



BRIDGE NO.01211

52980 - NEWTOWN
INTERSTATE-84 WB
over
HANOVER ROAD

In-Depth and Routine Inspection

11/16/2016

Inspected by: Team 6



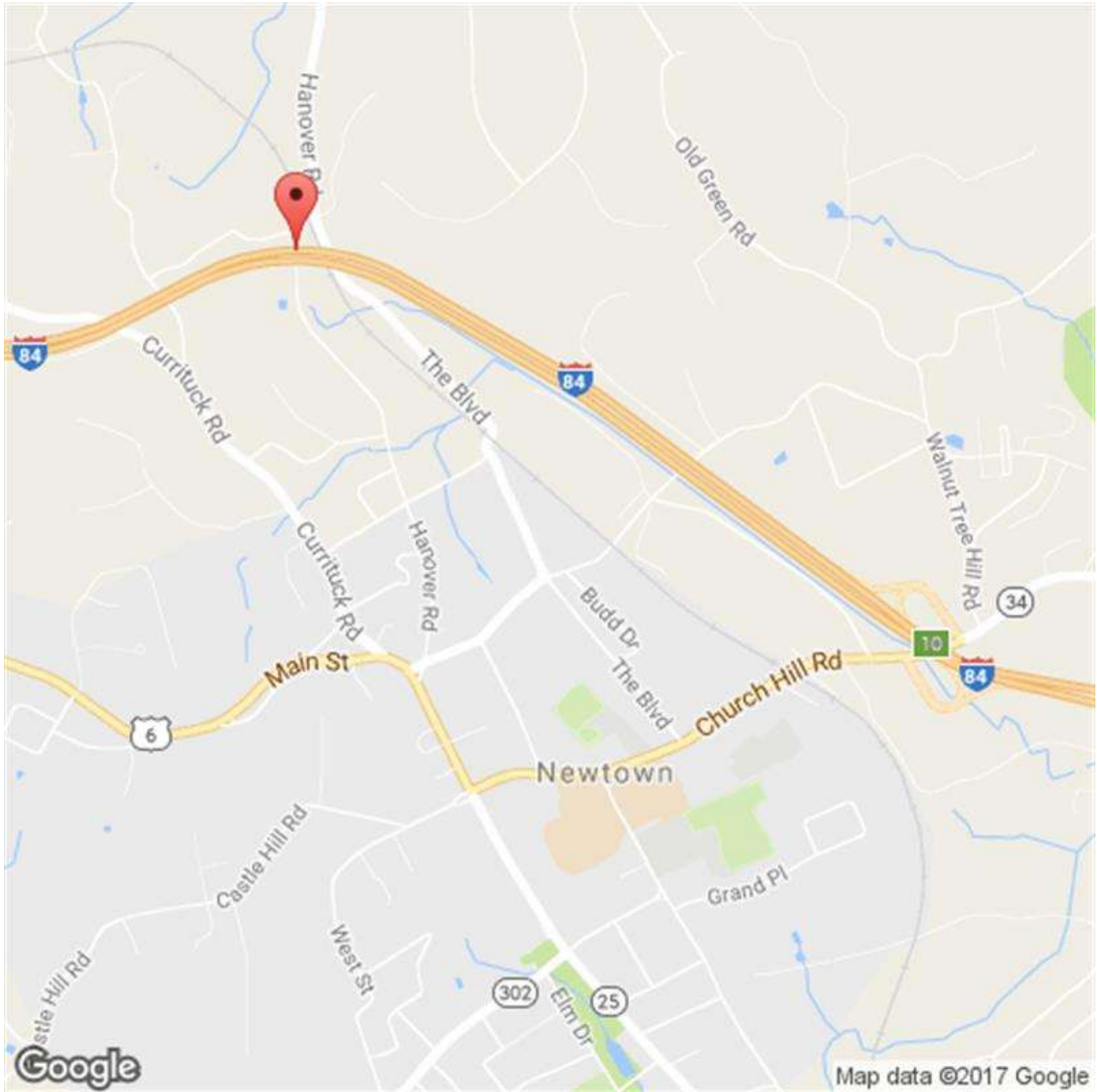
TABLE OF CONTENTS

<u>Section</u>	<u>Page Number</u>
Location Map	1
Structure Inventory and Appraisal (BRI-19)	2
Inspection Data (BRI-18)	6
National Bridge Elements	14
BRI.10	15
BRI.14	16
Sketches	19
Pictures	29

Form: Location
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Location Map # 1
I-84 W/B, over hanover road - Newtown.
Location 1.6 miles west of SR- 816.

Form: BRI-19, Rev. 2/15
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS

STRUCTURE INVENTORY & APPRAISAL

INSPECTION

Structurally Deficient Functionally Obsolete
Sufficiency Rating
(90) Inspection Date (91) Frequency
Indepth Insp Proposed next Indepth Year
Deck Survey Date Class
Access Flagman

	Frequency	Date	Type
Fracture	<input type="text"/>	<input type="text"/>	<input type="text"/>
Underwater	<input type="text"/>	<input type="text"/>	<input type="text"/>
Special	<input type="text"/>	<input type="text"/>	<input type="text"/>

IDENTIFICATION

Bridge Name
Town Code - Name
(5) Inventory Route
(A) Record Type
(B) Signing Prefix
(C) Level of Service
(D) Route Number.
(E) Dir Suffix
(6A) Featured Intersected
(6B) Critical Facility Indicator
(7) Facility Carried
(9) Location
(11) Mile Post Miles
(16) Latitude Deg. Min. Sec.
(17) Longitude Deg. Min. Sec.
(98) Border Bridge
(A) State Code (B) Percent Responsibility %
(C) Border Town Name
(99) Border Bridge Structure No.

STRUCTURE TYPE & MATERIALS

(43) Structure Type, Main
A) Material
B) Design Type
(44) Structure Type, Approach
A) Material
B) Design Type
(45) Number of Spans, Main Unit
(46) Number of Approach Spans
(107) Deck Structure Type
(108) Wearing Surface/Protection Systems
A) Type of Wearing Surface
B) Type of Membrane
C) Type of Deck Protection
Substructure
A) Material
B) Design Type
Paint
Type
Year
Comment

GEOMETRIC DATA

(48) Length of Maximum Span ft.
(49) Structure Length ft.
(50) Curb or Sidewalk Widths
A) Left ft. in. B) Right ft. in.
(51) Bridge Roadway Width Curb to Curb ft. in.
(52) Deck Width, Out to Out ft. in.
(32) Approach Roadway Width ft.

Form: BRI-19, Rev. 2/15
 Inspection type: In-Depth,Routine
 Inspection Date: 11/16/2016
 Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
 Carried: INTERSTATE-84 WB
 Crossed: HANOVER ROAD
 Inventory Route: NHS

(33) Bridge Median
 Deck Area sq. ft.
 (34) Skew Angle deg.
 (35) Structure Flared
 (10) Inv. Rte. Min. Vert. Clearance ft. in.
 (47) Inv. Rte. Total Horiz. Clr. ft. in.
 Log Inv. Rte. Total Horiz. Clr. ft. in.
 RLog Inv. Rte. Total Horiz. Clr. ft. in.
 (53) Min. Vert. Clearence Over Bridge ft. in.
 (54) Log-Min. Vert. Underclearance ref. ft. in.
 (55) Min. Lat Underclearance on Right ref. ft. in.
 (56) Min. Lat Underclearance on Left ft. in.

CONDITION

(58) Deck
 (59) Superstructure
 (60) Substructure
 (61) Channel & Channel Protections
 (62) Culverts
 (36) Traffic Safety Features
 A) Bridge Railings
 B) Transitions
 C) Approach Guardrail
 D) Approach Guardrail Ends

WATERWAY

Drainage Basin Waterway
 (38) Navigation Control
 (39) Navigation Vertical Clearance ft.
 (40) Navigation Horiz. Clr. ft.
 (111) Pier/Abutment Navigation
 (116) Vert-Lift Brg Nav Min ft. in.

AGE AND SERVICE

Year Built (106) Year Reconstructed
 (42) Type of Service
 A) On
 B) Under
 (28) Number of Lanes
 A) On B) Under
 (29) Average Daily Traffic
 Is Above Half ADT?
 (109) Precent Truck %
 (30) Years of ADT
 (19) Bypass, Detour Length Miles

APPRAISALS

(67) Structural Evaluation
 (68) Deck Geometry
 (69) Underclearances, Vert. & Horiz.
 (71) Waterway Adequacy
 (72) Approach Roadway Alignment
 (113) Scour Critical

COMMENTS

CLASSIFICATION

(112) NBIS Bridge Length
 (104) Highway System
 (26) Functional Class
 (100) Defense Highway
 (101) Parallel Structure
 (102) Direction of Traffic

Form: BRI-19, Rev. 2/15
 Inspection type: In-Depth,Routine
 Inspection Date: 11/16/2016
 Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
 Carried: INTERSTATE-84 WB
 Crossed: HANOVER ROAD
 Inventory Route: NHS

(103) Temporary Structure
 (110) Designated National Network
 (20) Toll
 (21) Maintain
 (22) Owner
 Report Class
 (37) Historical Significance

POSTED SIGNS

Other Posted Sign 1
 Other Posted Sign 2

	Actual	Recomended	
Posted Load Single Unit Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load Semi-Trailer Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load 4 Axle Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load 3S2 Truck	<input type="text"/>	<input type="text"/>	tons
All Vehicles	<input type="text"/>	<input type="text"/>	tons
Posted Vert. Clearance on Bridge	<input type="text"/> ft.	<input type="text"/> in.	
Posted Vert. Underclearance	<input type="text"/> ft.	<input type="text"/> in.	
Posted Speed Limit on Bridge	<input type="text"/> m.p.h.		

OTHER FEATURES

Fence Required
 Fence Present
 Fence Type
 Fence Height
 Fence Material
 Fence Top Type
 Barrel Ladders
 Stand Pipes
 Catwalks
 Moveable Inspection System
 Haunches Present over Roadway
 Utilities

PROPOSED IMPROVEMENTS

(75A) Type of Work Proposed
 (75B) Work Done By
 (76) Length of Structure Improvement ft.
 (94) Bridge Improvement Cost \$
 (95) Roadway Improvement Cost \$
 (96) Total Project Cost \$
 (97) Year of Improvement Estimate
 (114) Future ADT
 (115) Year of Future ADT
 DOT Bridge Program List No
 Project No
 Advertised Date

LOAD RATING & POSTING

(31) Design Load
 (63) Operating Rating Type
 (64) Operating Rating
 (65) Inventory Rating Type
 (66) Inventory Rating
 Evaluation Code
 Year of Evaluation
 (70) Bridge Posting
 (41) Structure Status


Form: BRI-19, Rev. 2/15
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS

INSPECTOR'S SIGNATURES:

1)  Date: 01/06/2017

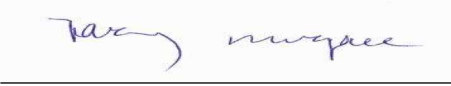
2)  Date: 01/09/2017

3) _____ Date:

4) _____ Date:

P.E. SIGNATURE: _____ Date:

P.E. # _____

Reviewed By:  Date: 01/23/2017

FIELD INSPECTION REPORT

Location:	1.6 MI WEST OF SR 816	Year Built:	1962	Snooper Required: <input type="checkbox"/>
Main Material:	3 - Steel	Year Rebuilt:	1991	Snooper Used: <input type="checkbox"/>
Main Design:	02 - Stringer/Multi-beam or			

Inspectors:		Visits:	
Lead Inspector:	John Chavez	Visit Date:	Temp: Start Time: End Time:
Inspector:	Task:	11/16/2016	50 09:45 AM 02:15 PM
Sharron, Patrick	BSE - Inspector		

58. DECK: Reinforced concrete deck. Overall Rating: 7

Rating

Overlay:	8	Bituminous concrete / membrane :	Right lane exhibits two bituminous spalls one adjacent to joint #3 (2' X 8" X 1" deep) & one adjacent to joint # 2 (2'X 1" X 1" deep) in span 2. Random correlation test areas in span 2.
Deck - Str. Condition:	7	Deck underside :	Random transverse cracks with and without efflorescence. Map cracking. Areas of shrinkage cracks. Deterioration 2.3%
Curbs:	7	Sloped granite :	Shows scrape marks. Curb reveal : North side 1" span 3. South side 1".
Median:	N		
Sidewalks:	N		
Parapet:	7	Parapets :	Exhibits vertical hairline cracks and scattered small pop outs. A few scrape marks. The approach parapets at northeast corner shows a spall 12" X 6" X 1" deep & southeast corner a spall 11" X 6" X 1"deep & northwest corner shows small surface spalls. Light scaling at north parapet, also a spall 6" X 2" X 1" deep adjacent to to pier 1.

Railing: 7 Single aluminum extruded rail :
A few scrape marks.

Paint: N

Fence: N

Drains: 7 P.V.C weep pipe drains :
One broken drain pipe at northeast corner in span # 3.
One drain pipe at northwest corner outside cheekwall has no extension.
Not discharging on to the superstructure.

Lighting Standard: N

Overall Utility Condition Rating

Utility Type/Size

N | No Utilities present

Construction Joints: N

Expansion Joint: 6 Asphaltic Plug Joints :
Joint over pier # 1 shows adjacent pot hole on span 2 side.
Joint over pier # 2 shows Three large depression.
Right lane adjacent to double skip line, one depression 1' X 2' & adjacent pot hole closed to white shoulder line.
Middle lane adjacent to double skip line, one depression 2' X 2' with a 4" diameter pot hole.
Middle lane adjacent to single skip line, one depression 2' X 2' with 1' diameter pot hole.

Haunches Present over travelway?

APPROACH CONDITION:

Overall Rating: 8

Rating

Approach Slab: 8 Based on the pavement.

Relief Joints: N

Approach Guide Rail: 6 M.B.R. :
Northwest corner has two sections that are bent & southwest corner has one dented section.
southwest corner at the attachment to the parapet has heavy rust.
Jersey barrier :
Northeast & southeast corners shows a few scrape marks.

Form: BRI-18, Rev. 1/14

Inspection type: In-Depth,Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

	Small surface spalls with exposed rusted re-bar on the south side.
Approach Pavement: 8	Bituminous concrete pavement :
Approach Embankment: 7	Steep embankments with vegetation.

Traffic Safety Features

Bridge Railings: 0	Parapet not 42" high.
Transitions: 0	No rub rail.
Approach Guardrails: 0	Not RB-350.
Approach Guardrail Ends: 1	Continous railing.

59. SUPERSTRUCTURE:

Steel rolled beams, three spans with seven beams each.	Overall Rating: 6
--	-------------------

Rating

Bearing Devices: 4	<p>Steel plates :</p> <p>Abutment # 1 & 2 are steel expansion bearings with steel keepers angles.</p> <p>Bearings are lubricated and show signs of movement.</p> <p>Pier # 1,span # 1 are curved plate fixed bearings with impacted rust between the plates.</p> <p>Medium rust on the bearings.</p> <p>Pier #1, span # 2 are steel expansion bearings without steel keepers.</p> <p>The anchor bolts were cut and the holes were plated.</p> <p>There is impacted rust between the sole and sliding plate and medium rust on the bearings which causes a gap.</p> <p>Also, some powdered rust between the bronze and masonry plate.</p> <p>Show little signs of movement.</p> <p>These bearings needs to be lubricated.</p> <p>Pier # 1, spans 2 & 3 are curved plate fixed bearings with impacted rust between the plates.</p> <p>Medium rust on the bearings.</p> <p>Bearing # 7 are the worse condition with heavy rust.</p> <p>The nut on bearing # 7, pier #2 span # 3 has rusted away.</p> <p>Anchor nuts have severe rose budding and section loss.</p> <p>All bearings on pier # 2 show heavy rust.</p> <p>Note: there is concrete debris around most bearings at both pier caps that needs to be removed.</p> <p>See photos.</p>
--------------------	--

Stringers: 6	Rolled beams :
--------------	----------------

Exhibits light to medium rust at flanges.

There are isolated areas of heavy laminar rust at top of bottom flanges.

There are numerous scrapes with heavy rust at webs of most beams.

Beam # 7 on all spans have heavy rust with pockets of laminar rust at top & bottom flange at pier #2.

There are isolated areas of section loss at beam ends near piers.

There are roller marks on random webs.

Span # 1, there are old utility brackets attached to the soffit of the beams near the pier.

Beam # 5, span # 2 pier # 1 south side has 8 liner feet of laminar rust at bottom flange.

Beam # 6 span # 2 , pier # 2 north side exhibits section loss on bottom flange, 9/16" remaining from original 7/8", 20" out from bearing stiffener .

Beam # 7, span # 2 has an isolated area of section loss on the north side on the bottom flange taken at mid-span,Original,7/8", measured 3/4", N/C during the 2016 inspection.

Beam # 7, pier # 2, span # 2, section loss measured on the bottom flange edges 2' from the center line of the bearing.

South side, original 7/8", measured 5/16".

North side, original 7/8", measured 5/16".

Beam # 7, pier # 2, span # 2 there is a perforation at the base of the vertical bearing stiffener, 2" high X 1" wide has been repaired with welded plate see photo.

Beam # 7, pier # 2, span # 2 has a perforation at the top & bottom of the web of beam end , 5" long X 2" high has beam repaired with welded plate, see photo.

Beam # 7, pier # 2 repairs have been made to bottom of web on south & north sides with welded plates, see photos.

Beam ends & bearings have not been clean & painted at both piers.

At abutments bearings where clean & painted but beam ends where not.

See attached sketch.

Girders:	N	
Floor Beams:	N	
Trusses - General:	N	
Trusses - Portals:	N	
Trusses - Bracing:	7	Diaphragms : Intermediate diaphragm # 1 in bay # 1 span # 1 appears to have been welded at lower diaphragm stiffener connection then painted black. Beam # 3, span # 1 the second intermediate diaphragm connection has a cracked weld 1 3/4" long at

		the top flange weld.
		This crack is located at the North side, old condition.
Paint:	3	Greater than 50 % rust with pitting.
Rust:	5	See items above.
Machinery Movable Span:	N	
Rivets & Bolts:	4	Severe rosebudding of anchor bolts and section loss to nuts on the fixed bearings.
Welds - Cracks:	7	See items above.
Timber Decay:	N	
Concrete Cracking:	N	
Collision Damage:	8	
Member Alignment:	7	Beam # 7, span # 2 is tipped 1- 9/16" in 2' feet.
		It appears to be as built condition after the deck was replaced, old condition.
Deflection Under Load:	N	
Vibration Under Load:	N	
Stand Pipes:	N	
Catwalks:		
Movable Inspection System:		
Barrel Ladders:	N	
		Are Barrel Ladders OSHA Compliant? <input type="checkbox"/>

60. SUBSTRUCTURE:

Reinforced concrete abutments.

Overall Rating: 7

Rating

Abutments - Stem:	7	<p>Abutments :</p> <p>Abutment # 1:</p> <p>There is a small surface spall under beams # 1 & 3.</p> <p>Three vertical cracks.</p> <p>Abutment # 2 :</p> <p>There is a joint spall 12" X 6" X 1" at northeast corner.</p> <p>Both stems have mud stains.</p> <p>Northeast corner at cheekwall has a 1' X 1' hollow area on the west face.</p> <p>Also, a 3' X 1' hollow area on the north face.</p> <p>Note: there is no gap between the cheekwall and the underside of the parapet.</p>
-------------------	---	--

Abutments - Backwall:	7	<p>Backwalls :</p> <p>Exhibits mud stains.</p> <p>Backwall # 1 exhibits small surface spalls along the top edge & .</p>
-----------------------	---	---

	Also a large spall between beams # 5 & 6.
	Backwall # 2 has a 1' diameter spall with a horizontal crack behind beam # 5.
	Also small surface spalls between beams # 4 & 5.
	One large spall 19" X 11" X 2" deep between beams # 5& 6.
Abutments - Footings: N	
Abutments - Settlement: 8	
Abutments - Wingwalls: 7	Concrete-U-shaped.
Piers/Bents - Caps: 7	Pier # 1: Span # 2, pedestal # 2 has a 3" X 3" small surface spall on the east face. Pedestal # 3, has a large spall 13" X 4" X 1-1/2" deep on the east face. These are not affecting the bearing. Note: numerous repairs have been made to both pier caps. A few random vertical cracks. See attached sketches and photos.
Piers/Bents - Pile Bent: N	
Piers/Bents - Columns: 7	Numerous repairs have been made. A few random hollow areas, vertical cracks and small spalls. See attached sketches and photos
Piers/Bents - Footings: N	
Piers/Bents - Settlement: 8	
Erosion - Scour: 7	No issues with erosion..
Concrete Crack - Spall: 6	See items above.
Steel Corrosion: N	
Paint: N	
Timber Decay: N	
Collision Damage: 8	
Debris: 5	Shows concrete debris several inches deep on both pier caps from joint installation. The debris needs to be removed. Photos.

61. CHANNEL AND CHANNEL PROTECTION:

Overall Rating:

Rating

Channel - Scour: N

Form: BRI-18, Rev. 1/14
 Inspection type: In-Depth,Routine
 Inspection Date: 11/16/2016
 Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
 Carried: INTERSTATE-84 WB
 Crossed: HANOVER ROAD
 Inventory Route: NHS

Embankment - Erosion:	N	
Debris:	N	
Vegetation:	N	
Channel Change:	N	
Fender - System:	N	
Spur Dikes and Jetties:	N	
Rip Rap:	N	

62. CULVERTS AND RETAINING WALLS:

Overall Rating: N

Rating

Barrel:	N	
Concrete:	N	
Steel:	N	
Timber:	N	
Headwall:	N	
Cutoff Wall:	N	
Debris:	N	
Retaining Wall System:	N	
Footing:	N	

LOAD POSTING:

Rating

Single Unit (Tons):		
Semi Trailer (Tons):		
4 Axle (Tons):		
3S2 (Tons):		
All Vehicles:		
Advanced Warning:		
Warning At Bridge:		
Legibility:		
Visibility:		

VERTICAL CLEARANCE POSTING

Min. Vert Under Clearance:	23	Ft	8	In	Confirmed.
Posted Clearance Under Bridge:		Ft		In	
Posted Clearance On Bridge:		Ft		In	
Advanced Warning:					
Warning At Bridge:					
Legibility:					
Visibility:					

NOTES / COMMENTS:

Character of Traffic: Light traffic.

Form: BRI-18, Rev. 1/14

Inspection type: In-Depth,Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

Additional Notes:

The debris on both pier caps needs to be removed.

The expansion bearings at pier 1,span two need to be lubricated.

Additional Comments:

Eng. Parviz Mirzaee present at job site.

National Bridge Elements
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	Mod.	7838	sq. ft.	7657	181	0	0
1120 - Efflorescence/Rust Staining		143		0	143	0	0
1130 - Cracking (RC and Other)		38		0	38	0	0
107 - Steel Open Girder/Beam	Mod.	958	ft.	288	670	0	0
1000 - Corrosion		670		0	670	0	0
205 - Reinforced Concrete Column	Mod.	8	each	5	3	0	0
1080 - Delamination/Spall/Patched Area		3		0	3	0	0
215 - Reinforced Concrete Abutment	Mod.	102	ft.	95	7	0	0
1080 - Delamination/Spall/Patched Area		4		0	4	0	0
1130 - Cracking (RC and Other)		3		0	3	0	0
234 - Reinforced Concrete Pier Cap	Mod.	98	ft.	92	6	0	0
1080 - Delamination/Spall/Patched Area		4		0	4	0	0
1130 - Cracking (RC and Other)		2		0	2	0	0
311 - Movable Bearing	Mod.	21	each	0	18	3	0
1000 - Corrosion		21		0	18	3	0
313 - Fixed Bearing	Mod.	21	each	14	7	0	0
1000 - Corrosion		7		0	7	0	0
330 - Metal Bridge Railing	Mod.	276	ft.	276	0	0	0
331 - Reinforced Concrete Bridge Railing	Mod.	285	ft.	279	6	0	0
1080 - Delamination/Spall/Patched Area		1		0	1	0	0
1130 - Cracking (RC and Other)		5		0	5	0	0

Bridge # ... 1211

Date ... 11/16/2016 Prepared by ... Team-6

checked by ... _____

CONCRETE DETERIORATION WORKSHEET

Form BRI-10 Rev 2001

Deterioration By Span - In Square Feet											
Span Number											
Deterioration Type	X	1	2	3							Total
Spalled and Delaminated Areas	Top										0
	Bot.										0
Scale (Moderate to Severe Only)	Top										0
	Bot.										0
Cracks: with Efflorescence (Use 6" width x length)	Bot.	42	13	33							88
Cracks: w/o Efflo. (Use 3" width x Length)	Top										0
	Bot.	3	7	28							38
Map Cracking: w/Efflorescence (Use full Area)	Bot.	23	24	8							55
Map Cracking: w/o Efflo. (Use 50% of Area)	Top										0
	Bot.										0
Honeycombed Areas: (only areas more than 1 1/2" deep)	Bot.										0
Totals	Top	0	0	0	0	0					0
	Bot.	68	44	69	0	0					181
Span Area		3055.15	2472.54	2486.75							8014.44
% Spalled and Delaminated on top		0.0%	0.0%	0.0%	#DIV/0!	#DIV/0!					0.0%
% Deterioration on Bottom		2.2%	1.8%	2.8%	#DIV/0!	#DIV/0!					2.3%

Note: 1 /
2 /
3 /

FIELD NOTES

BRIDGE NO: 01211

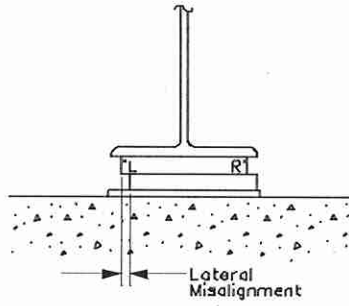
DATE : 11/16/2016

Crew Team-6

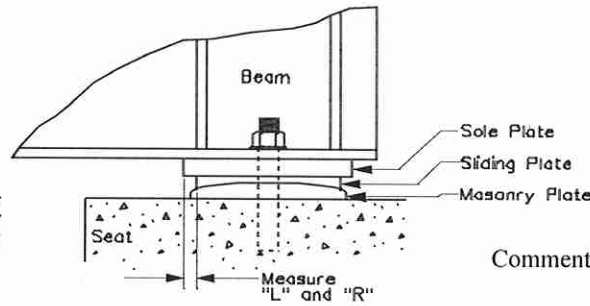
SHEET

SLIDING BEARING MEASUREMENTS

Form BRI - 14, Rev 9/01



FRONT VIEW



SIDE VIEW

Span No. = 1

Substructure Unit = Abut # 1

Temperature = 50

- 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.

Brg	Movement			Lateral Misalign.	Condition			Comments
	" L "	" R "	Mode Exp. or Contr.		Bearing Frozen?	Normal Mov't	Rust ? H/M/L	
1	7/8"	11/16"	E		N	Y	L	
2	1"1/16"	3/4"	E		N	Y	L	
3	1"1/16"	1"3/8"	C		N	Y	L	
4	1"3/16"	1"1/16"	N-exp.		N	Y	L	
5	1"1/2"	13/16"	C		N	Y	L	
6	1"13/16"	1"3/16"	C		N	Y	L	
7	1"7/16"	13/16"	C		N	Y	L	

General Notes:

FIELD NOTES

BRIDGE NO: 01211

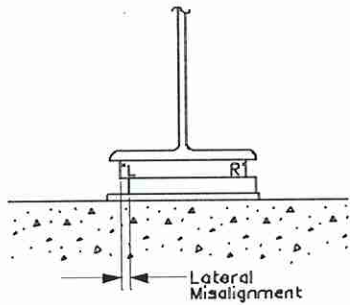
DATE: 11/16/2016

Crew Team-6

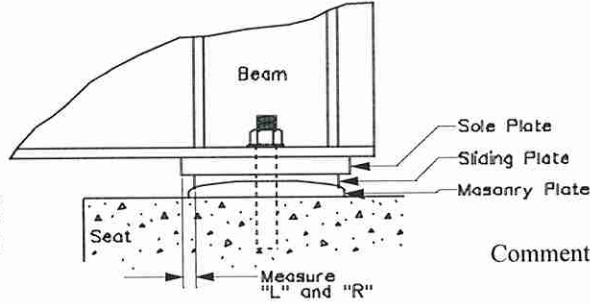
SHEET

SLIDING BEARING MEASUREMENTS

Form BRL - 14, Rev 9/01



FRONT VIEW



SIDE VIEW

Span No. = 2

Substructure Unit = Pier-1

Temperature = 50

- 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.

Brg	Movement				Condition			Comments
	" L "	" R "	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't	Rust ? H/M/L	
1	7/16"	5/8"	E	1/4"		Normal Mov't	L	
2	1/2"	1/2"	E	1/4"		Normal Mov't	L	
3	5/16"	1/4"	E	0"		Normal Mov't	L	
4	1/2"	1/2"	E	0"		Normal Mov't	L	
5	7/16"	1/4"	E	1/4" South		Normal Mov't	M	Light blush rust & pack rust between masonry plate & sole plate.
6	7/16"	5/8"	E	3/16" South		Normal Mov't	M	Spotty blush rust to masonry & sole plate, & 1/16" pack rust between plates.
7	1/2"	1/2"	E	1/16" South		Normal Mov't	H	3/16" pack rust between sole & bronze plates, & 1/8" pack rust between Bronze and Masonry plate.

General Notes:

FIELD NOTES

BRIDGE NO: 01211

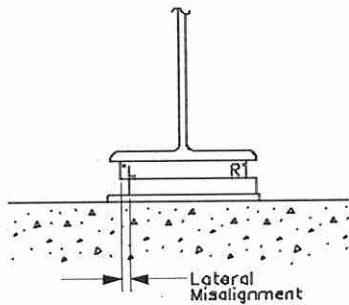
DATE: 11/16/2016

Crew Team-6

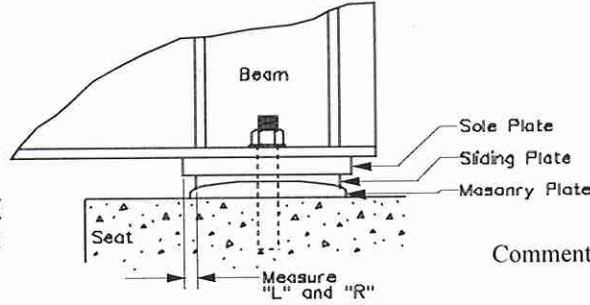
SHEET

SLIDING BEARING MEASUREMENTS

Form BRI - 14, Rev 9/01



FRONT VIEW



SIDE VIEW

Span No. = 3

Substructure Unit = Abut # 2

Temperature = 50

- 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.

Brg	Movement				Condition			Comments
	" L "	" R "	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't	Rust ? H/M/L	
1	1"1/2"	1"1/2"	C	1/4"	N	Y	L	
2	1"1/4"	1"3/8"	C	1/4"	N	Y	L	
3	1"3/8"	1"7/16"	C	1/4"	N	Y	L	
4	1"5/16"	1"9/16"	C	0"	N	Y	L	Light to moderate rust to plates.
5	1"5/8"	1"3/4"	C	1/8"	N	Y	L	Light to moderate rust to plates.
6	1"7/16"	1"3/4"	C	0"	N	Y	L	
7	1"3/8"	1"5/8"	C	0"	N	Y	L	Light rust to masonry plate.

General Notes:

Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

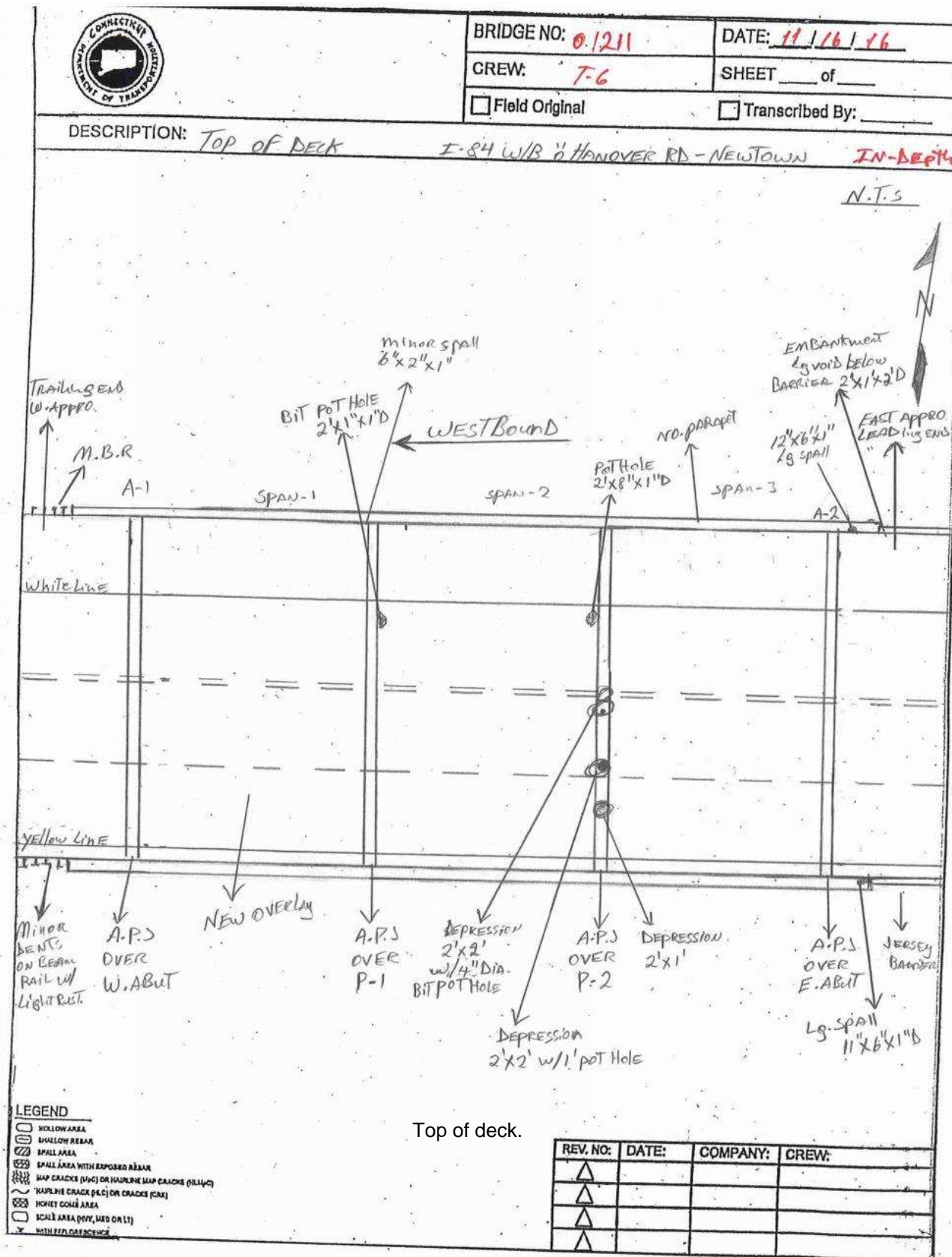
Bridge No: 01211

Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS



Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN

Carried: INTERSTATE-84 WB

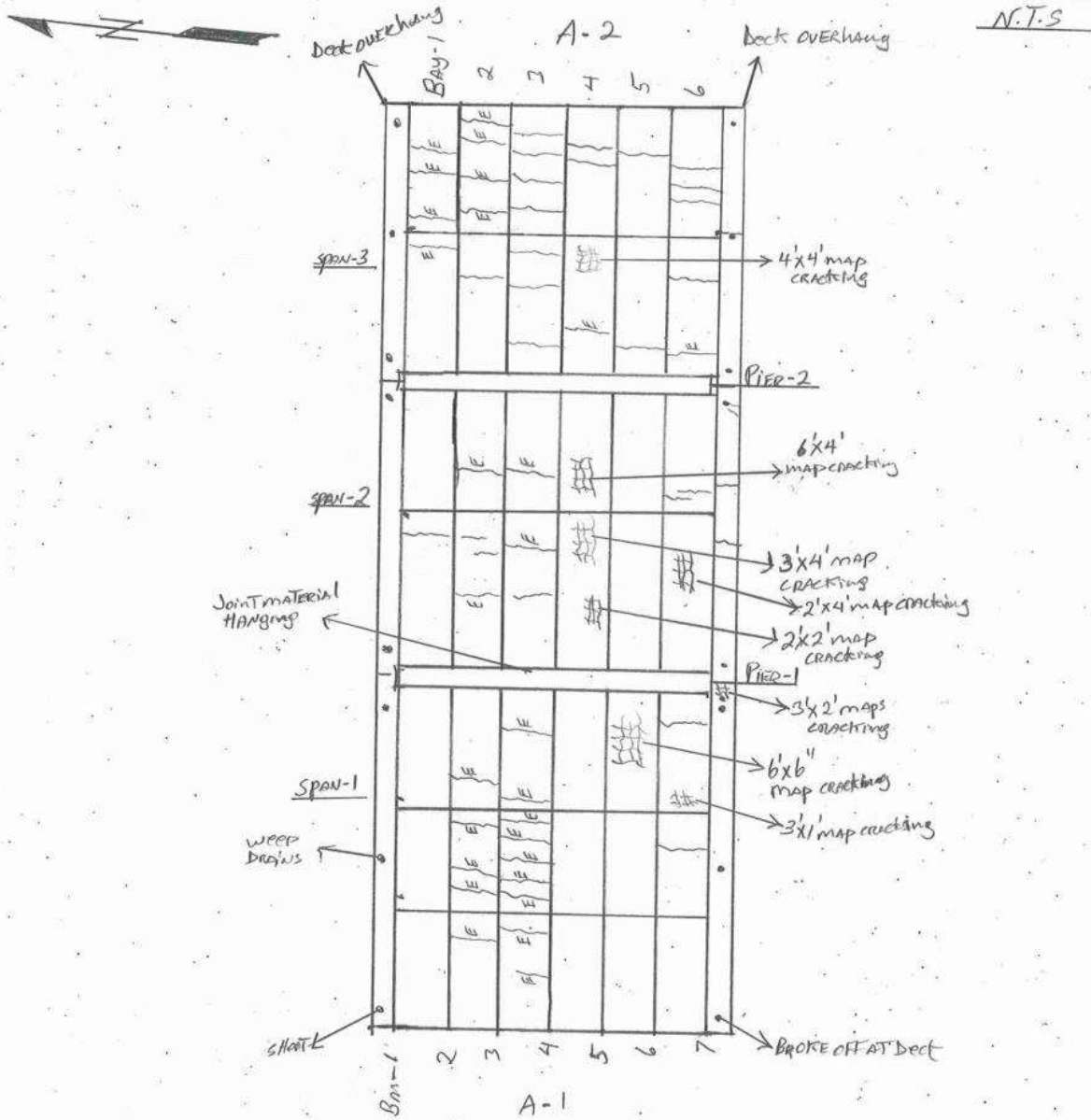
Crossed: HANOVER ROAD

Inventory Route: NHS



BRIDGE NO: 01211	DATE: 11/16/16
CREW: T-6	SHEET ___ of ___
<input type="checkbox"/> Field Original	<input type="checkbox"/> Transcribed By: _____

DESCRIPTION: DECK UNDERSIDE I-84 w/ 6' HANOVER ROAD - NEWTOWN N.T.S

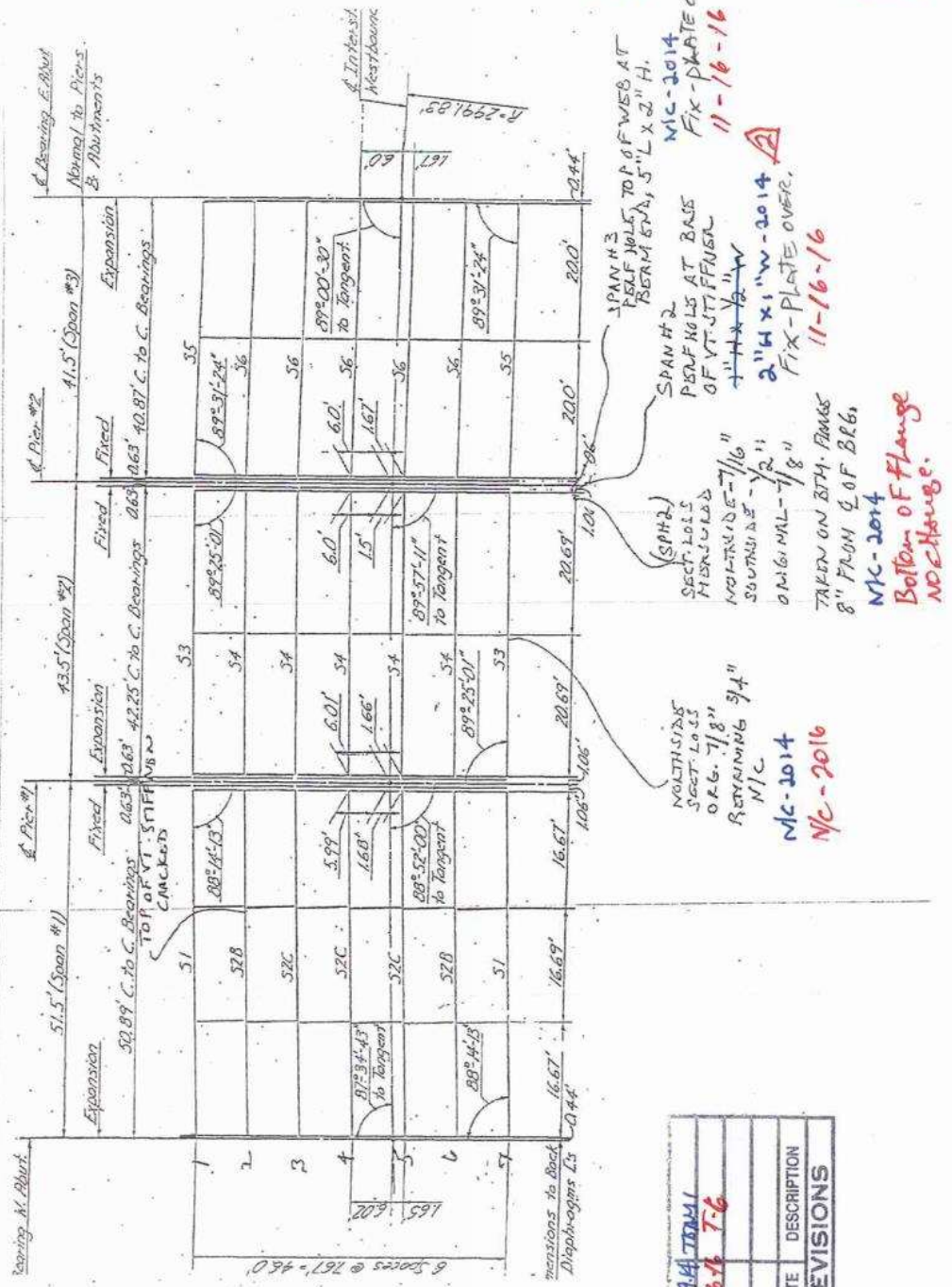


- LEGEND**
- HOLLOW AREA
 - SHALLOW REPAIR
 - SPALL AREA
 - SPALL AREA WITH EXPOSED REBAR
 - MAP CRACKS (1/4") OR HAIRLINE MAP CRACKS (1/8")
 - HAIRLINE CRACK (1/8") OR CRACKS (1/4")
 - HONEY COMB AREA
 - SCALE AREA (MAY, MED OR LT) WITH REFERENCE

Deck underside.

REV. NO:	DATE:	COMPANY:	CREW:
△			
△			
△			
△			

BRIDGE 01211 - I-84 (WB) of HANOVER ROAD - NEWTOWN
FRAMING PLAN



REVISIONS	
NO.	DATE DESCRIPTION
1	12-19-14 TEAM 1
2	11-16-16 7-6

Framing plan.

Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

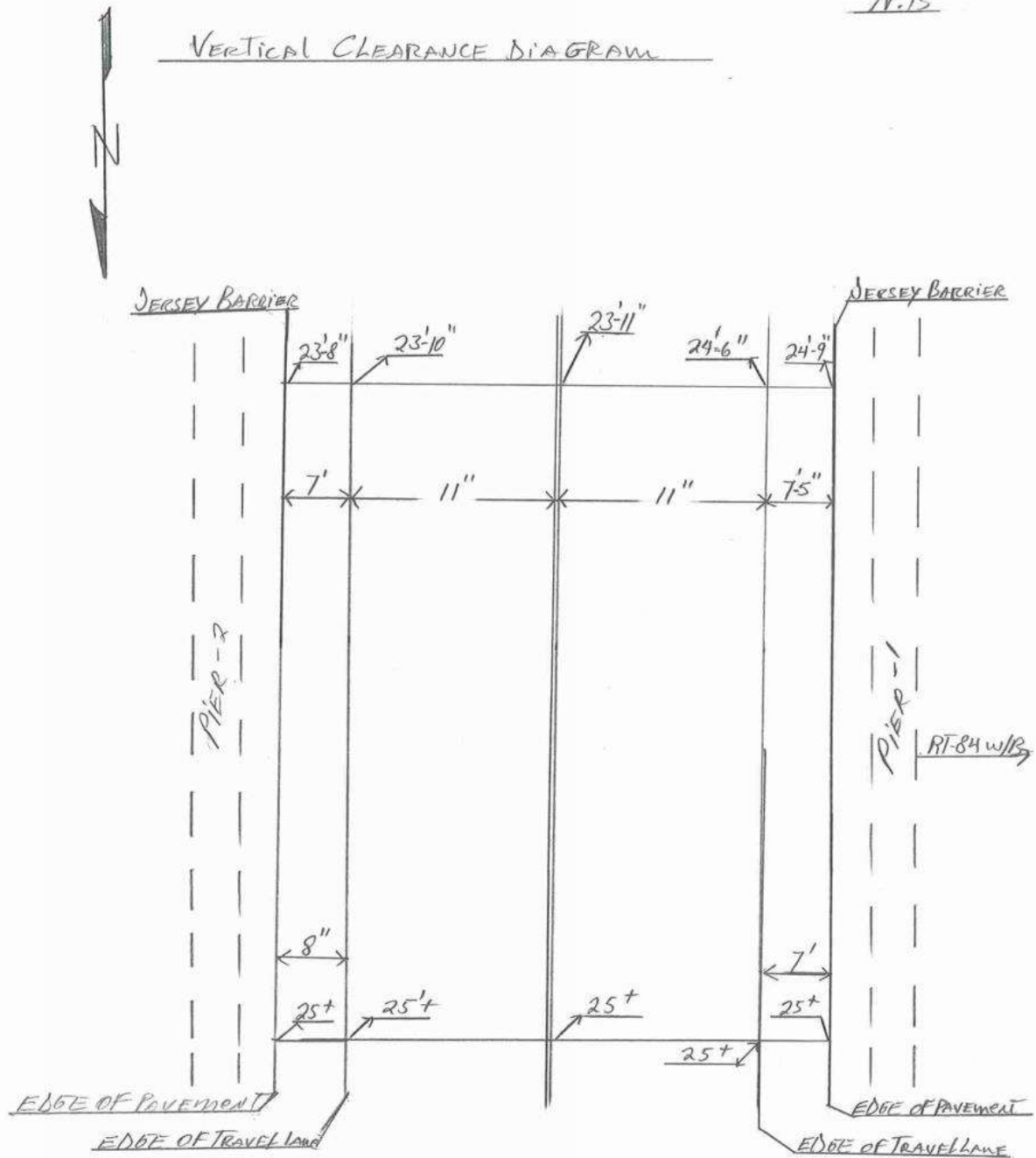
Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

BR-01211 RT-84 w/B O'HANOVER ROAD - NEWTOWN IN-DEPTH 11-16-2016 N.T.S.



Vertical clearance diagram.

Δ	11-16-16	N.C. T-6

Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

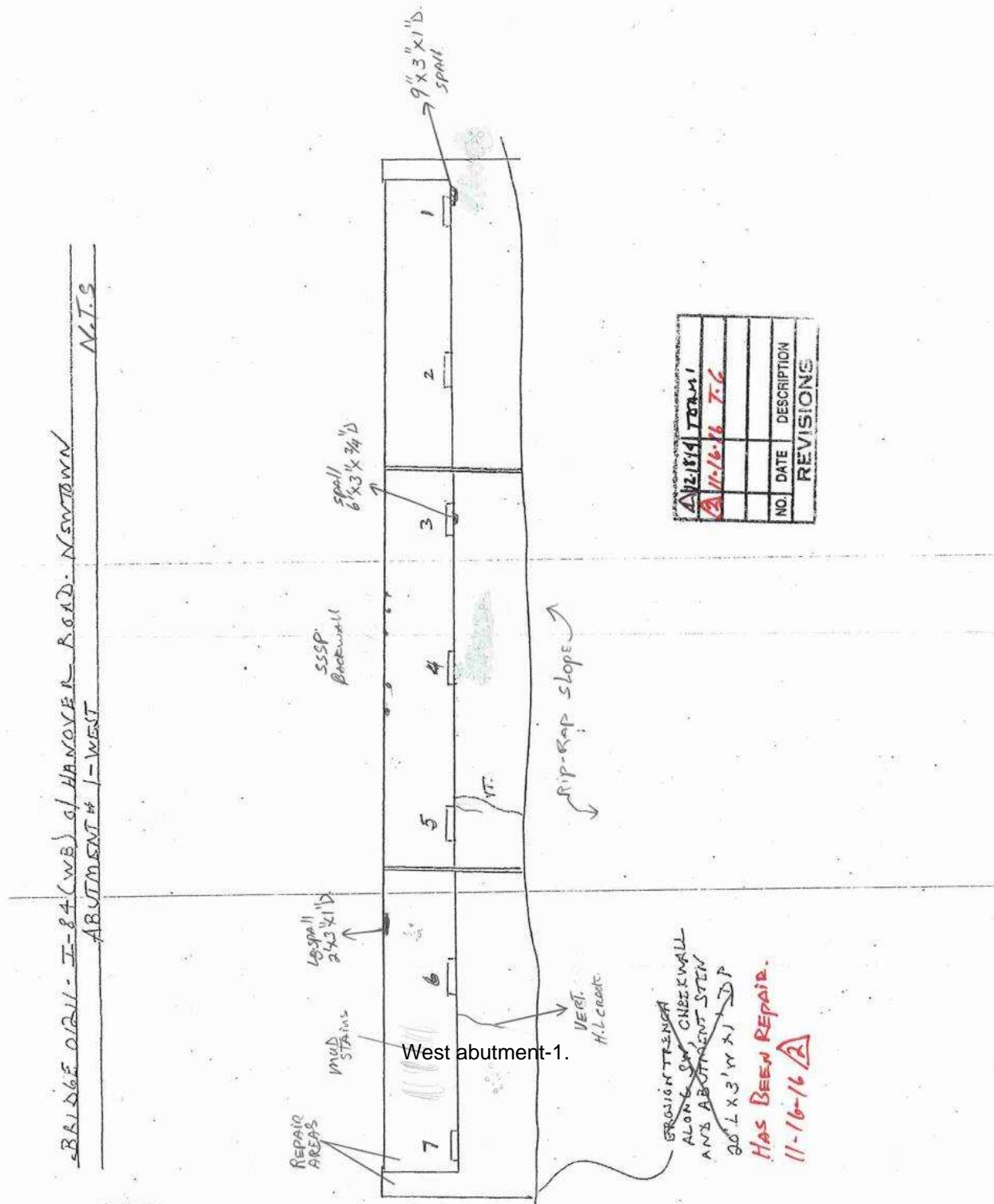
Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

11-16-16 IN-DEPTH



REVISIONS	
NO.	DESCRIPTION
1	11-16-16 T.G.

STRENGTHENING
ALONG ON CURB WALL
AND ABUTMENT STEIN
20' L X 3' W X 1' D
HAS BEEN REPAID.
11-16-16 A

Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

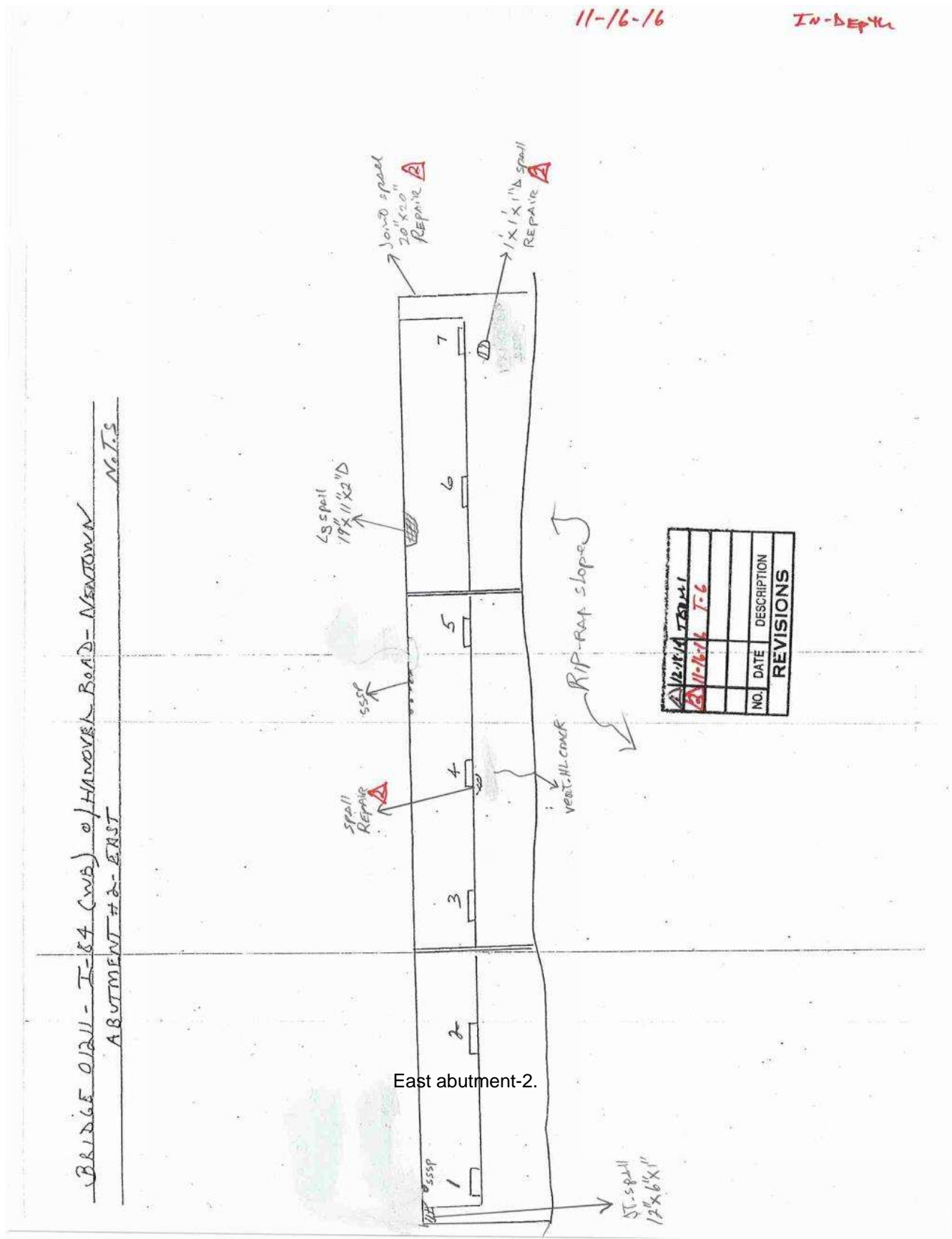
Bridge No: 01211

Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS



Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN

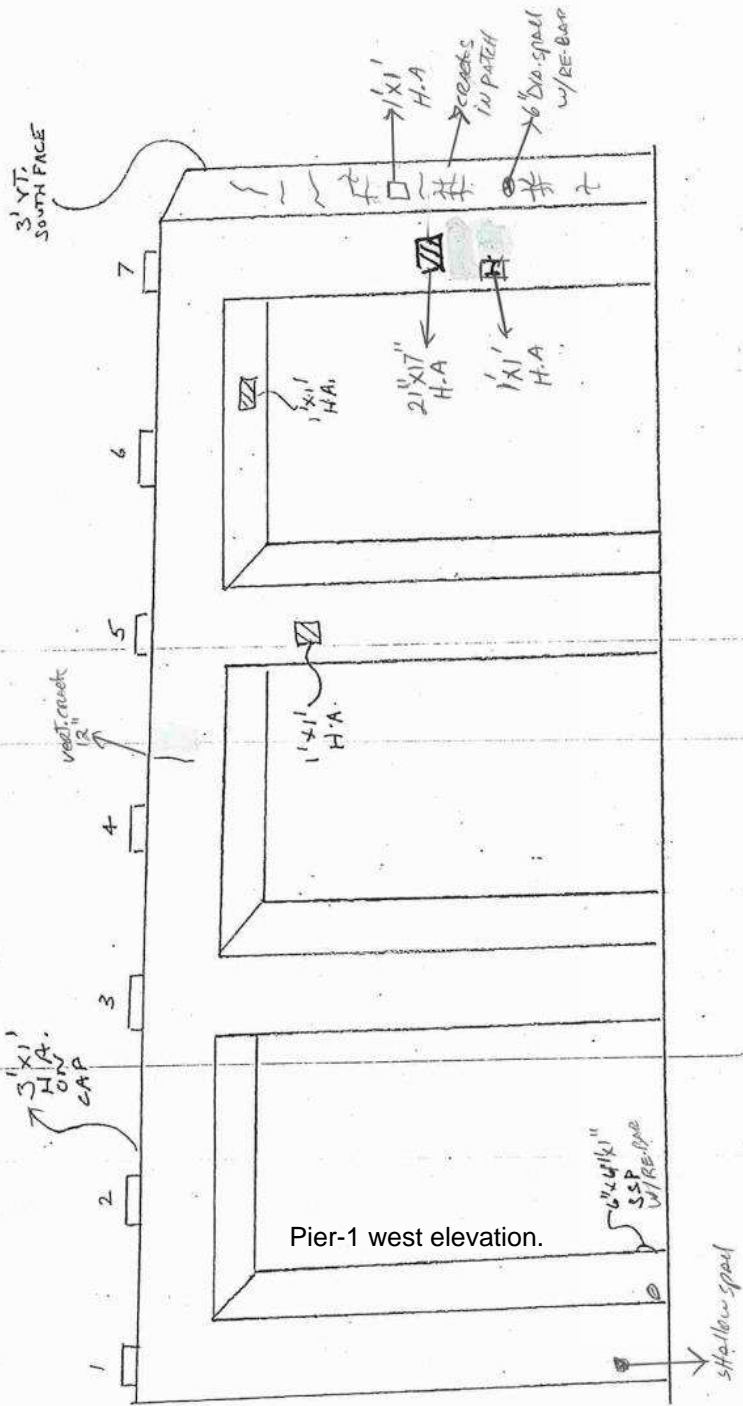
Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

11-16-16 In-Depth

BRIDGE 01211 - I-84 (WB) of HANOVER ROAD - NEWTOWN
 N.T.S.
 PIER #1 - WEST ELEVATION



11-16-16 TEAM 1	
11-16-16 T-6	
NO.	DATE DESCRIPTION
REVISIONS	

Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN

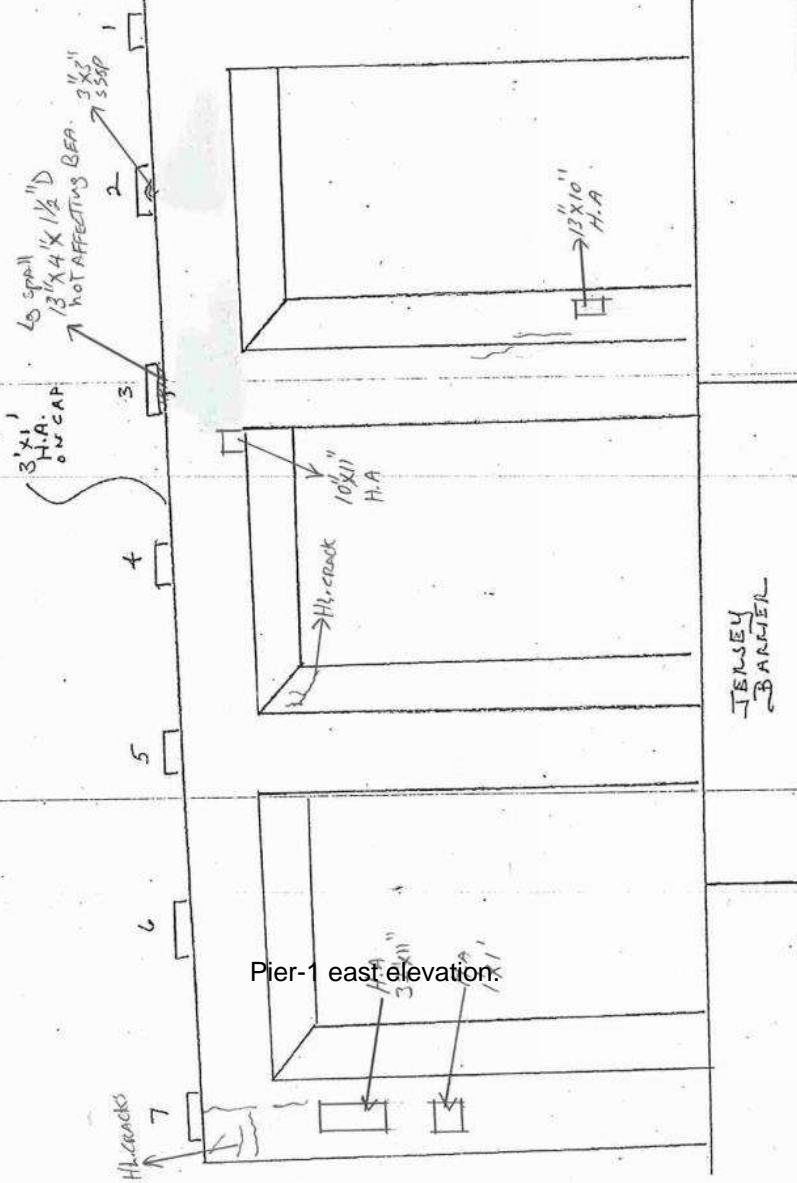
Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

11-16-16 IN-DEPTH

BRIDGE 01211- I-84 (WB) @ HANOVER ROAD - NEWTOWN N.T.S.
PIER #1 - EAST ELEVATION



REVISIONS	
NO.	DATE DESCRIPTION
1	11-16-16 TEAM 1
2	11-16-16 T-6

JERSEY BARRIER

Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

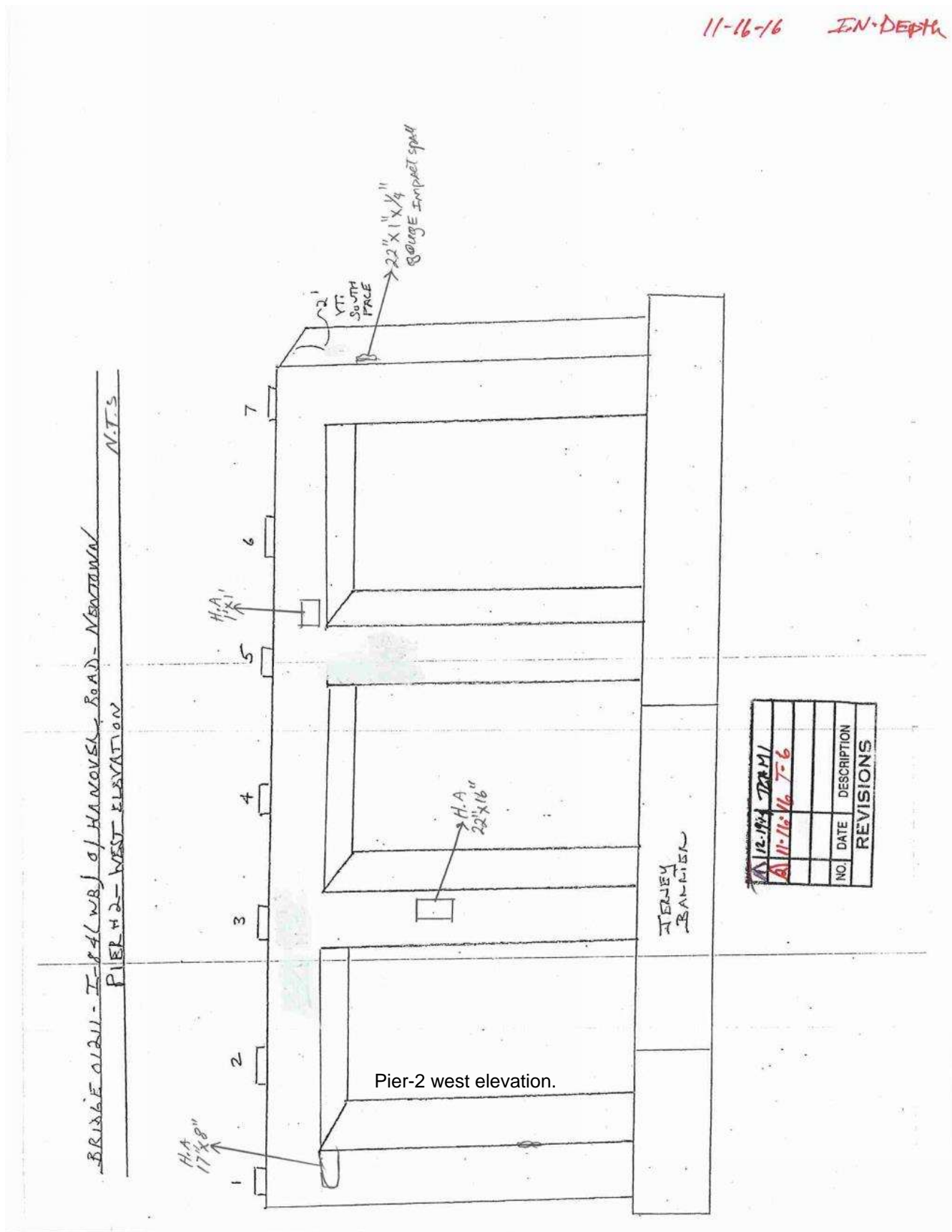
Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

11-16-16 IN-DEPTH



Sketches

Inspection type: In-Depth, Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN

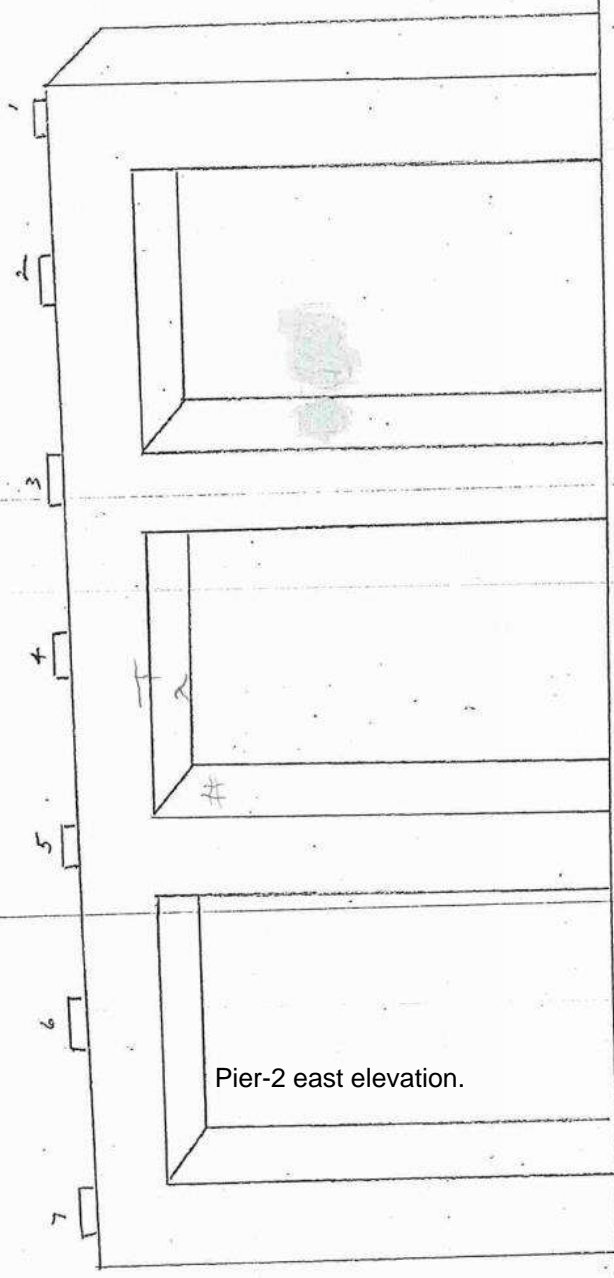
Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS

11-16-16 IN-DEPTH

BRIDGE 01211 - I-84 (WB) of HANOVER ROAD - NEWTOWN N.T.S.
PIER #2 - EAST ELEVATION



1	11-16-16	TEAM 6
2		
3		
4		
5		
6		
7		

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 1

Looking westbound.

Photo Taken: 11/16/2016



Photo Number: 2

South parapet & railing.

Photo Taken: 11/16/2016

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 3

Photo Taken: 11/16/2016

North parapet & railing.



Photo Number: 4

Photo Taken: 11/16/2016

Large spall at approach parapet northeast corner.

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 5

Photo Taken: 11/16/2016

East approach, leading end W/B.



Photo Number: 6

Photo Taken: 11/16/2016

A.P.J over east abutment.

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 7

Photo Taken: 11/16/2016

Wearing surface span# 3 W/B.



Photo Number: 8

Photo Taken: 11/16/2016

A.P.J over pier-2 W/B.

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 9

Photo Taken: 11/16/2016

Settlement pot holes on joint & pot holes on span-2 adjacent to A.P.J over pier # 2.



Photo Number: 10

Photo Taken: 11/16/2016

Wearing surface span-2 W/B.

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 11

Photo Taken: 11/16/2016

A.P.J over pier-1 W/B, and small pot hole on span-2 Adjacent to A.P.J over pier-1.



Photo Number: 12

Photo Taken: 11/16/2016

Wearing surface span-1 W/B.

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 13

Photo Taken: 11/16/2016

A.P.J over west abutment W/B.



Photo Number: 14

Photo Taken: 11/16/2016

West approach, trailing end W/B.

Form: Asset Photos
Inspection type: In-Depth,Routine
Inspection Date: 11/16/2016
Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN
Carried: INTERSTATE-84 WB
Crossed: HANOVER ROAD
Inventory Route: NHS



Photo Number: 15

Photo Taken: 11/16/2016

North elevation.



Photo Number: 16

Photo Taken: 11/16/2016

South elevation.



Photo Number: 17

West abutment.

Photo Taken: 11/16/2016



Photo Number: 18

Typical expansion bearing west abutment.

Photo Taken: 11/16/2016



Photo Number: 19

Photo Taken: 11/16/2016

Rip-rap place at southwest corner.

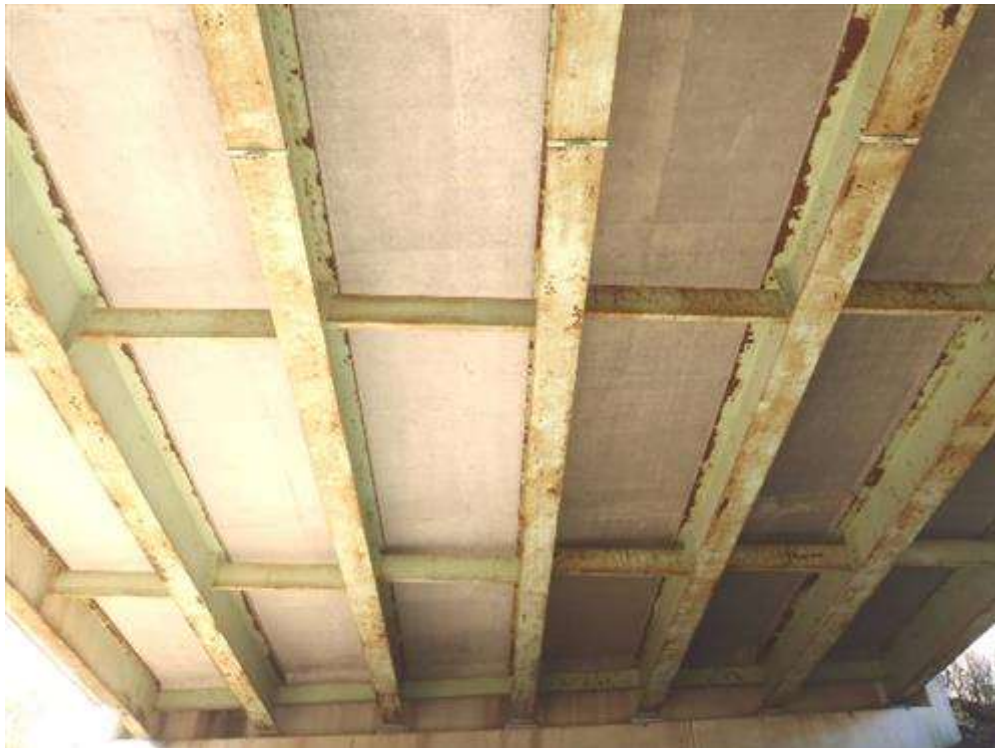


Photo Number: 20

Photo Taken: 11/16/2016

Deck underside span-1.



Photo Number: 21

Pier-1 west elevation.

Photo Taken: 11/16/2016



Photo Number: 22

Typical bearings pier 1.

Photo Taken: 11/16/2016



Photo Number: 23

Bearing 2 pier 1 concrete between beams.

Photo Taken: 11/16/2016



Photo Number: 24

Large spall pedestal 3 pier 1, span 2 east side.

Photo Taken: 11/16/2016



Photo Number: 25

Photo Taken: 11/16/2016

Beam # 7, span-2 south side at the bottom flange & bottom of stiffener mid-span shows isolated area of section loss.

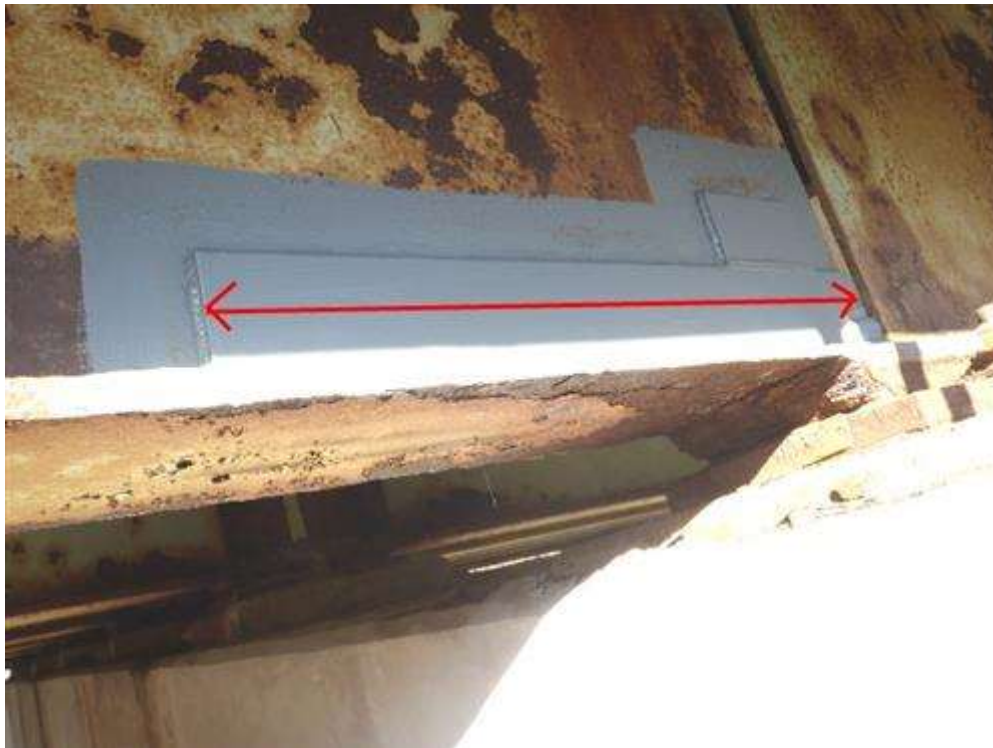


Photo Number: 26

Photo Taken: 11/16/2016

Beam 7 south side span 2 at pier 2, repairs have been made to bottom flange & beam end.

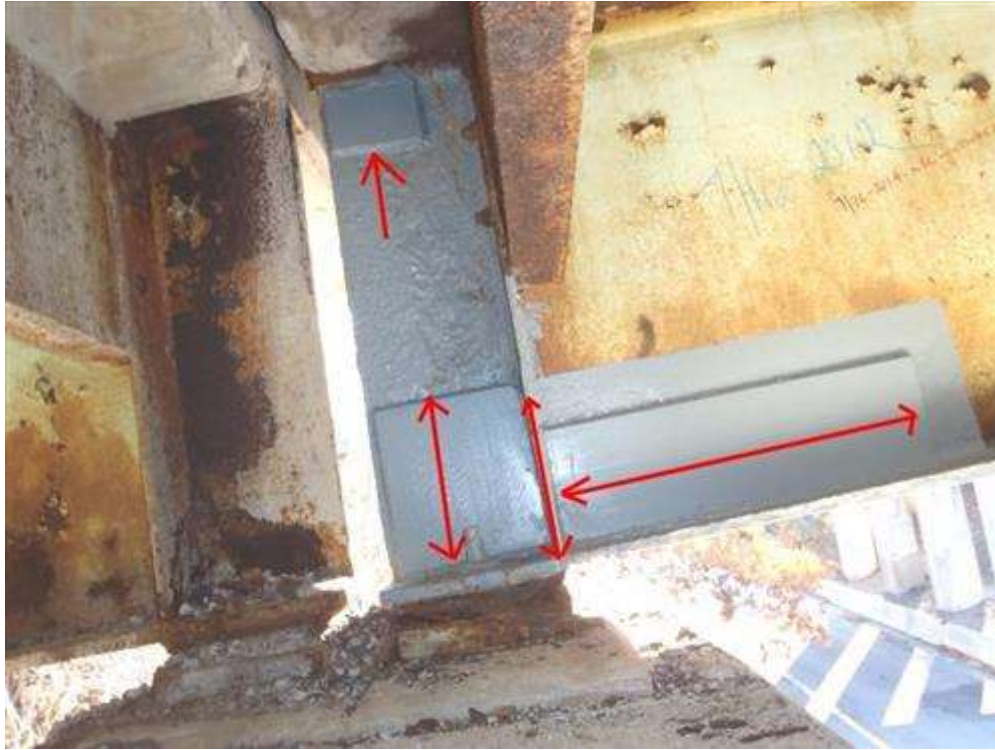


Photo Number: 27

Photo Taken: 11/16/2016

Beam #7 north side at pier 2, repairs have been made to beam end & vertical bearing stiffener and bottom of web.



Photo Number: 28

Photo Taken: 11/16/2016

Deck underside span-2.



Photo Number: 29

Pier 2 west elevation..

Photo Taken: 11/16/2016



Photo Number: 30

Pier 2, concrete between beam ends.

Photo Taken: 11/16/2016



Photo Number: 31

Photo Taken: 11/16/2016

Typical bearings pier 2.



Photo Number: 32

Photo Taken: 11/16/2016

Pier 2 east elevation.



Photo Number: 34

Photo Taken: 11/16/2016

Typical expansion bearing east abutment



Photo Number: 35

Photo Taken: 11/16/2016

East abutment.

Form: Asset Photos

Inspection type: In-Depth,Routine

Inspection Date: 11/16/2016

Inspected by: Team 6

Bridge No: 01211

Town: NEWTOWN

Carried: INTERSTATE-84 WB

Crossed: HANOVER ROAD

Inventory Route: NHS



Photo Number: 36

Pier 1 east elevation.

Photo Taken: 11/16/2016