



NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
BRIDGE MAINTENANCE UNIT

ATTENTION

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY CUMBERLAND BRIDGE NUMBER 250153 INSPECTION CYCLE 2 YRS

ROUTE SR1005 ACROSS I95 M.P. 0

LOCATION 0.4 MI.E.JCT.US301

SUPERSTRUCTURE REINFORCED CONCRETE DECK GIRDERS

SUBSTRUCTURE EBTS&IBTS:RC CAP/PPC PILES

SPANS 1@54'8";2@60';1@54'8

LONGITUDE 78° 44' 5.1"

LATITUDE 35° 8' 29.1"

PRESENT CONDITION FAIR

INVENTORY RATING HS-13

INSPECTION DATE 03/16/2007

OPERATING RATING HS-21

PRESENT POSTING Not Posted **SV39 LGW**

PROPOSED POSTING WT LT 34 tons

COMPUTER UPDATE 12-11-07

ANALYSIS DATE 11-19-07

POSTING LETTER DATE 12-11-07

SUFFICIENCY RATING \_\_\_\_\_

OTHER SIGNS PRESENT 5 DELINEATORS, 2 WEIGHT LIMIT



LOOKING EAST

SIGN NOTICE  
ISSUED FOR

NUMBERED  
REQUIRED

<u>No</u>	WEIGHT LIMIT	_____
<u>Yes</u>	DELINEATORS	<u>3</u>
<u>No</u>	NARROW BRIDGE	_____
<u>No</u>	ONE LANE BRIDGE	_____
<u>No</u>	LOW CLEARANCE	_____

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL

Run Date: 12/11/2007

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE 250153  
 (8) STRUCTURE NUMBER(FEDERAL) 00000000510153  
 INVENTORY ROUTE (ON/UNDER) - ON 131010050  
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 6  
 (3) COUNTY CODE 51 (4) PLACE CODE 00000  
 (6) FEATURE INTERSECTED - 195  
 (7) FACILITY CARRIED SR1005  
 (9) LOCATION 0.4 MI.E.JCT.US301  
 (11)MILEPOINT 0  
 (16)LAT 35° 8' 29.1" (17)LONG 78° 44' 5.1"  
 (98)BORDER BRIDGE STATE CODE PCT SHARE  
 (99)BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 56.6  
 STATUS = Functionally Obsolete

CLASSIFICATION CODE

(112)NBIS BRIDGE SYSTEM - YES  
 (104)HIGHWAY SYSTEM NON NHS Route 0  
 (26) FUNCTIONAL CLASS - Minor Collector 08  
 (100)STRAHNET HIGHWAY - Not a STRAHNET Route 0  
 (101)PARALLEL STRUCTURE - No Parallel Structure N  
 (102)DIRECTION OF TRAFFIC - 2-way Traffic 2  
 (103)TEMPORARY STRUCTURE - Not Temporary  
 (110)DESIGNATED NATIONAL NETWORK - Not Part of 0  
 (20) TOLL On Free Road 3  
 (31) MAINTAIN - State Highway Agency 01  
 (22) OWNER - State Highway Agency 01  
 (37) HISTORICAL SIGNIFICANCE - Not Eligible 5

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Concrete  
 TYPE - Tee Beam CODE 104  
 (44) STRUCTURE TYPE APPR :  
 TYPE - CODE 0  
 (45) NUMBER OF SPANS IN MAIN UNIT 4  
 (46) NUMBER OF APPROACH SPANS 0  
 (107)DECK STRUCTURE TYPE - Concrete cast-in-place CODE 1  
 (108)WEARING SURFACE / PROTECTIVE SYSTEM :  
 (A) TYPE OF WEARING SURFACE - Concrete CODE 1  
 (B) TYPE OF MEMBRANE - None CODE 0  
 (C) TYPE OF DECK PROTECTION - None CODE 0

CONDITION CODE

(58) DECK 6  
 (59) SUPERSTRUCTURE 5  
 (60) SUBSTRUCTURE 6  
 (61) CHANNEL & CHANNEL PROTECTION N  
 (62) CULVERTS N

LOAD RATING AND POSTING CODE

(31) DESIGN LOAD HS 15 3  
 (64) OPERATING RATING - HS-22 139  
 (66) INVENTORY RATING - HS-13 123  
 (70) BRIDGE POSTING - Posting Required 4  
 (41) STRUCTURE OPEN, POSTED ,OR CLOSED P  
 DESCRIPTION - Posted for Load

AGE AND SERVICE

(27) YEAR BUILT 1957  
 (106)YEAR RECONSTRUCTED 0  
 (42) TYPE OF SERVICE : ON - Highway  
 UNDER - Highway CODE 11  
 (28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 4  
 (29) AVERAGE DAILY TRAFFIC 410  
 (30) YEAR OF ADT 2004 (109) TRUCK ADT PCT 6 %  
 (19) BYPASS OR DETOUR LENGTH 6 MI

APPRAISAL CODE

(67) STRUCTURAL EVALUATION 5  
 (68) DECK GEOMETRY 4  
 (69) UNDERCLEARANCES,VERTI & HORIZ 2  
 (71) WATERWAY ADEQUACY N  
 (72) APPROACH ROADWAY ALIGNMENT 8  
 (36) TRAFFIC SAFETY FEATURES 0000  
 (11)SCOUR CRITICAL BRIDGES N

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 60 FT  
 (49) STRUCTURE LENGTH 229 FT  
 (50)CURB OR SIDEWALK: LEFT 1.2 FT RIGHT 1.2 FT  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 24.0 FT  
 (52) DECK WIDTH OUT TO OUT 26.5 FT  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 20.0 FT  
 (33) BRIDGE MEDIAN - No Median CODE 0  
 (34) SKEW 26° (35) STRUCTURE FLARED NO  
 (10) INVENTORY ROUTE MIN VERT CLEAR 99 FT 99 IN  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 24.0 FT  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99 FT 99 IN  
 (54) MIN VERT UNDERCLEAR REF Highway 14 FT 07 IN  
 (55) MIN LAT UNDERCLEAR RT REF Highway 9.7 FT  
 (56) MIN LAT UNDERCLEAR LT REF - 17.0 FT

PROPOSED IMPROVEMENTS

(75) TYPE OF WORK - CODE 311  
 (76) LENGTH OF STRUCTURE IMPROVEMENT 229 FT  
 (94) BRIDGE IMPROVEMENT COST \$490,000  
 (95) ROADWAY IMPROVEMENT COST \$123,000  
 (96) TOTAL PROJECT COST \$735,000  
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 207  
 (114)FUTURE ADT 820 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 03/16/2007

NAVIGATION DATA

(38) NAVIGATION CONTROL - Not Applicable CODE N  
 (111)PIER PROTECTION - Not Applicable CODE  
 (39) NAVIGATION VERTICAL CLEARANCE 0  
 (116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR  
 (40) NAVIGATION HORIZONTAL CLEARANCE 0

(92) CRITICAL FEATURE INSPECTION : (93) CFI DATE  
 A) FRACTURE CRIT DETAIL - NO A)  
 B) UNDERWATER INSP - NO B)  
 C) OTHER SPECIAL INSP NO C)  
 SCOUR

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL

Run Date: 12/11/2007

IDENTIFICATION				CLASSIFICATION		CODE
(1) STATE NAME -NORTH CAROLINA	BRIDGE	250153		SUFFICIENCY RATING =		56.6
(8) STRUCTURE NUMBER(FEDERAL)		00000000510153		STATUS =	Functionally Obsolete	
INVENTORY ROUTE (ON/UNDER) - UNDER		211000950				
(2) STATE HIGHWAY DEPARTMENT DISTRICT		6				
(3) COUNTY CODE	51	(4) PLACE CODE	00000	(112)NBIS BRIDGE SYSTEM -		YES
(6) FEATURE INTERSECTED -	195			(104)HIGHWAY SYSTEM	NHS Route	1
(7) FACILITY CARRIED	SR1005			(26) FUNCTIONAL CLASS -	Arterial - Interstate	01
(9) LOCATION	0.4 M.I.E.JCT.US301			(100)STRAHNET HIGHWAY -	Interstate STRAHNET Route	1
(11)MILEPOINT			0	(101)PARALLEL STRUCTURE -	No Parallel Structure	N
(16)LAT	35° 8' 29.1"	(17)LONG	78° 44' 5.1"	(102)DIRECTION OF TRAFFIC -	2-way Traffic	2
(98)BORDER BRIDGE STATE CODE		PCT SHARE		(103)TEMPORARY STRUCTURE -	Not Temporary	
(99)BORDER BRIDGE STRUCTURE NO				(110)DESIGNATED NATIONAL NETWORK -	Is Part of	
STRUCTURE TYPE AND MATERIAL				(20) TOLL	On Free Road	3
(43) STRUCTURE TYPE MAIN:	Concrete			(31) MAINTAIN -	State Highway Agency	01
TYPE -	Tee Beam	CODE	104	(22) OWNER -	State Highway Agency	01
(44) STRUCTURE TYPE APPR :				(37) HISTORICAL SIGNIFICANCE -	Not Eligible	5
TYPE -		CODE	0	CONDITION		
(45) NUMBER OF SPANS IN MAIN UNIT			4	(58) DECK		6
(46) NUMBER OF APPROACH SPANS			0	(59) SUPERSTRUCTURE		5
(107)DECK STRUCTURE TYPE -	Concrete cast-in-place	CODE	1	(60) SUBSTRUCTURE		6
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(61) CHANNEL & CHANNEL PROTECTION		N
(A) TYPE OF WEARING SURFACE -	Concrete	CODE	1	(62) CULVERTS		N
(B) TYPE OF MEMBRANE -	None	CODE	0	LOAD RATING AND POSTING		
(C) TYPE OF DECK PROTECTION -	None	CODE	0	(31) DESIGN LOAD	HS 15	3
AGE AND SERVICE				(64) OPERATING RATING -	HS-22	139
(27) YEAR BUILT			1957	(66) INVENTORY RATING -	HS-13	123
(106)YEAR RECONSTRUCTED			0	(70) BRIDGE POSTING -	Posting Required	4
(42) TYPE OF SERVICE : ON -	Highway			(41) STRUCTURE OPEN, POSTED ,OR CLOSED		P
UNDER -	Highway	CODE	11	DESCRIPTION -	Posted for Load	
(28) LANES: ON STRUCTURE	2	UNDER STRUCTURE	4	APPRAISAL		
(29) AVERAGE DAILY TRAFFIC			44000	(67) STRUCTURAL EVALUATION		5
(30) YEAR OF ADT	2004	(109) TRUCK ADT PCT	6 %	(68) DECK GEOMETRY		4
(19) BYPASS OR DETOUR LENGTH			6 MI	(69) UNDERCLEARANCES,VERTI & HORIZ		2
GEOMETRIC DATA				(71) WATERWAY ADEQUACY		N
(48) LENGTH OF MAXIMUM SPAN			60 FT	(72) APPROACH ROADWAY ALIGNMENT		8
(49) STRUCTURE LENGTH			229 FT	(36) TRAFFIC SAFETY FEATURES		0000
(50)CURB OR SIDEWALK: LEFT	1.2 FT	RIGHT	1.2 FT	(11)SCOUR CRITICAL BRIDGES		N
(51) BRIDGE ROADWAY WIDTH CURB TO CURB			24.0 FT	PROPOSED IMPROVEMENTS		
(52) DECK WIDTH OUT TO OUT			26.5 FT	(75) TYPE OF WORK -		CODE 311
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)			20.0 FT	(76) LENGTH OF STRUCTURE IMPROVEMENT		229 FT
(33) BRIDGE MEDIAN -	No Median	CODE	0	(94) BRIDGE IMPROVEMENT COST		\$490,000
(34) SKEW	26°	(35) STRUCTURE FLARED	NO	(95) ROADWAY IMPROVEMENT COST		\$123,000
(10) INVENTORY ROUTE MIN VERT CLEAR			14 FT 07 IN	(96) TOTAL PROJECT COST		\$735,000
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR			47.1 FT	(97) YEAR OF IMPROVEMENT COST ESTIMATE		207
(53) MIN VERT CLEAR OVER BRIDGE RDWY			99 FT 99 IN	(114)FUTURE ADT	820	(115) YEAR FUTURE ADT 2025
(54) MIN VERT UNDERCLEAR REF	Highway		14 FT 07 IN	INSPECTIONS		
(55) MIN LAT UNDERCLEAR RT REF	Highway		9.7 FT	(90) INSPECTION DATE		03/16/2007
(56) MIN LAT UNDERCLEAR LT REF -			17.0 FT	(92) CRITICAL FEATURE INSPECTION :		(93) CFI DATE
NAVIGATION DATA				A) FRACTURE CRIT DETAIL -	NO	A)
(38) NAVIGATION CONTROL -	Not Applicable	CODE	N	B) UNDERWATER INSP -	NO	B)
(111)PIER PROTECTION -	Not Applicable	CODE		C) OTHER SPECIAL INSP	NO	C)
(39) NAVIGATION VERTICAL CLEARANCE			0	SCOUR		
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR						
(40) NAVIGATION HORIZONTAL CLEARANCE			0			

# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 250153 COUNTY CUMBERLAND ROUTE SR1005 OVER I95  
 STRUCTURE TYPE REINFORCED CONCRETE DECK GIRDERS  
 ROUTE ORIENTATION W - E SPANS 1@54'8;2@60';1@54'8

EVALUATION CODE: 0-2 CRITICAL, 3 & 4 POOR, 5 & 6 FAIR, 7-9 GOOD

INSPECTION ITEM			ITEM 61		
DECK ITEMS		GRADES			
1. WEARING SURFACE			45. CHANNEL & CHANNEL PROT.	a. WATERWAY	
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58				b. ALIGNMENT	
a. CONCRETE	4	6		c. SCOUR	
b. TIMBER				d. SLOPE PROT., RIP-RAP, DIKES, ETC.	
3. RAILING			50. APPROACH ROADWAY CONDITION		6
a. CONCRETE		6	51. APPROACH SLABS		
b. TIMBER			52. PAINT SYSTEM CODE		
c. ALUMINUM			53. UTILITIES		
d. STEEL			54. RESPONSE TO LIVE LOAD		8
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			55. ESTIMATED REMAINING LIFE		13
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			60. REGULATORY SIGN NOTICE ISSUED		Yes
6. DECK EXP JTS. OR DEVICES. NO. OF EACH			61. PROMPT-ACTION NOTICE ISSUED		Yes
a. STEEL PL OR FINGER			62. PRESENTLY POSTED		Yes
b. MISC PREFAB			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		8
c. COMPRESSION SEAL			64. TOTAL SNOOPER INSP. TIME (HRS)		0
d. STANDARD JOINTS	3	4	65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		0
e. OPEN JOINTS			70. SI&A GENERAL CONDITION RATINGS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			a. DECK	ITEM 58	6
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			b. SUPERSTRUCTURE	ITEM 59	5
10. LONGITUDINAL BEAMS OR GIRDERS			c. SUBSTRUCTURE	ITEM 60	6
11. LONGITUDINAL JOIST OR STRINGERS			d. CHANNEL & CHANNEL PROT.	ITEM 61	NA
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			71. SI&A FIELD APPRAISAL RATINGS		
13. END DIAP'S, CURTAIN WALLS, & CONN'S			a. WATERWAY ADAQUACY		NA
14. FLOOR BEAMS AND CONNECTIONS			b. APPR. RDWY. ALIGNMENT		8
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			72. FIELD SCOUR EVALUATION		
16. DRAINAGE SYSTEM (ON STRUCTURE)					N
17. MOVABLE SPAN MACHINARY			USE OF INSP. ACCESSIBILITY EQUIPMENT		
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)			SNOOPER (CODE S, 4, OR N)	HRS	No
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		LADDER		No
	b. PILES, POST, SILLS, & BRACING		BUCKET TRUCK		No
	c. BULKHEADS, WING'S, & TIE BACKS		BOAT		No
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS	6	OTHER		No
	b. ABUT. & BENT COL'S BREASTWALLS				
	c. ABUT. & INT. BENT PILES	8			
	d. BACKWALLS, WING'S, RETAIN. WALLS	7			
	e. ABUT. & BENT FOOTINGS & SILLS				
37. STEEL SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		SPECIAL INSPECTION REQUESTED FOR		
	b. PILES, BRACING, AND BULKHEADS				
38. FOUNDATION PILES TYPE MATERIAL			NOTE		
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)					8
40. FENDER SYSTEMS			80. INSPECTED BY:	<i>Samuel Mendez</i>	
41. DRIFT			81. REVIEWED BY:		

# FIELD INSPECTION REPORT

## Bridge Inspeccion & Analysis

Team Leader **JAMES E. MONDOLFI**

Assisted By **CLS**

Item No.	Grade	
2a	6	ROUGH AND WORN SURFACE WITH EXPOSED AGGREGATE AND HAIRLINE MAP CRACKING IN TOP OF DECK, SPAN 3 SHOWN, SIMILAR CONDITION THROUGHOUT (SEE PHOTO). TRANSVERSE HAIRLINE CRACK IN TOP OF DECK AT VARIOUS LOCATIONS THROUGHOUT, SPAN 1 SHOWN (SEE PHOTO). 6 IN X 6 IN X 1 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM OF DECK OVERHANG AT VARIOUS LOCATIONS ALONG SOUTH OVERHANG IN SPAN 4 (SEE PHOTO).
3a	6	WEATHERING AND SCALING OF BRIDGE RAIL WITH EXPOSED AGGREGATE (SEE PHOTO).
4	6	WEATHERING AND SCALING OF CURB WITH EXPOSED AGGREGATE (SEE PHOTO).
6d	4	DRIED AND MISSING JOINT MATERIAL AND JOINT SEALER ALONG DECK EXPANSION JOINT AT BENT 1, SIMILAR CONDITION AT DECK EXPANSION JOINTS AT BENTS 2 AND 3 (SEE PHOTO).
7	5	DIRT AND DEBRIS WITH VEGETATION GROWING ALONG SOUTH CURB SIMILAR CONDITION AT NORTH CURB (SEE PHOTO).
10	5	VERTICAL HAIRLINE CRACK IN FACE OF GIRDER 4 IN SPAN 1, SIMILAR CRACKS AT VARIOUS LOCATIONS THROUGHOUT (SEE PHOTO). 7 IN X 7 IN X 1/2 IN DEEP SPALL WITH EXPOSED REBAR IN FACE OF GIRDER 1 NEAR END BENT 1 (SEE PHOTO). 6 IN X 21 IN X 1/2 IN DEEP SPALL WITH EXPOSED REBAR IN FACE OF GIRDER 4 IN SPAN 1, SIMILAR SPALLS IN GIRDERS 1 AND 4 THROUGHOUT SPAN 1 (SEE PHOTO). CHIPPING AND SPALLING OF GIRDER 1 DUE TO IMPACT DAMAGE IN SPAN 2, SIMILAR CONDITION IN GIRDERS 2, 3 AND 4 (SEE PHOTO). 12 IN X 18 IN X 2 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM EDGE OF GIRDER 4 IN SPAN 2, PROMPT ACTION (SEE PHOTO). CHIPPING AND SPALLING OF GIRDER 4 DUE TO IMPACT DAMAGE IN SPAN 3, SIMILAR CONDITION IN GIRDERS 2 AND 3 (SEE PHOTO). 6 IN X 18 IN X 2 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM EDGE OF GIRDER 4 IN SPAN 3, PROMPT ACTION (SEE PHOTO). 18 IN X 36 IN X 2 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM OF GIRDER 4 IN SPAN 3, PROMPT ACTION (SEE PHOTO). 36 IN X 10 IN X 10 IN DEEP SPALL IN END OF GIRDER 4 AT BENT 2 IN SPAN 3 (SEE PHOTO).
13	6	4 IN X 8 IN X 1/2 IN DEEP SPALL WITH EXPOSED REBAR IN END DIAPHRAGM AT BENT 3, BAY 1, SPAN 4 SIDE (SEE PHOTO). HAIRLINE MAP CRACKING WITH EFFLORESCENCE IN LEFT SIDE OF END BENT 2 CURTAINWALL (SEE PHOTO).

Bridge I&A Form 1(82)H		<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspection &amp; Analysis</u>	
State of North Carolina Dept. of Transportation Division of Highways			
Team Leader <b>JAMES E. MONDOLFI</b>			
Assisted By <b>CLS</b>			
Item No.	Grade		
15	6	RUST AND DELAMINATION OF BEARING AT GIRDER 1, END BENT 1, BEARING AT GIRDER 4 SIMILAR (SEE PHOTO). RUST AND DELAMINATION OF BEARING AT GIRDER 1, END BENT 2, BEARING AT GIRDER 4 SIMILAR (SEE PHOTO).	
36a	6	VERTICAL HAIRLINE CRACK IN FACE OF END BENT 1 CAP AT STEP, SIMILAR CRACKS AT END BENT 2 (SEE PHOTO). VERTICAL HAIRLINE CRACK IN SOUTH END OF BENT 3 CAP (SEE PHOTO). HAIRLINE MAP CRACKING WITH EFFLORESCENCE IN FACE OF BENT 2 CAP, SPAN 3 SIDE UNDER GIRDER 4 (SEE PHOTO).	
36d	7	5 IN X 19 IN X 3 IN DEEP SPALL WITH EXPOSED REBAR IN NORTHWEST WINGWALL (SEE PHOTO). 6 IN X 8 IN X 2 1/2 IN DEEP SPALL IN SOUTHEAST WINGWALL (SEE PHOTO).	
50	6	TRANSVERSE CRACKS IN ASPHALT WEARING SURFACE AT WEST APPROACH WITH 1/2 IN OF SETTLEMENT (SEE PHOTO). TRANSVERSE CRACK IN ASPHALT WEARING SURFACE ALONG END BENT 1 FILL FACE (SEE PHOTO). DAMAGED DELINEATOR AT SOUTHWEST CORNER (SEE PHOTO). TRANSVERSE CRACK IN ASPHALT WEARING SURFACE ALONG END BENT 2 FILL FACE (SEE PHOTO). TRANSVERSE CRACKS IN ASPHALT WEARING SURFACE AT EAST APPROACH WITH 1/2 IN OF SETTLEMENT (SEE PHOTO). 2.5 FT X 10 FT X 2.5 FT DEEP AREA OF SLOPE EROSION AT SOUTHEAST APPROACH (SEE PHOTO). LONGITUDINAL CRACK IN ASPHALT WEARING SURFACE AT EAST APPROACH (SEE PHOTO). 5 FT X 4.5 FT X 2 FT DEEP AREA OF EROSION AT GURDRAIL POST APPROACHING BENT 1 ON SBL I 95 (SEE PHOTO). IMPACT DAMAGE TO APPROACH GUARDRAIL END TREATMENT AT SOUTHWEST CORNER (SEE PHOTO).	
62	Yes	SV-39 TTST-LGW	

## BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 250153

County CUMBERLAND

Date: 03/16/2007

**These Repairs Should Be Made Within Twelve Months From Date Of This Inspection**

Function Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
554	Partial clenaing and partial painting of structural steel	Man-Hours	80	CLEAN AND PAINT BEARINGS.	
556	Bridge approaches, surfacing or pavement replacement or repair	Man-Hours	40	SEAL CRACKS AND LEVEL ASPHALT WEARING SURFACE.	
576	Maintenance of standard deck expansion joints	Lin-ft	93	CLEAN DECK EXPANSION JOINTS AND INSTALL JOINT MATERIAL AND JOINT SEALER.	
578	General Maintenance of superstructure	Man-Hours	200	PATCH SPALLS IN BOTTOM OF OVERHANG AND IN END DIAPHRAGMS. PATCH SPALLS IN GIRDERS, PROMPT ACTION.	
583	Maintenance of concrete pier and abutments	Man-Hours	24	PATCH SPALLS IN NORTHWEST AND SOUTHEAST WINGWALLS.	
585	Maintenance of slope and shore devices	Man-Hours	40	REPAIR SHOULDER EROSION ON I 95 SBL NEAR BENT 1.	
602	Sweep or Washing	Man-Hours	12	REMOVE DIRT, DEBRIS AND VEGETATION ALONG CURBS.	



DIRT AND DEBRIS WITH VEGETATION GROWING ALONG SOUTH CURB, SIMILAR CONDITION AT NORTH CURB





TRANSVERSE CRACKS IN ROUGH AND PATCHED ASPHALT WEARING SURFACE AT WEST APPROACH WITH 1/2 IN OF SETTLEMENT



TRANSVERSE CRACK IN ASPHALT WEARING SURFACE ALONG END BENT 1 FILL FACE



DAMAGED DELINEATOR AT SOUTHWEST CORNER



WEATHERING AND SCALING OF CURB WITH EXPOSED AGGREGATE



WEATHERING AND SCALING OF BRIDGE RAIL WITH EXPOSED AGGREGATE



ROUGH AND WORN SURFACE WITH EXPOSED AGGREGATE AND HAIRLINE MAP CRACKING IN TOP OF DECK, SPAN 3 SHOWN, SIMILAR CONDITION THROUGHOUT



TRANSVERSE HAIRLINE CRACK IN TOP OF DECK AT VARIOUS LOCATIONS THROUGHOUT, SPAN 1 SHOWN



DRIED AND MISSING JOINT MATERIAL AND JOINT SEALER ALONG DECK EXPANSION JOINT AT BENT 1,  
SIMILAR CONDITION AT DECK EXPANSION JOINT AT BENTS 2 AND 3



TRANSVERSE CRACK IN ASPHALT WEARING SURFACE ALONG END BENT 2 FILL FACE



TRANSVERSE CRACKS IN ASPHALT WEARING SURFACE AT EAST APPROACH WITH 1/2 IN OF SETTLEMENT



2.5 FT X 10 FT X 2.5 FT DEEP AREA OF SLOPE EROSION AT SOUTHEAST APPROACH



LONGITUDINAL CRACK IN ASPHALT WEARING SURFACE AT EAST APPROACH



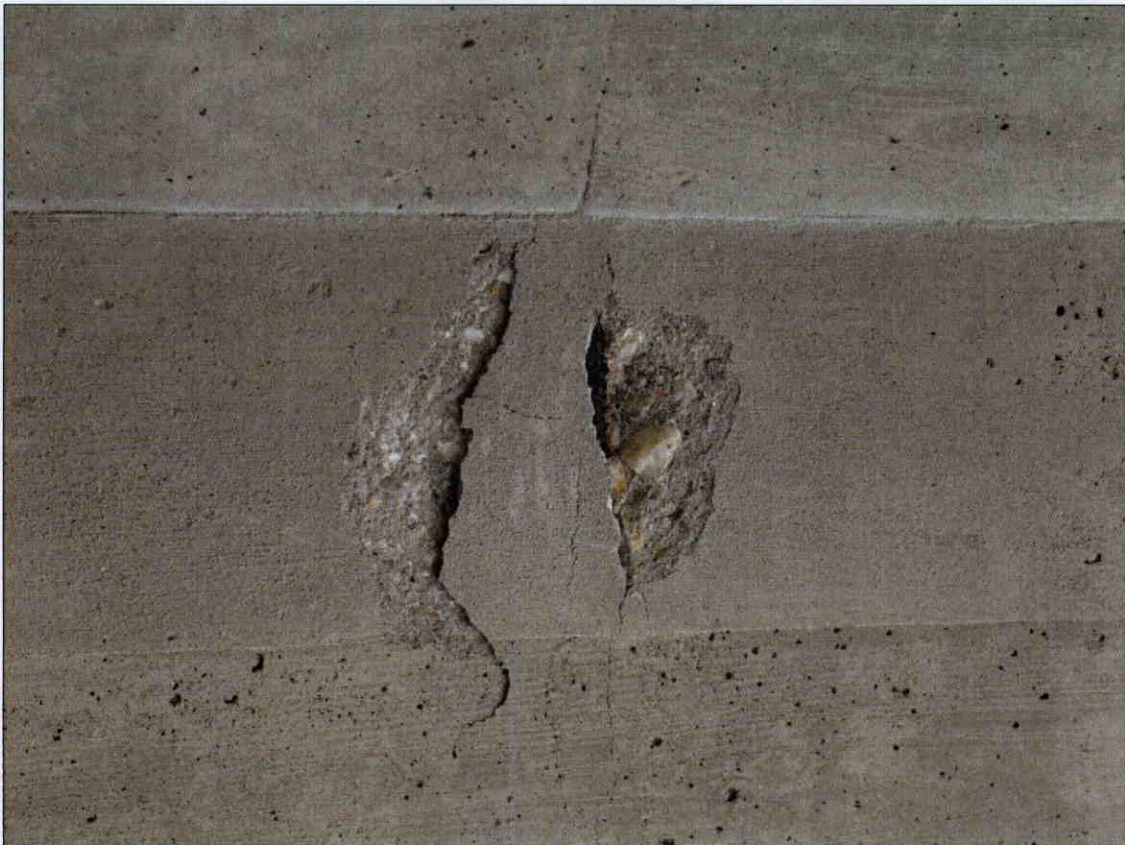
VERTICAL HAIRLINE CRACK IN FACE OF END BENT 1 CAP AT STEP, SIMILAR CRACKS AT END BENT 2



VERTICAL HAIRLINE CRACK IN FACE OF GIRDER 4 IN SPAN 1, SIMILAR CRACKS AT VARIOUS LOCATIONS THROUGHOUT



RUST AND DELAMINATION IN BEARING AT GIRDER 1 AT END BENT 1, BEARING AT GIRDER 4 SIMILAR



7 IN X 7 IN X 1/2 IN DEEP SPALL WITH EXPOSED REBAR IN FACE OF GIRDER 1 NEAR END BENT 1





6 IN X 21 IN X 1/2 IN DEEP SPALL WITH EXPOSED REBAR IN FACE OF GIRDER 4 IN SPAN 1, SIMILAR SPALLS IN GIRDERS 1 AND 4 THROUGHOUT SPAN 1



5 IN X 19 IN X 3 IN DEEP SPALL WITH EXPOSED REBAR IN NORTHWEST WINGWALL



12 IN X 18 IN X 2 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM EDGE OF GIRDER 4 IN SPAN 2, PROMPT ACTION



5 FT X 4.5 FT X 2 FT DEEP AREA OF SHOULDER EROSION AT GURDRAIL POST APPROACHING BENT 1 ON  
SBL I 95



CHIPPING AND SPALLING OF GIRDER 1 DUE TO IMPACT DAMAGE IN SPAN 2, SIMILAR CONDITION IN GIRDERS 2, 3, AND 4



CHIPPING AND SPALLING OF GIRDER 4 DUE TO IMPACT DAMAGE IN SPAN 3, SIMILAR CONDITION AT GIRDERS 2 AND 3



6 IN X 18 IN X 2 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM EDGE OF GIRDER 4 IN SPAN 3, PROMPT ACTION



18 IN X 36 IN X 2 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM OF GIRDER 4 IN SPAN 3, PROMPT ACTION



HAIRLINE MAP CRACKING WITH EFFLORESCENCE IN FACE OF BENT 2 CAP, SPAN 3 SIDE UNDER GIRDER 4



VERTICAL HAIRLINE CRACK IN SOUTH END OF BENT 3 CAP



4 IN X 8 IN X 1/2 IN DEEP SPALL WITH EXPOSED REBAR IN END DIAPHRAGM AT BENT 3, BAY 1, SPAN 4 SIDE





RUST AND DELAMINATION OF BEARING AT GIRDER 1 AT END BENT 2, BEARING AT GIRDER 4 SIMILAR



HAIRLINE MAP CRACKING WITH EFFLORESCENCE IN LEFT SIDE OF END BENT 2 CURTAINWALL



6 IN X 6 IN X 1 IN DEEP SPALL WITH EXPOSED REBAR IN BOTTOM DECK OVERHANG, AT VARIOUS LOCATIONS ALONG SOUTH OVERHANG IN SPAN 4



6 IN X 8 IN X 2 1/2 IN DEEP SPALL IN SOUTHEAST WINGWALL



IMPACT DAMAGE TO APPROACH GUARDRAIL END TREATMENT AT SOUTHWEST CORNER



36 IN X 10 IN X 10 IN DEEP SPALL IN END OF GIRDER 4 AT BENT 2 IN SPAN 3

BRIDGE MAINTENANCE UNIT  
DATA ON EXISTING STRUCTURE

RUN DATE 12/11/2007

COUNTY : CUMBERLAND DIV : 6 DIST : 2 STRUCTURE NUMBER : 250153 LENGTH : 229 FEET

ROUTE CARRIED : SR1005 FEATURE INTERSECTED : 195

LOCATED : 0.4 MI.E.JCT.US301 BRIDGE NAME :

FUNC. CLASS : 08 SYST.ON : NFA SYST.UNDER : FA ADT & YR : 410 2004 RAIL TYPE : LT 141 RT 141

BUILT : 1957 BY : SHPWC PROJ : 3437 FED.AID PROJ : I-703(6) DESIGN LOAD : HS 15

REHAB : 0 BY : PROJ : ALIGNMENT : TAN. 116 LANES : ON 2 UNDER 4

NAVIGATION : VC 0 FT HC 0 HT. CRN. TO BED : 0 FT WATER DEPTH : 0 FT

SUPERSTRUCTURE : REINFORCED CONCRETE DECK GIRDERS

SUBSTRUCTURE : EBTS&IBTS:RC CAP/PPC PILES

SPANS : 1@54'8;2@60';1@54'8

BEAMS OR GIRDERS : 4 LINES 18X36 RC DECK GIRDERS@7' CENTERS

FLOOR : 7 RC/NO AWS ENCROACHMENT : DECK (OUT TO OUT) : 26.5 FT

CLEAR ROADWAY : 24.0 FT BETWEEN RAILS : 26.3 FT SIDEWALK OR CURB : LT 1.2 FT RT 1.2 FT

VERT.CL.OVER : 99 FT 99 IN VERT.CL.UNDER : 14 FT 07 IN HOR.CL.UNDER : 47.1 FT

INV.RTG. : HS-13 OPE.RTG. : HS-22 CONTR.MEMBER : RCDG POSTED : SV 34 TTST 34 DATE 12/11/2007

SYSTEM : Primary S.R. Route GREEN LINE ROUTE : N

2ND OPENING : 14 FT 07 IN I-95SBL 3RD OPENING : 4TH OPENING : 5TH OPENING :

REMARKS :

# Structure Data Worksheet

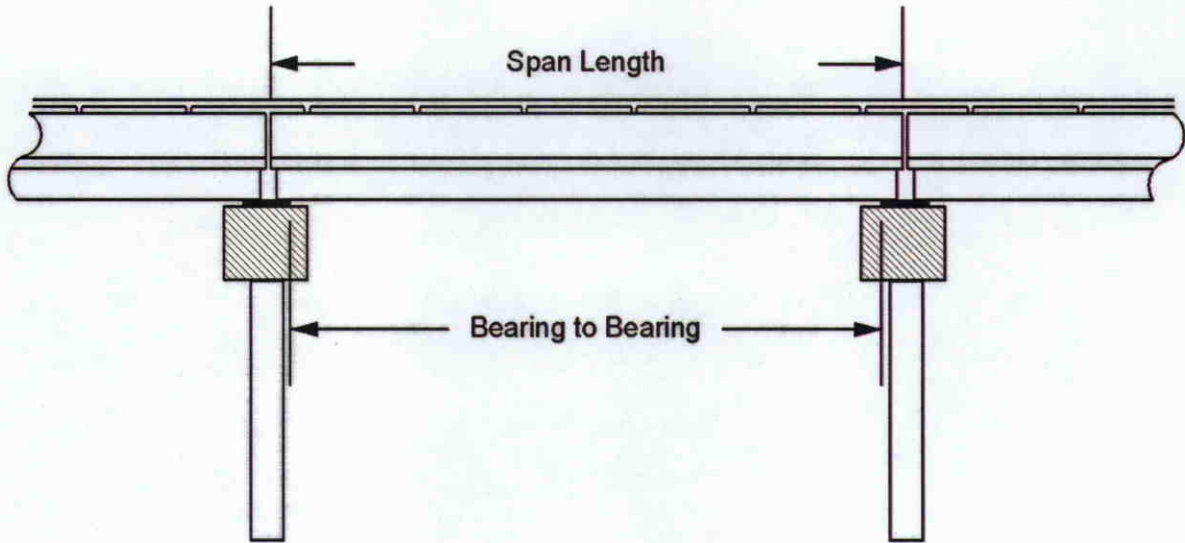
Spans

County: CUMBERLAND

Structure No: 250153

Date: 03/16/2007

Inspected By: JEM



Span No	Span Length	Bearing to Bearing	Comments
1	54.667		
2	60.0		
3	60.0		
4	54.667		

## Bridge Inspection Field Sketch

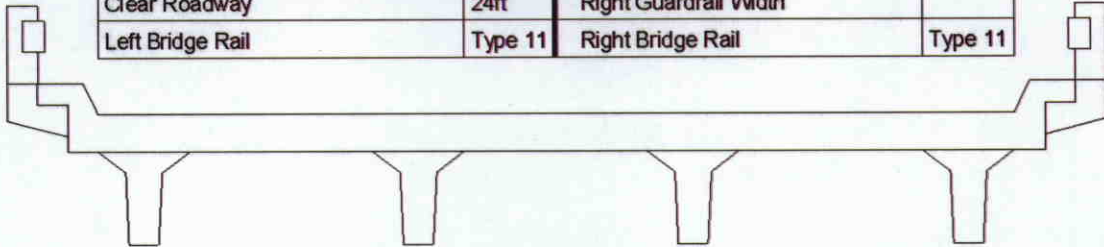


Roadway	20ft Wide	2 Paved Lanes	Looking East
Left Shoulder	4ft Wide		4ft Unpaved
Right Shoulder	4ft Wide		4ft Unpaved
Left Guardrail			
Right Guardrail			

<b>Title</b> Approach		<b>Description</b> Approach Roadway	
<b>Bridge No:</b> 250153	<b>Drawn By:</b> dlp	<b>Date:</b> 06/17/2005	<b>File Name:</b> S0098000177

## Bridge Inspection Field Sketch

Deck Width/Out to Out	26.5ft	Wearing Surface	
Between Rails	26.333ft	Median Width	
Curb Height	0.792ft	Median Height	
Top Rail to Deck/Wearing Surface	2.583ft	Left Guardrail Width	
Clear Roadway	24ft	Right Guardrail Width	
Left Bridge Rail	Type 11	Right Bridge Rail	Type 11



Measurements for Span #	1		
Deck Thickness	0.583	Left Overhang	2.75
Top of Rail to Bottom of Beam	6.583	Right Overhang	2.75

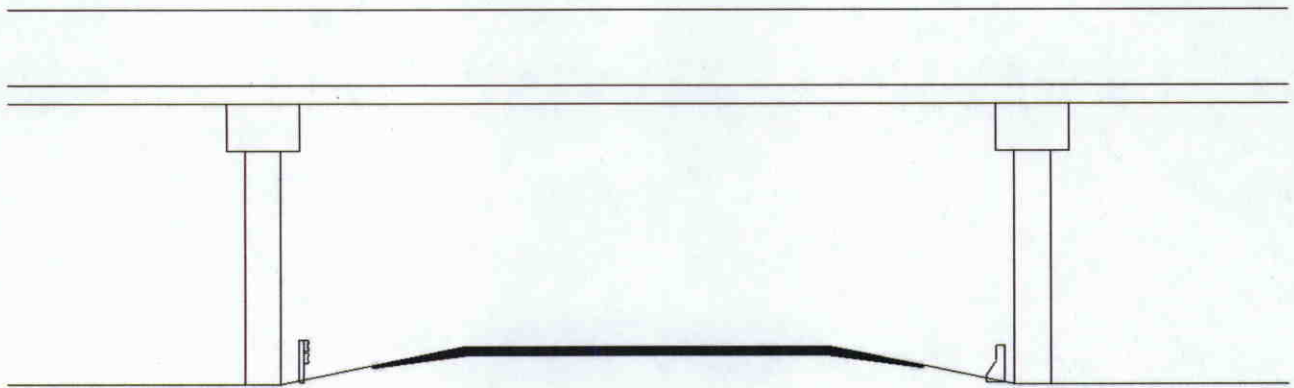
Beam No	Beam Type	Spacing	Comments
1	RC Deck Girder	7.00 ft.	
2	RC Deck Girder	7.00 ft.	
3	RC Deck Girder	7.00 ft.	
4	RC Deck Girder		

R.C. Deck Girders are 1.5 ft. wide x 3 ft. high

Spans 1 thru 4 are same dimensions

<b>Title</b> Superstructure		<b>Description</b> Span 1	
<b>Bridge No:</b> 250153	<b>Drawn By:</b> dlp	<b>Date:</b> 06/17/2005	<b>File Name:</b> S0098000178

## Bridge Inspection Field Sketch

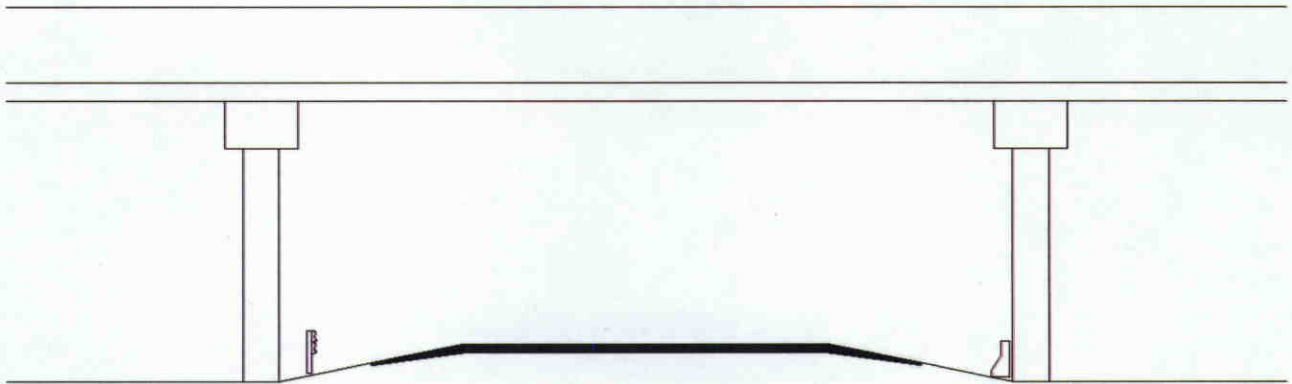


Roadway	24ft Wide	2 Paved Lanes	All Lanes SouthBound
Left Shoulder	13.083ft Wide		Guardrail: 13.083ft from road
Right Shoulder	10ft Wide		Guardrail: 10ft from road
Left Turn Lane(s)			
Right Turn Lane(s)			
Distance to Left Bent	17ft		
Distance to Left Toe of Slope			
Distance to Right Bent	11.417ft		
Distance to Right Toe of Slope			
Max. Min. Vertical Clearance	14.583ft	10ft from Right edge of road	at beam # 4
Minimum Vertical Clearance	14.583ft	0ft from Center of road	at beam # 4

Title		Description	
Underclearance # 1		Span 2	
Bridge No: 250153	Drawn By: dlp	Date: 06/17/2005	File Name: S0098000179



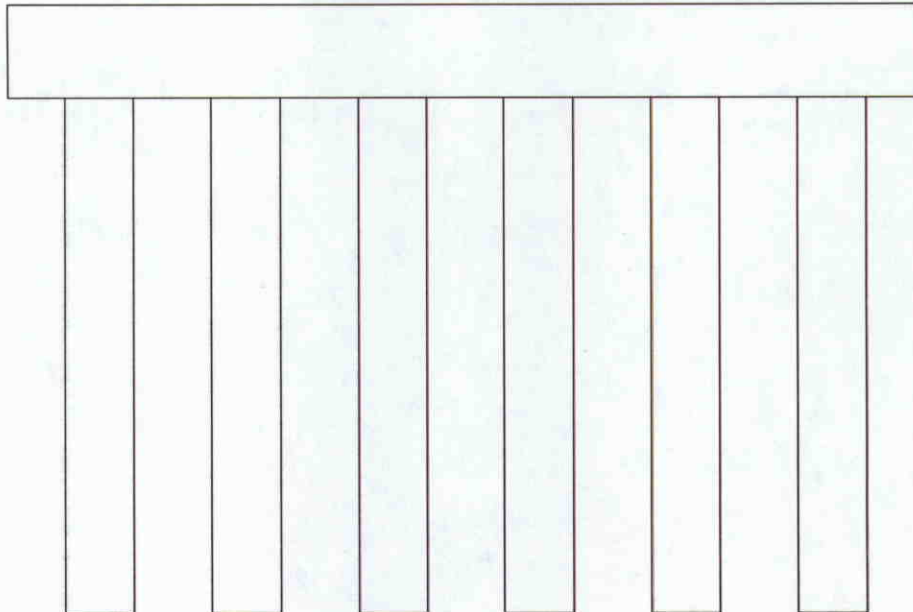
# Bridge Inspection Field Sketch



Roadway	24ft Wide	2 Paved Lanes	All Lanes NorthBound
Left Shoulder	13.167ft Wide		Guardrail: 13.167ft from road
Right Shoulder	9.667ft Wide		Guardrail: 9.667ft from road
Left Turn Lane(s)			
Right Turn Lane(s)			
Distance to Left Bent	17.333ft		
Distance to Left Toe of Slope			
Distance to Right Bent	11.083ft		
Distance to Right Toe of Slope			
Max. Min. Vertical Clearance	14.583ft	10ft from Right edge of road	at beam # 4
Minimum Vertical Clearance	14.583ft	0ft from Center of road	at beam # 4

<b>Title</b> Underclearance # 2		<b>Description</b> Span 3	
<b>Bridge No:</b> 250153	<b>Drawn By:</b> dlp	<b>Date:</b> 06/27/2005	<b>File Name:</b> S0098000180

# Bridge Inspection Field Sketch



Bent #	1		
Cap - Pre-Cast			
Cap Size	27.833ft Long	3.33ft Wide	2.5ft High
Left Overhang	1.83ft	Lt Cap/Beam Overhang	3.4ft
Right Overhang	1.83ft	Rt Cap/Beam Overhang	3.4ft

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Prestressed Concrete	Pile Bent	4.83		20 in		Vertical
2	Prestressed Concrete	Pile Bent	4.83		20 in		Vertical
3	Prestressed Concrete	Pile Bent	4.83		20 in		Vertical
4	Prestressed Concrete	Pile Bent	4.83		20 in		Vertical
5	Prestressed Concrete	Pile Bent	4.83		20 in		Vertical
6	Prestressed Concrete	Pile Bent			20 in		Vertical

<b>Title</b> Pile Diagram	<b>Description</b> 6 Prestressed Concrete Piles
<b>Bridge No:</b> 250153	<b>Drawn By:</b> CLS
<b>Date:</b> 03/12/2007	<b>File Name:</b> S0234001110



LOOKING EAST



TYPICAL END OF GUARDRAIL AT BRIDGE RAIL



TYPICAL BRIDGE RAIL, NORTH SIDE SHOWN



LOOKING NORTH



LOOKING SOUTH



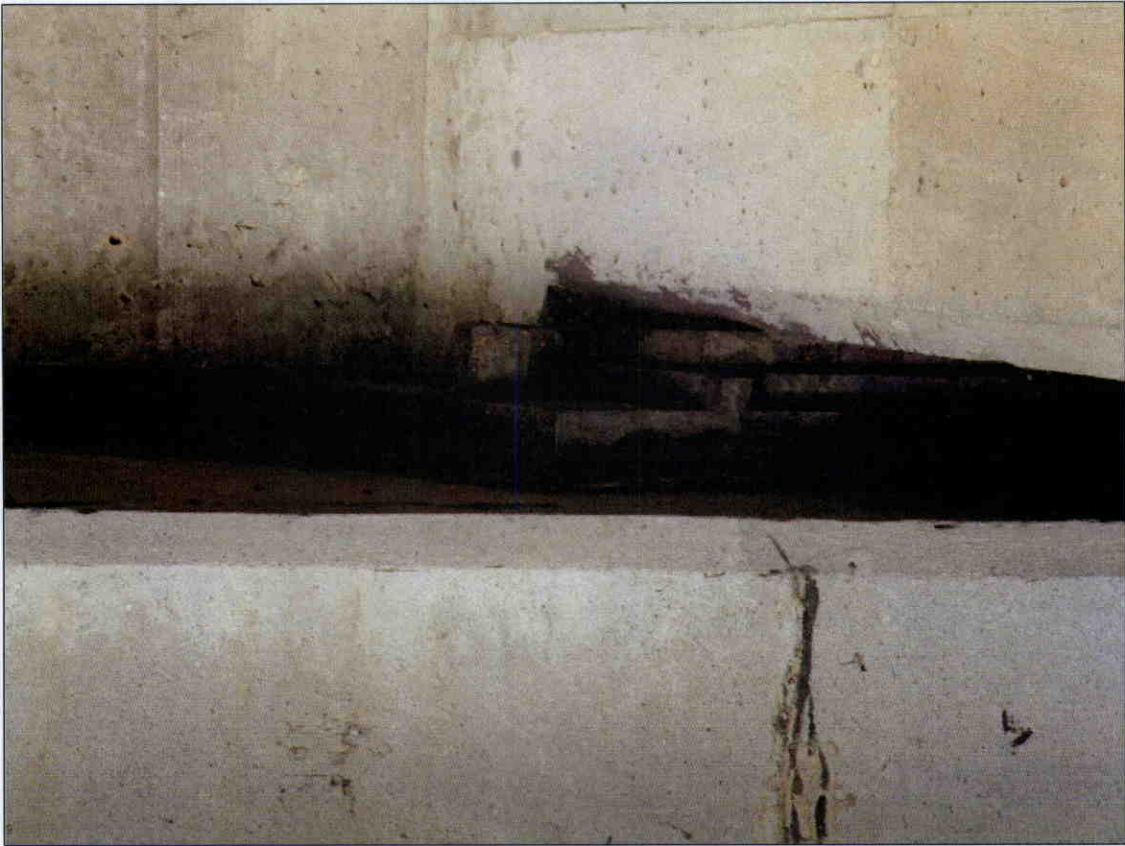
POSTING SIGN



LOOKING WEST



SOUTH PROFILE LOOKING NORTH



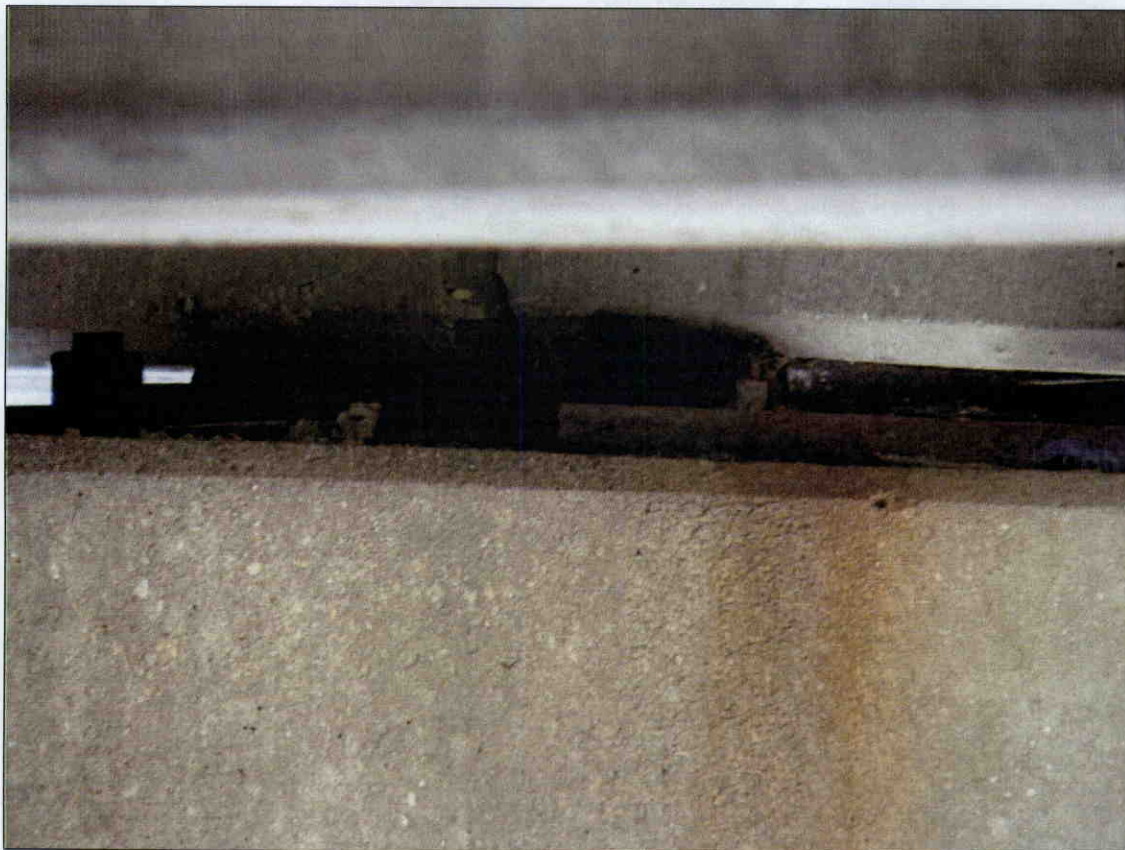
TYPICAL BEARING AT END BENT, END BENT 1, GIRDER 2 SHOWN



TYPICAL END BENT, END BENT 1 SHOWN



TYPICAL BENT, BENT 1 SHOWN



TYPICAL BEARING AT BENT, BENT 1, GIRDER 4 SHOWN





NORTH PROFILE LOOKING SOUTH



TYPICAL SLOPE PROTECTION, END BENT 1 SHOWN



TYPICAL UNDERDECK, SPAN 2 SHOWN



DELINEATORS AT BENTS



CLEARANCE SIGN