

# STRUCTURE NO. 00253

I-95 SOUTHBOUND  
over  
I-395 NORTHBOUND  
EAST LYME

*Routine & Special Inspection*

*on*

*1/31/2012*

*Inspected by Pennoni - 27*

*for Area 8*

<b>TEAM:</b>	Forwarded to TE3	Rosmery Rodriguez	Date	3/2/2012
<b>TE3:</b>	Reviewed by TE3	Rosmery Rodriguez	Date	3/16/2012
	BMM Required		Yes	
	Town Bridge		No	
	Rating <= 5 (Items 58,59,60 or 62)		Yes	
	Rating Change 2 or More Values		Yes	
	Forwarded to Supervisor	Sandra Dumas	Date	3/26/2012
	Forwarded to "To Be Copied Drawer"	<input type="checkbox"/>	Date	
	Date BRI-19 Entered		3/26/2012	
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**NBI: Yes**

**BRIDGE SAFETY INSPECTION**  
**STATE PROJECT NO. 170-3013**

**BRIDGE NO. 00253**

**I-95 SOUTHBOUND**  
**OVER**  
**I-395 NORTHBOUND**

**EAST LYME, CONNECTICUT**



**ROUTINE INSPECTION**

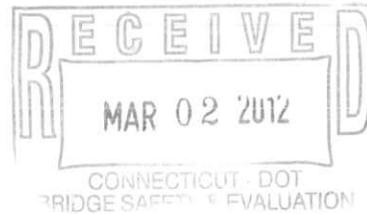
Prepared by:



**PENNONI ASSOCIATES INC.**  
**CONSULTING ENGINEERS**

1224 Mill St.  
Building B, Suite 226  
East Berlin, CT 06023

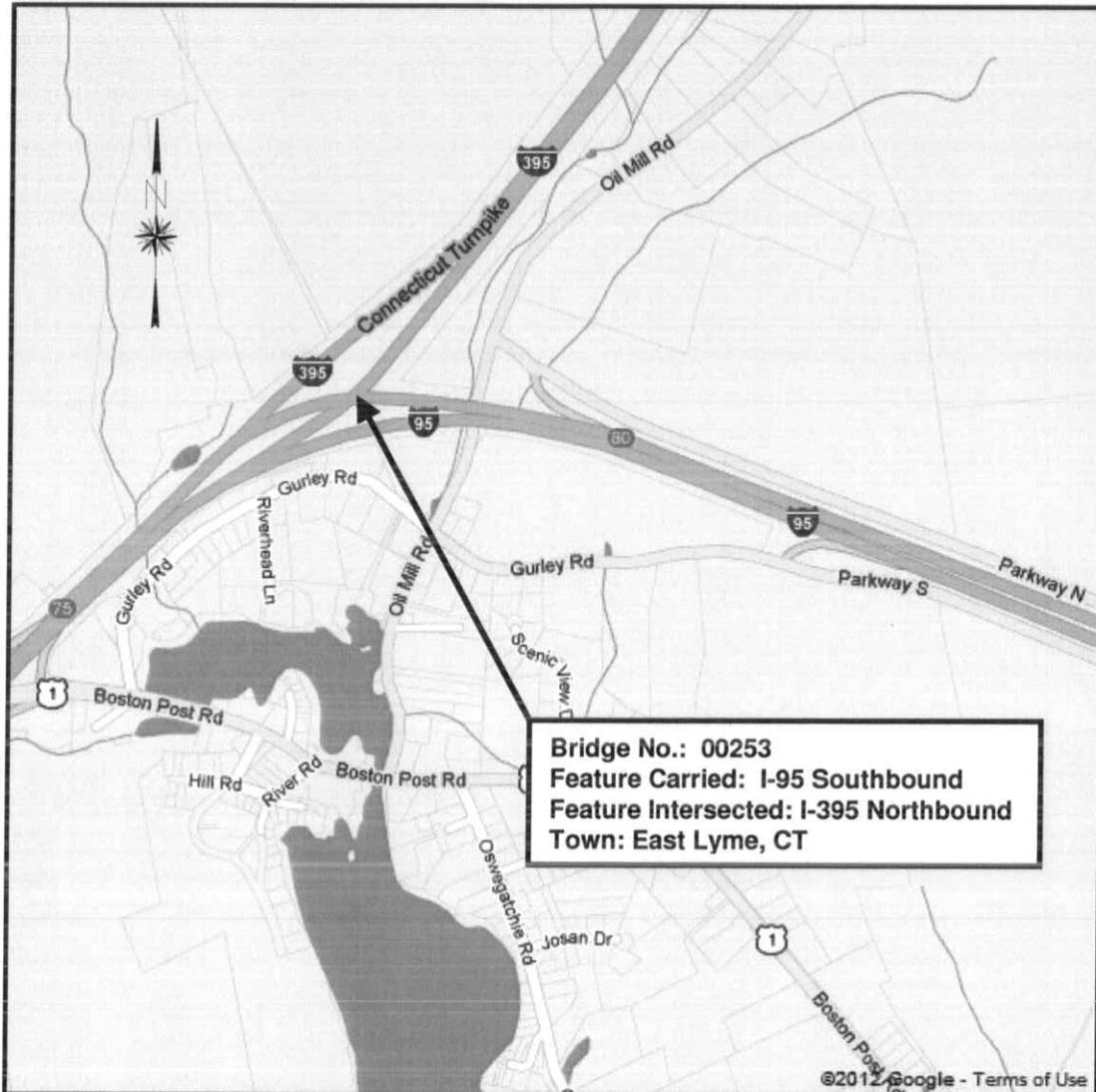
January 31, 2012



3/1/12



## LOCATION MAP



STRUCTURE NO. 00253 TOWN East Lyme  
 Inspectors CTP, RDM Date 01/31/2012

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## EXECUTIVE SUMMARY

Bridge No. 00253 is a one span structure built in 1958 to carry Interstate 95 Southbound over Interstate 395 Northbound in East Lyme, Connecticut. The superstructure consists of seven (7) steel rolled girders, supporting a reinforced concrete deck with a structure length of 96-feet and a curb-to-curb distance of 38-feet. Based upon a load rating completed in 1998 using the load factor method, the structure has an HS20 Inventory Rating of 53.5 Tons. A routine inspection of this structure was completed in January of 2012 and determined the structure to be in overall poor condition.

### Deck

The overall condition of the reinforced concrete deck is serious. The bituminous overlay exhibits minor wear / raveling, random cracks open to 1/4-inch wide, and paving seams open to 1/2-inch wide. The underside of the reinforced concrete deck exhibits areas of hairline map cracking, and isolated transverse and longitudinal cracks with and without efflorescence. There are random spalls up to 10" L x 8" W x up to 2" D and an isolated 24" L x 20" W delaminations. In Bay 2, there is a 48" L x 50" W x 2.5" D spall with exposed steel reinforcement between the first and second intermediate diaphragms from the South Abutment over the left travel lane of I-395 Northbound (previously noted delamination addressed under BMM 10-378). All girder haunches were removed under Project No. 44-151 in 2010. Under this same project, eight (8) deck core samples were taken and all samples found to exceed the permissible chloride content value. The overall underside of deck deterioration is 7.0%. The safety walks have minor scaling, random cracks open to 1/16-inch wide (with some cracks having efflorescence stains), areas of map cracking open to 1/8-inch wide, and random spalls / areas of scaling up to 17" L x 4" W x 2" D. At the West Safety Walk along the South Abutment joint, there is an 10" L x 18" W x 4" D spall with a missing steel joint plate. The curbs (vertical face of the safety walks) exhibit minor plow scrapes, chipping, and random spalls / scale areas up to 2' L x 4" H x 2" D along the interface with the bridge overlay. The reinforced concrete bridge parapets have minor scaling and random cracks open to 1/16-inch wide with some efflorescence stains. There are a few longitudinal cracks up to 3' L x 1/4" W along the top face of the East Parapet. Along the West Parapet, there is a 13" H x 19" W x 1.5" D spall in the South Parapet end block due to previous collision damage. There is also a 11" L x 6" W x 4" D spall in the West Parapet at the third bridge rail post north of the South Abutment which has undermined the base plate at the northeast corner 2" diameter x 1.5" D. There is lateral misalignment up to 1 1/4-inch noted at the parapet joints at both the South and North Abutments. Along the West Bridge Rail, random posts have been replaced with steel posts to repair previous collision damage. The steel posts exhibit moderate surface corrosion. There are isolated post base plates with up to one (1) of four (4) missing anchor bolts and locations of missing / cracked anchor bolt nuts. The asphaltic plug joints at both abutments have adhesion failures up to 30' L x 1/4" wide and evidence of leakage through the deck joints.

### Superstructure

The overall condition of the superstructure is fair. The expansion sliding bearings located at the South Abutment exhibit light to moderate surface corrosion and abnormal thermal movement at 50° F. There is a difference in the bearing measurements of up to 1.5-inches compared to the previous inspection with the difference in temperature 37 degrees (50° F this inspection and 87° F previously). The Girder 1 bearing was noted to be in an overexpanded position with the front edge of the sole plate aligned up to 7/16-inch beyond the front edge of the sliding plate. A majority of the bearing anchor bolts have been sheared off and there is lateral misalignment at all bearings up to 1-3/8-inches (11/16-inch between the sole and sliding plates and 11/16-inch between the sliding and masonry plates) to the east. The fixed bearings located at the North Abutment have light surface corrosion and up to 1/8-inch pack rust between the sole plates and masonry plates. There is lateral misalignment of up to 1/2-inch to the east between the sole plates and masonry plates with all of the bearing anchor bolts tipped up to 1/2-inch to the west. At the Girder 7 fixed bearing, the sole plate is not centered on the masonry plate with the sole plate aligned 2.5-inches North of the centerline of the masonry plate. The girders exhibit deteriorated paint throughout 25% of the total surface area with areas of light to moderate corrosion. Along the bottom flange of Girder 7 over the right travel lane of I-395 Northbound, there is an 8-foot long area of minor collision scrapes up to 18" L x 1/8" D. There is lateral movement of the superstructure noted at both the south and north ends of the bridge in relation to the substructure. At the South Abutment, it is shifted to the east 1-inch and at the North Abutment it is shifted to the west 1-inch. This shift of the superstructure has fractured the keeper blocks in Bay 5 of both abutments due to the girders in contact with the blocks.

### Substructure

The overall condition of the substructure is fair. The abutments exhibit random vertical and horizontal cracks open to 1/16-inch wide, and areas of hairline map cracking with and without efflorescence stains. The end faces of the abutment stems have areas of map cracking up to 15' H x 5' W with cracks open to 1/8-inch wide, efflorescence, and dampness. There are a few spalls at the top of cheekwalls at both abutments up to 24" H x 12" W x 3" D. The South Abutment has a 34" H x 15" W x 6" D spall with corroded steel reinforcement at the top of the stem between Girders 4 and 5 along the expansion joint and a 9'-4" H x 16" W delamination with spalls up to 7'-7" H x 15" W x 1 1/4" deep with exposed steel reinforcement which has up to 10% section loss at the east end of the stem. The North Abutment has a 27" H x 20" W x 3" D spall with moderate corrosion on the steel reinforcement and an adjacent 24" H x 12" W delamination near the top of the abutment stem beneath Girder 6. At the east end of the abutment, there is 120-square feet of map cracking open up to 1/8-inch wide with efflorescence and rust staining, scaling up to 1/2-inch deep, a 27" W x 14" H delamination, a 13" L x 3" W x 4" D spall, and a 10" H x 7" W delamination/spall. The keeper blocks at both abutments have been fractured due to lateral movement of the superstructure and the girders in contact with the blocks. At the South Abutment, the keeper block has a full height x full width fracture in the block up to 1-inch wide with 1-inch vertical misalignment and a 8" L x 10" H x 3" D spall in front face of keeper block. The keeper block at the North Abutment has a full height x full width fracture in the block up to 7/8-inch wide with 1/2-inch vertical misalignment. The wingwalls exhibit random vertical and horizontal hairline cracks and areas

*Recommended for deck replacement - And*

*Bearings*

*wingwalls*

of hairline map cracking with and without efflorescence stains. Near the top of the Northwest Wingwall beneath the parapet, there is full length x up to 13' H map cracking open to 3/16-inch wide with efflorescence, dampness and random reinforcement popouts up to 3-inch diameter. There is a 15-foot long horizontal crack between 3/16-inch and 9/16-inch with lateral misalignment up to 1/4-inch. Along the crack, there are delaminations up to 9-square feet, a 9' L x 8" W x up to 3" D spall / scaled area, and a 7" diameter x 5" D spall. There is a 50" L x 9.5" H x 5" D spall with exposed steel reinforcement at the top of the Northeast Wingwall. At the Southeast Wingwall, there is a 12' L x 4' H section of the footing exposed which exhibits full length x full width map cracking open to 3/16-inch wide with efflorescence and dampness and a 6' L x 3/8" wide horizontal crack with up to 3/16-inch lateral misalignment along the length of the crack.

### **Approach Condition**

The overall condition of the approaches is satisfactory. There are metal W-beam guide rails at the North Approach that exhibit minor dents and scrapes. The bituminous approach pavement exhibits minor wear / raveling, random longitudinal and map cracks open to 1/4-inch wide. The paving seams are open to 1/2-inch wide. There are also random transverse cracks up to full width of the roadway x 1/2-inch wide. At the Southwest Embankment, the light standard located 20-feet from the South Abutment has a loose handhole cover which can be opened by hand exposing the wires.

### **Repair Recommendations**

#### **Deck**

1. Seal the cracks in the bituminous overlay (150 LF).
2. Repair / patch spalls and delaminated concrete in the underside of deck (5 CF).
3. Repair / patch spalls in the safety walks and parapets (3 CF).
4. Replace the missing steel joint plate at the West Safety Walk at the South Abutment joint (1 EA).
5. Repair / replace sheared off anchor bolts at the bridge rails (2 EA).
6. Repair the adhesion cracks in the asphaltic plug joints (56 LF).

#### **Superstructure**

1. Repair / replace the expansion sliding bearings at the South Abutment (7 EA).
2. Clean and paint the girders, diaphragms and bearings (500 SF).
3. Monitor the lateral movement of the bearings/superstructure.

#### **Substructure**

1. Seal the cracks in the abutments and wingwalls (500 LF).
2. Repair / patch spalls and delaminated concrete in the abutments and wingwalls (1 CY).
3. Repair / patch keeper blocks in Bay 5 at the abutments (2 EA).

#### **Approaches**

1. Seal the cracks in the bituminous pavement (200 LF).
2. Replace missing handhole cover screws at light standard at the Southwest Embankment (2 EA).

## Connecticut Department of Transportation

### Bridge Inspection Report BRI-18

**Bridge #: 00253**

**Inspection Date: 01/31/2012**

Inspection Type:	Routine	Previous Inspection Date:	5/27/2010	Snooper Required:	No
Inspection Performed By:	Pennoni	Feature Carried:	I-95 SOUTHBOUND	Snooper Used:	No
Town:	EAST LYME	Feature Intersected:	I-395 NORTHBOUND	Year Built:	1958
Location:	1.3MI N OF ROUTE 161	Main Design:	Stringer/Multi-beam or Girder	Year Rebuilt:	-
Main Material:	Steel				

**Visits**

**Inspectors:**

Visit Date:	Temp:	Start Time:	End Time:	Inspector:	Task:
1/31/2012	50	8:30:00 AM	5:00:00 PM	C. Perry	Lead Inspector
				R. Martin	Inspector

**DECK:** Reinforced concrete deck with bituminous overlay. **Overall Rating:** 3

**Rating**

<b>OVERLAY:</b>	7	The bituminous overlay exhibits minor wear / raveling, random longitudinal and map cracks open to 1/4-inch wide. The paving seams are open to 1/2-inch wide. See Sheet 17 and Photos 11 & 12.
<b>DECK-STR. CONDITION:</b>	3	The underside of the reinforced concrete deck exhibits areas of hairline map cracking and isolated transverse cracks with and without efflorescence. In Bay 4, there is a full length longitudinal hairline crack with light efflorescence. There are random spalls up to 10" L x 8" W x up to 2" D. There is a 24" x 20" delamination in Bay 4 over the right shoulder of I-395 Northbound. In Bay 20, there is a 48" L x 50" W x 2.5" D spall with exposed steel reinforcement between the first and second intermediate diaphragms from the South Abutment over the left travel lane of I-395 Northbound. This location was a previously noted delamination which has been addressed under BMM 10-378. All girder haunches were removed under Project No. 44-151 in 2010. Under Project No. 44-151 in 2010, eight (8) deck core samples were taken and all found to exceed the permissible chloride content values. The overall underside of deck deterioration is 7.0%. The rating of "3" is based upon the chloride content of the deck. See Sheets 22-24 and Photos 10 & 13.
<b>CURBS:</b>	N	The curbs are formed monolithically with the safety walks. Refer to "Sidewalks" item below.
<b>MEDIAN:</b>	N	-
<b>SIDEWALKS:</b>	6	There are reinforced concrete safety walks along both the West and East Sides of the bridge.  Safety Walks: The safety walks have minor scaling, random cracks open to 1/16-inch wide (with some cracks having efflorescence stains), and random

		<p>spalls / areas of scaling up to 17" L x 4" W x 2" D. There are also areas of map cracking up to 15' L x 1.5' W open to 1/8-inch wide. At the West Safety Walk along the south bridge joint, there is an 10" L x 18" W x 4" D spall with a missing steel joint plate.</p> <p>Curbs (vertical face of safety walk): The curbs exhibit minor plow scrapes and chipping. There are also random spalls / scale areas up to 2' L x 4" H x 2" D along the interface with the bridge overlay. The average curb reveal along the west and east sides is 7-inches and 7.5-inches, respectively.</p> <p>See Sheet 17 and Photos 14-17.</p>
<b>PARAPET:</b>	6	<p>The reinforced concrete bridge parapets have minor scaling and random cracks open to 1/16-inch wide with some efflorescence stains. There are a few longitudinal cracks up to 3' L x 1/4" W along the top face of the East Parapet. Along the West Parapet, there are a few scrapes / gouged areas up to 24" L x 6" H x 1/2" D and a 13" H x 19" W x 1.5" D spall in the South Parapet end block due to previous collision damage. There is also a 11" L x 6" W x 4" D spall in the West Parapet at the third bridge rail post north of the South Abutment which has undermined the base plate at the northeast corner 2" diameter x 1.5" D.</p> <p>There is lateral misalignment noted at the parapet joints at both the South and North Abutments. The following misalignment is the bridge parapet in relation to the approach parapet:                  Southwest: 1-inch east (1 1/4-inch noted in 2010).                  Southeast: 1-inch east (1 1/8-inch noted in 2010).                  Northwest: 1 1/4-inch west (1 7/16-inch noted in 2010).                  Northeast: 1 1/4-inch west (1 3/8-inch noted in 2010).</p> <p>See Sheets 17-20 and Photos 14 &amp; 18-21.</p>
<b>RAILING:</b>	6	<p>There are two-pipe aluminum bridge rails mounted on top of both the West and East Parapets. Along the West Bridge Rail, random posts have been replaced with steel posts to repair previous collision damage. The steel posts exhibit moderate surface corrosion. There are isolated post base plates with up to one (1) of four (4) missing anchor bolts and locations of missing / cracked anchor bolt nuts.</p> <p>At West Bridge Rail at the third bridge rail post north of the South Abutment, there is a spall in the parapet which has undermined the base plate at the northeast corner 2" diameter x 1.5" D.</p> <p>See Sheet 17 and Photos 14, 18, 19 &amp; 22.</p>
<b>PAINT:</b>	N	-
<b>FENCE:</b>	N	-
<b>DRAINS:</b>	7	PVC Weep Drains in Bay 6 - no deficiencies noted.
<b>LIGHTING STANDARD:</b>	N	-
<b>UTILITIES TYPE/SIZE:</b>	N	-
<b>CONSTR JOINTS:</b>	N	-
<b>EXPANSION JOINTS:</b>	6	<p>There are asphaltic plug joints at both the South and North Abutments. The asphaltic plug joints have minor raveling of the plug material throughout with exposed aggregate. At the South Abutment, there are adhesion failures up to 30' L x 1/4" wide. At the North Abutment, there is a 10' L x 1/4" W adhesion failure in the right travel lane and shoulder. There is evidence leakage through the deck joints at both abutments.</p> <p>See Sheet 17 and Photos 23-25.</p>

59. **SUPERSTRUCTURE:** Steel rolled W-section girders (with partial length bottom flange cover plates at Girders 2 through 6) superstructure. **Overall Rating:** 5

**Rating**

<b>BEARING DEVICES:</b>	4	<p>Expansion Sliding Bearings: There are expansion sliding bearings located at the South Abutment which exhibit light to moderate surface corrosion and abnormal thermal movement at 50° F. There is a difference in the bearing measurements of up to 1.5-inches compared to the previous inspection with the difference in temperature 37 degrees (50° F this inspection and 87° F previously). The difference in measurements is extremely skewed considering that the span length is 89'-6 11/16". The Girder 1 bearing was noted to be in an overexpanded position with the front edge of the sole plate aligned up to 7/16-inch beyond the front edge of the sliding plate. There is lateral misalignment at all bearings up to 1 3/8-inches (11/16-inch between the sole and sliding plates and 11/16-inch between the sliding and masonry plates) to the east. The anchor bolts at the Girders 1 through 5 and Girder 7 bearings have been sheared off. The anchor bolts at the Girder 6 bearing are tipped 1/2-inch to the south.</p> <p>Fixed Bearings: There are fixed bearings located at the North Abutment that have light surface corrosion and up to 1/8-inch pack rust between the sole plates and masonry plates. There is lateral misalignment of up to 1/2-inch to the east between the sole plates and masonry plates with all of the bearing anchor bolts tipped up to 1/2-inch to the west. At the Girder 7 fixed bearing, the sole plate is not centered on the masonry plate. The sole plate is aligned 2.5-inches North of the centerline of the masonry plate.</p> <p>See Sheets 21 &amp; 22 and Photos 26-33.</p>
<b>STRINGERS:</b>	N	-
<b>GIRDERS:</b>	7	<p>The girders exhibit areas of deteriorated paint with light to moderate surface corrosion.</p> <p>There are minor collision along the bottom flange of Girder 7, refer to "Collision Damage" item below.</p> <p>See Sheet 22 and Photo 10.</p>
<b>FLOOR BEAMS:</b>	N	-
<b>TRUSSES-GENERAL:</b>	N	-
<b>TRUSSES-PORTALS:</b>	N	-
<b>TRUSSES-BRACING:</b>	N	-
<b>PAINT:</b>	5	<p>The bridge was painted in October 1988.</p> <p>The superstructure exhibits deteriorated paint throughout 25% of the total surface area. Refer to "Bearing Devices" and "Girders" items above.</p>
<b>RUST:</b>	7	Refer to "Bearing Devices", "Girders" and "Paint" items above.
<b>MACHINERY MOV SPAN:</b>	N	-
<b>RIVETS &amp; BOLTS:</b>	N	-
<b>WELDS - CRACKS:</b>	8	<p>Girders 2 through 6 have partial length bottom flange welded cover plates (Fatigue Category E'). There are fillet welds between the diaphragm connection plates and the Girder web and flanges in the tension zone (Fatigue Category C). All fatigue prone details were inspected hands-on with</p>

		no deficiencies noted.
<b>TIMBER DECAY:</b>	N	-
<b>CONCRETE CRACKING:</b>	N	-
<b>COLLISION DAMAGE:</b>	7	Along the bottom flange of Girder 7 over the right travel lane of I-395 Northbound, there is an 8-foot long area of minor collision scrapes up to 18" L x 1/8" D. See Sheet 34 and Photo 34.
<b>MEMBER ALIGNMENT:</b>	5	There is lateral movement of the superstructure noted at both the south and north ends of the bridge in relation to the substructure. At the South Abutment, it is shifted to the east 1-inch and at the North Abutment it is shifted to the west 1-inch. This shift of the superstructure has fractured the keeper blocks in Bay 5 of both abutments due to the girders in contact with the blocks. It should be noted that the bridge has a skew angle of 35°-21'-06". At the expansion sliding bearings at the South Abutment, a majority of the anchor bolts have been sheared off and there is lateral misalignment up to 1 3/8-inches (11/16-inch between the sole and sliding plates and 11/16-inch between the sliding and masonry plates) to the east. At the fixed bearings at the North Abutment, there is up to 1/2-inch lateral misalignment to the west of the sole plates in relation to the masonry plates with the anchor bolts tipped up to 1/2-inch to the west. Refer to "Bearing Devices" item above and "Abutments-Stem" item below. See Sheets 20-22 and Photos 35 & 36.
<b>DEFLECT. UNDER LOAD:</b>	N	(N) Normal (E) Excessive
<b>VIBRATION UNDER LOAD:</b>	N	(N) Normal (E) Excessive
<b>STAND PIPES:</b>	N	-
<b>BARREL LADDERS:</b>	N	-

ARE BARREL LADDERS OSHA COMPLIANT? N/A

**60. SUBSTRUCTURE:** Reinforced concrete abutments. Overall Rating: 5

Rating

<b>ABUTMENTS-STEM:</b>	5	<p>The abutments exhibit random vertical hairline cracks up to full height of the stem and horizontal hairline cracks up to 12-feet long with and without efflorescence stains. The end faces of the abutment stems have areas of map cracking up to 15' H x 5' W with cracks open to 1/8-inch wide, efflorescence, and dampness. The weep pipes at the base of both abutments are generally covered over by dirt. The abutments also have the following deficiencies:</p> <p>South Abutment: There are areas of hairline map cracking up to 5' L x 4' H with efflorescence stains. At the top of the stem between Girders 4 and 5 along the expansion joint, there is a 34" H x 15" W x 6" D spall with moderate corrosion on the steel reinforcement. At the east end of the abutment, there is 9'-4" H x 16" W delamination with spalls up to 7'-7" H x 15" W x 1 1/4" deep with exposed steel reinforcement which has up to 10% section loss. At the top of the West Cheekwall, there are two spalls measuring up to 24" L x 4" H x 1.5" D.</p> <p>North Abutment: There is an isolated location of hairline map cracking up to 3' L x 5' H and a 3' L x 1/16" W horizontal crack at the west end of the abutment. Near the top of the abutment stem beneath Girder 6, there is a 27" H x 20" W x 3" D spall with corroded steel reinforcement and an adjacent 24" H x 12" W</p>
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<b>ABUTMENTS- BACKWALL:</b>	7	<p>delamination. At the east end of the abutment, there is a 120-square feet area of map cracking open up to 1/8-inch wide with efflorescence and rust staining, scaling up to 1/2-inch deep, a 27" W x 14" H delamination, a 13" L x 3" W x 4" D spall, and a 10" H x 7" W delamination / spall. At the top of the West Cheekwall, there is a 24" H x 12" W x 3" D spall.</p> <p>Keeper Blocks: There are keeper blocks at both abutments between Girders 5 and 6. The keeper blocks have been fractured due to lateral movement of the superstructure and the girders in contact with the blocks. At the South Abutment, the keeper block has a full height x full width fracture in the block up to 1-inch wide with 1-inch vertical misalignment and a 8" L x 10" H x 3" D spall in front face of keeper block. The keeper block at the North Abutment has a full height x full width fracture in the block up to 7/8-inch wide with 1/2-inch vertical misalignment.</p> <p>See Sheets 25 &amp; 26 and Photos 37 - 45.</p>
<b>ABUTMENTS- FOOTINGS:</b>	5	<p>The abutment backwalls have the following deficiencies:</p> <p>South Abutment Backwall: There are a few full height vertical hairline cracks with efflorescence between Girders 1 &amp; 2 and isolated shallow steel reinforcement up to 3" diameter x 1/2" D.</p> <p>North Abutment Backwall: There is hairline map cracking throughout with some efflorescence staining.</p> <p>See Sheets 25 &amp; 26 and Photo 46.</p>
<b>ABUTMENTS- SETTLEMENT:</b>	8	<p>The abutment footings are not visible.</p> <p>At the Southeast Wingwall, there is a 12' L x 4' H section of the footing exposed. The exposed portion of the footing exhibits full length x full width map cracking open to 3/16-inch wide with efflorescence and dampness. There is also a 6' L x 3/8" wide horizontal crack with up to 3/16-inch lateral misalignment along the length of the crack.</p> <p>See Sheet 28 and Photo 49.</p>
<b>ABUTMENTS- WINGWALLS:</b>	4	<p>No evidence of settlement noted.</p> <p>The wingwalls exhibit the following deficiencies:</p> <p>Southwest Wingwall: There is a 4' L x 4' H area of hairline map cracking with efflorescence and an isolated 8" L x 1.5" W shallow reinforcement.</p> <p>Southeast Wingwall: There are vertical hairline cracks up to full height of the wingwall and horizontal hairline cracks up to 10-feet long with and without efflorescence stains. There is a 2' L x 1' H area of hairline map cracking. Along the expansion joint between the wingwall and abutment, there is 1/2-inch lateral misalignment of the wingwall to the east. There is an exposed section of the footing, refer to "Abutments-Footings" item above.</p> <p>Northwest Wingwall: There are random vertical hairline cracks up to full height of the wingwall, areas of hairline map cracking up to 3' L x 3' H. Near the top of the wingwall beneath the parapet, there is full length x up to 13' H map cracking open to 3/16-inch wide with efflorescence, dampness and random reinforcement popouts up to 3-inch diameter. There is a 15-foot long horizontal crack between 3/16-inch and 9/16-inch with lateral misalignment up to 1/4-inch. Along the crack, there are delaminations up to 9-square feet, a 9' L x 8" W x up to 3" D spall / scaled area, and a 7" diameter x 5" D spall.</p> <p>Northeast Wingwall: There is full area map cracking open to 1/16-inch wide with efflorescence and a 12' L x 1/8" W horizontal crack. There is also a 50" L x 9.5" H x 5" D spall with exposed steel reinforcement at the top of the wingwall.</p> <p>See Sheets 27-30 and Photos 47-51.</p>
<b>PIERS/BENTS- CAPS:</b>	N	-

PIERS/BENTS-PILE BENT:	N	-
PIERS/BENTS-COLUMNS:	N	-
PIERS/BENTS-FOOTING:	N	-
PIERS/BENTS-SETTLMT:	N	-
EROSION-SCOUR:	8	-
CONCRETE CRACK-SPALL:	5	See above items.
STEEL CORROSION:	N	-
PAINT:	N	-
TIMBER DECAY:	N	-
COLLISION DAMAGE:	8	-
DEBRIS:	6	There is minor pigeon waste accumulation on the bridge seats.

61. CHANNEL & CHANNEL PROTECTION:  Overall Rating:

62. CULVERTS & RETAINING WALL:  Overall Rating:

65. APPROACH CONDITION  Overall Rating:   
Rating

APPROACH SLAB:	N	-
RELIEF JOINTS:	N	-
APPROACH GUIDE RAIL:	7	There are metal W-beam guide rails at the North Approach only with no guide rails in place at the South Approach. The guide rails at the North Approach exhibit minor dents and scrapes. See Sheet 17 and Photo 52.
APPROACH PAVEMENT:	6	The bituminous approach pavement exhibits minor wear / raveling, random longitudinal and map cracks open to 1/4-inch wide. The paving seams are open to 1/2-inch wide. There are also random transverse cracks up to full width of the roadway x 1/2-inch wide. See Sheet 17 and Photos 53-55.
APPROACH		There is minor erosion due to roadway runoff noted along the Northeast

<b>EMBANKMENT:</b> 7	Embankment. At the Southwest Embankment, the light standard located 20-feet from the South Abutment has a loose handhole cover which can be opened by hand exposing the wires. See Sheet 17 and Photo 56.
----------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**TRAFFIC SAFETY FEATURES**

**Rating**

<b>BRIDGE RAILINGS:</b>	Last Inspection: 0 Current: 0	Parapets with safety walks less than 42-inches high.
<b>TRANSITIONS:</b>	Last Inspection: 0 Current: -	Does not comply with RB 350 safety standards.
<b>APPROACH GUARDRAILS:</b>	Last Inspection: 0 Current: -	Does not comply with RB 350 safety standards.
<b>APPR. GUARDRAIL ENDS:</b>	Last Inspection: 1 Current: -	No guide rails in place at the South Approach.

**66. LOAD POSTING**

**- Posted Loading -**

<b>SINGLE UNIT (TONS):</b>	Last Inspection: - Current: -	-
<b>SEMI TRAILER (TONS):</b>	Last Inspection: - Current: -	-
<b>4 AXLE (TONS):</b>	Last Inspection: - Current: -	-
<b>3S2 (TONS):</b>	Last Inspection: - Current: -	-
<b>ADVANCE WARNING (Y/N):</b>	N	-
<b>LEGIBILITY:</b>	N	-
<b>VISIBILITY/LOCATION:</b>	N	-

**67. MISCELLANEOUS**

**Rating**

<b>MIN. VERT. UNDERCLEARANCE:</b>	Last Inspection: 14' 3" Current: 14' 6"	The minimum vertical underclearance of 14'-3" is located along the East Fascia at the right shoulder of Interstate 395 Northbound. See Sheet 16.
<b>POSTED CLR. UNDER BRIDGE:</b>	Last Inspection: -' -" Current: -' -"	-
<b>POSTED CLR. ON BRIDGE:</b>	Last Inspection: -' -" Current: -' -"	-
<b>ADVANCED WARNING (YES/NO):</b>	No	-
<b>SPEED LIMIT (IF ANY):</b>	Last Inspection: 65 Current: -	-
<b>CHARACTER OF TRAFFIC:</b>	Moderate volume with mixed weight traffic on the bridge.	

**ADDITIONAL NOTES:**

The Bridge Identification Number is clear and legible. The bridge is logged from south to north with girders labeled from west to east which is consistent the to 2010 Inspection Report. The bridge was inspected with a 30-foot lift truck with lane closures on Interstate 95 Southbound and Interstate 395 Northbound.

**ADDITIONAL COMMENTS:**

-

Inspectors' Signatures:

1)  Date: 3/1/2012

2)  Date: 3/1/2012

3) \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

4) \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

P.E. Signature:  Date: 3/1/12

P.E. #: 27708 Date: \_\_\_/\_\_\_/\_\_\_

Reviewed by:

  
\_\_\_\_\_  
Rositem Rodriguez

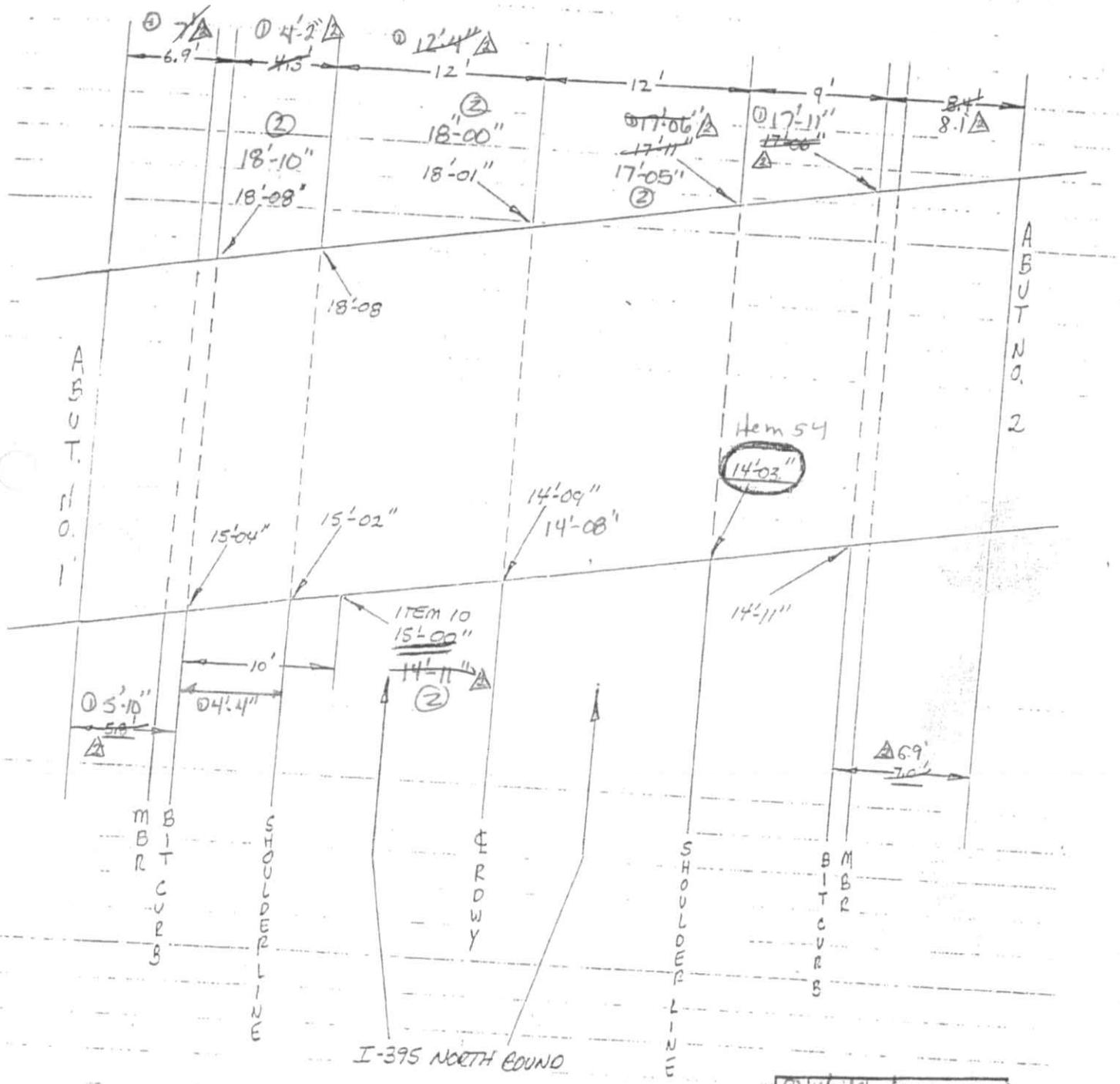
conndot

Date: 03/16/12  
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<b>Pennoni</b>		JOB NO. 170-3013	BRIDGE NO. 00253
<b>SUPPLEMENTAL SHEET</b>			
DESCRIPTION: TIME LOG			
DATE: 1/31/2012	Day #1	DESCRIPTION	TIME AT SITE
WEATHER: Partly Cloudy, 50°F	CREW:	CTP, RDM	8:30 TO 5:00
EQUIP. LIST: Pennoni Lift Van	SNOOPER:		TO
Pennoni Cube Truck	SHADOW TRUCK:	EL Equipment	8:30 TO 5:00
	TROOPER:	State Police - Hubbard #338	8:30 TO 5:00
	LIFT:		TO
VISITORS:			
TC & NOTES: Left lane closure and right shoulder closure on Interstate 95 Southbound. Left and right lane closures on Interstate 395 Northbound. Inspected Span 1 superstructure, West Abutment and East Abutment. Inspected top of deck. Inspection complete.			

DATE PREPARED 4/30/98	PREPARED BY R. ANNINO	State of Connecticut Department of Transportation Bureau of Engineering & Highway Operations DES-003 REV. 1-93 (302-06-0225) COMPUTATION SHEET	ORGANIZATION UNIT NO. 1307	WORK ORDER NO.
DATE CHECKED	CHECKED BY		SHEET NO. 16/66	
SUBJECT: BL. NO. 253 I-95 S.B.-O-I-395 N.B., EAST LYME				

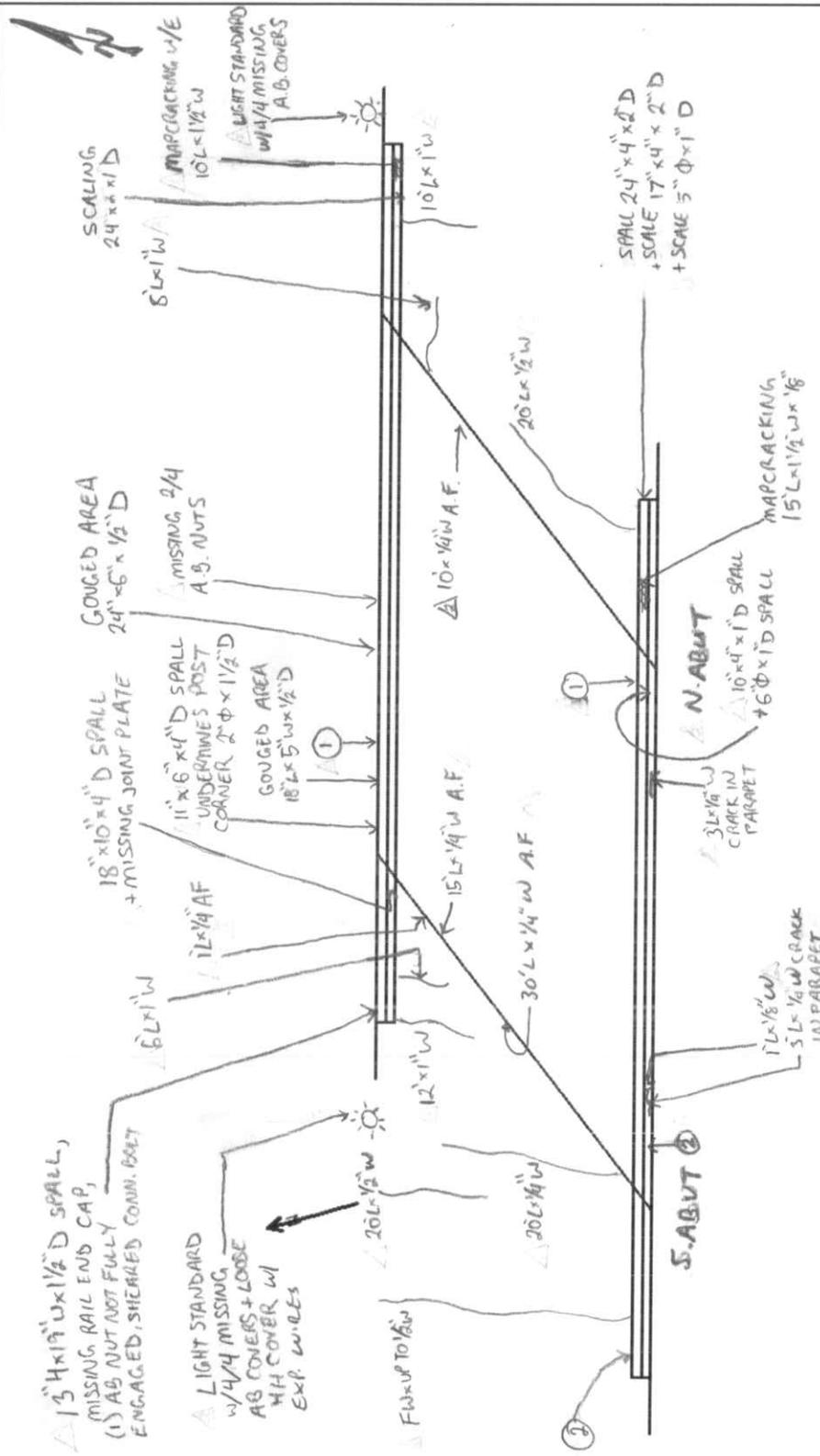


①	4/22/98	NOTE CHANGE
△	4/31/98	NOTE CHANGE
NO.	DATE	DESCRIPTION
REVISIONS		

# Pennoni FIELD NOTES

JOB NO.	170-3013	DATE:	2/13/2012
BRIDGE NO.:	00253	SHEET	17 OF 66
CREW: RDM, CTP			

Field Original [X] Transcribed By RDM  
 DESCRIPTION: FIELD NOTES - TOP OF DECK



- ① MISSING 1/4 A.B.S
- ② MISSING 1/4 A.B. NUTS

OVERLAY + APPROACHES W/RAND LONGITUDINAL CRACKS  
 + MAP CRACKING UP TO 1/4" W, MINOR WEAR/RAVEL  
 + PAVING SEAMS OPEN UP TO 1/2" W. MAPCRACKING  
 IS MOST NOTABLE IN LEFT LANE  
 - PARAPETS + SAFETY WALKS W/MINOR SCALE + RAND  
 CRACKS UP TO 1/16" W, FEW W/EFFLO  
 - AP'S W/FL\*FW RAVELOF PLUG MATERIAL ENDING,  
 AGGREGATE  
 - CURBS W/MINOR SCRAPES + CHIPPING  
 - SEE PARAPET MISALIGNMENT SHEET  
 - W CURB REVEAL = 7" H, E CURB REVEAL = 7 1/2" H

1/31/12, PENNONI, RDM/CTP





DESCRIPTION: MISALIGNMENT MEASUREMENTS

PARAPET MISALIGNMENTS

LOC.	2008	2010	2012		
SOUTHWEST	1 1/2" EAST	1 1/4" EAST	1" EAST		
SOUTHEAST	1 1/8" EAST	1 1/8" EAST	1" EAST		
NORTHWEST	1 1/4" WEST	1 7/16" WEST	1 1/4" WEST		
NORTHEAST	1 3/8" WEST	1 3/8" WEST	1 1/4" WEST		

GENERAL NOTES:

MISALIGNMENT IS THE BRIDGE PARAPET IN RELATION TO THE APPROACH PARAPET.  
MEASUREMENTS TAKEN AT THE SAME LOCATION AS PARAPET JOINT MEASUREMENTS, 3-INCHES  
DOWN ON INSIDE FACE OF PARAPET.

SUPERSTRUCTURE MISALIGNMENTS

LOC.	2010	2012			
SOUTHWEST	NO MEAS.	1" EAST			
SOUTHEAST	NO MEAS.	1" EAST			
NORTHWEST	NO MEAS.	1" WEST			
NORTHEAST	NO MEAS.	1" WEST			

GENERAL NOTES:

MISALIGNMENT IS THE BRIDGE DECK IN RELATION TO THE FRONT CORNER OF THE ABUTMENT  
CHEEKWALL.

# FIELD NOTES

BRIDGE NO. 00253

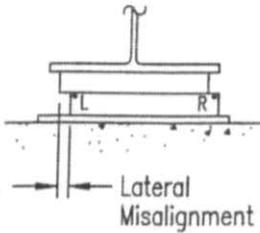
DATE: 7/12/10

CREW: TEAM 10

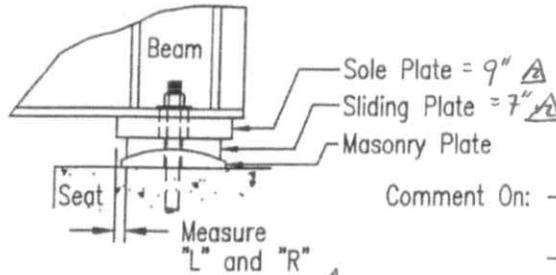
SHEET 21/66

## SLIDING BEARING MEASUREMENTS

Form BRI-14, Rev. 9/01



FRONT VIEW



SIDE VIEW

ASYMMETRAL  
= 1"

Span No. = 2

Substructure Unit = ABUT #1

Temperature = 87 °F

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

Beam	Movement			Condition			Comments	
	"L"	"R"	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't? H/M/L		
1	1/4"	2 1/8"	EXP	3/8 EAST	No	YES	L	BOTH ANCHOR BOLTS SHEARED OFF
2	7/8"	1 1/4"	"	1/8 EAST	"	"	"	EAST ANCHOR BOLT SHEARED OFF
3	1/4"	2"	"	5/8 EAST	"	"	"	" " " " "
4	1/8"	2"	"	3/4 EAST	"	"	"	" " " " "
5	1/8"	1 7/8"	"	3/4 EAST	"	"	"	" " " " "
6	0"	2"	"	7/8 EAST	"	"	"	
7	1 5/8"	3/4"	CONTR	3/4 EAST	"	"	H	BOTH ANCHOR BOLTS SHEARED OFF

Beam	"L"	"R"	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't? H/M/L	Comments	
Δ	1/31/12	PAI	CTP, RDM			T = 50°F		
1	-3/16"	-7/16"	E*	7/16" E	N	N	L	① 1/16" BOTH AB'S SHEARED OFF
2	7/8"	7/8"	E	13/16" E	N	N	L	① 1/16" BOTH AB'S SHEARED OFF
3	7/16"	1/16"	E	3/4" E	N	N	L	① 1/8" BOTH AB'S SHEARED OFF
4	5/16"	3/4"	E	3/4" E	N	N	L	① 3/8" BOTH AB'S SHEARED OFF
5	5/16"	3/4"	E	1/16" E	N	N	L	① 1/16" BOTH AB'S SHEARED OFF
6	5/16"	5/16"	E	5/8" E	N	N	L	① 3/8" AB'S TIPPED SOUTH 1/2"
7	2"	2 1/8"	C	5/8" E	N	N	M	① 5/16" BOTH AB'S SHEARED OFF

NOTES: ① ALL BRG'S W/SLIDING PLATES MISALIGNED UP TO 1/16" EAST COMPARED TO MASONRY PLATES

\* BRG IS OVEREXPANDED



Bridge Number : 00253

Date: 2/7/2012 Prepared by: CTP

Checked By: HAB

### CONCRETE DETERIORATION WORKSHEET

Form BRI-10, Rev. 9/01

Deterioration By Span - In Square Feet											
Span Number											
Deterioration Type	1	2	3	4	5	6	7				Total
Spalled and Delaminated Areas	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot: 20.8	Bot:	Bot: 20.8								
Scale (Moderate to Severe only)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot: 0	Bot:	Bot: 0								
Cracks: with Efflorescence (use 6 in. width x length)	Bot: 54	Bot:	Bot: 54								
Cracks without Efflo. (use 3 in. width x length)	Bot: 1.5	Bot:	Bot: 1.5								
Map Cracking: with Efflorescence (use full area)	Bot: 0	Bot:	Bot: 0								
Map Cracking: without Efflo. (use 50% of area)	Bot: 219	Bot:	Bot: 219								
Honeycombed Areas (only areas more than 1-1/2 in. deep)	Bot: 0	Bot:	Bot: 0								
TOTAL (Top)	0										0
TOTAL (Bottom)	295.3										295.3
Total Span Area (Square Feet)	4192.3										4192.3
% Spalled and Delaminated on Top	0.0%										0.0%
% Deterioration on Bottom	7.0%										7.0%

SPAN DECK AREA

DIMENSIONS FROM PLANS DATED 1955 (CTDOT PROJ # 324-01)

OUT-OUT WIDTH: 43.67'

STRUCT. LENGTH: 96'

DECK AREA:  $43.67' \times 96' = 4192.3 \text{ FT}^2$

BAY WIDTH

FROM PLANS

- BAY WIDTH VARY  $\therefore$  ASSUME AVG. WIDTH OF 60'

DETRIEVAL:

SPALLS / DEBRIS:

$$= (48'' \times 50'') + (6'' \times 6'') + (20'' \times 24'') + (10'' \times 8'')$$

$$= 2996 \text{ IN}^2 / 144 = \underline{20.8 \text{ FT}^2}$$

SCALE:

N/A 0 FT<sup>2</sup>

CRACKS (w/ EFFD):

$$[(2 \times 6') + (1 \times 96')] \times 0.5' = \underline{54 \text{ FT}^2}$$

CRACKS (w/o EFFD):

$$[(1 \times 6')] \times 0.25' = \underline{1.5 \text{ FT}^2}$$

MAP CRACKS (w/ EFFD):

N/A 0 FT<sup>2</sup>

MAP CRACKS (w/o EFFD):

$$= (10 + 10 + 50 + 20 + 25 + 5 + 64 + 32 + 30 + 20 + 25 + 24 + 80 + 12 + 20 + 6 + 5) \times 0.5$$

$$= 438 \text{ FT}^2 \times 0.5$$

$$= \underline{219 \text{ FT}^2}$$

HONEYCOMB (> 1.5" D):

N/A 0 FT<sup>2</sup>





**Pennoni** FIELD NOTES

JOB NO. 170-3013

DATE: 2/1/2012

BRIDGE NO.: 00253

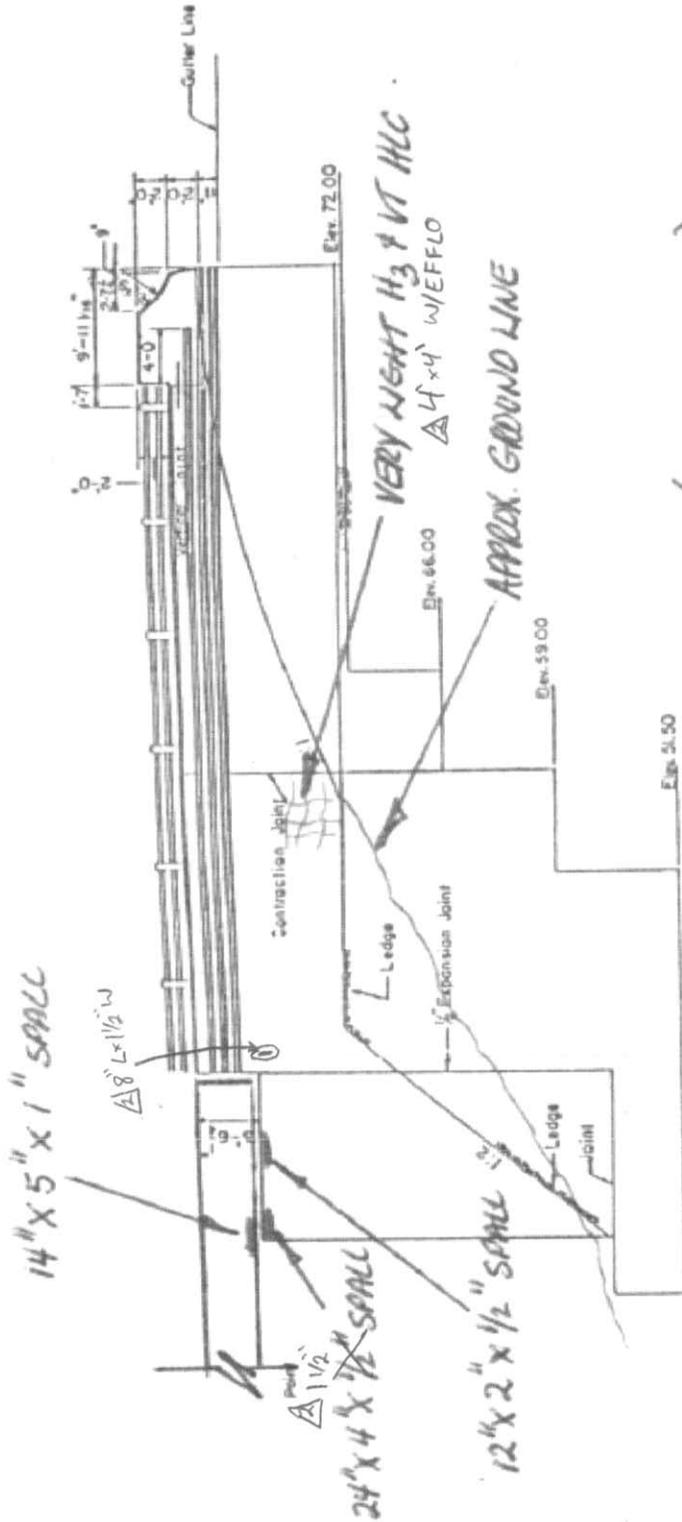
SHEET 27 OF 66

Field Original  Transcribed By RDM

CREW: RDM, CTP

DESCRIPTION: SOUTH WEST WING WALL FIELD NOTES

△ TAKEN FROM PLANS



ELEVATION OF NORTHWEST WINGWALL (LOG DIRECTION)  
Scale: 3/8\"/>

△ Hvy VEG ALONG WALL

△ V31/2 PENNONI RDM,CTP

**Pennoni** FIELD NOTES

JOB NO. 170-3013

DATE: 2/1/2012

BRIDGE NO.: 00253

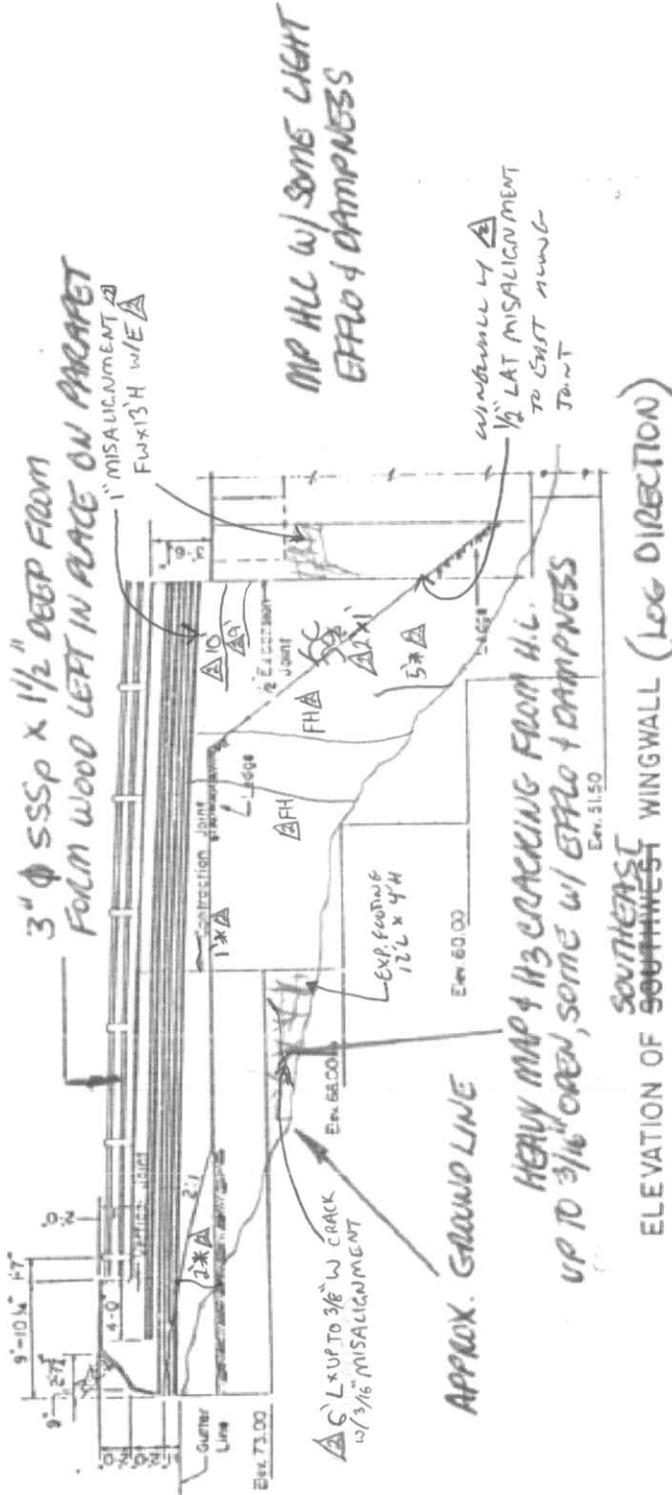
SHEET 28 OF 66

Field Original Transcribed By RDM

CREW: RDM, CTP

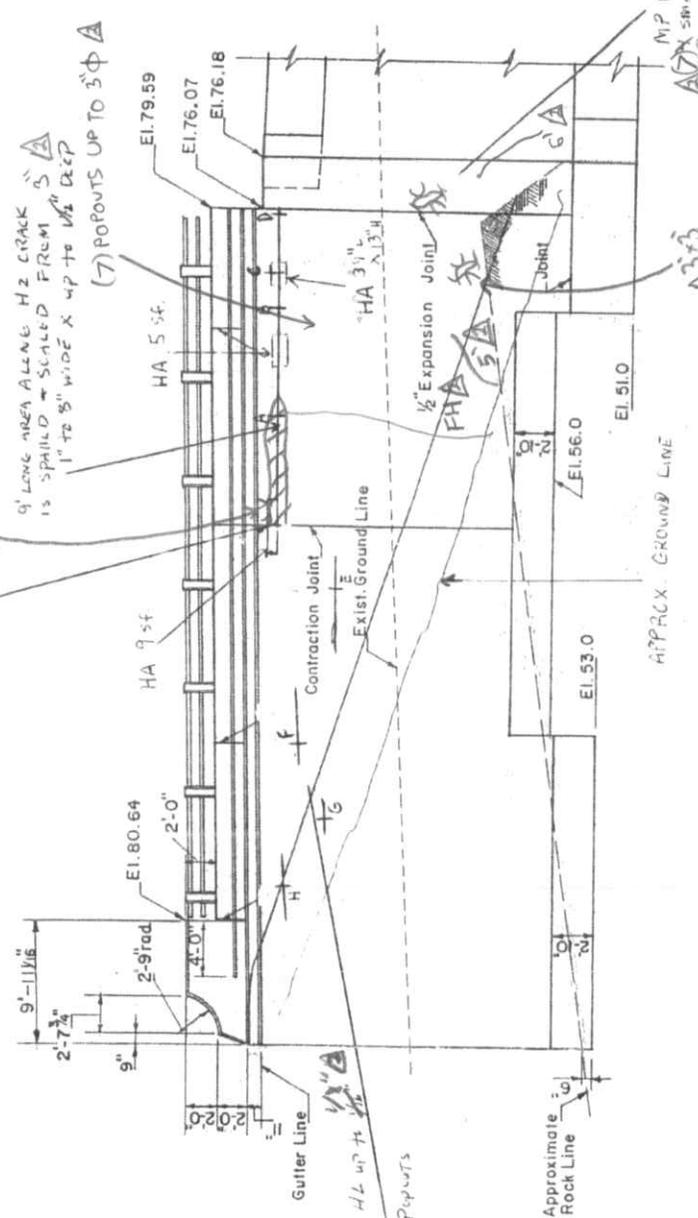
DESCRIPTION: SOUTH EAST WING WALL FIELD NOTES

△ TAKEN FROM PLANS



△ 1/31/12 PENNONI RDM, CTP

MP + H2 CRACKS FROM H/L UP TO 3/8" OPEN - FL x 13" H  $\Delta$   
 SOME WITH EFFLO & DAMPPRESS.  
 $\Delta$  Small Popouts from ~~Exposure~~ UP TO 2"  $\phi$   
 $\Delta$  7"  $\phi$  x 5" D SPALL  $\Delta$



**KEY**  
 A = SPALLED  
 B = 3/16" OPEN  
 C = 5/16" OPEN  
 D = 9/16" OPEN  
 E = 3/16" OPEN  
 F = 1/8" OPEN  
 G = 1/8" OPEN  
 H = 1/8" OPEN

**KEY**  
 A = 3/8" OPEN 1/4" MISALIGNED  
 B = 3/16" OPEN 3/16" MISALIGNED  
 C = 3/16" OPEN 3/8" MISALIGNED  
 D = 1/8" OPEN 3/16" MISALIGNED  
 E = 1/8" OPEN  
 F = 1/8" OPEN  
 G = 1/32" OPEN  
 H = 1/16" OPEN

MP H/L - 15" H x 5" W w/E  $\Delta$   
 $\Delta$  Small Popouts UP TO 2 1/2"  $\phi$

**ELEVATION OF NORTHWEST WINGWALL**

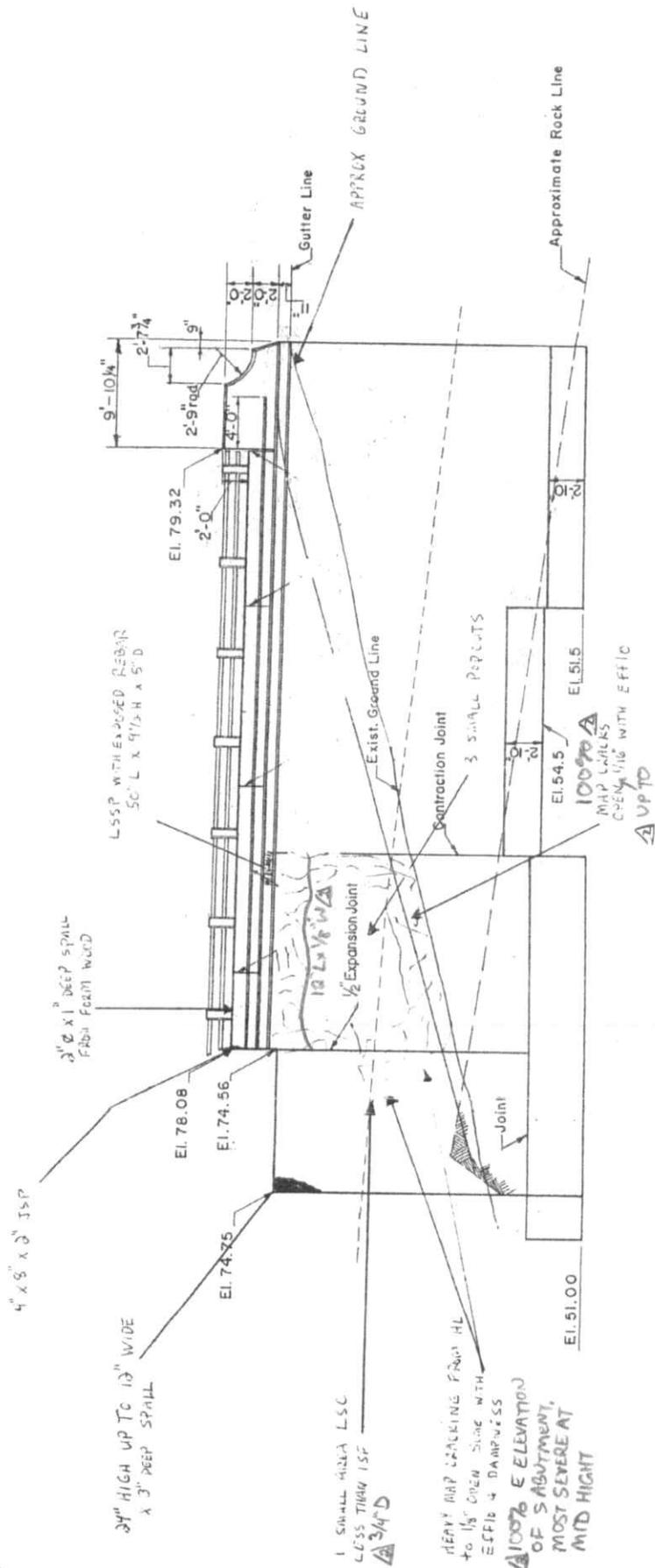
SCALE: 1/8" = 1'-0"

REV.	DATE	DESCRIPTION
1	1/5/74	CEAD/ROM/LTP
<b>REVISIONS</b>		

APRIL 22, 2008

BRIDGE NO. 253 - EAST LANE  
 INTERSTATE 95 SB OVER INTERSTATE 395 NB

MP + H2 CRACKS FROM H/L UP TO 3/8" OPEN AND DAMPPRESS - 4 SMALL POPOUTS



ELEVATION OF NORTH EAST WINGWALL

SCALE: 1/8" = 1'-0"

NO.	DATE	DESCRIPTION	REVISIONS
1	5/21/10	NO CHANGE	
2	11/21/10	REVISION	

RD/MS/TP

BRIDGE NO. 253 - EAST CHYME  
 INTERSTATE - 95 AIR MAIN INTERST 974-255-103

APRIL 22, 2008

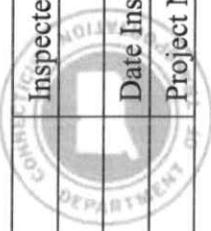
1 SMALL HIGH LSC  
 LESS THAN 15F  
 3/4"

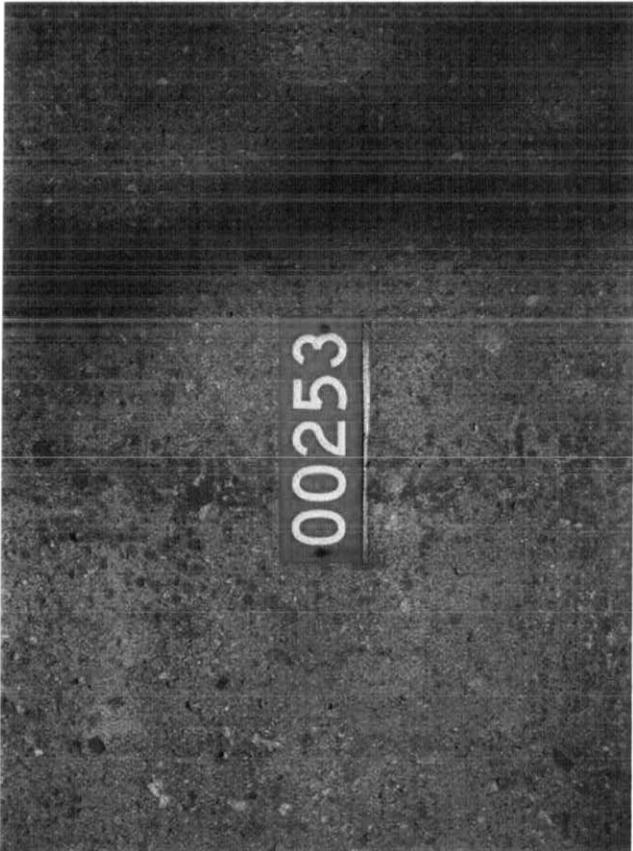
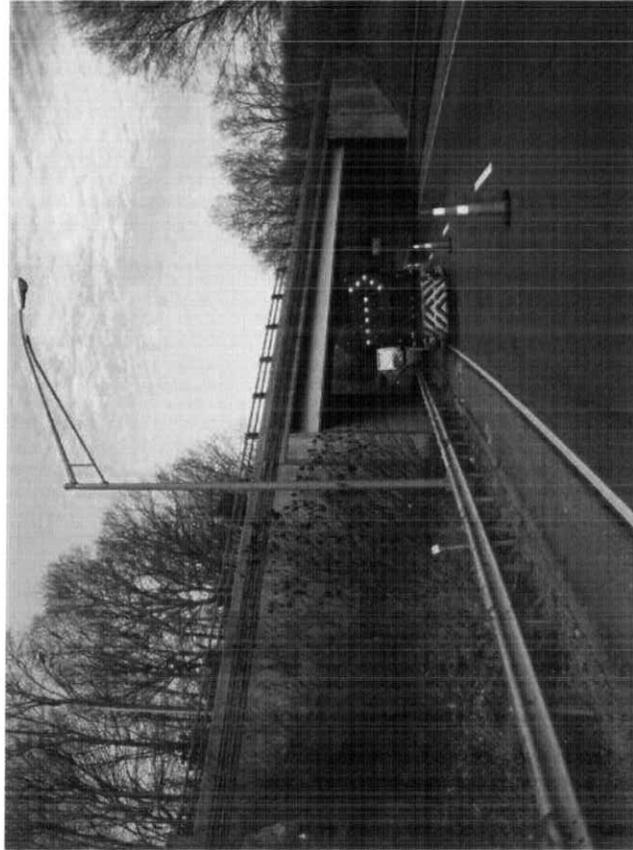
HEAVY BAR CRACKING FROM HL  
 TO 1/8" OPEN SLICE WITH  
 EFFLO & DAMPNESS

100% ELEVATION  
 OF S AGUMENT,  
 MOST SEVERE AT  
 MID HEIGHT

100%  
 MAP LACKS  
 CRYM. VIB WITH EFFLO  
 VPTD

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 1 Bridge I.D. on the West Parapet at the northwest corner of the structure.</p> <p>1/31/2012</p>	<p>Photo # 2 East Elevation looking west.</p> <p>1/31/2012</p>

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

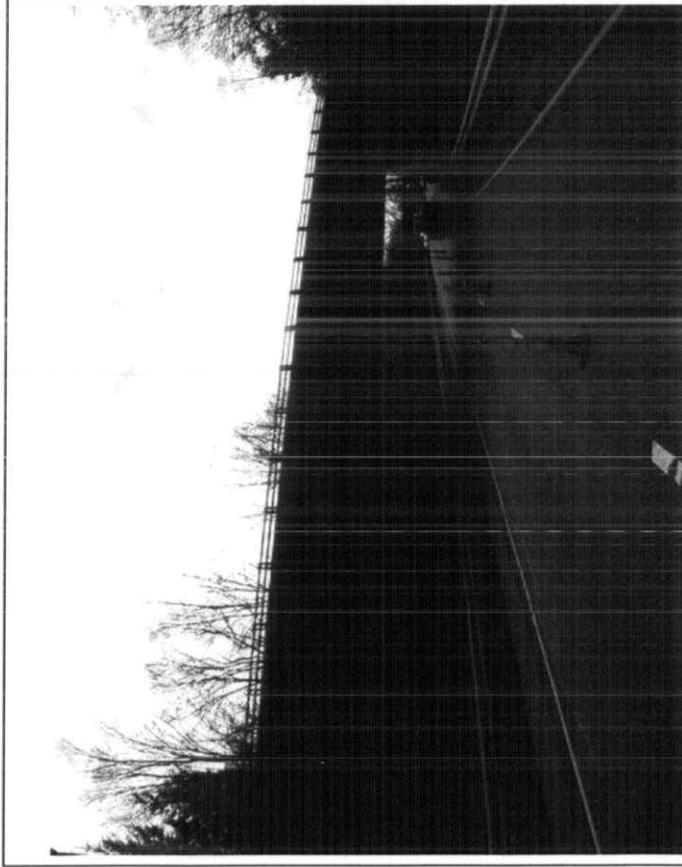
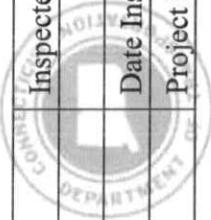


Photo # 3

West Elevation looking east.

1/31/2012

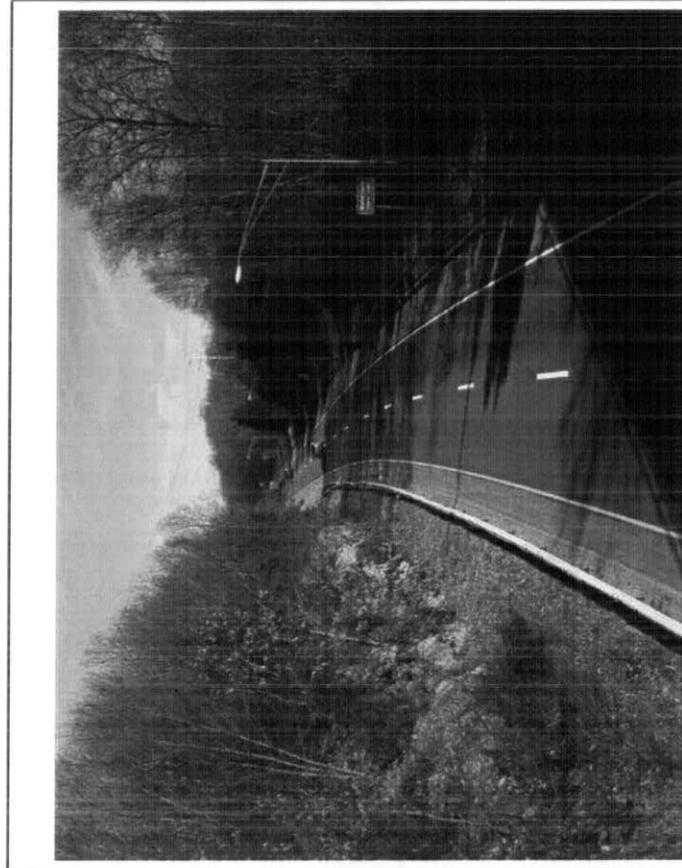


Photo # 4

View looking west from structure at Interstate 395 Northbound.

1/31/2012

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

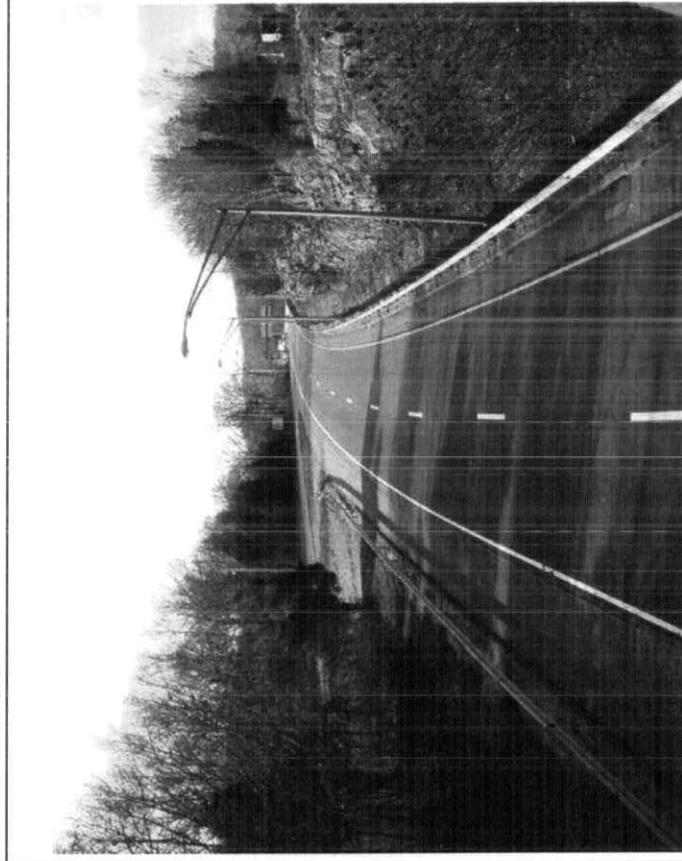
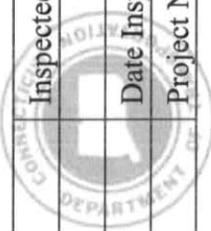


Photo # 5  
View looking east from structure at Interstate-395 Northbound.

1/31/2012

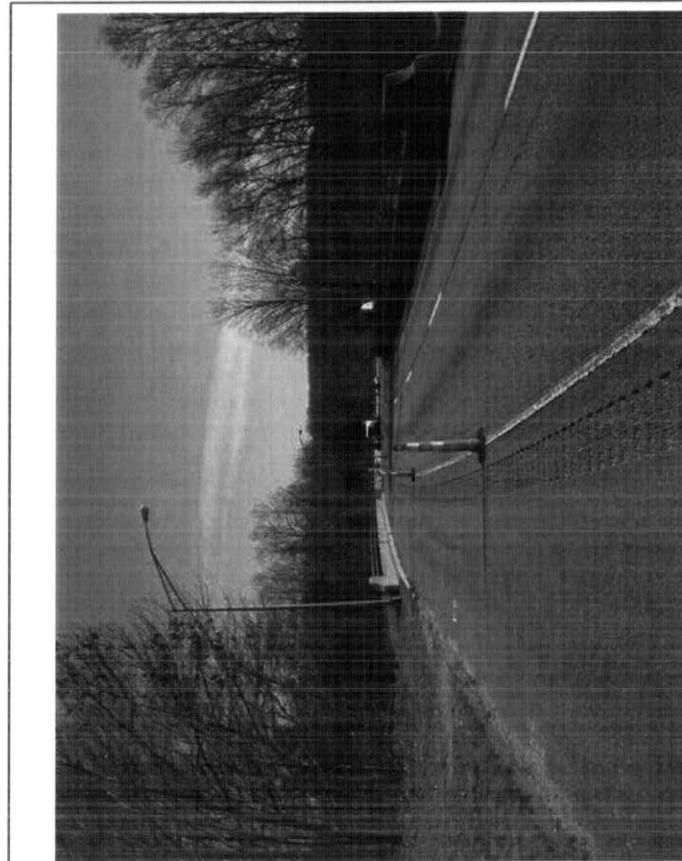
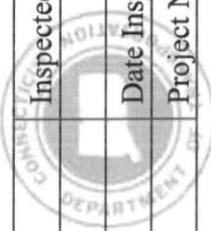


Photo # 6  
South Approach, looking north onto bridge.

1/31/2012

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 7 South Approach, looking south from bridge.</p> <p>1/31/2012</p>	<p>Photo # 8 North Approach, looking south onto the bridge.</p> <p>1/31/2012</p>

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

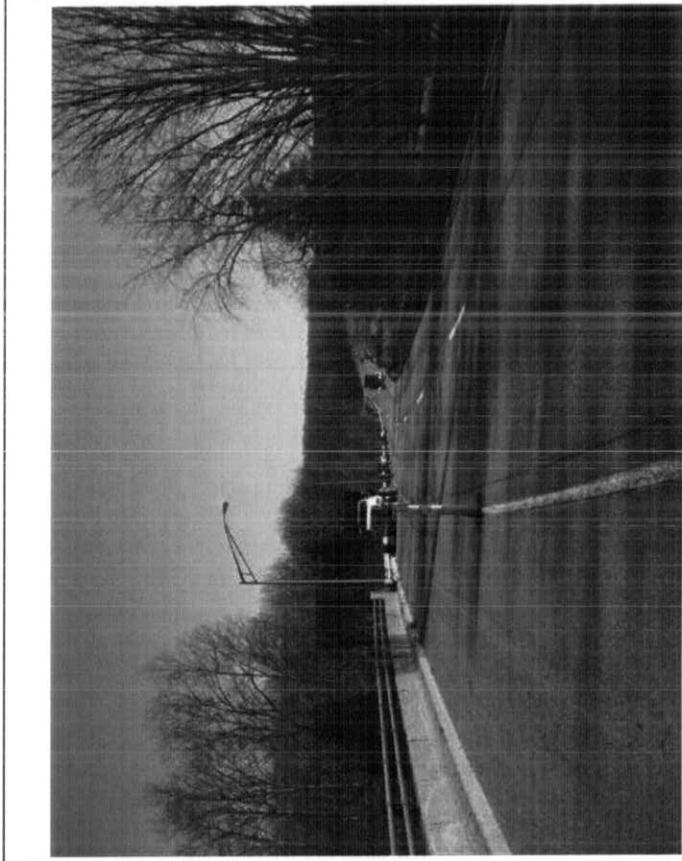
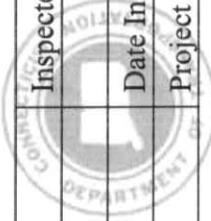


Photo # 9  
North Approach, looking north from bridge.  
1/31/2012

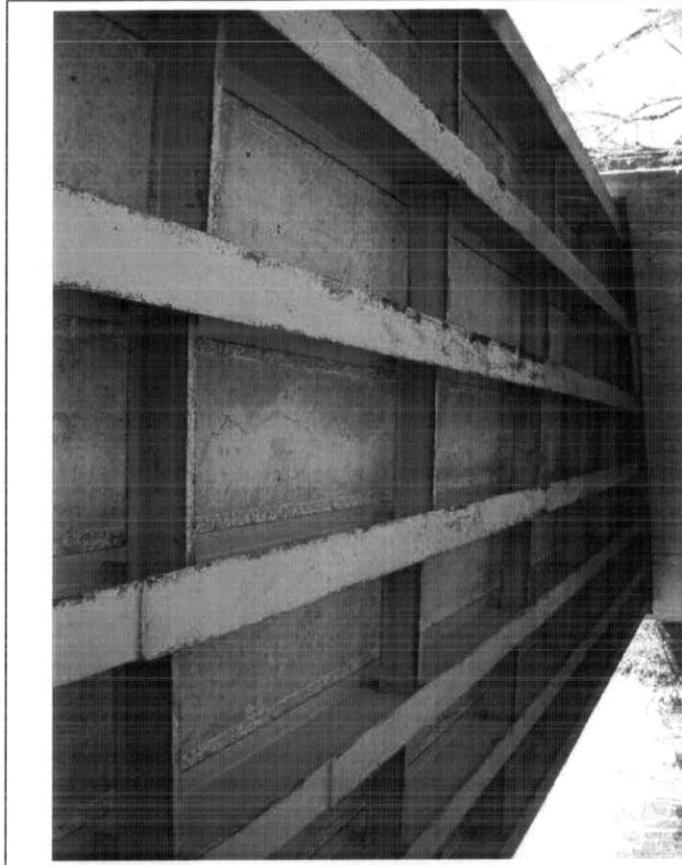


Photo # 10  
Typical superstructure and deck soffit looking north.  
1/31/2012

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

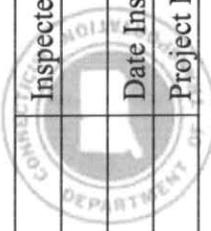


Photo # 11  
 1/31/2012  
 Bituminous overlay, Left travel Lane, looking northwest - Minor wear / raveling, map cracking up to 1/4-inch wide, and paving seam open up to 1/2-inch wide.

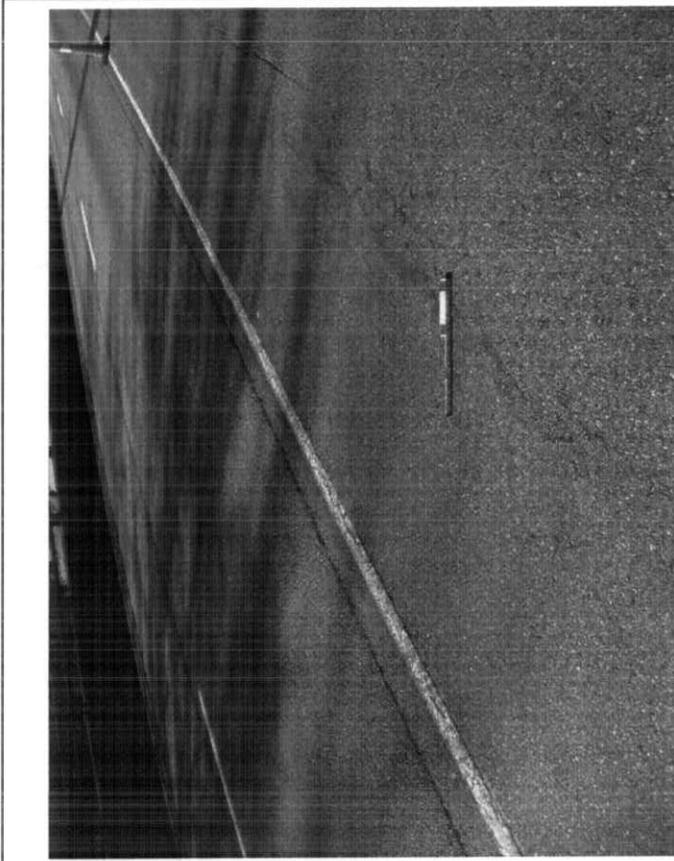


Photo # 12  
 1/31/2012  
 Bituminous overlay, right shoulder, 40-feet from South Abutment, looking southeast - minor wear / raveling and cracks open to 1/4-inch wide.

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

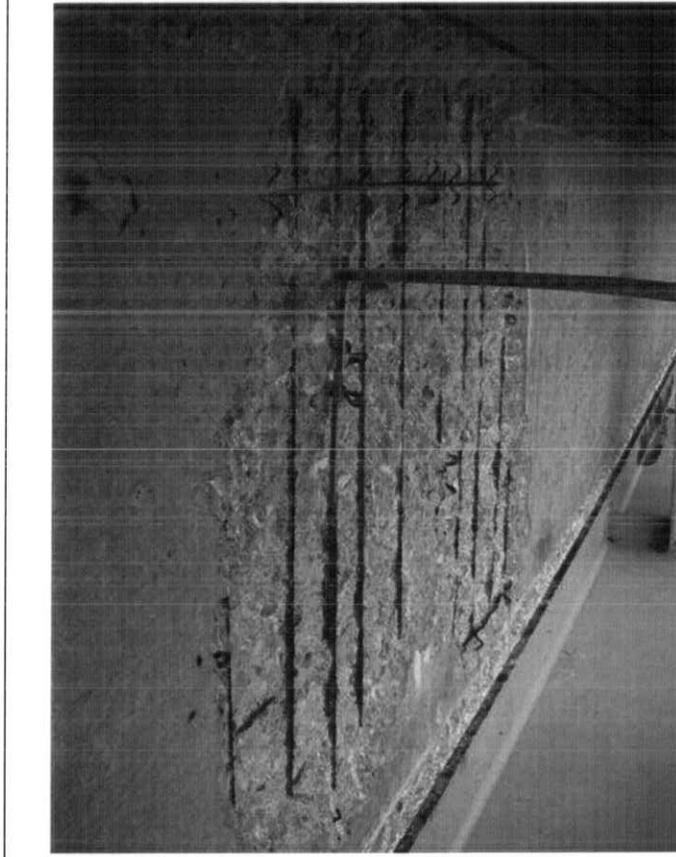
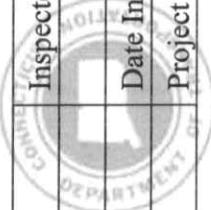


Photo # 13

1/31/2012

Deck Soffit, between Girders 4 and 5, between 1st and 2nd intermediate diaphragms from South Abutment, looking northwest - 48" L x 50" W x 2.5" D spall with exposed steel reinforcement (previous noted delamination addressed under BMM #10-378).

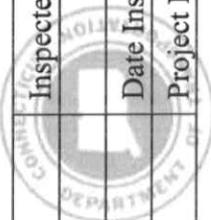


Photo # 14

1/31/2012

East Parapet, Safety Walk and Bridge Rail, looking northeast - Typical condition with minor scaling and cracks open up to 1/16-inch wide.

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	<p>Photo # 15</p> <p>1/31/2012</p> <p>West Safety Walk at the South Abutment, looking west - 10" L x 18" W x 4" D spall with missing joint sliding plate (Note: Parapet joint with lateral misalignment up to 1-inch to east).</p>
	<p>Photo # 16</p> <p>1/31/2012</p> <p>North Approach, East Curb, 25-feet from bridge, looking southeast - 2' L x 4" H x 2" D spall.</p>

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

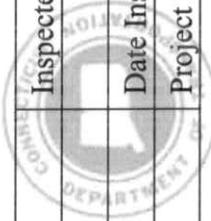


Photo # 17  
 North Approach, East Safety Walk, 15-feet from bridge, looking northeast - 15' L x 1.5' W map cracking open up to 1/8-inch wide.

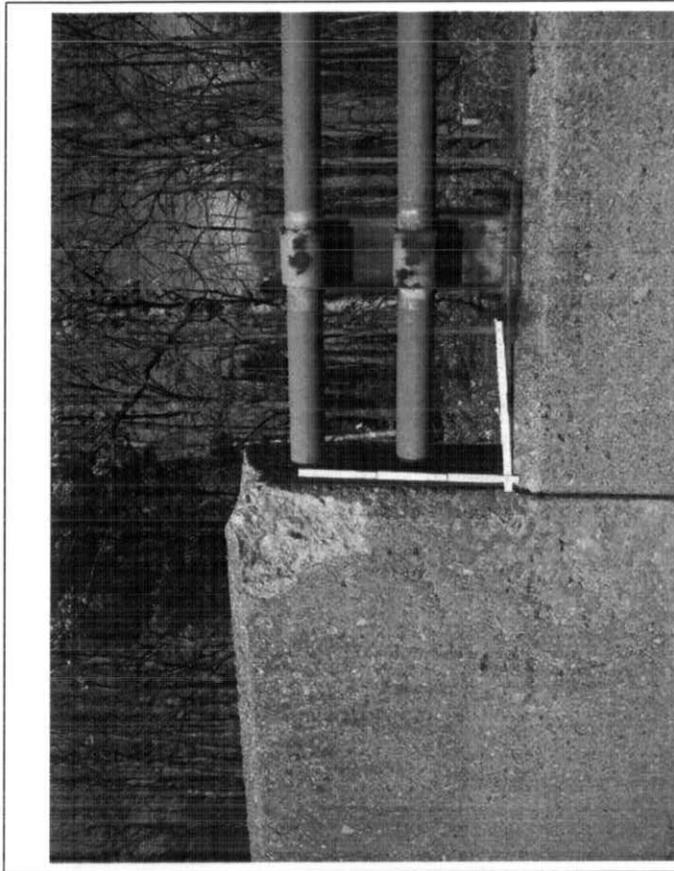
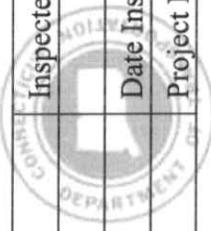
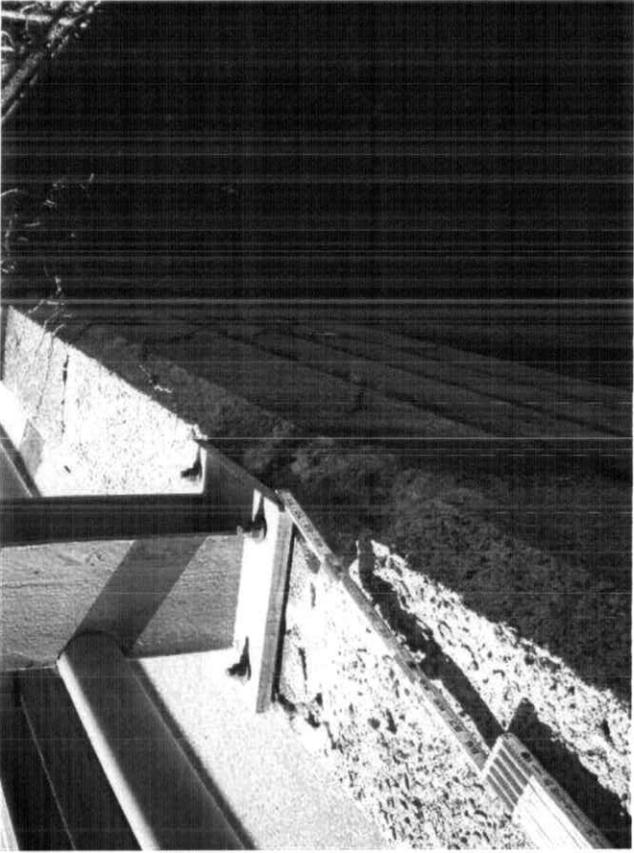
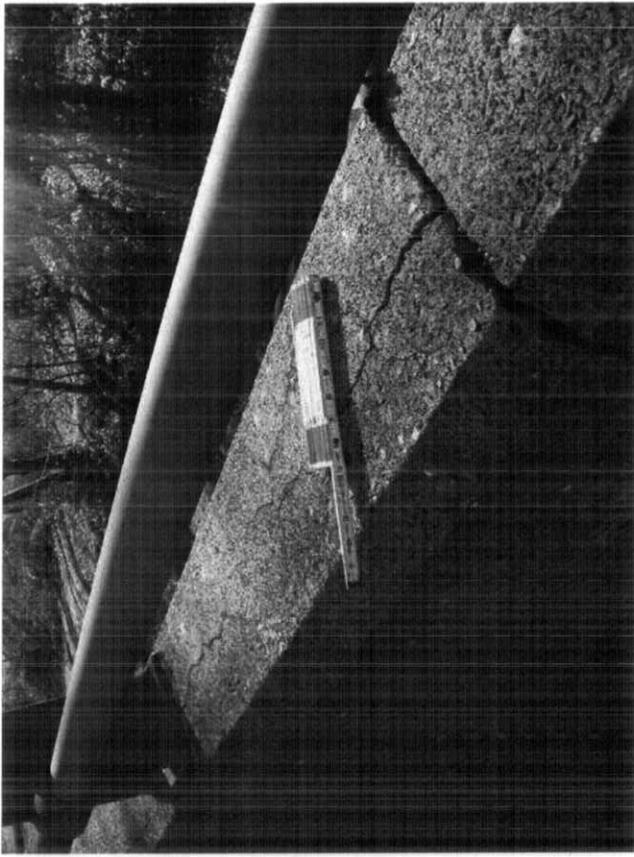


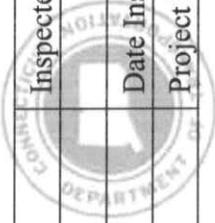
Photo # 18  
 South Approach, West Parapet end block, first railing post, looking west - railing post was replaced with a steel post and the end block with 13" H x 19" W x 1 1/2" D spall due to previous collision damage.

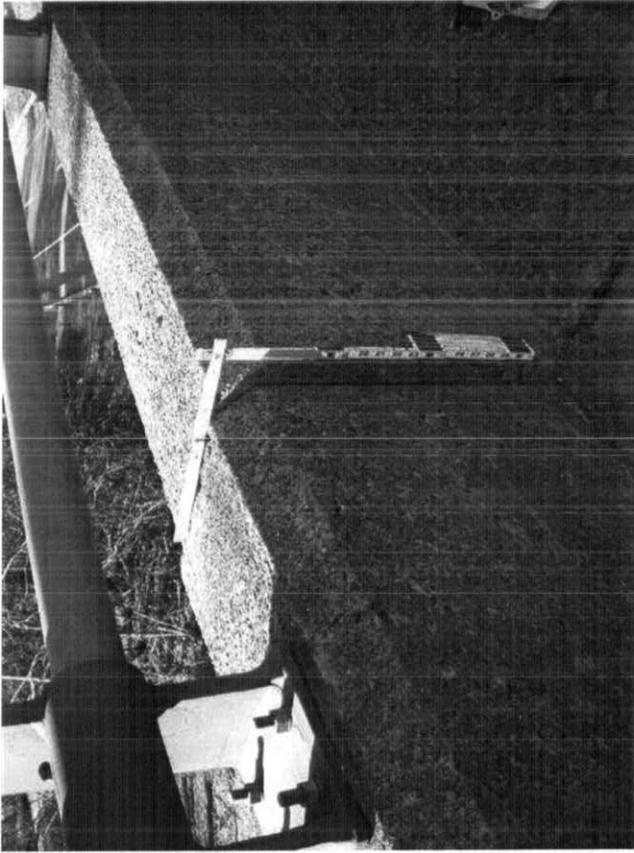
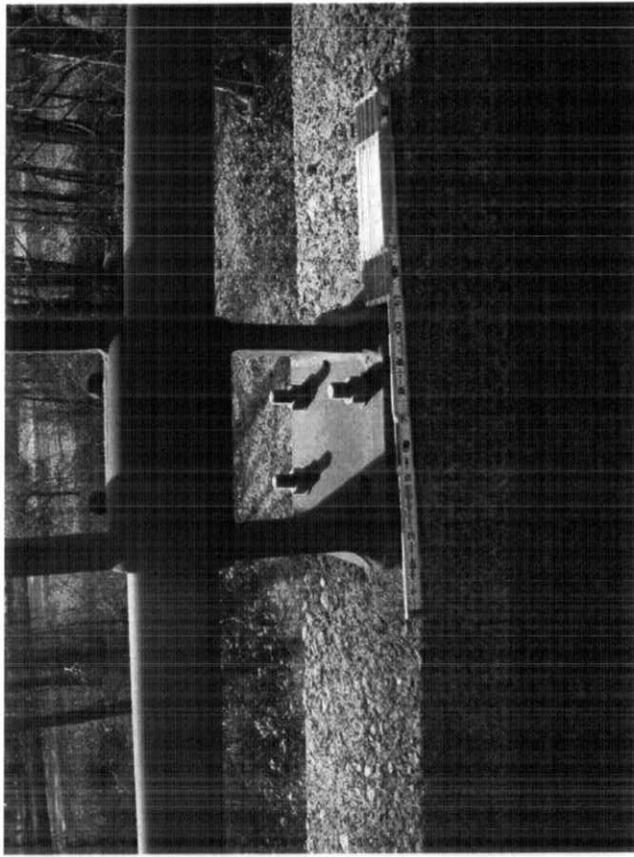
Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 19</p> <p>1/31/2012</p> <p>West Parapet, at 3rd bridge rail post north of South Abutment, looking southeast - 11" L x 6" W x 4" D spall that undermines the northeast corner of the post 2" diameter x 1.5" D.</p>	<p>Photo # 20</p> <p>1/31/2012</p> <p>East Parapet, top face between the second and third posts from the South Abutment, looking northeast - 3' L x 1/4" W longitudinal crack.</p>

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 21 North Abutment, East Parapet Joint, looking southwest - 1 1/4-inch lateral misalignment to the west on the north side of the joint.</p>	<p>Photo # 22 East Parapet, first railing post from the North Abutment, looking east - One (1) of four (4) missing anchor bolts.</p>

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Feature Crossed:	I-395 Northbound		

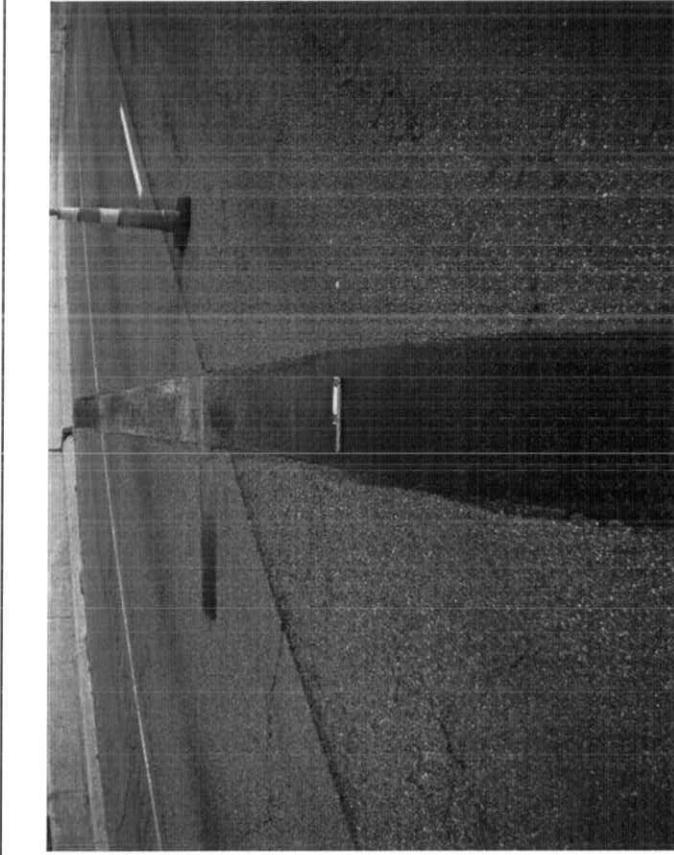
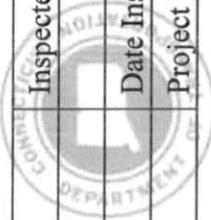


Photo # 23

1/31/2012

South Abutment, asphaltic plug joint, looking west - 30' L x 1/4" W adhesion failure at the south side.



Photo # 24

1/31/2012

South Abutment, asphaltic plug joint, looking east - 15' L x 1/4" W adhesion failure at the north side and 1' L x 1/4" W adhesion failure at the south side.

Bridge No.	00253	Inspected by:	CTP, RDM
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Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

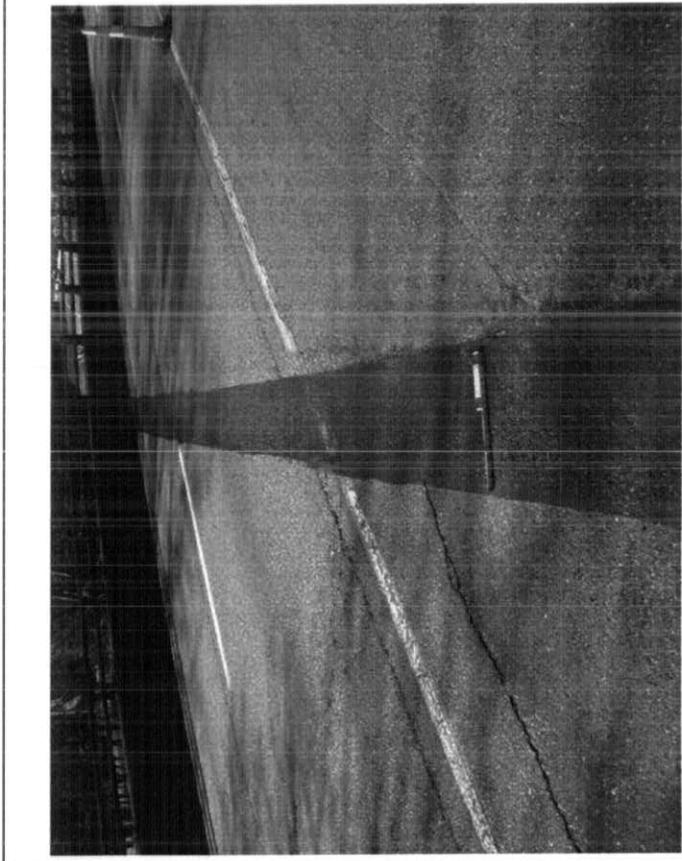
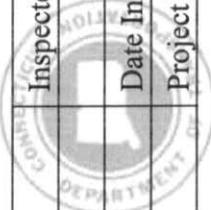


Photo # 25  
 1/31/2012  
 North Abutment, asphaltic plug joint, right shoulder and lane, looking east - 10' L x 1/4" W adhesion failure at the south side and minor raveling of plug material with exposed aggregate.

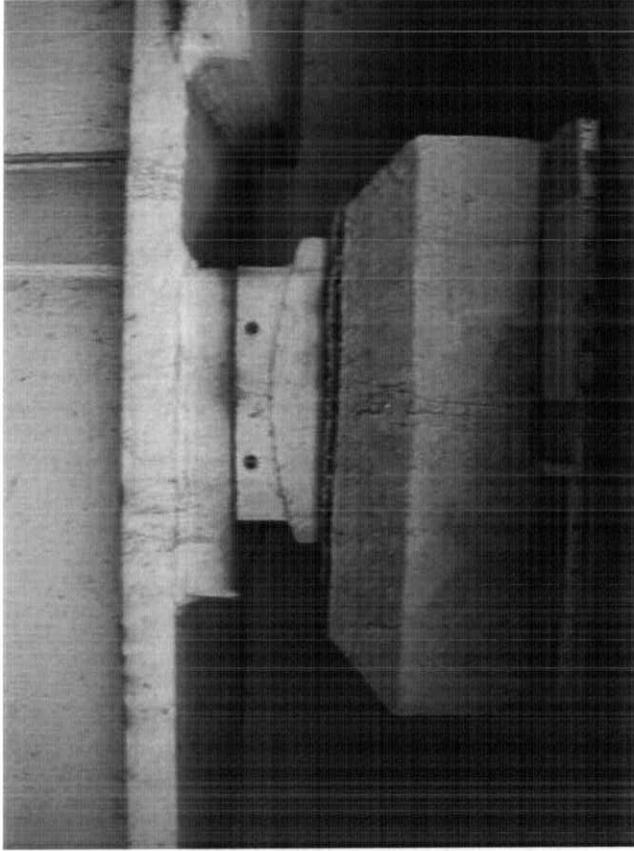


Photo # 26  
 1/31/2012  
 Girder 1, South Abutment, expansion sliding bearing, looking east - bearing in over-expanded position at 50°F with sole plate aligned up to 7/16-inch beyond edge of sliding plate and east anchor bolt sheared off.

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

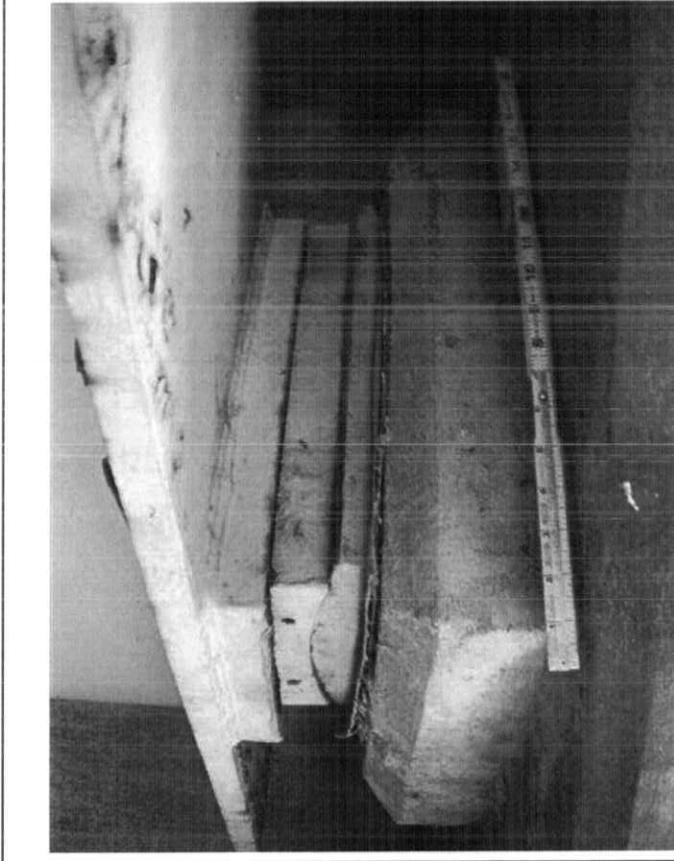
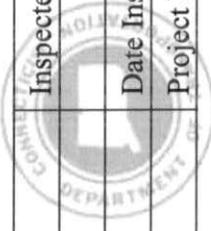


Photo # 27  
 1/31/2012  
 Girder 4, South Abutment, expansion sliding bearing, looking southwest - light rust on bearing plates, 1 1/8-inch misalignment (with 3/4-inch between sole and sliding plates and 3/8-inch between sliding and masonry plates) to the east and east anchor bolt sheared off.

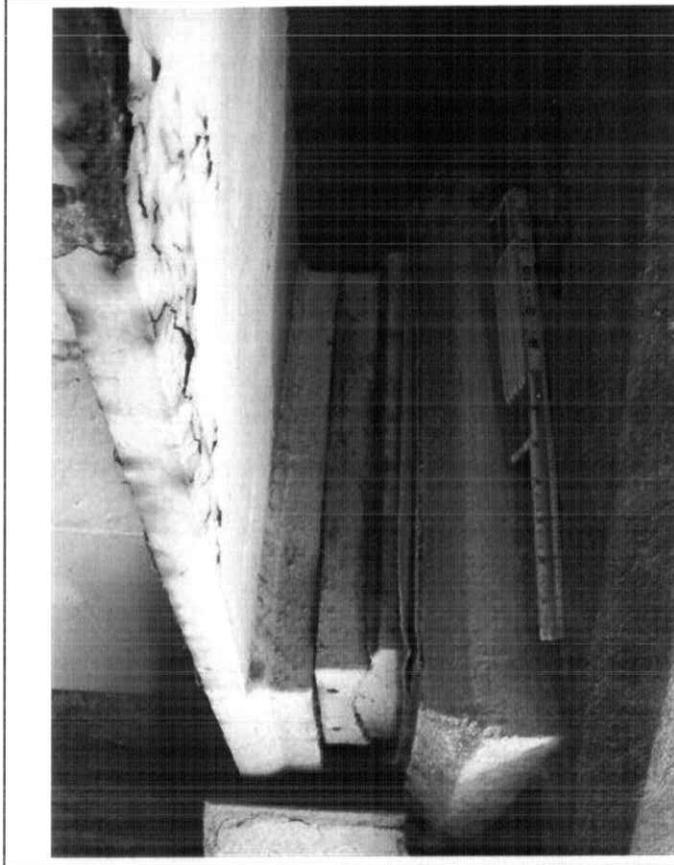


Photo # 28  
 1/31/2012  
 Girder 5, South Abutment, expansion sliding bearing, looking south - light rust on the bearing plates, 1 3/8-inch misalignment (with 11/16-inch between sole and sliding plates and 11/16-inch between sliding and masonry plates) to the east and east anchor bolt sheared off.

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

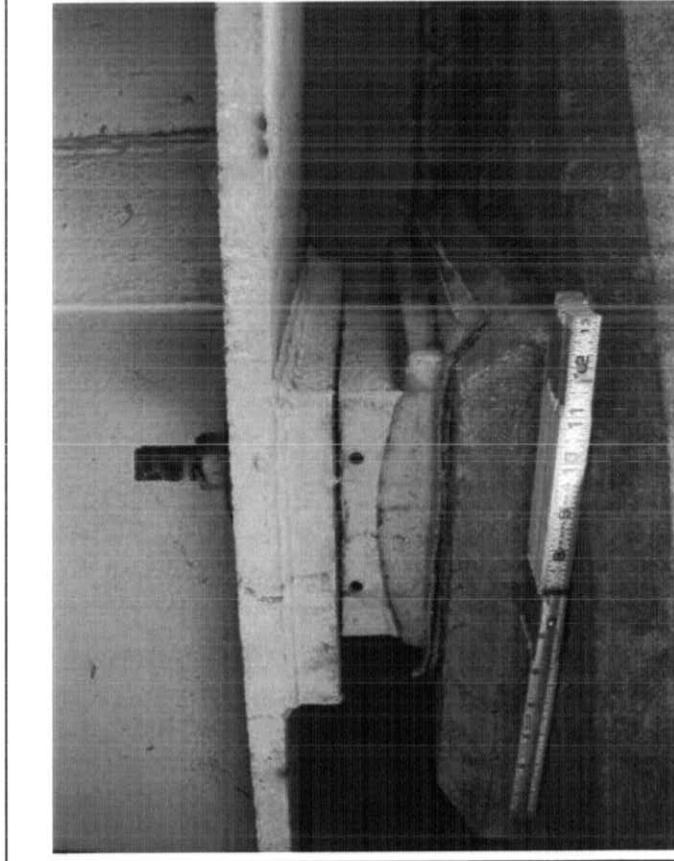
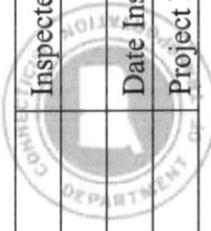


Photo # 29  
1/31/2012  
Girder 6, South Abutment, expansion sliding bearing, looking west - bearing in expansion position at 50°F with between 5/16-inch and 1 11/16-inch difference in measurements as compared to previous measurements taken at 87°F.



Photo # 30  
1/31/2012  
Girder 7, South Abutment, expansion sliding bearing, looking southwest - moderate rust on the bearing plates, 5/16-inch misalignment to the east of the sliding plate in relation to masonry plate and east anchor bolt sheared off.

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

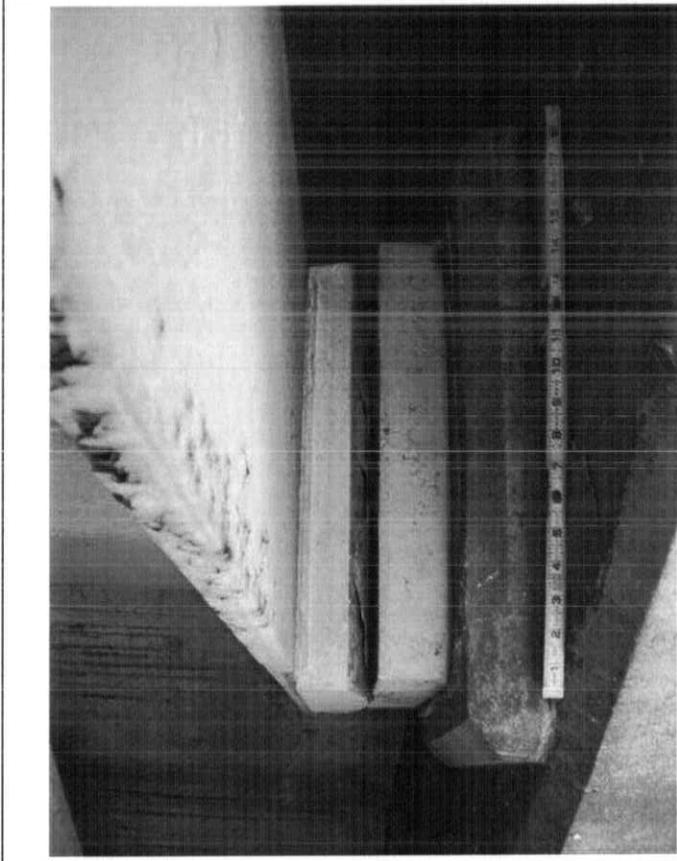
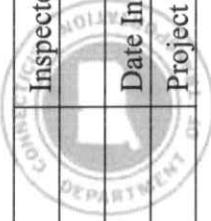


Photo # 31  
 1/31/2012  
 Girder 4, North Abutment, fixed bearing, looking northwest - 1/8-inch pack rust between the sole and masonry plates, and 1/2-inch misalignment to the west of the sole plate in relation to the masonry plate.

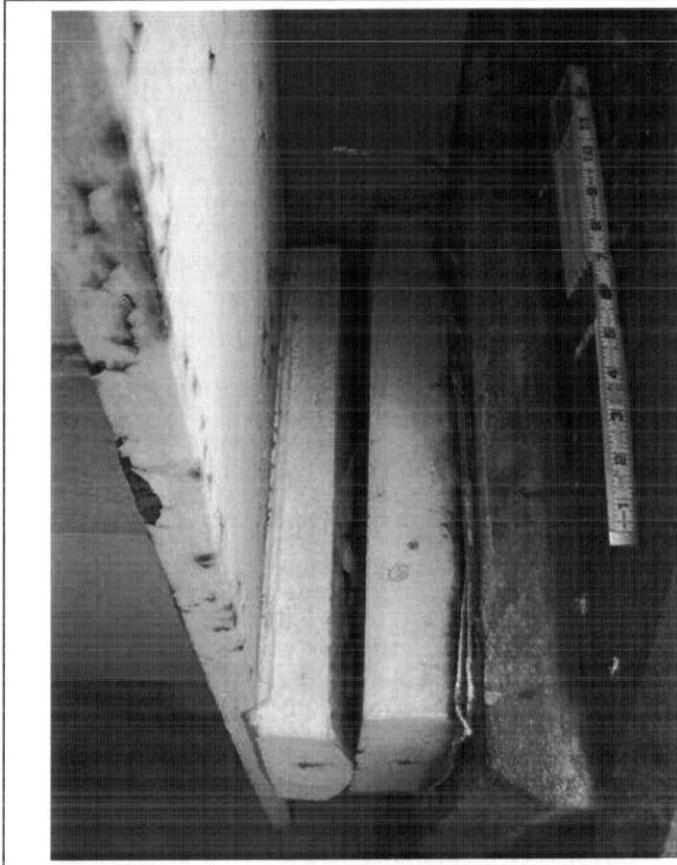


Photo # 32  
 1/31/2012  
 Girder 5, North Abutment, fixed bearing, looking northwest - 1/8-inch pack rust between the sole and masonry plates, and 1/2-inch misalignment to the west of the sole plate in relation to the masonry plate.

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

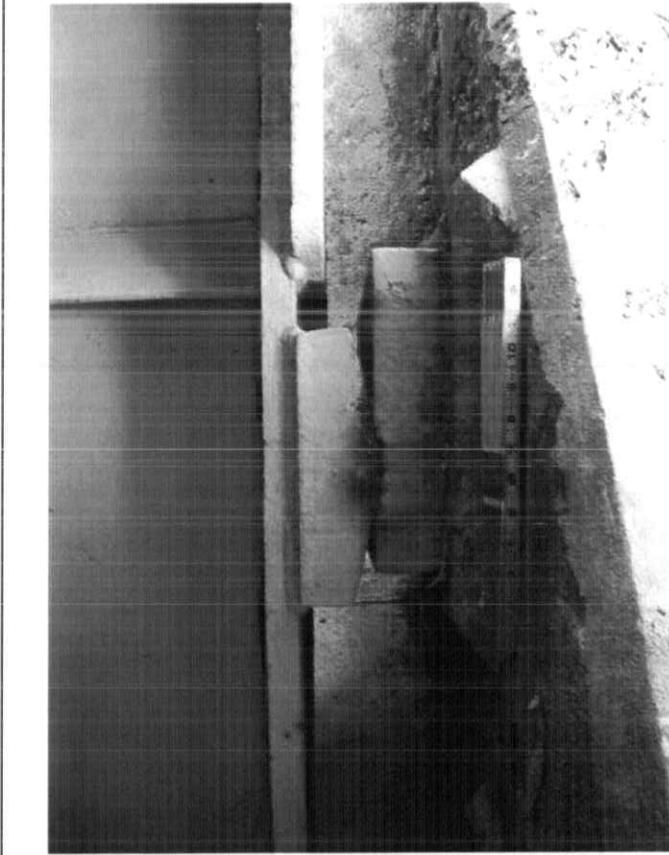
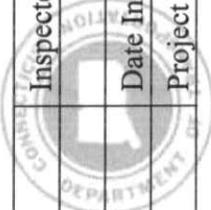


Photo # 33  
 1/31/2012  
 Girder 7, North Abutment, fixed bearing, looking east - 1/8-inch pack rust between sole and masonry plates and misalignment of 2.5-inch to north and 1/2-inch to east of sole plate in relation masonry plate. *(no change)*

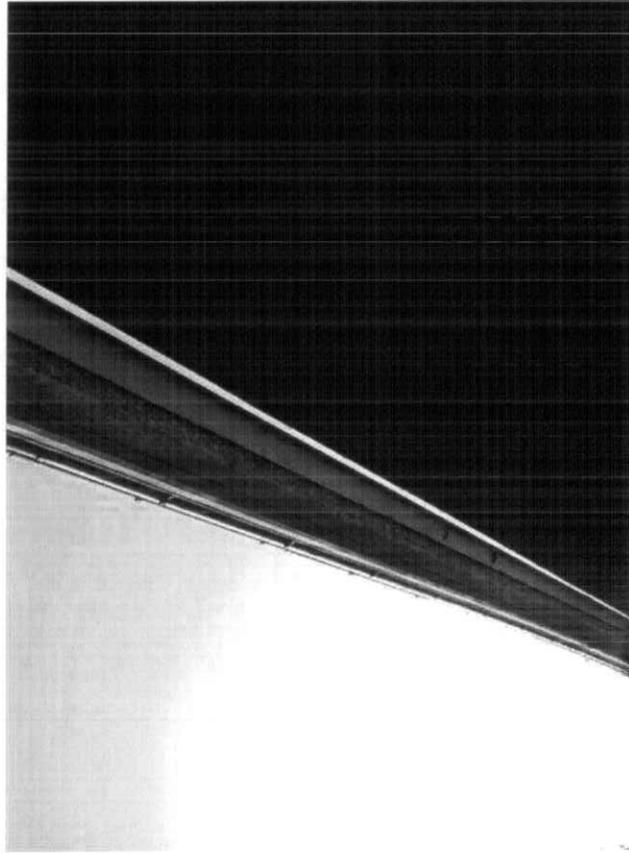
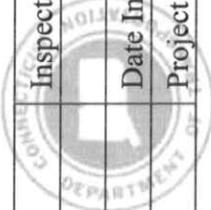
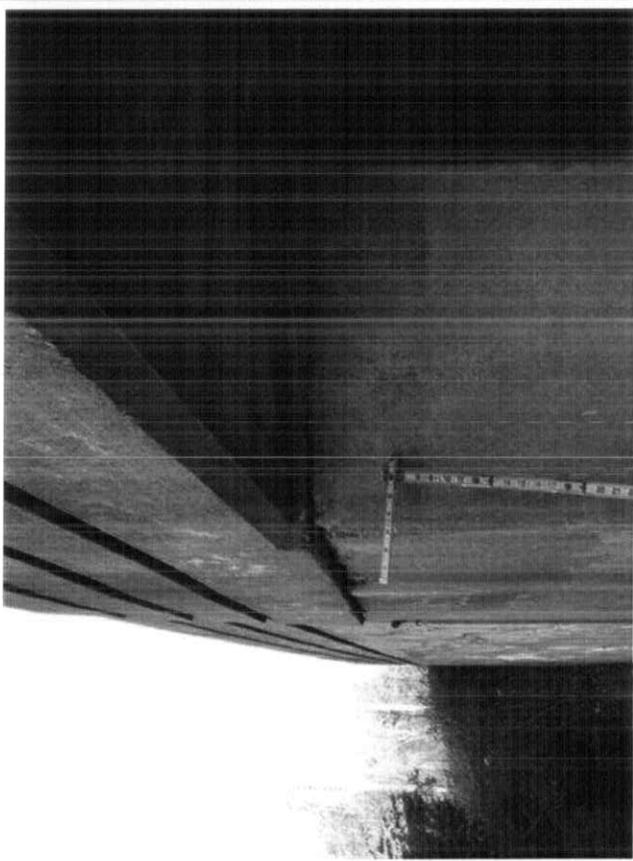
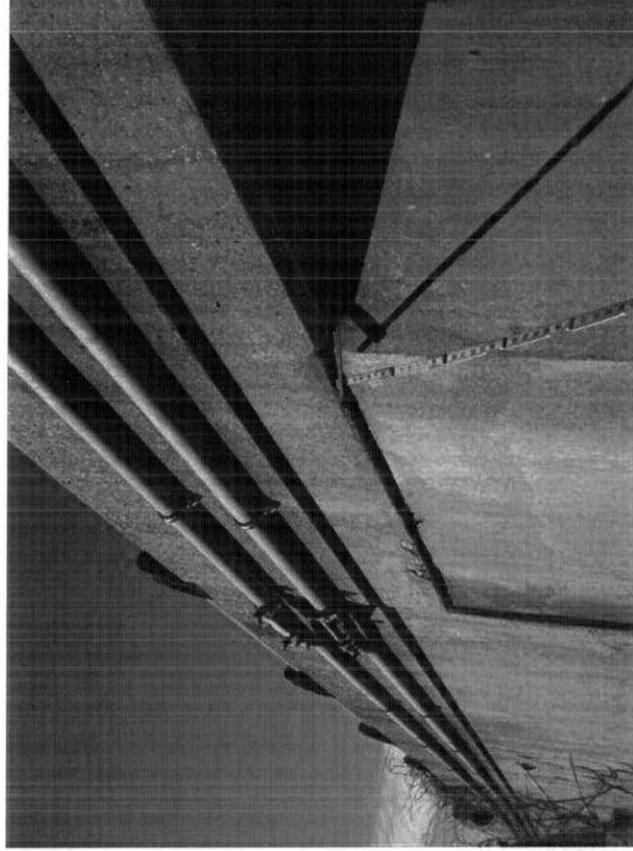


Photo # 34  
 1/31/2012  
 Girder 7, bottom flange, over right travel lane, looking southwest - 8-foot long area of minor collision scrapes up to 18" L x 1/8" D.

Bridge No.	00253	Inspected by:	CTP, RDM
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Feature Crossed:	I-395 Northbound		



	<p>Photo # 35</p> <p>1/31/2012</p> <p>Superstructure, West Fascia, North Abutment, looking north - superstructure laterally misaligned 1-inch to the west in relation to the wingwall.</p>
	<p>Photo # 36</p> <p>1/31/2012</p> <p>Superstructure, East Fascia, South Abutment, looking southwest - superstructure laterally misaligned 1-inch to the east in relation to the wingwall.</p>

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

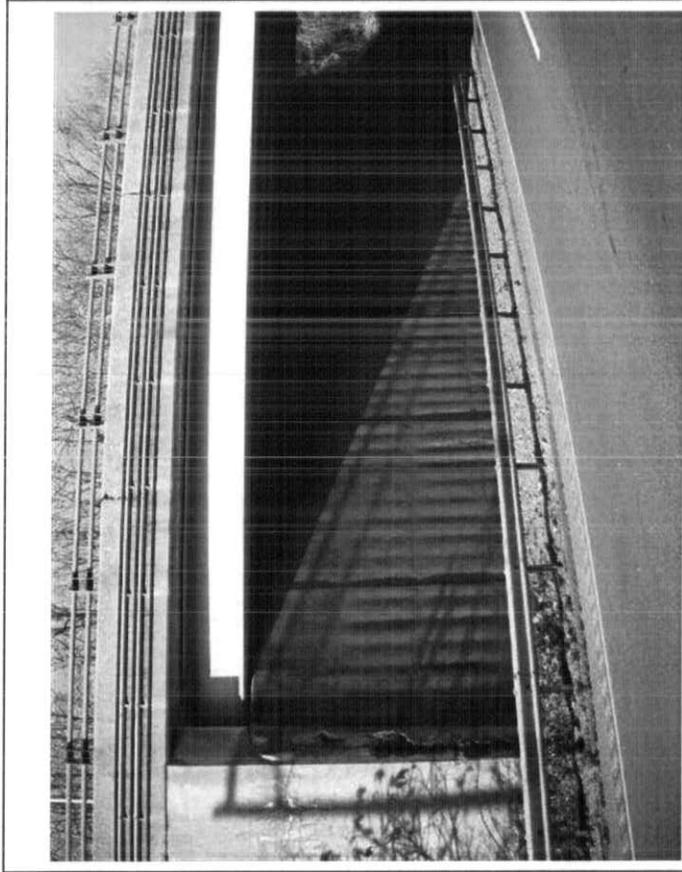
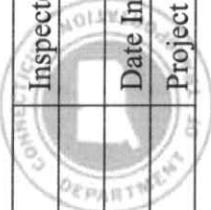


Photo # 37  
South Abutment Elevation, looking southeast.  
1/31/2012

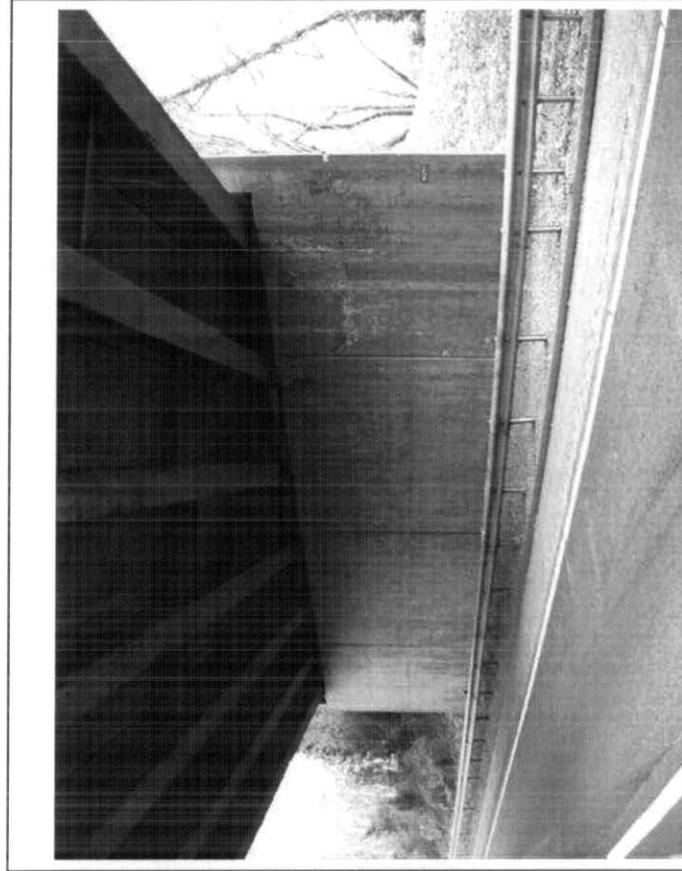
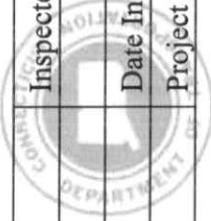
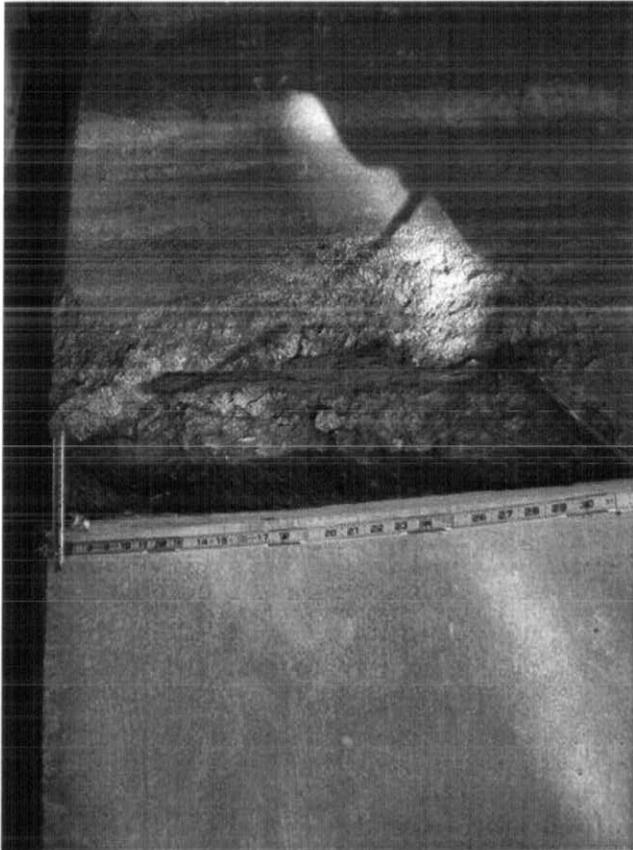


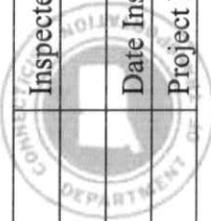
Photo # 38  
North Abutment Elevation, looking north.  
1/31/2012

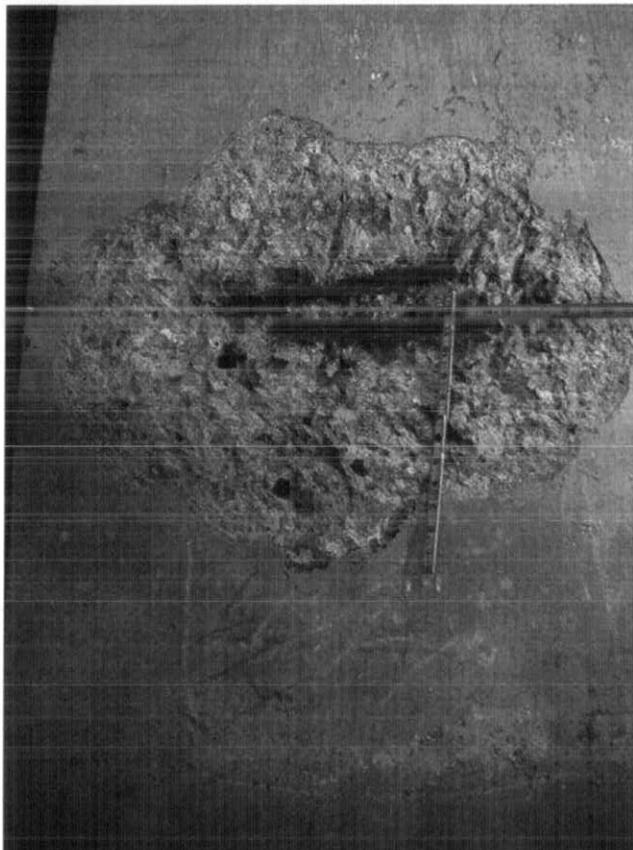
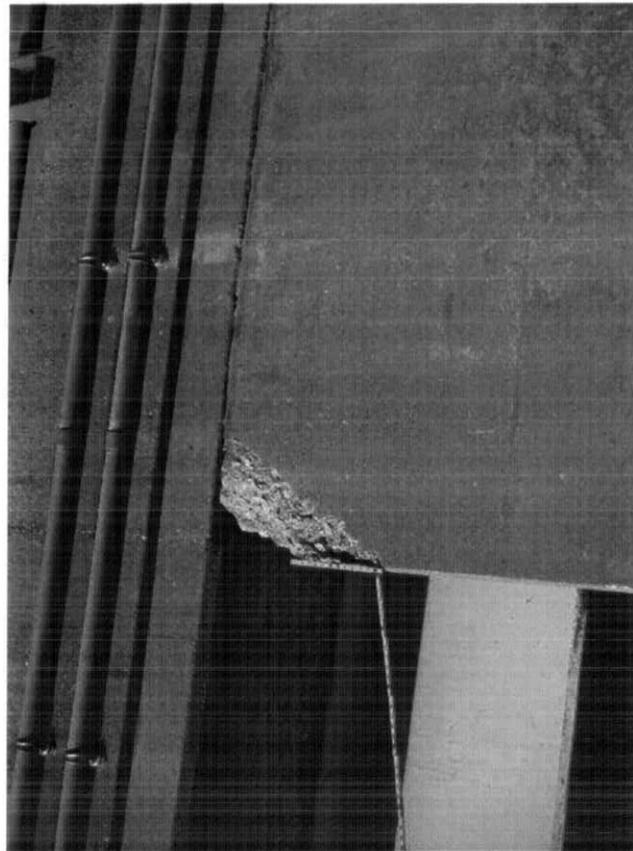
Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 39</p> <p>1/31/2012</p> <p>South Abutment, top of stem, between Girders 4 and 5, along expansion joint, looking southwest - 34" H x 15" W x 6" D spall with corroded steel reinforcement.</p>	<p>Photo # 40</p> <p>1/31/2012</p> <p>South Abutment, east side of the stem, looking southwest - 9'-4" H x 16" W delamination with 12" H x 6" W x 1 1/4" D spall and 7'-7" H x 15" W x 1 1/4" D spall with exposed steel reinforcement (Up to 10% section loss on exposed steel reinforcement).</p>

Bridge No.	00253	Inspected by:	CTP, RDM
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Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 41</p> <p>1/31/2012</p> <p>North Abutment, top of stem, below Girder 6, looking north - 27" H x 20" W x 3" D spall with corroded steel reinforcement and adjacent 24" H x 12" W delamination.</p>	<p>Photo # 42</p> <p>1/31/2012</p> <p>North Abutment, upper corner of east cheekwall, looking west - 24" H x 12" W x 3" D spall.</p>

Bridge No.	00253	Inspected by:	CTP, RDM
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Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

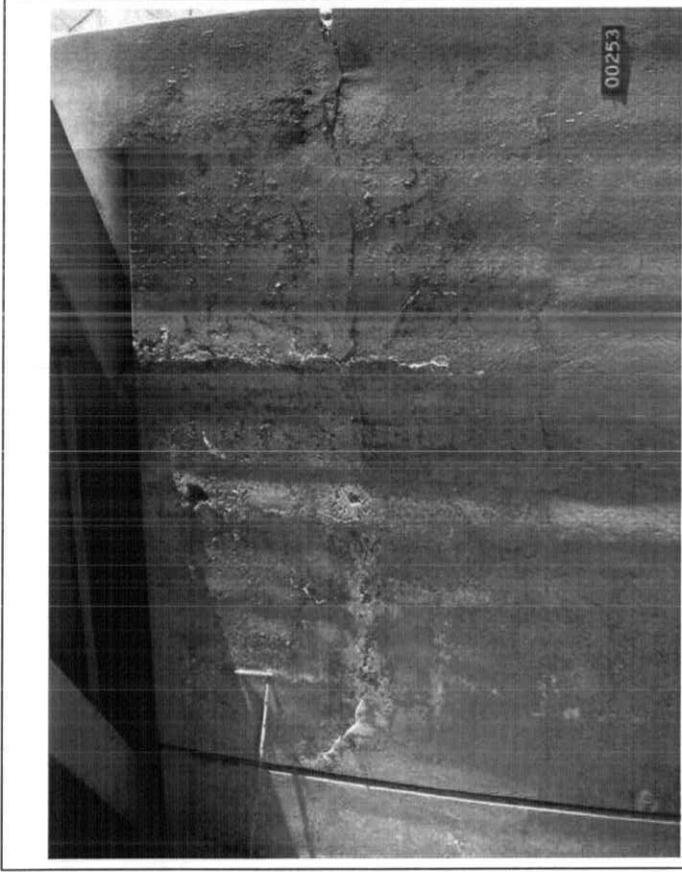
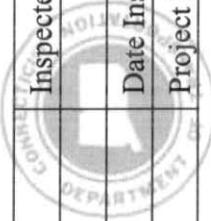


Photo # 43  
 1/31/2012  
 North Abutment, east end, top of stem, looking north - 120-square feet of map cracking open up to 1/8-inch wide with efflorescence and rust staining, scaling up to 1/2-inch deep, a 27" W x 14" H delamination, a 13" L x 3" W x 4" D spall, and a 10" H x 7" W delamination/spall.

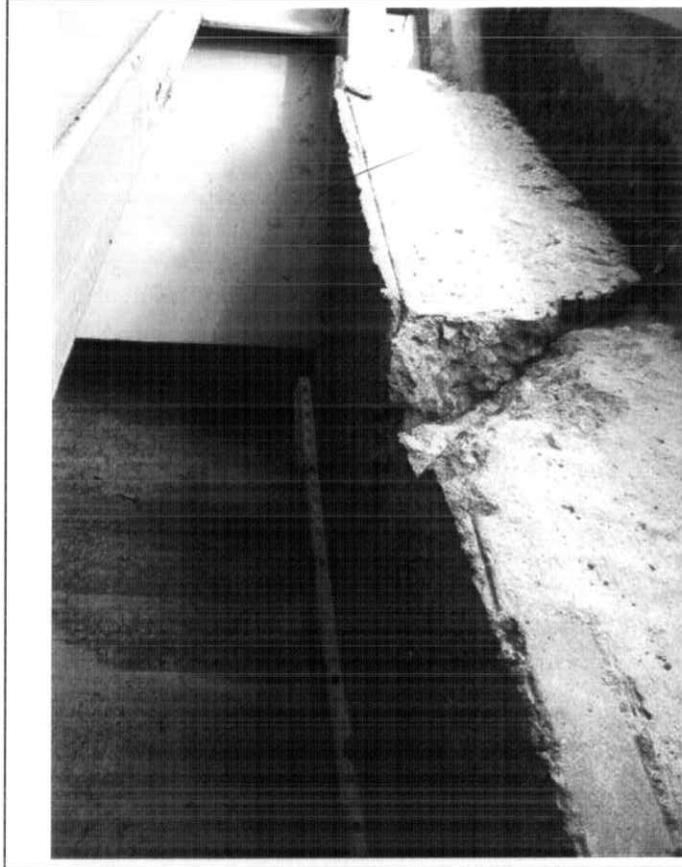
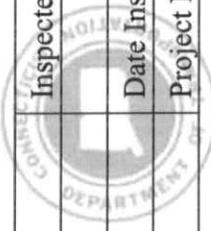
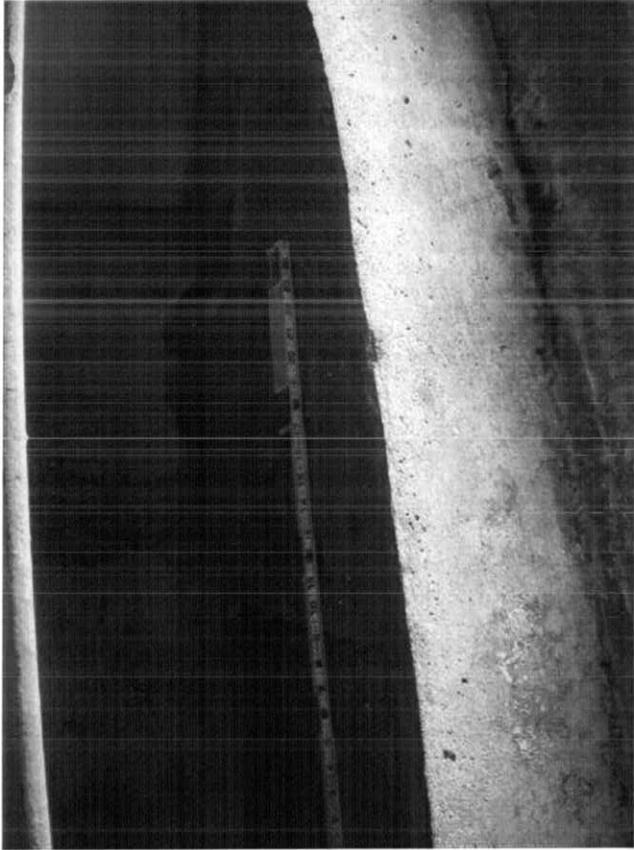
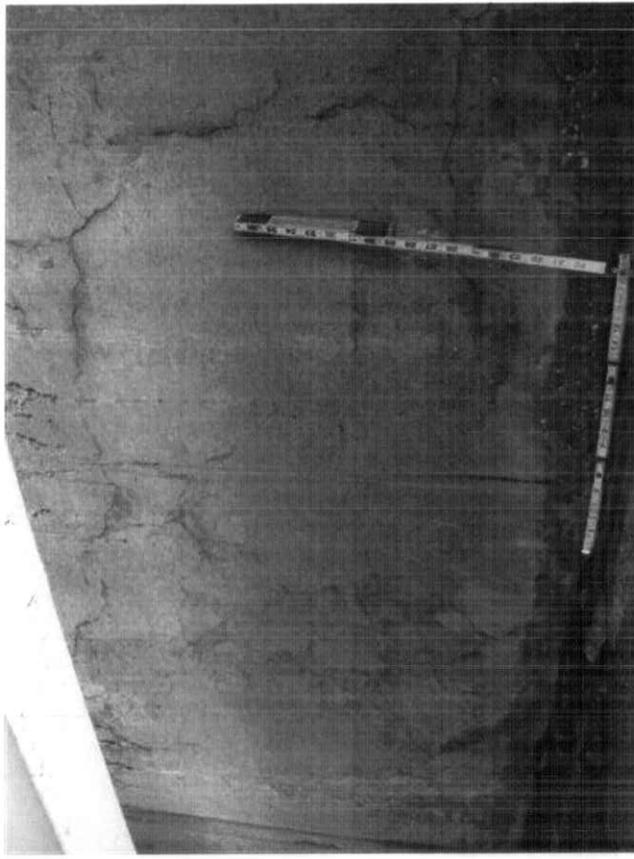


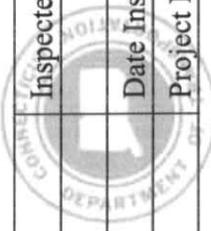
Photo # 44  
 1/31/2012  
 South Abutment, keeper block between Girders 5 and 6, looking southwest - full height x full width fracture in keeper block up to 1-inch wide with 8" L x 10" H x 3" D spall in front face of keeper block.

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Feature Crossed:	I-395 Northbound		



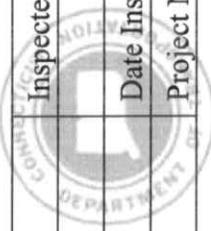
	
<p>Photo # 45 1/31/2012 North Abutment, keeper block between Girders 5 and 6, looking north - full height x full width fracture in keeper block up to 7/8-inch wide with 1/2-inch vertical misalignment.</p>	<p>Photo # 46 1/31/2012 North Abutment backwall, between Girders 6 and 7, looking north - 30 square feet area of hairline map cracking with efflorescence.</p>

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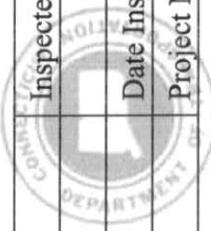
<p>Photo # 47 Southwest Wingwall Elevation, looking southeast.</p>	<p>Photo # 48 Northeast Wingwall Elevation, looking west.</p>
<p>1/31/2012</p>	<p>1/31/2012</p>

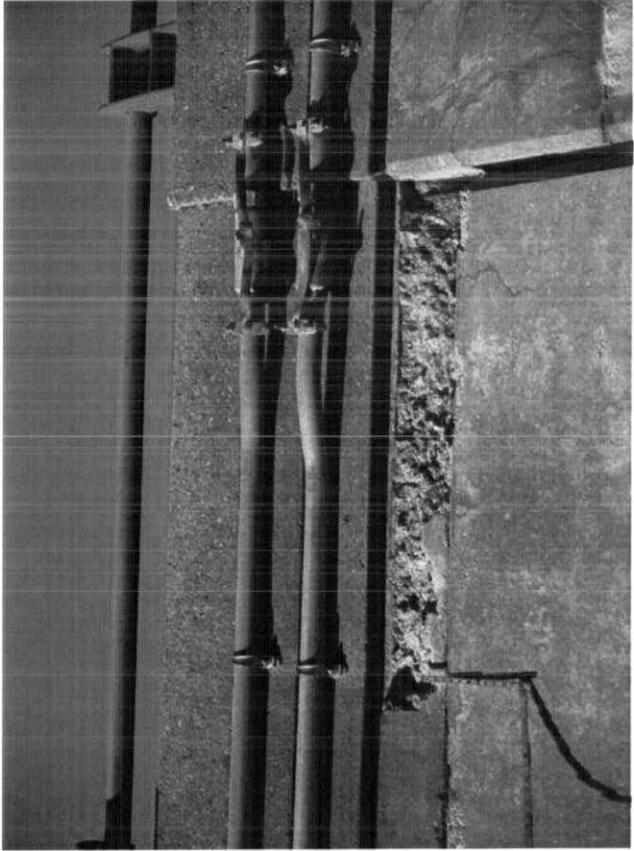
Bridge No.	00253	Inspected by:	CIP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



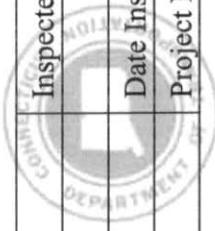
<p>Photo # 49</p> <p>1/31/2012</p> <p>Southeast Wingwall, exposed footing, looking west - Full length x full width map cracking open up to 3/16-inch with efflorescence and dampness and an 6' L x 3/8" W horizontal crack laterally misaligned up to 3/16-inch.</p>	<p>Photo # 50</p> <p>1/31/2012</p> <p>Northwest Wingwall, looking east - full length x up to 13' H area of map cracking open to 3/16-inch wide with efflorescence, dampness, and a 15' L x 9/16" W horizontal crack laterally misaligned up to 1/4-inch.</p>

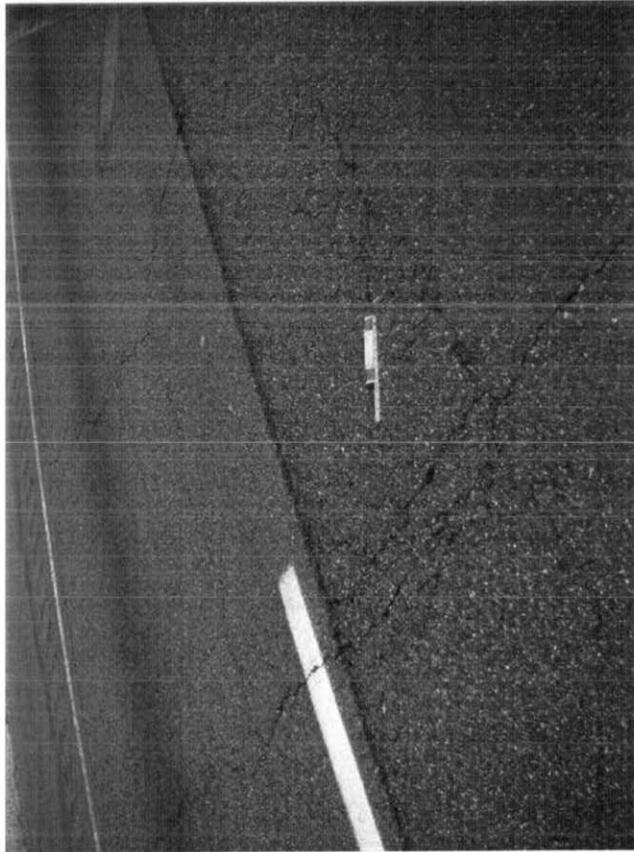
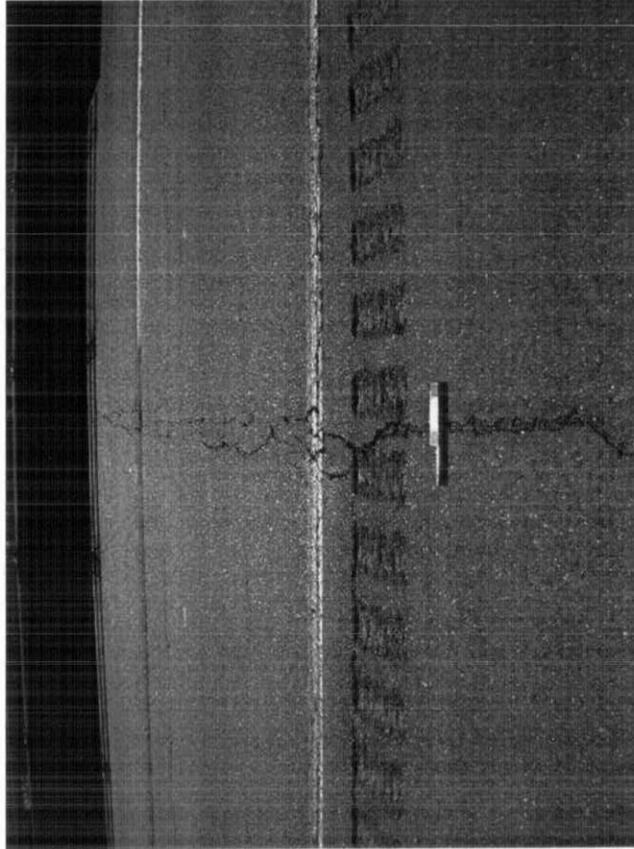
Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 51 1/31/2012 Northeast Wingwall, near the North Abutment and adjacent to the East Parapet, looking west - 50" L X 9 1/2" H x 5" D spall with exposed steel reinforcement.</p>	<p>Photo # 52 1/31/2012 Northeast Guide rail Transition (leading edge), looking south - Does not comply with RB 350 safety standards.</p>

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		



	
<p>Photo # 53</p> <p>1/31/2012</p> <p>South Approach, bituminous pavement, left travel lane, 5-feet from bridge, looking west - Minor wear / raveling, map cracking open up to 1/4-inch wide, and paving seams open up to 1/2-inch wide.</p>	<p>Photo # 54</p> <p>1/31/2012</p> <p>South Approach, bituminous pavement, 20-feet from bridge, looking east - Full Width x 1/2\" W transverse crack.</p>

Bridge No.	00253	Inspected by:	CTP, RDM
Town:	East Lyme	Date Inspected:	01/31/2012
Feature Carried:	I-95 Southbound	Project No.:	170-3013
Feature Crossed:	I-395 Northbound		

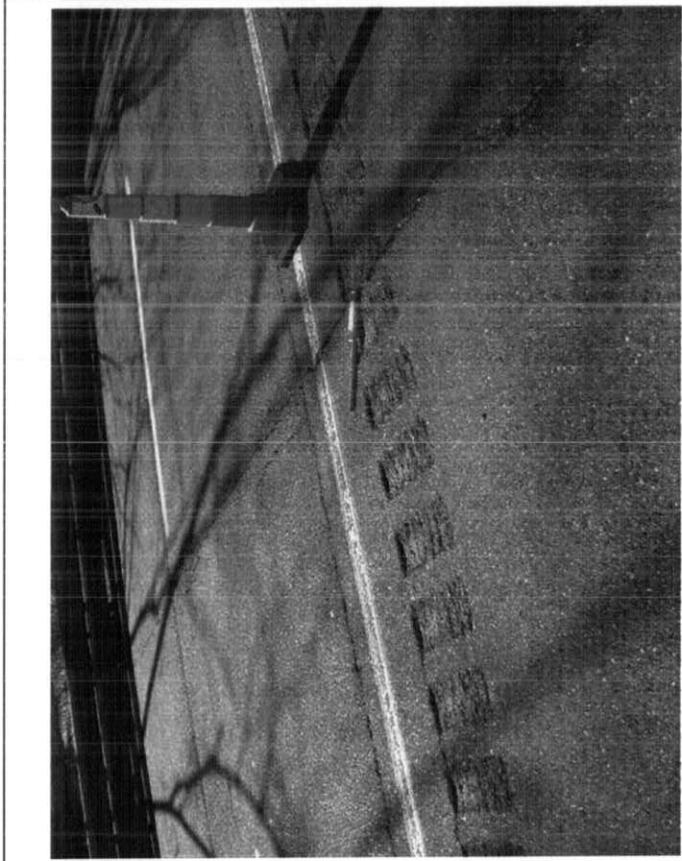
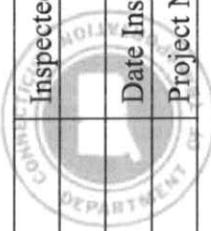


Photo # 55

1/31/2012

North Approach, bituminous pavement, 30-feet north of bridge, looking southeast - paving seam open to 1/2-inch wide and full width x 1-inch wide transverse crack.

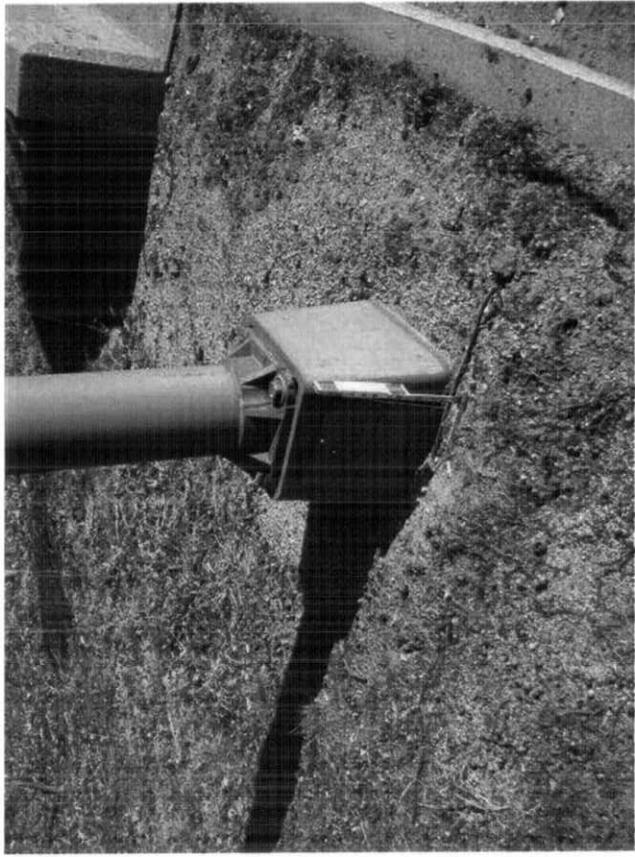


Photo # 56

1/31/2012

South Approach, light standard, West Embankment, 20-feet from the South Abutment, looking north - Loose hand hole cover with exposed wires.



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3.  
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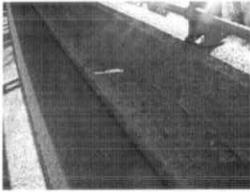
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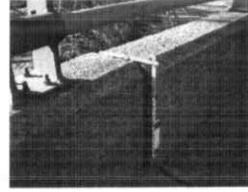
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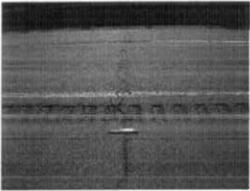
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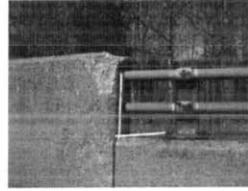
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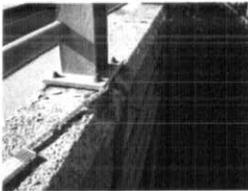
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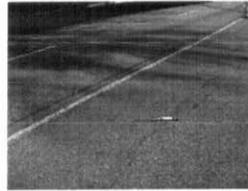
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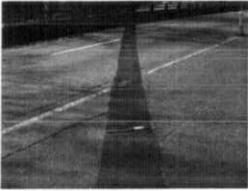
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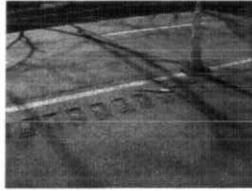
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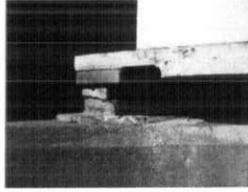
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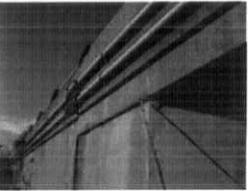
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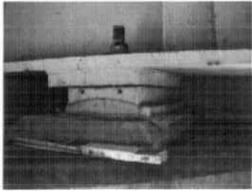
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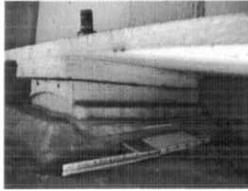
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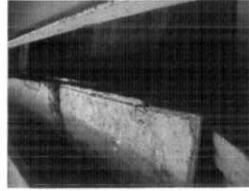
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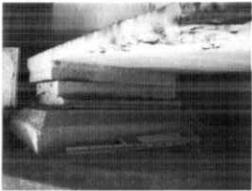
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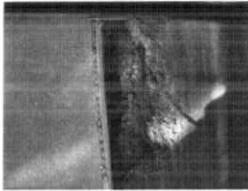
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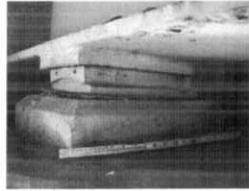
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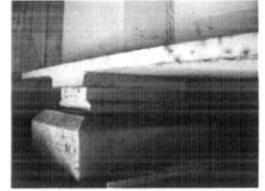
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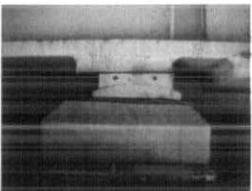
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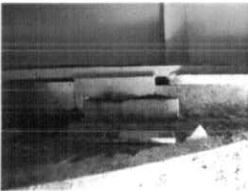
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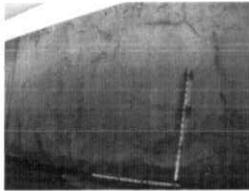
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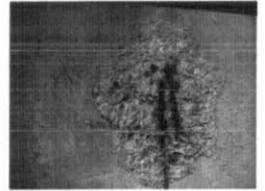
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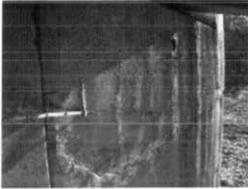
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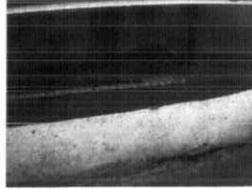
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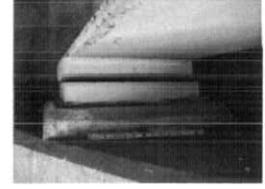
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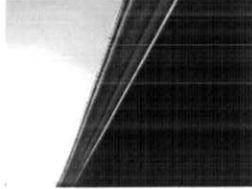
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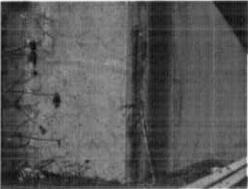
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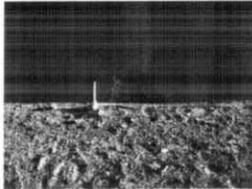
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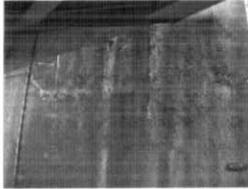
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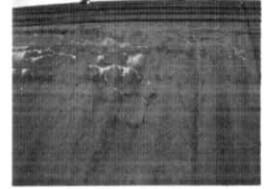
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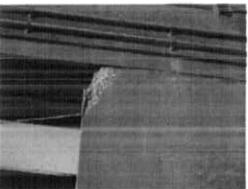
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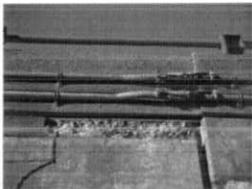
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## PHOTO LOG

FORM BRI-13, REV 9/97

Bridge No.	00253	Date:	1/31/2012
Town:	East Lyme	Photographer:	CTP, RDM
Carried / Crossed:	I-95 Southbound / I-395 Northbound		
Photo # [Report Photo #]	Description		
1	South Approach, looking north onto bridge.		
2	South Approach, bituminous pavement, left travel lane, 15-feet from bridge, looking southwest - Minor wear / raveling and longitudinal / transverse cracks open up to 1/4-inch wide.		
3 [53]	South Approach, bituminous pavement, left travel lane, 5-feet from bridge, looking west - Minor wear / raveling, map cracking open up to 1/4-inch wide, and paving seams open up to 1/2-inch wide.		
4 [23]	South Abutment, asphaltic plug joint, looking west - 30' L x 1/4" W adhesion failure at the south side.		
5 [11]	Bituminous overlay, Left travel Lane, looking northwest - Minor wear / raveling, map cracking up to 1/4-inch wide, and paving seam open up to 1/2-inch wide.		
6 [14]	East Parapet, Safety Walk and Bridge Rail, looking northeast - Typical condition with minor scaling and cracks open up to 1/16-inch wide.		
7 [20]	East Parapet, top face between the second and third posts from the South Abutment, looking northeast - 3' L x 1/4" W longitudinal crack.		
8	East Parapet, second railing post from the South Abutment, looking east - One (1) of four (4) missing anchor bolt nuts.		
9 [7]	South Approach, looking south from bridge.		
10	East Safety Walk, edge of curb at the North Abutment, looking northeast - Two (2) spalls up to 10" L x 6" W x 1" D.		
11	North Abutment, asphaltic plug joint, looking west - Minor raveling with exposed aggregate.		
12 [17]	North Approach, East Safety Walk, 15-feet from bridge, looking northeast - 15' L x 1.5' W map cracking open up to 1/8-inch wide.		
13	North Approach, bituminous overlay in the Left Travel Lane, 12-feet from bridge, looking northwest - Minor wear / raveling, map cracking up to 1/4-inch wide, and 20' L x 1/2" W transverse crack.		
14 [21]	North Abutment, East Parapet Joint, looking southwest - 1 1/4-inch lateral misalignment to the west on the north side of the joint.		
15 [16]	North Approach, East Curb, 25-feet from bridge, looking southeast - 2' L x 4" H x 2" D spall.		
16 [52]	Northeast Guide rail Transition (leading edge), looking south - Does not comply with RB 350 safety standards.		
17	North Approach, looking south onto bridge.		
18	North Approach, looking north from bridge.		
19 [5]	View looking east from structure at Interstate-395 Northbound.		
20 [22]	East Parapet, first railing post from the North Abutment, looking east - One (1) of four (4) missing anchor bolts.		
21 [6]	South Approach, looking north onto bridge.		
22 [54]	South Approach, bituminous pavement, 20-feet from bridge, looking east - Full Width x 1/2" W transverse crack.		

## PHOTO LOG

FORM BRI-13, REV 9/97

Bridge No.	00253	Date:	1/31/2012
Town:	East Lyme	Photographer:	CTP, RDM
Carried / Crossed:	I-95 Southbound / I-395 Northbound		
Photo # [Report Photo #]	Description		
23 [56]	South Approach, light standard, West Embankment, 20-feet from the South Abutment, looking north - Loose hand hole cover with exposed wires.		
24 [18]	South Approach, West Parapet end block, first railing post, looking west - railing post was replaced with a steel post and the end block with 13" H x 19" W x 1 1/2" D spall due to previous collision damage.		
25 [15]	West Safety Walk at the South Abutment, looking west - 10" L x 18" W x 4" D spall with missing joint sliding plate (Note: Parapet joint with lateral misalignment up to 1-inch to east).		
26 [24]	South Abutment, asphaltic plug joint, looking east - 15' L x 1/4" W adhesion failure at the north side and 1' L x 1/4" W adhesion failure at the south side.		
27	West Parapet, 8-feet north of South Abutment, looking west - 6' L x 2' H area of map cracking open to 1/16-inch wide.		
28 [19]	West Parapet, at 3rd bridge rail post north of South Abutment, looking southeast - 11" L x 6" W x 4" D spall that undermines the northeast corner of the post 2" diameter x 1.5" D.		
29 [12]	Bituminous overlay, right shoulder, 40-feet from South Abutment, looking southeast - minor wear / raveling and cracks open to 1/4-inch wide.		
30	West Parapet, Safety Walk and Bridge Rail, looking southwest - typical condition with minor scaling and 1/16-inch wide cracks in concrete, and random replaced bridge rail posts due to prior collision damage.		
31 [25]	North Abutment, asphaltic plug joint, right shoulder and lane, looking east - 10' L x 1/4" W adhesion failure at the south side and minor raveling of plug material with exposed aggregate.		
32 [55]	North Approach, bituminous pavement, 30-feet north of bridge, looking southeast - paving seam open to 1/2-inch wide and full width x 1-inch wide transverse crack.		
33 [1]	Bridge I.D. on the West Parapet at the northwest corner of the structure.		
34 [8]	North Approach, looking south onto the bridge.		
35	North Approach, looking south onto the bridge.		
36 [9]	North Approach, looking north from bridge.		
37 [4]	View looking west from structure at Interstate 395 Northbound.		
38	Girder 7, South Abutment, expansion sliding bearing, looking southwest - moderate rust on the bearing plates, 15/16-inch misalignment (5/8-inch between sole and sliding plates and 5/16-inch between the sliding and masonry plates) to the east and east anchor bolt sheared off.		
39 [30]	Girder 7, South Abutment, expansion sliding bearing, looking southwest - moderate rust on the bearing plates, 5/16-inch misalignment to the east of the sliding plate in relation to masonry plate and east anchor bolt sheared off.		
40 [36]	Superstructure, East Fascia, South Abutment, looking southwest - superstructure laterally misaligned 1-inch to the east in relation to the wingwall.		
41	Superstructure, East Fascia, South Abutment, looking southwest - superstructure laterally misaligned 1-inch to the east in relation to the wingwall.		
42 [29]	Girder 6, South Abutment, expansion sliding bearing, looking west - bearing in expansion position at 50°F with between 5/16-inch and 1 11/16-inch difference in measurements as compared to previous measurements taken at 87°F.		

## PHOTO LOG

FORM BRI-13, REV 9/97

Bridge No.	00253	Date:	1/31/2012
Town:	East Lyme	Photographer:	CTP, RDM
Carried / Crossed:	I-95 Southbound / I-395 Northbound		
Photo # [Report Photo #]	Description		
43	Girder 6, South Abutment, expansion sliding bearing, looking southwest - light rust on the bearing plates, 1-inch misalignment (5/8-inch between sole and sliding plates and 3/8-inch between sliding and masonry plates) to the east and east anchor bolt tilted 1/2-inch to east.		
44	South Abutment, keeper block between Girders 5 and 6, looking south - full height x full width fracture in keeper block up to 1-inch wide with 8" L x 10" H x 3" D spall in front face of keeper block.		
45	South Abutment, keeper block between Girders 5 and 6, looking south - full height x full width fracture in keeper block up to 1-inch wide with 8" L x 10" H x 3" D spall in front face of keeper block.		
46 [44]	South Abutment, keeper block between Girders 5 and 6, looking southwest - full height x full width fracture in keeper block up to 1-inch wide with 8" L x 10" H x 3" D spall in front face of keeper block.		
47 [28]	Girder 5, South Abutment, expansion sliding bearing, looking south - light rust on the bearing plates, 1 3/8-inch misalignment (with 11/16-inch between sole and sliding plates and 11/16-inch between sliding and masonry plates) to the east and east anchor bolt sheared off.		
48 [39]	South Abutment, top of stem, between Girders 4 and 5, along expansion joint, looking southwest - 34" H x 15" W x 6" D spall with corroded steel reinforcement.		
49 [27]	Girder 4, South Abutment, expansion sliding bearing, looking southwest - light rust on bearing plates, 1 1/8-inch misalignment (with 3/4-inch between sole and sliding plates and 3/8-inch between sliding and masonry plates) to the east and east anchor bolt sheared off.		
50	Girder 2, South Abutment, expansion sliding bearing, looking southwest - light rust on bearing plates, 7/8-inch misalignment (13/16-inch between sole and sliding plates and 1/16-inch between the sliding and masonry plates) to the east and east anchor bolt sheared off.		
51 [13]	Deck Soffit, between Girders 4 and 5, between 1st and 2nd intermediate diaphragms from South Abutment, looking northwest - 48" L x 50" W x 2.5" D spall with exposed steel reinforcement (previous noted delamination addressed under BMM #10-378).		
52 [26]	Girder 1, South Abutment, expansion sliding bearing, looking east - bearing in over-expanded position at 50°F with sole plate aligned up to 7/16-inch beyond edge of sliding plate and east anchor bolt sheared off.		
53	Typical superstructure and deck soffit looking north.		
54 [10]	Typical superstructure and deck soffit looking north.		
55 [38]	North Abutment Elevation, looking north.		
56 [37]	South Abutment Elevation, looking southeast.		
57	Typical superstructure and deck soffit looking south.		
58 [33]	Girder 7, North Abutment, fixed bearing, looking east - 1/8-inch pack rust between sole and masonry plates and misalignment of 2.5-inch to north and 1/2-inch to east of sole plate in relation masonry plate.		
59 [46]	North Abutment backwall, between Girders 6 and 7, looking north - 30 square feet area of hairline map cracking with efflorescence.		
60 [41]	North Abutment, top of stem, below Girder 6, looking north - 27" H x 20" W x 3" D spall with corroded steel reinforcement and adjacent 24" H x 12" W delamination.		

## PHOTO LOG

FORM BRI-13, REV 9/97

Bridge No.	00253	Date:	1/31/2012
Town:	East Lyme	Photographer:	CTP, RDM
Carried / Crossed:	I-95 Southbound / I-395 Northbound		
Photo # [Report Photo #]	Description		
61	North Abutment, east end between Girders 6 and 7, looking northeast - 120 square feet of map cracking open to 1/8-inch wide with efflorescence and rust stains, and scaling up to 1/2-inch deep.		
62 [45]	North Abutment, keeper block between Girders 5 and 6, looking north - full height x full width fracture in keeper block up to 7/8-inch wide with 1/2-inch vertical misalignment.		
63 [32]	Girder 5, North Abutment, fixed bearing, looking northwest - 1/8-inch pack rust between the sole and masonry plates, and 1/2-inch misalignment to the west of the sole plate in relation to the masonry plate.		
64 [31]	Girder 4, North Abutment, fixed bearing, looking northwest - 1/8-inch pack rust between the sole and masonry plates, and 1/2-inch misalignment to the west of the sole plate in relation to the masonry plate.		
65	Girder 2, North Abutment, fixed bearing, looking northwest - 1/2-inch to west misalignment of the sole plate in relation to the masonry plate.		
66 [35]	Superstructure, West Fascia, North Abutment, looking north - superstructure laterally misaligned 1-inch to the west in relation to the wingwall.		
67 [34]	Girder 7, bottom flange, over right travel lane, looking southwest - 8-foot long area of minor collision scrapes up to 18" L x 1/8" D.		
68	Bridge I.D. on the North Abutment at the east end of the abutment stem.		
69 [47]	Southwest Wingwall Elevation, looking southeast.		
70	Southeast Wingwall Elevation, looking southwest.		
71 [40]	South Abutment, east side of the stem, looking southwest - 9'-4" H x 16" W delamination with 12" H x 6" W x 1 1/4" D spall and 7'-7" H x 15" W x 1 1/4" D spall with exposed steel reinforcement (Up to 10% section loss on exposed steel reinforcement).		
72 [49]	Southeast Wingwall, exposed footing, looking west - Full length x full width map cracking open up to 3/16-inch with efflorescence and dampness and an 6' L x 3/8" W horizontal crack laterally misaligned up to 3/16-inch.		
73 [2]	East Elevation looking west.		
74 [3]	West Elevation looking east.		
75	West Elevation looking east.		
76	Northwest Wingwall, west elevation, looking east.		
77	North Abutment, stem at ground level, adjacent to center weep hole, looking north - 16" H x 10" W x 1" D spall with exposed steel reinforcement (Note: Weep hole is 50% blocked by dirt).		
78 [43]	North Abutment, east end, top of stem, looking north - 120-square feet of map cracking open up to 1/8-inch wide with efflorescence and rust staining, scaling up to 1/2-inch deep, a 27" W x 14" H delamination, a 13" L x 3" W x 4" D spall, and a 10" H x 7" W delamination/spall.		
79 [48]	Northeast Wingwall Elevation, looking west.		
80 [50]	Northwest Wingwall, looking east - full length x up to 13' H area of map cracking open to 3/16-inch wide with efflorescence, dampness, and a 15' L x 9/16" W horizontal crack laterally misaligned up to 1/4-inch.		

# PHOTO LOG

FORM BRI-13, REV 9/97

Bridge No.	00253	Date:	1/31/2012
Town:	East Lyme	Photographer:	CTP, RDM
Carried / Crossed: I-95 Southbound / I-395 Northbound			
Photo # [Report Photo #]	Description		
81 [42]	North Abutment, upper corner of east cheekwall, looking west - 24" H x 12" W x 3" D spall.		
82 [51]	Northeast Wingwall, near the North Abutment and adjacent to the East Parapet, looking west - 50" L X 9 1/2" H x 5" D spall with exposed steel reinforcement.		

Pennoni Associates Inc.

Bridge No. 00253

Additional Field Notes

Date: 1/31/2012

STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION

Subject: BMM No. 10-378  
Bridge No. 00253  
I-95 SB over I-395 NB  
East Lyme

m e m o r a n d u m

date: 7/22/10

to: Robert P. Mongillo  
Transportation Maintenance  
Administrator  
Bureau of Highway Operations

from: *Robert P. Zaffetti*  
Robert P. Zaffetti  
Manager of Bridge Safety  
and Evaluation  
Bureau of Engineering and  
Construction

1/31/12 CTP, RDM (PAI)

This memorandum is a follow-up to a telephone conversation on July 12, 2010 between Mary Mears, of your staff and Stephen Keedy, of this office, concerning the following deficiency and recommendation for the subject structure:

- There is a 4 ft. x 4 ft. hollow area on the underside of the slab over the left lane in Bay 2. The area is clearly marked with orange paint.

Please direct persons under your jurisdiction to:

- Remove the hollow concrete (< 20 sq. ft.).

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

This item should be considered Priority B. Additional items may be forwarded with the final inspection report.

If you have any questions concerning this matter, please contact Mr. Joseph C. Kozlowski, at ext. 3166. Please contact me when this work has been completed.

Stephen Keedy/esk

cc: Thomas A. Harley - Rabih M. Barakat

James H. Norman

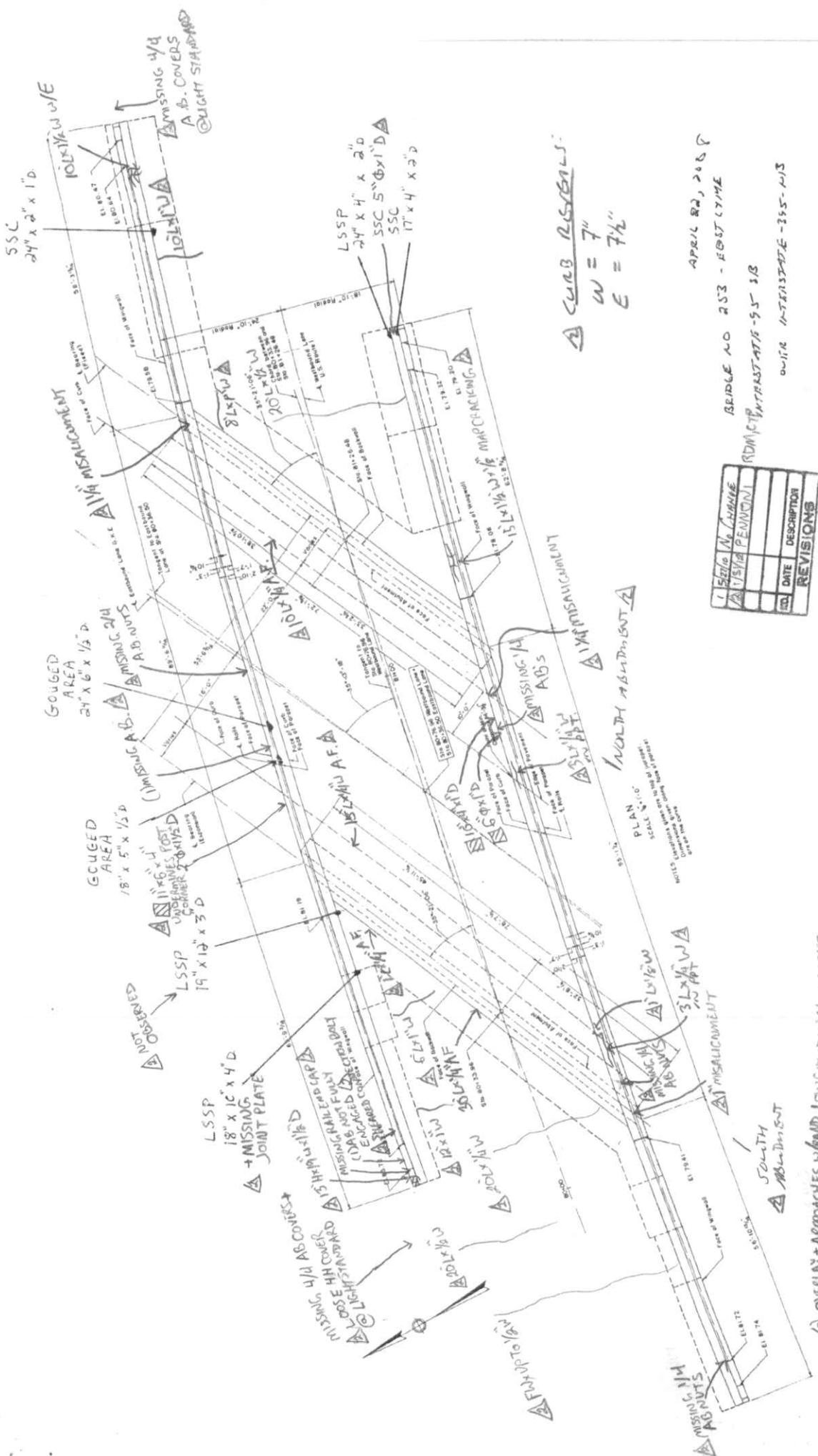
Joseph J. Obara

Robert P. Zaffetti - Joseph C. Kozlowski - Stephen Keedy

Joseph E. Chilstrom, FHWA

Team 10

*A ↪ loose conc. Remains, now 48" x 50" WX  
2.5" D Spall  
Exp. Rebar*



CURB RISERS:  
 W = 7"  
 E = 7 1/2"

APRIL 22, 2008  
 BRIDGE NO 253 - EAST LYME  
 RD/MT/PT INTERSTATE-95 SB  
 OVER INTERSTATE-95 NB

NO.	DATE	DESCRIPTION	REVISIONS
1	5/21/08	NO CHANGE	
2	7/10/08	PENNONI	

- OVERLAY + APPROACHES w/ FOUND LONGITUDINAL CRACKS  
 + PAVING SCRAPES UP TO 1/4" w. MINOR WEAR/RAVEL  
 + PAVING SCRAPES UP TO 1/2" w. MINOR WEAR/RAVEL  
 MAPCRACKING IS MOST NOTABLE IN LEFT LANE  
 PARAPETS + SAFETY WALKS w/ MINOR SCALE + RANDOM  
 CRACKS UP TO 1/16" w. FEW w/ EFFLO  
 AP'S w/ FLW RAVELING OF PLUG MATERIAL EXPOSING AGGREGATE  
 CURBS w/ MINOR SCRAPES + CHIPPING

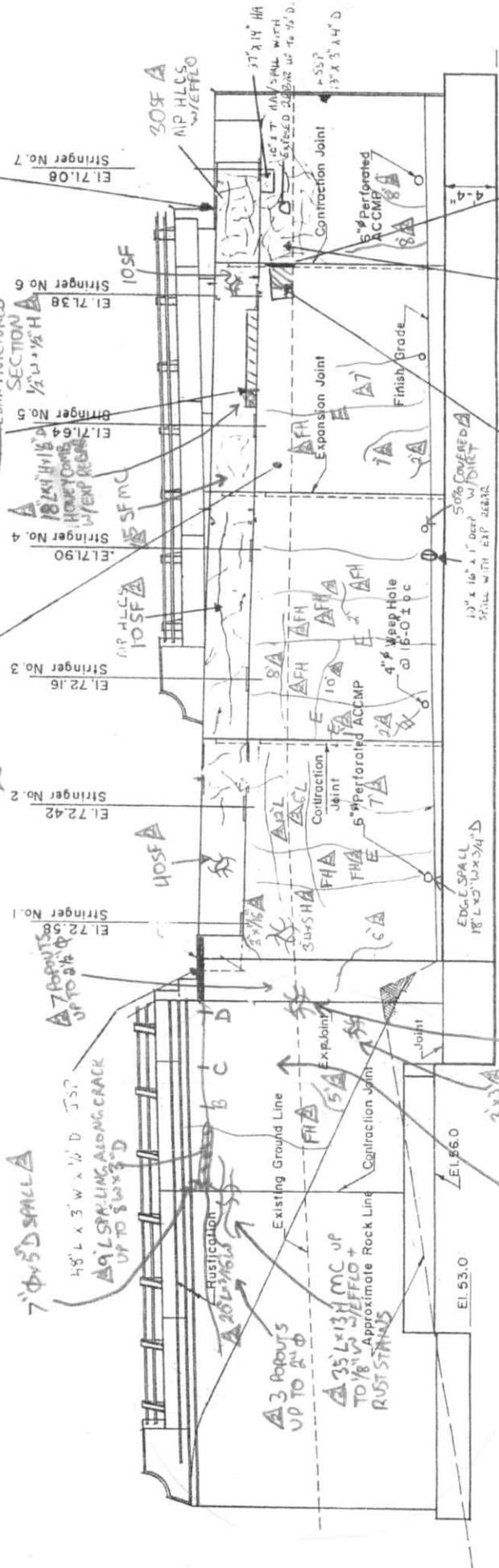
PLAN 1/4" = 1'-0"  
 SCALE 1/4" = 1'-0"  
 NOTES: DIMENSIONS SHOWN ARE IN FEET AND INCHES. DIMENSIONS IN PARENTHESES ARE ALTERNATE DIMENSIONS. DIMENSIONS IN BRACKETS ARE DIMENSIONS OF MATERIALS TO BE SUPPLIED BY OTHERS.





- F = 1/8" W 0"
- E = 3/16" W 0"
- D = 9/16" W 1/4" MISALIGNMENT
- C = 5/16" W 2/16" MISALIGNMENT
- B = 3/16" W 3/16" MISALIGNMENT
- G = 1/8" W 0"
- H = 1/8" W 0"

SIGNS OF ACTIVE LEANAGE BETWEEN DECK + TOP OF BACKWALL



NO.	DATE	DESCRIPTION
1		FIELD NO CHANGE
2		1/2" DIA PENDING

RD 011 CT

NORTH EAST ABUTMENT STR 172

NOT TO SCALE

ELEVATIONS IN FEET

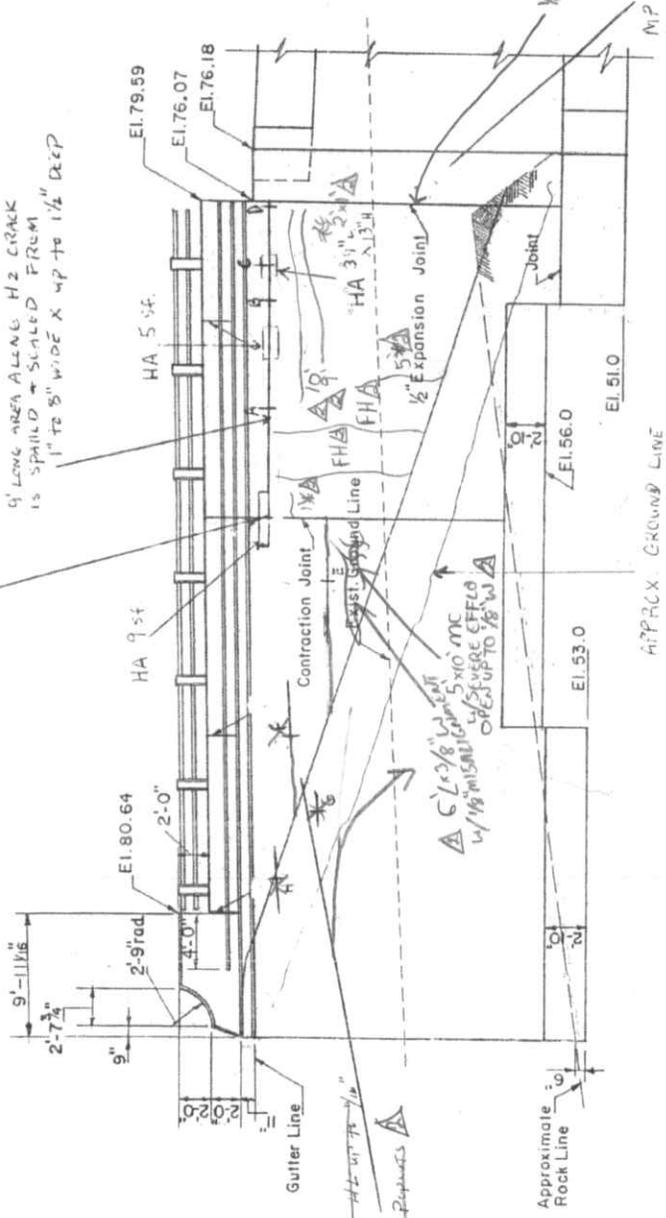
BRIDGE NO. 253 - EAST LYME

INTERSTATE - 55 48 OVER INTERSTATE - 355 W3

MAP 4 H2 CRACKS FROM HL UP TO 1/2" C-1W WITH E110 TRUST - TRANS - 120SF A

APRIL 22, 2008

MP + H2 CRACKS FROM HLL UP TO 3/8" OPEN  
 SOME WITH EFFLO + DAMPPRESS  
 & SMALL PEPANTS FROM FURZIN WOOD



**KEY**

A = 3/8" OPEN 1/4" MISALIGNED  
 B = 3/16" OPEN 3/16" MISALIGNED  
 C = 3/16" OPEN 3/8" MISALIGNED  
 D = 1/8" OPEN 5/16" MISALIGNED  
 E = 1/8" OPEN  
 F = 1/8" OPEN  
 G = 1/32" OPEN  
 H = 1/16" OPEN

1/2" LAT MISALIGNMENT

MP HLL  
 4 SMALL PEPANTS  
 FROM FURZIN WOOD

**ELEVATION OF NORTHWEST SOUTH EAST WINGWALL**

SCALE: 1/8" = 1'-0"

1	5/21/10	None Change	
2	11/23/14	PENNONT	RDM, CTP
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APRIL 22, 2016

BRIDGE NO. 253 - EAST LANE  
 INTERSTATE 95 NB OVER INTERSTATE 395 NB  
 HWY VEG AT WINGWALL

MP + H2 CRACKS FROM HLL UP TO 3/8" OPEN  
 SOME WITH EFFLO + DAMPPRESS  
 & SMALL PEPANTS FROM FURZIN WOOD

## Buttorff, Nathan W.

---

**From:** Buttorff, Nathan W.  
**Sent:** Wednesday, February 01, 2012 9:33 AM  
**To:** 'Dumas, Sandra A'  
**Cc:** 'Rodriguez, Rosmery'; Laning, Jennifer; Perry, Christopher T.  
**Subject:** CDOT1101: Bridge 00253  
**Attachments:** Bridge00253 - Movement Photographs.pdf

Hi Sandra.

During our inspection of Bridge 00253 yesterday, lateral movement was observed in the superstructure relative to the substructure that we wanted to make sure you were aware of prior to the submission of the inspection report.

During our inspection, we noted that the superstructure has shifted. At the South Abutment, it is shifted to the east 1-inch and at the North Abutment it is shifted to the west 1-inch. This shift of the superstructure has fractured the keeper blocks in Bay 5 of both abutments due to the girders being in contact with them. It should be noted that the bridge is highly skewed with a skew angle of 35°-21'-06".

At the expansion sliding plate bearings at the South Abutment, a majority of the anchor bolts have been sheared off and there is misalignment up to 1-3/8-inches (11/16-inch between the sole and sliding plates and 11/16-inch between the sliding and masonry plates) to the east. There was also a difference in the bearing measurements of up to 1.5-inches compared to the previous inspection with the difference in temperature being 37 degrees (50° F this inspection and 87° F previously). The difference in measurements is extremely skewed considering that the span length is only 89'-6 11/16".

Previously (done by State Team 10) the bearing rating was a "7" and the member alignment rating was a "6". Pennoni is recommending that the bearing rating be lowered to a "4" and the member alignment rating be lowered to a "5".

I have attached some photos with descriptions to this email. In addition, I have uploaded all photos with handwritten photo logs onto the ftp should you want to see additional photos of these conditions. They are located in the folder: Pennoni/Submissions/Bridge 00253/Original Photographs

I will call you shortly to follow up to this email.

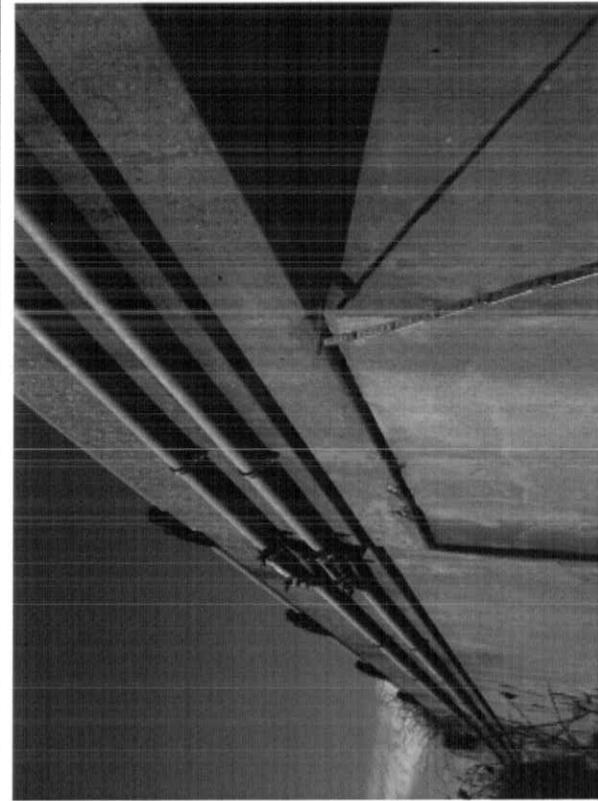
Thanks,  
Nate

**Nathan W. Buttorff, PE, M.ASCE**  
Project Bridge Engineer

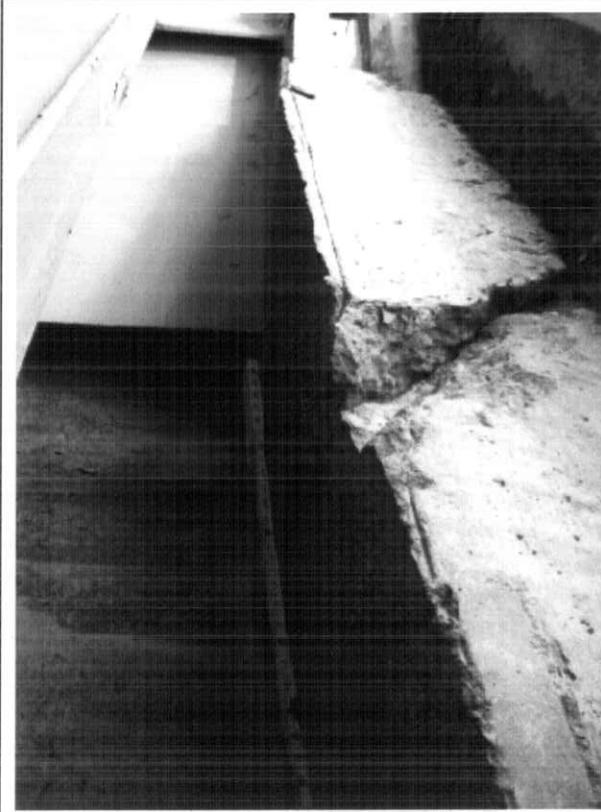
**Pennoni Associates Inc.**  
1224 Mill Street  
Building B, Suite 226  
East Berlin, CT 06023  
**Office** 860-835-2600 x5234  
**Fax** 860-835-2601 | **Mobile** 860-256-1905  
<http://www.pennoni.com> | [nbuttorff@pennoni.com](mailto:nbuttorff@pennoni.com)



<b>Bridge No.</b>	00253	<b>Inspected by:</b>	CTP
<b>Town:</b>	East Lyme	<b>Inspected by:</b>	RDM
<b>Feature Carried:</b>	Interstate 95 SB	<b>Date Inspected:</b>	1/31/2012
<b>Feature Crossed:</b>	Interstate 395	<b>Project No.:</b>	170-3013



**Photo # 1: South Abutment, east end of abutment, looking southwest - Lateral movement of superstructure to the east up to 1-inch relative to the Southeast Wingwall and the cheekwall.**



**Photo # 2: South Abutment, keeper block between Girders 5 and 6, looking southwest - Full height x full width fracture in keeper block up to 1-inch wide with a spall on the front face of the keeper block measuring 8" L x 10" H x 3" D.**



Bridge No.	00253	Inspected by:	CTP
Town:	East Lyme	Inspected by:	RDM
Feature Carried:	Interstate 95 SB	Date Inspected:	1/31/2012
Feature Crossed:	Interstate 395	Project No.:	170-3013

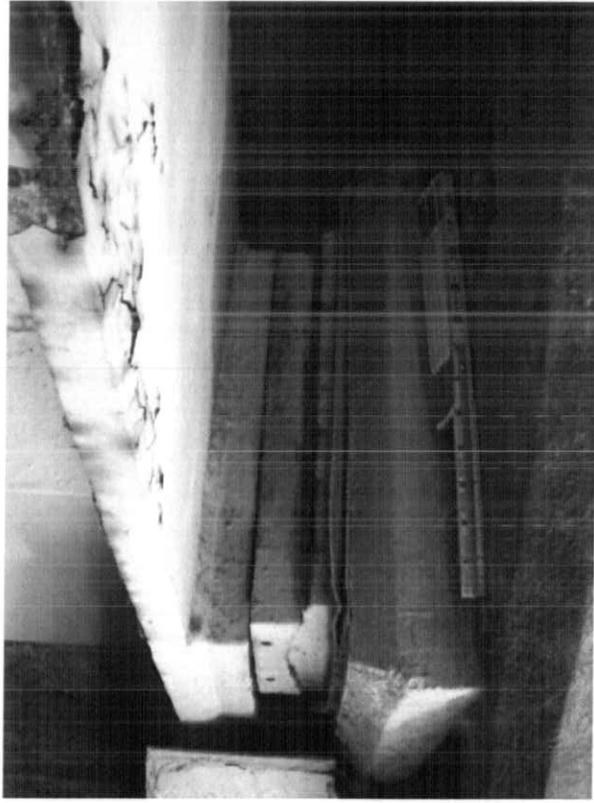


Photo # 3: Girder 5 Expansion Bearing, South Abutment, looking south – 11/16-inch misalignment to the east of the sliding plate compared to the masonry plate (note: anchor bolt sheared off).

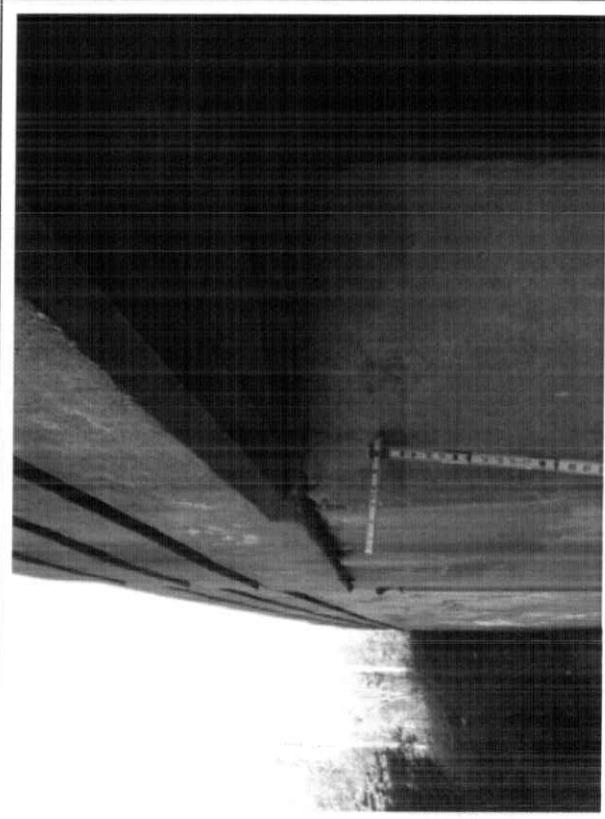
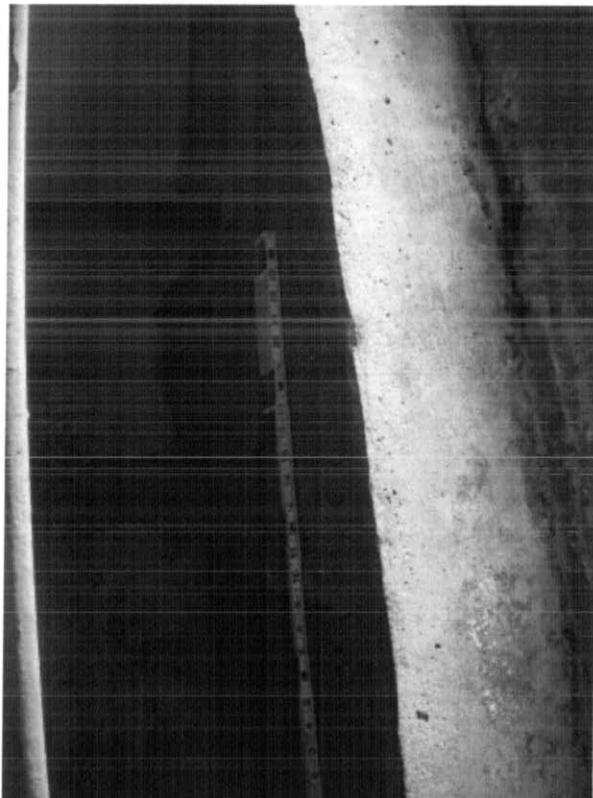


Photo # 4: North Abutment, west end of abutment, looking north – Lateral movement of superstructure to the west up to 1-inch relative to the Northwest Wingwall and the cheekwall.

<b>Bridge No.</b>	00253	<b>Inspected by:</b>	CTP
<b>Town:</b>	East Lyme	<b>Inspected by:</b>	RDM
<b>Feature Carried:</b>	Interstate 95 SB	<b>Date Inspected:</b>	1/31/2012
<b>Feature Crossed:</b>	Interstate 395	<b>Project No.:</b>	170-3013



	
<p><b>Photo # 5: North Abutment, keeper block between Girders 5 and 6, looking northeast – 24" L x 22" W x 9" H fractured section of keeper block with a full width crack up to 1/2-inch wide and up to 1/2-inch of vertical misalignment in the top face of the keeper block along the crack.</b></p>	

DEPARTMENT OF TRANSPORTATION  
BRIDGE SAFETY & EVALUATION

STRUCTURE EVALUATION

SHEET 1 OF 2 FORM BR1-19 REV 10/00

Inspected By: C. Perry & R. Martin

Sufficiency Rating: 62.00  
Previous Inspection Date: 5/27/2010

3S&E Received  Data Entry By: RP  
Copies Made  Data Entry Date: 3/26/12

SHEET 1 OF 2

90) Inspection Date: 01/31/12 Inspection Team: 2727 Frequency Class: 01

Insp: 4/22/2008 Deck Survey: 1/1/1900 Access: 021 Flagman: 00  
Type: H Frequency: 24 Team: 8 Date: 5/31/2011

CRITICAL FEATURE INSPECTIONS

Fracture:					
Uwater:					
Special:					

IDENTIFICATION

Bridge Name: EAST LYME Town Code: 23400

Inventory Route: 1  
A) Record Type: 1 Interstate High 3 South  
B) Signing Prefix: 1 Mainline  
C) Level of Service: 1

Feature Intersected: I-395 NORTHBOUND  
I-95 SOUTHBOUND  
1.3MI N OF ROUTE 161

Location: 88.58 Miles  
1) Milepoint: 41deg 22 min 24.00 sec  
16) Latitude: 72deg 11 min 36.00 sec  
17) Longitude: deg deg sec

Border Bridge: deg deg sec  
A) State Code: deg deg sec  
C) Border Town Name: deg deg sec

Border Bridge Structure No: deg deg deg  
A) Material: 3 Steel  
B) Design Type: 2 Stringer/Multi-beam o

Structure Type, Main: deg deg deg  
A) Material: 0 Other  
B) Design Type: 0 Other

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

Number of Spans, Main Unit: deg deg deg  
Number of Approach Spans: deg deg deg  
Deck Structure Type: deg deg deg

Wearing Surface/Protective System: deg deg deg  
A) Type of Wearing Surface: 6 Bituminous  
B) Type of Membrane: 8 Unknown  
C) Type of Deck Protection: 0 None

AGE AND SERVICE

27) Year Built: 1958 106) Year Reconstructed: deg deg deg  
42) Type of Service: 1 Highway 1 Under 1 HIGHWAY

28) Number of Lanes: 2 A) On 2 B) Under 2  
29) Average Daily Traffic: 28250 Half ADT?: -Yes

109) Percent Truck: 9%  
30) Year of ADT: 2008

19) Bypass, Detour Length: 8miles

GEOMETRIC DATA

48) Length of Max Span: 90ft  
49) Structure Length: 96ft  
50) Curb or Sidewalk Widths: deg deg deg

A) Left: 1.5ft B) Right: 1.5ft  
51) Brg Rdwy width, curb-curb: 38.0ft

52) Deck Width, Out-Out: 43.7ft  
32) Approach Roadway Width: 38ft

33) Bridge Median: 0 No Median 4199 sqft  
Deck Area: deg deg deg

34) Skew Angle: 35deg  
35) Structure Flared: 0

10) Inv. Rte. Min. Vert Clearance: 99ft  
47) Log Inv. Rte. Total Horiz Clr.: 38.0ft

47) RLog Inv. Rte. Total Horiz. Clr.: 0ft  
53) Min Vert Clearance Over Bridge: 99ft

54) Min Vert Under Clearance: 14ft Ref: 4  
55) Min Lat Under Clearance on Right: 16.0ft Ref: 4

56) Min Lat Under Clearance on Left: 10.2ft

BRIDGE COMMENTS

Nov 3 2008 - Deck condition rating lowered to reflect chloride content of deck. 8 of 8 samples taken for Proj No. 44-151 exceed thresh hold values. (JCK)  
All haunches were removed under Proj 44-151 in 2010. Hollow concrete on underside of deck removed by Br Maint 7/15/11. Bri-8 submitted by sk on 5/31/11 to remove special inspection.

RED FLAG



INVENTORY ROUTE UNDER STRUCTURE EVALUATION

FORM BRI-25 REV 10/00

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH
00253	EAST LYME	True 96
ACTIVITY CARRIED		
95 SOUTHBOUND		
E-395 NORTHBOUND		

INSPECTED BY: *S. PERRY*

VIEWED BY: *R. MAZIN*

SHEET 1 OF 1 (INSP. REPORT)

DESCRIPTION: \_\_\_\_\_ IDENTIFICATION \_\_\_\_\_ CLASSIFICATION \_\_\_\_\_

5) INVENTORY ROUTE: \_\_\_\_\_

A) RECORD TYPE: 2 \_\_\_\_\_

B) ROUTE SIGNING PREFIX: 1 Interstate Highway \_\_\_\_\_

C) DESIGNATED LEVEL OF SERVICE: 1 Mainline \_\_\_\_\_

D) ROUTE NO.: 00395 \_\_\_\_\_

11) MILE POINT (INV.RTE): 0.12 \_\_\_\_\_

26) INV. RTE. FUNCT CLASSIFICATION: 11 Urban Principal Arterial - I \_\_\_\_\_

100) DEFENSE HIGHWAY DESIGNATION: 1 Route is on a Interstate S \_\_\_\_\_

\*\* 102) DIRECTION OF TRAFFIC: 1 1-way traffic \_\_\_\_\_

104) HIGHWAY SYSTEM OF INV. ROUTE: 1 On System \_\_\_\_\_

110) DESIGNATED NATIONAL NETWORK: 1 On national network \_\_\_\_\_

AGE & SERVICE \_\_\_\_\_ POSTED SIGNS \_\_\_\_\_

+ 28B) NUMBER OF INV.ROUTE LANES: 2 \_\_\_\_\_

\* 29) ADT (INV. RTE): 13000 \_\_\_\_\_

\* 109) TRUCK ADT % (INV.RTE): 2 \_\_\_\_\_

\* 30) YEAR OF ADT (INV. RTE): 2008 \_\_\_\_\_

\* 41) INV ROUTE OPERATIONAL STATUS: A Open, no restriction \_\_\_\_\_

19) BYPASS DETOUR LENGTH: 6 Miles \_\_\_\_\_

+ POSTED VERT. CLR UNDER BRIDGE: 0ft 0in \_\_\_\_\_

COMMENTS:

GEOMETRIC DATA \_\_\_\_\_

+ 10) INV. RTE. MIN. VERT. CLEARANCE: 15 ft 0 in \_\_\_\_\_

+ 47) LOG INV. RTE. TOTAL HORIZ CLR.: 50.5 ft 37 ft \_\_\_\_\_

+ 47) RLOG INV. RTE. TOTAL HORIZ CLR.: 0 ft 0 ft \_\_\_\_\_

+ LOG MIN VERT CLR OVER INV ROUTE: 14 ft 3 in \_\_\_\_\_

+ RLOG MIN VERT CLR OVER INV ROUTE: 0 ft 0 in \_\_\_\_\_

+ 55) MIN LAT UNDERCLR ON RIGHT: H 16 ft 15 ft \_\_\_\_\_

+ 56) MIN LAT UNDERCLR ON LEFT: 10.2 ft 10 ft \_\_\_\_\_

Your Agency Name

Your Office Name

Your Department Name

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

Bridge Key: 00253 Agency ID: 00253 SR: 62.0 SD/FO: SD

#### IDENTIFICATION

State 1: 09 Connecticut Struc Num 8: 00253  
 Facility Carried 7: I-95 SOUTHBOUND Location 9: 1.3MI N OF ROUTE 161  
 Rte.(On/Under) 5A: Route On Structure Rte. Signing Prefix 5B: 1 Interstate Hwy  
 Level of Service 5C: 1 Mainline Route Number 5D: 00095  
 Directional Suffix 5E: 3 South % Responsibility: 0.00  
 SHD District 2: 02 County Code 3: New London  
 Place Code 4: EAST LYME Mile Post 11: 88.561 mi  
 Feature Intersected 6: I-395 NORTHBOUND  
 Latitude 16: 41° 12' 24" Longitude 17: 072° 11' 36"  
 Border Bridge Code 98: Unknown (P)  
 Border Bridge Number 99: NA

#### INSPECTION

Frequency 91: 24 months Inspection Date 90: 1/31/2012 Next Inspection: 1/31/2014  
 FC Frequency 92A: NA FC Inspection Date 93A: NA Next FC Inspection: NA  
 UW Frequency 92B: NA UW Inspection Date 93B: NA Next UW Inspection: NA  
 SI Frequency 92C: NA SI Date 93C: NA Next SI: NA  
 Element Frequency: 24 months Element Insp. Date: 5/27/2010 Next Elem. Insp.: 1/31/2014

#### CLASSIFICATION

Defense Highway 100: 1 STRAHNET hwy Parallel Structure 101: No || bridge exists  
 Direction of Traffic 102: 1 1-way traffic Temporary Structure 103: Not Applicable (P)  
 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: 1  
 3 Steel  
 Deck Type 107: 1 Concrete-Cast-in-Place  
 Wearing Surface 108A: 6 Bituminous  
 Membrane 108B: 8 Unknown  
 Deck protection 108C: None

#### CONDITION

Deck 58: 3 Serious Super 59: 5 Fair Sub 60: 5 Fair  
 Culvert 62: N N/A (NBI) Channel/Channel Protection 61: N N/A (NBI)

#### AGE AND SERVICE

Year Built 27: 1958 Year Reconstructed 106: -1  
 Type of Service on 42A: 1 Highway  
 Type of Service under 42B: 1 Highway  
 Lanes on 28A: 2 Lanes under 28B: 2 Detour Length 19: 8.1 mi  
 ADT 29: 28,450 Truck ADT 109: 9% Year of ADT 30: 2010

#### LOAD RATING AND POSTING

Inventory Rating Method 65: 1 LF Load Factor Operating Rating Method 63: 1 LF Load Factor  
 Inventory Rating 66: HS29.7 Operating Rating 64: HS49.5  
 Design Load 31: 5 MS 18 (HS 20) Posting 70: 5 All/Above Legal Loads  
 Posting Status 41: A Open, no restriction

#### GEOMETRIC DATA

Length Max Span 48: 89.90 ft Structure Length 49: 96.13 ft  
 Curb/Sdwk Width L 50A: 1.64 ft Curb/Sidewalk Width R 50B: 1.64 ft  
 Width Curb to Curb 51: 38.06 ft Width Out to Out 52: 43.64 ft  
 Approach Roadway width 32: (w/ shoulders) 38.06 ft Median 33: 0 No median  
 Deck Area: 4,154.87 sq. ft  
 Skew 34: 35.00° Structure Flared 35: 0 No flare  
 Vertical Clearance 10: 328.05 ft Horizontal Clearance 47: 38.06 ft  
 Minimum Vertical Clearance Over Bridge 53: 328.05 ft  
 Minimum Vertical Underclearance Reference 54A: H Hwy beneath struct  
 Minimum Vertical Underclearance 54B: 14.25 ft  
 Minimum Lateral Underclearance Reference R 55A: H Hwy beneath struct  
 Minimum Lateral Underclearance R 55: 15.90 ft  
 Minimum Lateral Underclearance L 56: 10.00 ft

#### APPRAISAL

Bridge Rail 36A: 0 Substandard Approach Rail 36C: 0 Substandard  
 Transition 36B: 0 Substandard Approach Rail Ends 36D: 0 Substandard  
 Str Evaluation 67: 5 Above Min Tolerable Deck Geometry 68: 6 Equal Min Criteria  
 Underclearance, Vertical and Horizontal 69: 3 Intolerable - Correct  
 Waterway Adequacy 71: N Not applicable Approach Alignment 72: 8 Equal Desirable Crit  
 Scour Critical 113: N Not Over Waterway

#### PROPOSED IMPROVEMENTS

Bridge Cost 94: \$1,000 Type of Work 75: 38 Other Structural  
 Roadway Cost 95: \$1,000 Length of Improvement 76: 0.3 ft  
 Total Cost 96: \$2,000 Future ADT 114: 14,125  
 Year of Cost Estimate 97: 2000 Year of Future ADT 115: 2029

#### NAVIGATION DATA

Navigation Control 38: NA-no waterway  
 Vertical Clearance 39: 0.0 ft Horizontal Clearance 40: 0.0 ft  
 Pier Protection 111: Not Applicable (P) 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
UNIT0	13/3	Unp Conc Deck/AC Ovl	(SF)	3,648	0%	0	100%	3,648	0%	0	0%	0	0%	0
UNIT0	107/3	Paint Stil Opn Girder	(LF)	636	0%	0	100%	636	0%	0	0%	0	0%	0
UNIT0	215/3	R/Conc Abutment	(LF)	151	27%	40	57%	86	17%	25	0%	0	0%	0
UNIT0	305/3	Asphaltic Plug Joint	(LF)	141	60%	85	40%	56	0%	0	0%	0	0%	0
UNIT0	311/3	Moveable Bearing	(EA)	7	0%	0	0%	0	100%	7	0%	0	0%	0
UNIT0	313/3	Fixed Bearing	(EA)	7	0%	0	86%	6	14%	1	0%	0	0%	0
UNIT0	331/3	Conc Bridge Railing	(LF)	192	95%	182	5%	10	0%	0	0%	0	0%	0
UNIT0	359/3	Soffit Smart Flag	(EA)	1	0%	0	0%	0	100%	1	0%	0	0%	0
UNIT0	362/3	Traf Impact SmFlag	(EA)	1	100%	1	0%	0	0%	0	0%	0	0%	0

**CONNECTICUT DEPARTMENT OF TRANSPORTATION  
FRACTURE CRITICAL MEMBERS/FATIGUE PRONE DETAILS  
INSPECTION DATA SHEET**

Form BR112, Rev 9/97

Bridge No:	00253	<b>Fracture Critical Inspection Date:</b> [ ]			
Year Built:	1958	<b>FC Insp Freq:</b> [ ] Months	<b>FC Type Code:</b> [ ]		
Town:	East Lyme	ADT:	28,450	Year of ADT:	2010
Facility Carried:	Interstate 95 Southbound	Structure Type:	302	% Truck:	9
Feature Intersected:	Interstate 395 Northbound				
Access Equipment Needed:	Bucket Truck				
Traffic Control Required:	Lane Closures				
Reference to Plans:	Project no. 324-01 Bridge Sheet Nos. 1, 3, & 7				

**MEMBER/DETAIL TYPE #** [ M ]

Member/Detail Type:	Partial Length Welded Cover Plates	<input type="checkbox"/> Fracture Critical		
Fatigue Category:	E'	Steel Type:	A-373	<input checked="" type="checkbox"/> Fatigue Prone
Description:	Rounded corner oversized cover plates, partial length fillet weld at Girders 2 through 6.			
Inspection Procedure:	Hands on			

**MEMBER/DETAIL TYPE #** [ H ]

Member/Detail Type:	Highly fatigue prone details in tension area	<input type="checkbox"/> Fracture Critical		
Fatigue Category:	C	Steel Type:	A-373	<input checked="" type="checkbox"/> Fatigue Prone
Description:	Fillet welds between diaphragm connection plates and girder web and flanges.			
Inspection Procedure:	Hands on			