Struc Num 8:	03312
Facility Carried 7:	INTERSTATE-84 EB	Location 9:	I-84 EXIT 35
Rte.(On/Under) 5A:	Route On Structure	Rte. Signing Prefix 5B:	1 Interstate Hwy
Level of Service 5C:	1 Mainline	Route Number 5D:	00084
Directional Suffix 5E:	2 East	% Responsibility:	0.00
SHD District 2:	01	County Code 3:	Hartford
Place Code 4:	PLAINVILLE	Mile Post 11:	50.219 mi
Feature Intersected 6:	ROUTE 72,QUINN RV,B&M,RT		
Latitude 16:	41° 14' 06"	Longitude 17:	072° 49' 31"
Border Bridge Code 98	Unknown (P)		
Border Bridge Number 99	NA		

INSPECTION			
Frequency 91:	24 months	Inspection Date 90:	4/22/2014
FC Frequency 92A:	24 months	FC Inspection Date 93A:	4/22/2014
UW Frequency 92B:	NA	UW Inspection Date 93B:	NA
SI Frequency 92C:	24 months	SI Date 93C:	4/22/2014
Element Frequency:	24 months	Element Insp. Date:	4/22/2014

CLASSIFICATION			
Defense Highway 100:	1 STRAHNET hwy	Parallel Structure 101:	Right of bridge
Direction of Traffic 102:	1 1-way traffic	Temporary Structure 103:	Unknown (NBI)
Highway System 104:	1 On the NHS	NBIS Length 112:	Long Enough
Toll Facility 20:	3 On free road	Functional Class 26:	11 Urban Interstate
Defense Hwy 110:	1 STRAHNET hwy	Historical Significance 37	5 Not eligible for NRHP
Owner 22:	01 State Highway Agency		
Custodian 21:	01 State Highway Agency		

STRUCTURE TYPE AND MATERIALS			
Number of Approach Spans 46	0	Number of Spans Main Unit 45:	8
3 Steel			
Deck Type 107:	1 Concrete-Cast-in-Place		
Wearing Surface 108A:	6 Bituminous		
Membrane 108B:	2 Preformed Fabric		
Deck protection 108C	None		

CONDITION			
Deck 56:	6 Satisfactory	Super 59:	4 Poor
Culvert 62:	N N/A (NBI)	Channel/Channel Protection 61:	7 Minor Damage

AGE AND SERVICE			
Year Built 27:	1969	Year Reconstructed 106:	1990
Type of Service on 42A	1 Highway		
Type of Service under 42B	8 Hwy-waterway-RR		
Lanes on 28A:	3	Lanes under 28B:	6
ADT 29:	37,400	Truck ADT 109:	14%
		Year of ADT 30:	2013

LOAD RATING AND POSTING			
Inventory Rating Method 65:	1 LF Load Factor	Operating Rating Method 63:	1 LF Load Factor
Inventory Rating 66:	HS27.1	Operating Rating 64:	HS45.3
Design Load 31:	5 MS 18 (HS 20)	Posting 70:	5 At/Above Legal Loads
Posting Status 41:	A Open, no restriction		

GEOMETRIC DATA			
Length Max Span 48:	107.94 ft	Structure Length 49:	853.02 ft
Curb/Sdwk Width L 50A	1.64 ft	Curb/Sidewalk Width R 50B	0.66 ft
Width Curb to Curb 51:	50.85 ft	Width Out to Out 52:	55.45 ft
Approach Roadway width 32: (w/ shoulders)	50.85 ft	Median 33:	0 No median
Deck Area:	47,341.00 sq. ft		
Skew 34:	0.00°	Structure Flared 35	0 No flare
Vertical Clearance 10	328.05 ft	Horizontal Clearance 47:	50.85 ft
Minimum Vertical Clearance Over Bridge 53:	328.05 ft		
Minimum Vertical Underclearance Reference 54A	H Hwy beneath struct		
Minimum Vertical Underclearance 54B:	16.50 ft		
Minimum Lateral Underclearance Reference R 55A:	H Hwy beneath struct		
Minimum Lateral Underclearance R 55:	7.70 ft		
Minimum Lateral Underclearance L 56:	8.00 ft		

APPRAISAL			
Bridge Rail 36A:	0 Substandard	Approach Rail 36C:	0 Substandard
Transition 36B:	0 Substandard	Approach Rail Ends 36D:	1 Meets Standards
Str Evaluation 67:	4 Minimum Tolerable	Deck Geometry 68:	5 Above Tolerable
Underclearance, Vertical and Horizontal 69:	4 Tolerable		
Waterway Adequacy 71:	9 Above Desirable	Approach Alignment 72:	6 Equal Min Criteria
Scour Critical 113:	8 Stable Above Footing		

PROPOSED IMPROVEMENTS			
Bridge Cost 94:	\$1,000	Type of Work 75:	38 Other Structural
Roadway Cost 95:	\$1,000	Length of Improvement 76	0.3 ft
Total Cost 96:	\$2,000	Future ADT 114:	18,475
Year of Cost Estimate 97	2000	Year of Future ADT 115:	2029

NAVIGATION DATA			
Navigation Control 38	Permit Not Required		
Vertical Clearance 39	0.0 ft	Horizontal Clearance 40:	0.0 ft
Pier Protection 111:	Unknown (NBI)	Lift Bridge Vertical Clearance 116	0.0 ft

Your Agency Name

Your Office Name
Your Department Name

Structure Inventory and Appraisal Sheet (English Units)

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
0	14/3	P Conc Deck/AC Ovly	(SF)	47,341	0%	0	100%	47,341	0%	0	0%	0	0%	0
0	107/3	Paint Stl Opn Girder	(LF)	5,833	43%	2,502	26%	1,499	17%	997	14%	834	0%	0
0	161/3	Paint Stl Pin/Hanger	(EA)	14	0%	0	93%	13	7%	1	0%	0	0%	0
0	205/3	R/Conc Column	(EA)	8	100%	8	0%	0	0%	0	0%	0	0%	0
0	215/3	R/Conc Abutment	(LF)	108	95%	102	5%	7	0%	0	0%	0	0%	0
0	231/3	Paint Stl Cap	(LF)	72	85%	61	10%	7	3%	2	3%	2	0%	0
0	234/3	R/Conc Cap	(LF)	325	88%	285	8%	25	5%	15	0%	0	0%	0
0	302/3	Compressn Joint Seal	(LF)	459	98%	451	2%	8	0%	0	0%	0	0%	0
0	311/3	Moveable Bearing	(EA)	1	100%	1	0%	0	0%	0	0%	0	0%	0
0	313/3	Fixed Bearing	(EA)	57	90%	51	11%	6	0%	0	0%	0	0%	0
0	314/3	Pot Bearing	(EA)	54	78%	42	22%	12	0%	0	0%	0	0%	0
0	321/3	R/Conc Approach Slab	(EA)	2	100%	2	0%	0	0%	0	0%	0	0%	0
0	331/3	Conc Bridge Railing	(LF)	1,729	100%	1,722	0%	7	0%	0	0%	0	0%	0
0	357/3	Pack Rust Smart Flag	(EA)	1	100%	1	0%	0	0%	0	0%	0	0%	0
0	359/3	Soffit Smart Flag	(EA)	1	0%	0	0%	0	100%	1	0%	0	0%	0
0	363/3	Section Loss SmFlag	(EA)	1	0%	0	100%	1	0%	0	0%	0	0%	0
0	371/3	Free Fall Pipes, Scu	(EA)	2	100%	2	0%	0	0%	0	0%	0	0%	0

ADDITIONAL FIELD NOTES

AND

BACK-UP MATERIALS

HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: YS Date: 4/17/12

Bridge No.: 03312

I-69 E/B OVER RT. 72, RR, ETC

Town: Plainville

Date: _____

Hinge Located: Span 2 e PIER 2

Effective span for Movement: 0 (ft)

Page: of

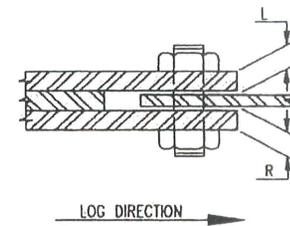
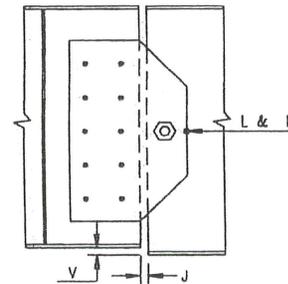
Beam No.	L/R	V (in)	J (in)	R (in)	L (in)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
*1		29" / 27 3/4"	27 1/16" / 16 1/4"	1 1/16" / (1 1/8")	1 1/8"	NONE	N/A	LOTTER PIN	UP TO 3/8" JR B/W WEBS e HINGE R's
*2		29 13/16" / 28 3/4"	16 1/16"	1"	15 1/16" N				UP TO 1/8" JR B/W WEBS e HINGE R's
3		29 5/8"	16 13/16"	7/8" W	15 1/16"				" " " "
4		29 9/16"	16 1/4"	12/16"	13/16"				Mod. hvy. rust e web e edge of hinge R; Bleeding rust @ both nuts; 1/4" gap e south nut
5		29 1/16"	16 5/16"	13/16"	1"				9/16" gap b/w web e hinge R e N. side; Abrasion dust e S. side; S. nut w/ evidence of movement
6		29 1/16"	16 9/16"	7/8" W	1 1/8"				Hvy. rust e web e edge of hinge R; Evidence of movement e S. nut; 1/4" gap b/w web e hinge R e S. side; 3/16" gap on north side
7		29"	16 1/16" W	7/8"	15 1/16"				3/16" gap b/w west hinge R e N. side; 1/4" gap e S. side. 1/8" JR b/w web e R e S. side. 1/8" gap @ S. nut
8			16 1/8"						
9									
10									

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.

SEE SH 35

* V MEAS e BOTH SIDES DUE TO DIFF W/PREV RPT
(SHOULD BE TAKEN e RT SIDE PER SH 35)



HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: YS Date: 4/17/12

Bridge No.: 03312

I-84 E/B over RT 72, RR, Etc

Town: Plainville

Date: _____

Hinge Located: Span 3 & Pier 2

Effective span for Movement: 0 (ft)

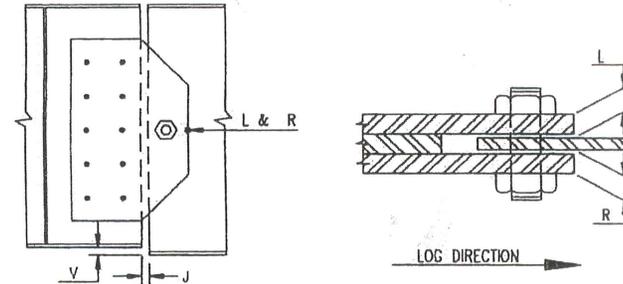
Page: _____ of _____

Beam No.	LT/RT V (in)	J (in)	R (in)	L (in)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
*1	28 13/16 27 15/16	16 1/16"	1 1/16"	1 1/8"	NONE	N/A	COTTER PIN	1/4-1/2" IR PINN HINGE R + GIRDER WEB @ BOTH SIDES. LAM. DUST ON GIRDER WEBS. LR REMOVED @ BF. MAY BE REASON FOR "J" DISCREPANCY.
*2	29 7/8" 28 7/8"	16 3/4"	1" JJ	7/8"				
*3	30 3/4" 30"	16 7/16"	7/8" JJ	1 1/16"				
4	30 5/8"	16 3/8"	3/4"	1 1/16"				1/8" gap @ S. nut; 1/4" gap b/w girder web & bottom half of hinge fl. (mark)
5	30 5/8"	16 1/4"	7/8"	1"				3/16 (S) 3/8 (N) GAPS B/W GIRDER WEB + BOT 1/2 OF HINGE FL. (ALL @ N NUT)
6	30 5/8"	16 9/16"	1 1/16"	7/8"				1/4" GAPS B/W WEB + BOT 1/2 OF HINGE FL. BOTH ELEVATIONS. Bleeding nut. - Bleeding nut on nut on S. side
7	30 1/4"	16 5/16"	7/8"	1 1/16"				3/16 (S) 3/8 (N) GAPS B/W GIRDER WEBS + BOT 1/2 OF HINGE FL. GIRDER WEBS UP TO 3/16" IR ALONG HINGE FL. V.P. 30" H x 1" W x 1/16" DEEP SL.
8								COND. RAND WELD - MAY RUST & HANGERS PUT - MOSTLY AROUND NUT & JCT W/WEBS
9		29 1/4" on S. side		1"				
10		& 30 1/4" on N. side						

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V: Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J: Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.

SEE SHEET 35



* MEAS TAKEN @ BOTH SIDES DUE TO DIFF W/ PREV MEAS (SHOULD BE RT SIDE PER SHEET 35)

Note for G4, Bleeding nut in range 'N. Nut w/ 1/16" gap b/w web, pl. & nut. & bleed. nut around the south. nut.

29 5/8" @ top (S. side)
30 9/16" @ left (N. side)

43A
109

TEAM[®] Industrial Services, Inc.

NDE FIELD WORK ORDER

TEAM Industrial Services
196 Woodlawn Road
Berlin, CT 06037
(860) 828-6333
(860) 828-7488 - fax.

Work Order No.: 13720221 Work Order Date: 4/16/2012
Customer Name: Baker Engineering Customer # _____

Billing: <u>500 Enterprise Dr</u>	Job Site: <u>Bridge # 03312</u>
Address: <u>Suite 2B</u>	Address: <u>Rtes 72 and 84 (exit 33 ?)</u>
<u>Rocky Hill, CT 06067</u>	<u>New Britain/Plainville</u>
Attn: <u>Bill Kristoff</u>	Contact: <u>Mike Jakiel</u>
Phone: <u>860-563-3044</u> Fax: _____	site phone: _____ Cell: <u>860-205-3108</u>
P. O. No.: <u>contract # 170-3013</u>	Date Start: <u>3/3/2011</u> Time Start: <u>8:45AM</u>
Job No.: _____	Method: <u>UT</u>
Spec.: <u>ASTM E114-95/AWS D1.5</u>	
Procedure: <u>UT.ASTM.5 Rev 0 //UT.AWS.3 Rev. 1.</u>	
Acceptance: <u>Report findings for client evaluation</u>	

Work Description: Ultrasonic Inspection of Hanger Pins (14) as directed by the client. Also shearwave of bottom flange transition welds. (8)

Remarks / Special instructions: See attached Pin information sheet for technique.

Contract Reviewed By: DLT

DATE	TECHNICIAN	EMP. #	CERT. CODE	ON-SITE WORK			TRAVEL		MATERIALS / EXPENSES
				RT	OT	SB	TIME	Miles	
<u>4/16</u>	<u>J. WATKINS</u>	<u>660206</u>	<u>UT</u>				<u>1</u>	<u>min</u>	<u>load & travel</u>
<u>4/26</u>	<u>J. WATKINS</u>	<u>660208</u>	<u>UT</u>				<u>1</u>	<u>min</u>	

Notes: _____

Technician: [Signature] Date: 4/26/12
Customer: [Signature] Date: 4/26/12
Print: _____ Print: _____ Form 33.34, Rev. 6

WKRISTOFF@BAKERIDKP.COM

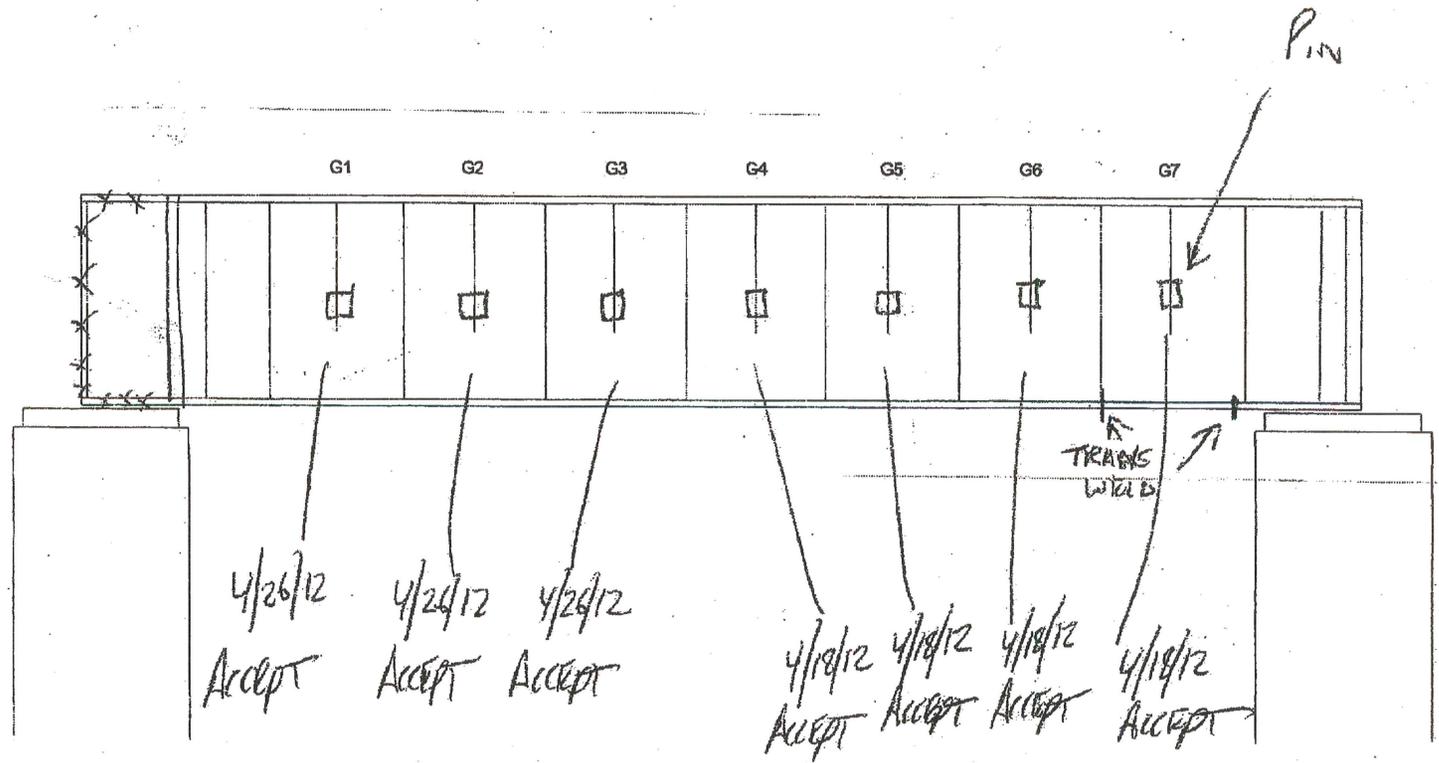
Baker

DESCRIPTION:

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 03312
CREW: _____

DATE: 4/18/12 + 4/24/12
SHEET 2 OF 3



WEST ELEVATION

PIER #2

PIER CAP

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HARLINE MAP CRACKS (HLMPC)
- HARLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (H, Y, MED OR LT)
- WITH EFFLORESCENCE
- TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△			
△			
△			
△			

Handwritten signature or initials

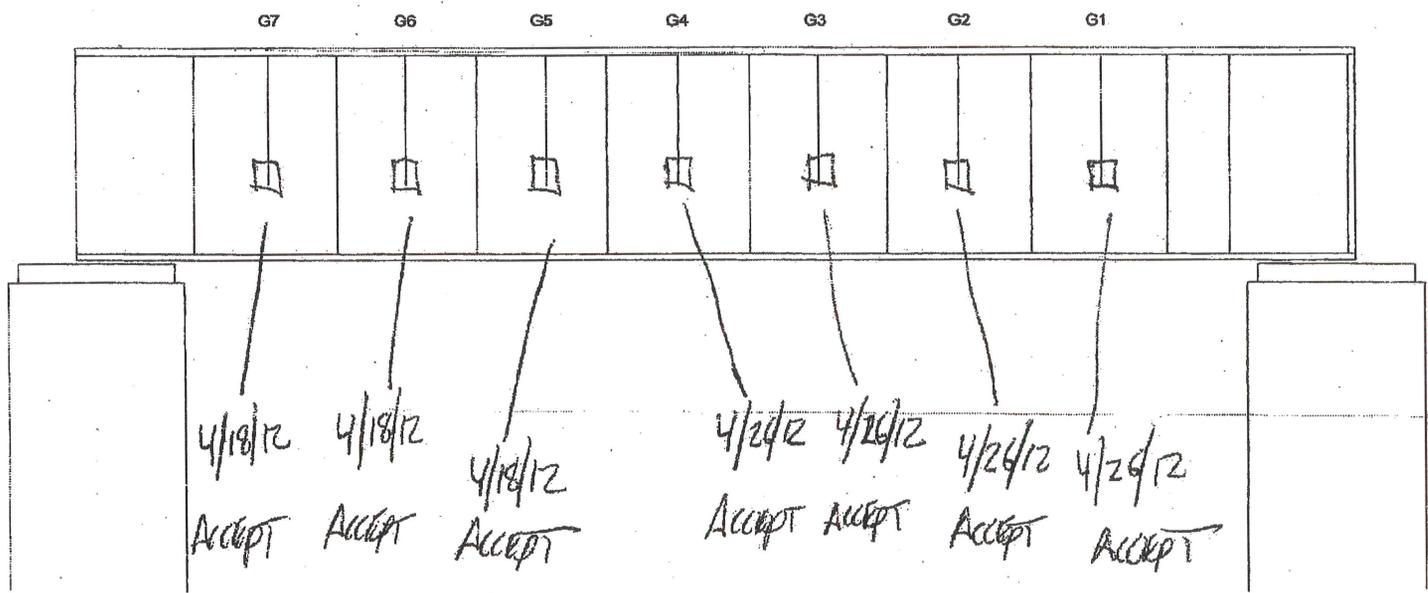
Baker

DESCRIPTION:

FIELD ORIGINAL
 TRANSCRIBED BY: _____

BRIDGE NO. 03312
CREW: _____

DATE: 4/18 + 4/26/12
SHEET 3 OF 3



Pier #2

EAST ELEVATION

LEGEND

-  HOLLOW AREA
-  SHALLOW REBAR
-  SPALL AREA
-  SPALL AREA WITH EXPOSED REBAR
-  MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
-  HAIRLINE CRACK (HLC) OR CRACKS (CRK)
-  HONEY COMB AREA
-  SCALE AREA (HVV, MED OR LT)
-  WITH EFFLORESCENCE
-  TRANSITION WELD

UPDATE NO.	DATE	COMPANY	CREW
△			
△			
△			
△			

~~432~~
104