



State of New Jersey
NEW JERSEY DEPARTMENT OF TRANSPORTATION
1035 PARKWAY AVENUE
P.O. Box 600
TRENTON, NEW JERSEY 08625-0600

BRIDGE RE-EVALUATION SURVEY REPORT

STRUCTURE NO. 1XXX-XXX
FEDERAL STREET OVER ROUTE **US 30** AND SERVICE ROADS
CITY OF CAMDEN
CAMDEN COUNTY

SAMPLE REPORT
(FOR GUIDANCE ONLY)

12TH CYCLE

SEPTEMBER 30, 2005

**NOTE: This Bridge Re-evaluation Report
shall be filed immediately after the
11th Cycle Inspection **Report**.**

Prepared By

ABC Consultant

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**N.J.D.O.T. - STRUCTURAL EVALUATION
RE-EVALUATION BRIDGE SURVEY REPORT**

CYCLE NO. 12

STRUCTURAL DATA:

Bridge No.:	1XXX-XXX	Year Built:	1925	Year Recons:	1972
Route No.:	30	Length:	408'	Width:	58.0'
Mile Point:	1.600	Date of this Eval:	9/30/2005		
Name:	Federal Street over US 30 & Service Roads	By:	State (RCP)		
Structure Type:	One main simple span: Concrete encased through girder and floor beams. Six approach simple spans: Composite, Rolled steel beams	Date of Previous Eval:	10/24/2003		
		By:	State (ABC)		
		Special Equipment Used:	None		

OVERALL CONDITION: Satisfactory

WORK DONE: None

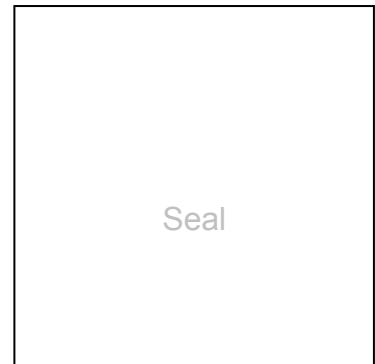
Inspection Team Leader: Rajesh C. Patel

Initials: _____

Certifying Engineer: James Lane, P.E.

NJ P.E. Number: GE02859100

I certify that this report is an accurate description of the subject structure, to the extent determinable by visual inspection and testing performed.



Signature: _____

Date: _____

CONTROLLING RATINGS: (From 11th Cycle Report)

Computer Program Used: Penn DOT BAR 7 (Version 7.5)
 Based on the load factor method of analysis, the following load ratings have been computed:

Controlling Member	Rating Type	Truck Type (Tons)			
		<u>HS-20</u> (36)	<u>3</u> (25)	<u>3S2</u> (40)	<u>3-3</u> (40)
Encased Floor Beam	Inventory Rating	29	24	38	51
	Operating Rating	49	41	63	85

Note: Inventory ratings for legal trucks are low due the bridge originally designed to carry 10 ton truck with 10' wheel spacing. However, since the operating ratings are higher than the legal loads, posting is not required.

CONCLUSIONS & RECOMMENDATIONS:

The overall condition of the structure is satisfactory due to superstructure and substructure.

Since the previous inspection, there is no change in the condition of the structure.

The superstructure consists of two riveted steel through girders and floor beam system (Span 4 from South) and is considered non-redundant. The structure is therefore fracture critical. However, since the through girders are riveted, they are internally redundant.

The bridge is functionally obsolete (Item 69 = 2) due to the **substandard** vertical underclearance (14'-2" for US 30 Eastbound) and lateral **right and left** underclearances. We therefore recommend to replace the structure.

a.	Bridge Demolition Cost (Lump Sum)	\$ 500,000
b.	New Structure Length = 408 ft. x 1.01 (FHWA Factor)* = 412 ft. Width = 58 ft. (2 lanes @12.0' + 2 shoulders @10.0' + 2 sidewalks @ 8.0' + 2' Parapets) 412 ft. x 58 ft. x \$280/SF	\$ 6,690,880
	* From Item 76 Chart in Federal Coding Guide	
c.	Approach Roadway work (10%)	\$ 700,000
d.	Maintenance of traffic (15% of Project Cost)	\$ 1,184,000
	Subtotal	\$9,074,880
	Preliminary Engineering (15%)	\$ 1,361,250
	Total Project Cost	\$10,436,112

Note: Replacement cost is from NJDOT “Cost Guide for Bridge Repairs – 2003” and is escalated by 3% per year.

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

In the interim, until the bridge is replaced, we recommend that the following Priority 1 repairs should be made to retard further deterioration, preserve the structural integrity of the bridge, improve safety and extend its useful life:

1. Removing incipient spalls in span 4 from south ([Photo No. 12-05](#) and refer to [Priority Repair PR1_01](#) and [NJDOT Memorandum dated 10/7/2005](#)).
2. Posting for vertical underclearance on east fascia at service road (EB) since the vertical clearance is at 14'-7" at the shoulder ([Photo No. 12-07](#) and refer to [Priority Repair PR1_02](#) and [NJDOT Memorandum dated 10/10/2005](#)).

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SI&A AND PONTIS SHEETS:

Please remove this placeholder after you insert the SI&A sheet

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SI&A AND PONTIS SHEETS:

Please remove this placeholder after you insert the SI&A sheet

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SI&A AND PONTIS SHEETS:

Please remove this placeholder after you insert the SI&A sheet

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

Rated By: ABC Dated: 2/8/96 Checked By: CDF Dated: 3/8/96

SUMMARY OF RATING

The Load Factor and Working Stress ratings, **computed in the 1st. Cycle report and updated*** in the 11th Cycle report in accordance with the FHWA directive dated November 1993 and AASHTO Manual for Condition Evaluation of Bridges, 1994, as modified by Section 1.42A.2 of the New Jersey Department of Transportation Design Manual, Bridges and Structures, are as follows:

Computer Program Used: Penn DOT BAR 7 (Version 7.5)

PERCENT (%) SECTION LOSSES: None

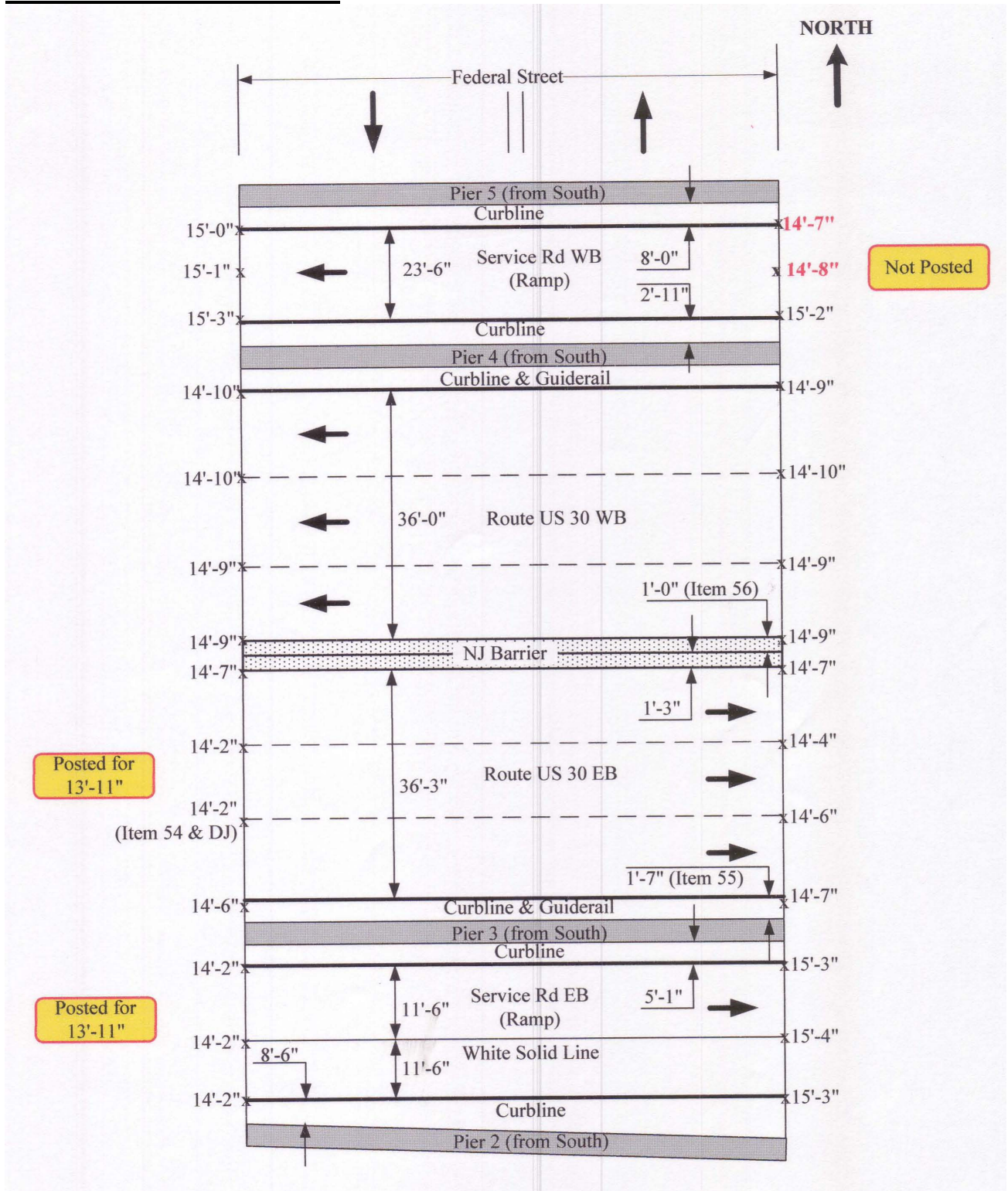
	<u>Allowable Stresses (Psi)</u>			
<u>Material</u>	<u>Compressive Strength f'c</u>	<u>Yield</u>	<u>Inventory</u>	<u>Operating</u>
Deck Concrete (Main Span)	2,375	---	950	1,300
Reinforcing Steel	---	40,000	20,000	28,000
Structural Steel (Main Span)	---	30,000	16,500	22,500
Structural Steel	---	36,000	20,000	27,000

		<u>Rating (Tons)</u>			
<u>Controlling Member</u>	<u>Truck Type (Tons)</u>	<u>Load Factor</u>		<u>Working Stress</u>	
		<u>Inventory</u>	<u>Operating</u>	<u>Inventory</u>	<u>Operating</u>
	Type HS-20 (36T)	29	49	28	47
Encased Floor Beam (Main Span)	Type 3 (25T)	24	41	23	69
	Type 3S2 (40T)	38	63	36	61
	Type 3-3 (40T)	51	85	49	82

Note: List summary of all members rated from previous cycle, if available

* Ratings updated in the 11th Cycle (2003) due to overlay on deck.

CLEARANCE DIAGRAM



Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005



Photo No: 12-01

Location: North approach roadway, looking South.

Description: General View.



Photo No: 12-02

Location: East elevation, looking West.

Description: General View.

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005



Photo No: 12-03

Location: West sidewalk and curb at 5th span from south, looking North.
Description: Large incipient spall on west sidewalk with deteriorated curb due to collision.



Photo No: 12-04

Location: Superstructure, looking South.
Description: General View. Typical for all spans except 4th span from South.

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005



Photo No: 12-05

Location: Superstructure at 4th span from south, looking North.
Description: General View. Note: Several incipient spalls at bottom of concrete encasements.
 Insert: Close up of incipient spalls.



Photo No: 12-06

Location: 1st pier from South at south lane, looking North.
Description: Graffiti on pier stem wall. Typical on 2nd pier from South.
 Insert: Graffiti on west through girder.

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005



Photo No: 12-07

Location: East elevation at 5th span from south, looking West.

Description: Lack of vertical underclearance posting for Service Road westbound (Ramp under 5th span from South).




Photo No: 12-08

Location: East Bay diaphragm in 5th span from south, looking East.

Description: Bent diaphragm due to impact and low vertical underclearance.

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

		<p>Photo No: 12-09</p>
<p>Location:</p>	<p>East elevation, looking West.</p>	
<p>Description:</p>	<p>Vertical underclearance sign 14'-0" posted above US 30 Westbound lanes.</p>	

Always include a close up photo of Vertical Clearance posting.

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

NEW JERSEY DEPARTMENT OF TRANSPORTATION
STRUCTURAL EVALUATION
 BRIDGE EVALUATION CHECK LIST
 (FIELD NOTES)

Inspectors: Harjit Bal Name: Federal Street over Route US 30 and Service Roads
 Crew Chief: Rajesh C. Patel City of Camden, Camden County
 Temperature: 60° F Weather: Sunny
 Special Equipment Used: None

RATINGS

- N Not applicable
- 9 Excellent Condition
- 8 Very Good Condition – no problems noted.
- 7 Good Condition – some minor problems.
- 6 Satisfactory Condition—some minor deterioration of structural elements.**
- 5 Fair Condition – minor section loss of primary structural elements.
- 4 Poor Condition – advance section loss of primary structural elements.
- 3 Serious Condition – seriously deteriorated primary structural elements.
- 2 Critical Condition – facility should be closed until repairs are made.
- 1 Imminent Failure Condition – facility disclosed. Study of repairs feasible
- 0 Failed Condition – facility is closed and beyond repair.

GPS COORDINATES
@ Southwest corner
39° 56' 36.10" Lat.
75° 06' 24.10" Long.

GENERAL

Type of Bridge: One main simple span: Concrete encased through girder and floor beams. Six approach simple spans: Composite, Rolled steel beams.

Year Built: 1925 Year of Widening / Major Repairs: 1972

No. of Lanes: On 2 Under 8

Vertical Clearances: Over Deck Unlimited

Minimum Under (Item 54) 14'-2" under east fascia over US 30 Eastbound.

Maximum Under (Item10) 14'-8" under east fascia at the center of the travel way

Horizontal Underclearances: Total Horizontal Clearance 36.25' from curb to median of Route 30 Eastbound

Right 1'-7" from edge of right lane to pier, Route 30 Eastbound.

Left 1'-0" from left edge of left lane, Route 30 Westbound to median.

Overall Condition of Structure: Satisfactory due to superstructure and substructure.

Work Done: None

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

DECK

SI&A Item 58 Condition Rating: 6

SPAN # 1st from SOUTH

RATING	COMPONENT	REMARKS
7	Wearing Surface / Top of Deck (Concrete)	
6	Underside of Deck (SIP Forms)	
N	Median	None
6	Curbs (Concrete)	
6	Sidewalks / Safetywalks (Concrete)	
7	Parapets / Balustrades (Concrete)	
7	Railings / Fencing	
6	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
N	Utilities	None
N	Others	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

DECK

SI&A Item 58 Condition Rating: 6

SPAN # 2nd from SOUTH

RATING	COMPONENT	REMARKS
6	Wearing Surface / Top of Deck (Concrete)	
6	Underside of Deck (SIP Forms)	
N	Median	None
6	Curbs (Concrete)	
7	Sidewalks / Safetywalks (Concrete)	
6	Parapets/ Balustrades (Concrete)	
6	Railings / Fencing	
6	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
N	Utilities	None
N	Others	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

DECK

SI&A Item 58 Condition Rating: 6

SPAN # 3rd from SOUTH

RATING	COMPONENT	REMARKS
6	Wearing Surface / Top of Deck (Concrete)	
6	Underside of Deck (SIP Forms)	
N	Median	None
6	Curbs (Concrete)	
7	Sidewalks / Safetywalks (Concrete)	
7	Parapets/ Balustrades (Concrete)	
6	Railings / Fencing	
6	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
N	Utilities	None
N	Others	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

DECK

SI&A Item 58 Condition Rating: 6

SPAN # 4th from SOUTH

RATING	COMPONENT	REMARKS
6	Wearing Surface / Top of Deck (Concrete)	
6	Underside of Deck (SIP Forms)	
N	Median	None
6	Curbs (Concrete)	
7	Sidewalks / Safetywalks (Concrete)	
7	Parapets/ Balustrades (Concrete)	
6	Railings / Fencing	
6	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
N	Utilities	None
N	Others	Graffiti on West through girder. See Photo No. 12-06 .

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

DECK

SI&A Item 58 Condition Rating: 6

SPAN # 5th from SOUTH

RATING	COMPONENT	REMARKS
6	Wearing Surface / Top of Deck (Concrete)	
6	Underside of Deck (SIP Forms)	
N	Median	None
6	Curbs (Concrete)	
4	Sidewalks / Safetywalks (Concrete)	West: An incipient spall (6 SF) at ± 20' from the South end. See Photo No. 12-03 .
7	Parapets/ Balustrades (Concrete)	
7	Railings / Fencing	
6	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
N	Utilities	None
N	Others	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

DECK

SI&A Item 58 Condition Rating: 6

SPAN # 6th from SOUTH

RATING	COMPONENT	REMARKS
6	Wearing Surface / Top of Deck (Concrete)	
6	Underside of Deck (SIP Forms)	
N	Median	None
6	Curbs (Concrete)	
6	Sidewalks / Safetywalks (Concrete)	
6	Parapets/ Balustrades (Concrete)	
6	Railings / Fencing	
6	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
N	Utilities	None
N	Others	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

DECK

SI&A Item 58 Condition Rating: 6

SPAN # 7th from SOUTH

RATING	COMPONENT	REMARKS
6	Wearing Surface / Top of Deck (Concrete)	
6	Underside of Deck (SIP Forms)	
N	Median	None
6	Curbs (Concrete)	
6	Sidewalks / Safetywalks (Concrete)	
6	Parapets/ Balustrades (Concrete)	
6	Railings / Fencing	
6	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
N	Utilities	None
N	Others	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

APPROACHES

SI&A Item BA Rating: 6

SI&A Item 72 Rating: 6

APPROACH SOUTH

RATING	COMPONENT	REMARKS
6	Approach Pavement (Asphalt Concrete)	
6	Approach Shoulder	
	Approach Roadway Vertical and Horizontal Alignment	Vertical: Moderate downgrade away from bridge. Horizontal: Tangent alignment. Minor speed reduction required.
6	Guide Rail Condition (W beam)	
6	Sidewalks (Concrete)	
6	Curbs (Concrete)	
N	Utilities	None
7	Approach Roadway Embankment	
5	Others	Unprotected light poles at the west sidewalk. Signposts are broken.

Additional Remarks:

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

APPROACHES

SI&A Item BA Rating: 6

SI&A Item 72 Rating: 6

APPROACH NORTH

RATING	COMPONENT	REMARKS
6	Approach Pavement (Asphalt Concrete)	
6	Approach Shoulder	
	Approach Roadway Vertical and Horizontal Alignment	Vertical: Moderate downgrade away from bridge (bridge on vertical crest). Horizontal: Tangent alignment. Minor speed reduction required.
6	Guide Rail Condition (W beam)	
6	Sidewalks (Concrete)	
6	Curbs (Concrete)	
N	Utilities	None
7	Approach Roadway Embankment	
5	Others	Unprotected light poles at the west sidewalk. Signposts are broken.

Additional Remarks:

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 6

SPAN # 1st from SOUTH

RATING	COMPONENT	REMARKS
6	Stringers (Steel) (5 Nos., #’ d West to East)	
6	Diaphragms / Cross Frames	
6	Bearings	
	Deflection and Vibration	None noticed.
N	Others	N/A

**Additional
Remarks:**

FATIGUE DETAILS

Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
E	See Detail 21D . (Transverse diaphragms attached to cut short welded connection plates).

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 6

SPAN # 2nd from SOUTH

RATING	COMPONENT	REMARKS
6	Stringers (Steel) (5 Nos., #' d West to East)	
6	Diaphragms / Cross Frames	
6	Bearings	
	Deflection and Vibration	None noticed.
N	Others	N/A

**Additional
Remarks:**

FATIGUE DETAILS

Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
E	See Detail 21D . (Transverse diaphragms attached to cut short welded connection plates)

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 6

SPAN # 3rd from South

RATING	COMPONENT	REMARKS
6	Stringers (Steel) (5 Nos., #' d West to East)	
6	Diaphragms / Cross Frames	
6	Bearings	
	Deflection and Vibration	None noticed.
N	Others	N/A

**Additional
Remarks:**

FATIGUE DETAILS

Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
E	See Detail 21D . (Transverse diaphragms attached to cut short welded connection plates)

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 6

SPAN # 4th from SOUTH

RATING	COMPONENT	REMARKS
6	Stringers (Steel) (5 Nos., #' d West to East)	Incipient spalls to be removed on priority 1 basis.
6	Diaphragms / Cross Frames	
6	Bearings	
	Deflection and Vibration	None noticed.
N	Others	N/A

**Additional
Remarks:**

FATIGUE DETAILS

Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
N/A	None

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 6

SPAN # 5th from SOUTH

RATING	COMPONENT	REMARKS
6	Stringers (Steel) (5 Nos., #' d West to East)	
6	Diaphragms / Cross Frames	
6	Bearings	
	Deflection and Vibration	None noticed.
N	Others	

**Additional
Remarks:**

FATIGUE DETAILS

Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
E	See Detail 21D . (Transverse diaphragms attached to cut short welded connection plates)

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 6

SPAN # 6th from SOUTH

RATING	COMPONENT	REMARKS
6	Stringers (Steel) (5 Nos., #’ d West to East)	
6	Diaphragms / Cross Frames	
6	Bearings	
	Deflection and Vibration	None noticed.
N	Others	N/A

**Additional
Remarks:**

FATIGUE DETAILS

Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
E	See Detail 21D . (Transverse diaphragm attached to cut short welded connection plates)

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 6

SPAN # 7th from South

RATING	COMPONENT	REMARKS
6	Stringers (Steel) (5 Nos., #' d West to East)	
6	Diaphragms / Cross Frames	
6	Bearings	
	Deflection and Vibration	None noticed.
N	Others	N/A

**Additional
Remarks:**

FATIGUE DETAILS

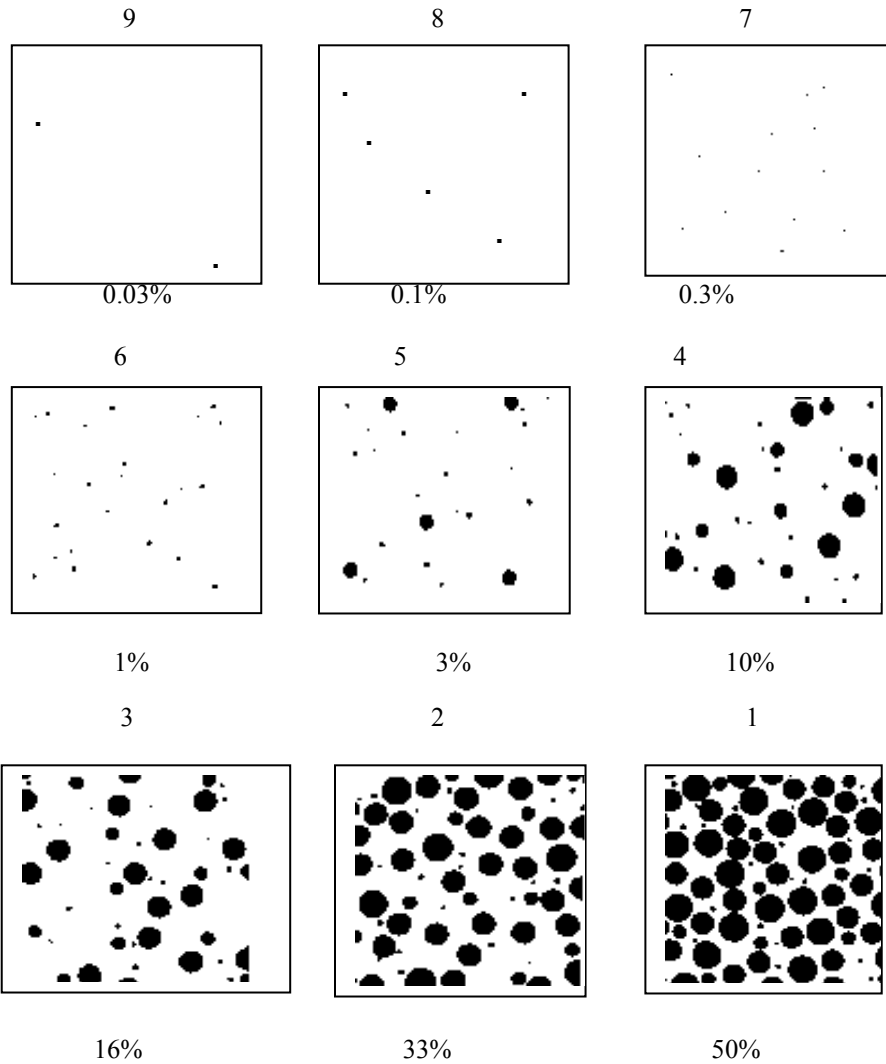
Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
E	See Detail 21D . (Transverse diaphragm attached to cut short welded connection plates)

PAINT INSPECTION

*Environment: 1
 Date of Last Painting: 09/2001

- 1. Rural or Industrial, Mild exposure
 - 2. Industrial, Severe Exposure
 - 3A. Marine, Mild Exposure
 - 3B. Marine, Severe Exposure
- *Ref. NJDOT Design Manual Sec. 1.24.19



Note: Blistered Paint areas are counted as rust

10 = 0% Rust
 0 = 100% Rust

Note: Use the closest rating to the actual field condition based on the average for the bridge. Indicate any areas of severe rusting in remarks.

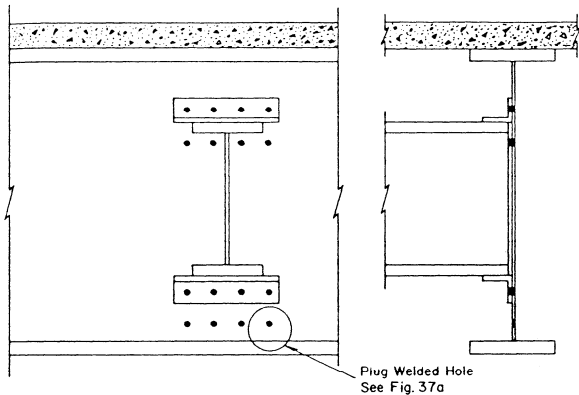
FIG. 1 Examples of Area Percentages

INSPECTION RATINGS (0 THROUGH 10 OR N/A)

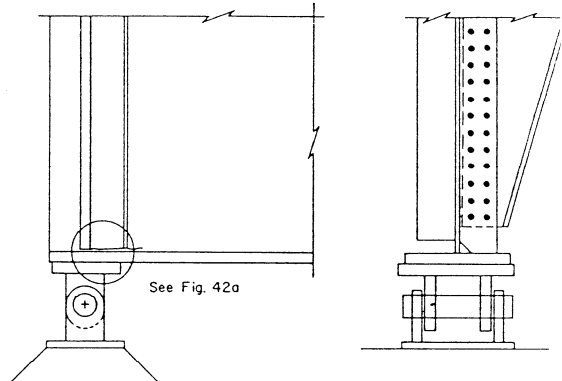
Fascia Beam:	<u>9</u>	Fascia Bottom Flange:	<u>9</u>	Beams Ends:	<u>7</u>
Interior Beam:	<u>9</u>	Interior Bottom Flange:	<u>9</u>	Connections:	<u>9</u>
Bracing:	<u>9</u>	Substructure:	<u>N/A</u>	Railings/Fence:	<u>N/A</u>
Bearings:	<u>7</u>	Above Deck Superstructure:			<u>8</u>

Remarks 1: _____
 Remarks 2: _____

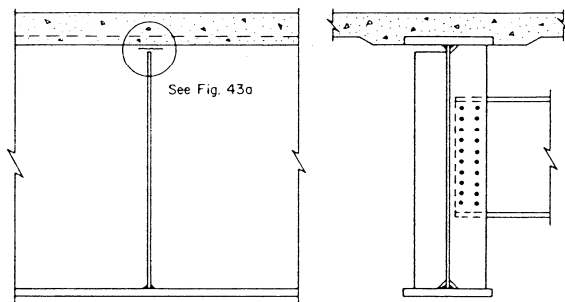
TYPICAL FATIGUE DETAILS



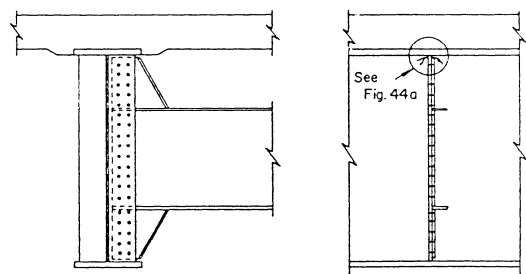
Schematic Showing Misplaced Holes Filled with Weld
Detail 15



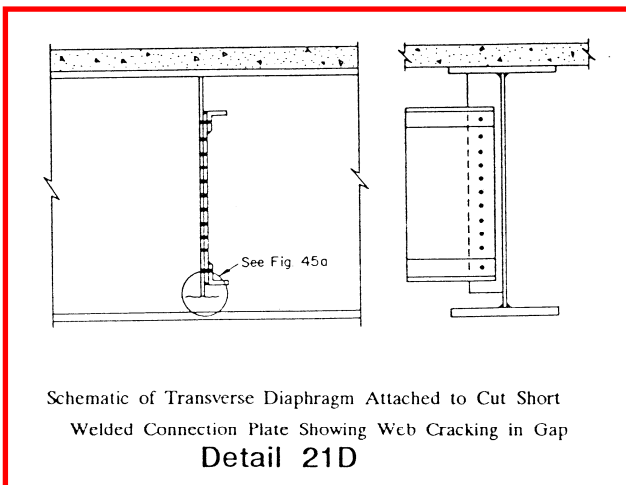
Schematic Showing Crack in Girder Web at
Floor Beam Connection Plates at Supports
Detail 21A



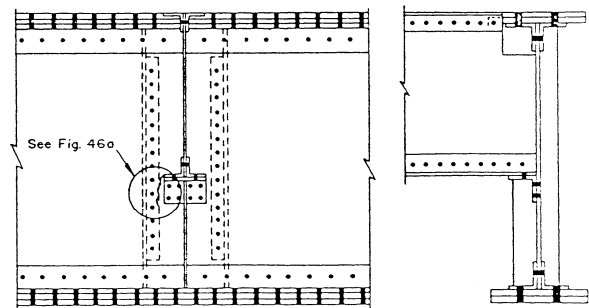
Schematic of Crack in Girder Web at Floor Beam
Connection Plates in Negative Moment Region
Detail 21B



Schematic of Crack in Girder Web and Transverse Connection Plate
Welds at Floor Beam in Negative Moment Region of Skewed Bridge
Detail 21C



Schematic of Transverse Diaphragm Attached to Cut Short
Welded Connection Plate Showing Web Cracking in Gap
Detail 21D



Schematic Showing Stringer Framing into Riveted Floor Beam With
Crack Between Seat Angle Connection and Adjacent Web Stiffeners
Detail 21E

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUBSTRUCTURE

SI&A Item 60 Condition Rating: 6

ABUTMENT NORTH

RATING	COMPONENT	REMARKS
6	Breastwall (Concrete)	
6	Backwall (Concrete)	
6	Bridge Seat (Concrete)	
6	Wingwalls / Retaining Walls (Concrete)	
N	Embankment/ Slope Protection	None
N	Others / Footings / Waterway Probing	N/A

**Additional
Remarks:**

ABUTMENT SOUTH

RATING	COMPONENT	REMARKS
6	Breastwall (Concrete)	
6	Backwall (Concrete)	
6	Bridge Seat (Concrete)	
6	Wingwalls / Retaining Walls (Concrete)	
N	Embankment / Slope Protection	None
N	Others / Footings / Waterway Probing	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUBSTRUCTURE

SI&A Item 60 Condition Rating: 6

PIER 1st PIER from SOUTH

RATING	COMPONENT	REMARKS
6	Columns/ Stem Crashwall (Concrete)	
6	Pier Cap (Concrete)	
6	Bridge Seat (Concrete)	
N	Others/Fender Comment on Probing	Graffiti on South face. See Photo No. 12-06 .

**Additional
Remarks:**

PIER 2nd PIER from SOUTH

RATING	COMPONENT	REMARKS
6	Columns/ Stem Crashwall (Concrete)	
6	Pier Cap (Concrete)	
6	Bridge Seat (Concrete)	
N	Others/Fender Comment on Probing	Graffiti on south face.

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUBSTRUCTURE

SI&A Item 60 Condition Rating: 6

PIER 3rd PIER from SOUTH

RATING	COMPONENT	REMARKS
6	Columns/ Stem Crashwall (Concrete)	
6	Pier Cap (Concrete)	
6	Bridge Seat (Concrete)	
N	Others/Fender Comment on Probing	N/A

**Additional
Remarks:**

PIER 4th PIER from SOUTH

RATING	COMPONENT	REMARKS
6	Columns/ Stem Crashwall (Concrete)	
6	Pier Cap (Concrete)	
6	Bridge Seat (Concrete)	
N	Others/Fender Comment on Probing	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

SUBSTRUCTURE

SI&A Item 60 Condition Rating: 6

PIER 5th PIER from SOUTH

RATING	COMPONENT	REMARKS
6	Columns/ Stem Crashwall (Concrete)	
6	Pier Cap (Concrete)	
6	Bridge Seat (Concrete)	
N	Others/Fender Comment on Probing	N/A

**Additional
Remarks:**

PIER 6th PIER from SOUTH

RATING	COMPONENT	REMARKS
6	Columns/ Stem Crashwall (Concrete)	
6	Pier Cap (Concrete)	
6	Bridge Seat (Concrete)	
N	Others/Fender Comment on Probing	N/A

**Additional
Remarks:**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

HIGHWAY SAFETY

Coding of SI&A Item 36: 0100
 1: Good
 0: Not Good
 N: Not Applicable

RATING		COMPONENT	REMARKS
0		Bridge Railing	Main Span: Through Girders Approach Spans: 3 Rail aluminum railing on concrete parapet.
1	1	Transition to Bridge Railing	
	1	Curb / Sidewalk Terminations	
0		Approach Guide Rails	Concrete balustrades.
0		Approach Guide Rail End Terminals	No end treatments.

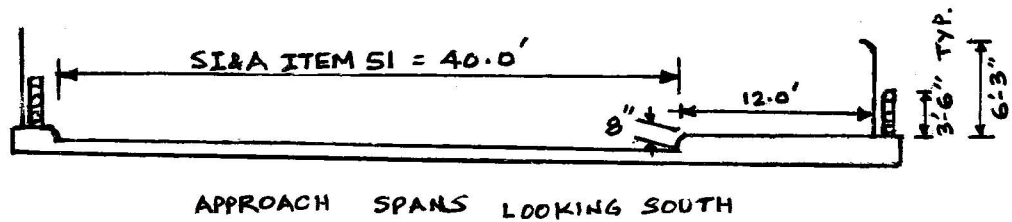
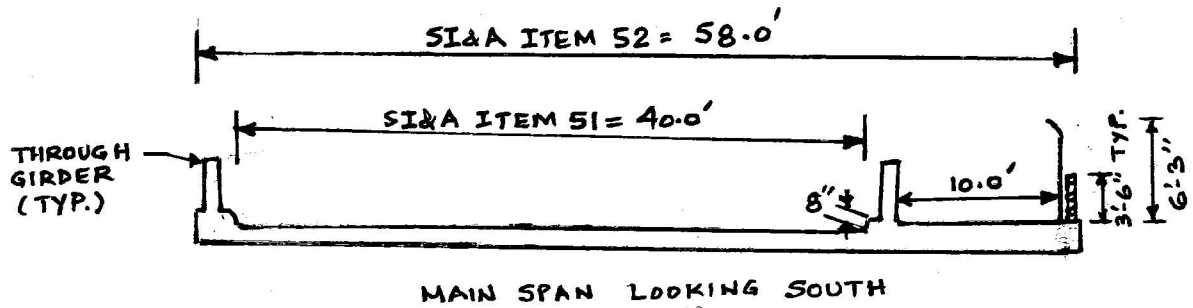
DECK GEOMETRY

SI&A Item 68 Rating: 5

COMPONENT	REMARKS
Bridge Cross Section	Bridge roadway width is consistent with the approach roadway width (See Page 12-38).
Adequacy of Lane / Shoulder Widths	Two lanes, Two way traffic (Table 2C) Curb to curb = 40.0' ADT = 8,250 (Year 2005), Adequate
Vertical Clearance over Deck	Unlimited

*Posting for Load / Speed / Clearance Restrictions (Include a photo)	Missing vertical posting under 5 th span from South. See Priority Repair PR1-02 . All other vertical underclearance signs posted. See Photo No. 12-09 .
--	--

DECK CROSS SECTION



Note: Include field measured curb height.

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

CLEARANCES

FEATURE ON STRUCTURE: Federal Street SI&A SHEET 1

* Minimum Vertical Clearance (SI&A item 10)	9999
Total Horizontal Clearances (SI&A item 47)	40.0' curb to curb.
Minimum Vertical Underclearance (SI&A item 54)	14'-2" under the east fascia over US 30 Eastbound.
Minimum Vertical Underclearance (incl. shoulders) (SI&A Item DJ)	14'-2" under the west fascia at the either curb line of the travel way.
Lateral Right (SI&A item 55)	1'-7" from the edge of right lane to pier, US 30 Eastbound.
Lateral Left (SI&A Item 56)	1'-0" from the left edge of the left lane, US 30 Westbound to median.

FEATURE UNDER STRUCTURE: US 30 SI&A SHEET A

* Minimum Vertical Clearance (SI&A Item 10)	14'-6" under the west fascia at the right lane of Eastbound lanes.
Total Horizontal Clearance (SI&A Item 47)	36.25' curb to curb Eastbound lanes.
Minimum Vertical Underclearance (incl. shoulders) (SI&A Item DJ)	14'-6" under the west fascia at the right lane of Eastbound lanes.

FEATURE UNDER STRUCTURE: Service Road Eastbound SI&A SHEET B

* Minimum Vertical Clearance (SI&A Item 10)	14'-2" under the west fascia at the right the right end of the travel way including shoulder lane.
Total Horizontal Clearance (SI&A Item 47)	23.0' curb to curb Eastbound lanes.
Minimum Vertical Underclearance (incl. shoulders) (SI&A Item DJ)	14'-2" under the west fascia at the either curb line of the travel way.

FEATURE UNDER STRUCTURE: Service Road Westbound SI&A SHEET C

* Minimum Vertical Clearance (SI&A Item 10)	14'-8" under the east fascia at the center of the travel way.
Total Horizontal Clearance (SI&A Item 47)	23.5' from curb to curb.
Minimum Vertical Underclearance (incl. shoulders) (SI&A Item DJ)	14'-7" under the east fascia at the curb line of the travel way.

*** Minimum clearance for a 10 foot width of the pavement or traveled part of the roadway where the clearance is greatest shall be coded in feet and inches**

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
 Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

CHAIN LINK FENCE

Coding of SI&A Item FN: Y
 Coding of SI&A Item FO: Y
 Coding of SI&A Item FP (in thousands) : ---

Warranted (Per Design Manual Section 23):	Yes	
If Yes: (#3B) Description: Curved top on left (west) side.		
<u>Current Status of Fence & Sidewalk:</u>	<u>Left Side</u>	<u>Right Side</u>
a. Fence:	Yes	Yes
b. Sidewalk Width:	10.0 FT	0.60 FT
c. Total Height of fence above Curb/Sidewalk	6.25 FT	6.25 FT
d. Type of Fence: (per Design Manual Section 23)	3B	3A
Action Recommended: None		
Estimated Cost: N/A		

Input By HSB
 Date 9/30/2005

Structure No.: 1XXX-XXX Route: 30 Cycle No.: 12
Name: Federal Street over Route US 30 and Service Roads Insp. Date: 9/30/2005

PRIORITY REPAIRS

The following Priority Letter(s) have been included for this structure:

The Priority Letters have been submitted as a separate pdf file.

PDF Filename(s):

[1XXXXXX_20050930cy12_PR1_01.pdf](#)

[1XXXXXX_20050930cy12_PR1_02.pdf](#)

(Replace [1XXXXXX](#) with Bridge Number)

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
LOSS, THEFT, AND VANDALISM REPORT**

INSTRUCTIONS: PREPARE THIS FORM IN ORIGINAL AND TWO COPIES. (SEE DISTRIBUTION BELOW.)

EMPLOYEE INFORMATION	Person to whom vehicle, equipment or item was assigned	Title	Business telephone
	Bureau	Location of official work station	
	Person completing this report (if different than above) Rajesh C. Patel	Title Project Engineer (Structural Evaluation)	
	Bureau Structural Evaluation	Location of official work station 5 th Floor, E&O Building	Business telephone 609-530-5605

INFORMATION CONCERNING THE LOSS, THEFT OR VANDALISM	Date of loss or damage 9/30/2005	Location where loss or damage occurred, including Region Bridge No. 1XXX-XXX District X		
	How did you learn of the loss, theft or vandalism? (Describe your findings) Graffiti was observed on south abutment, 1 st Pier from south and west face of through girder above the roadway			
	level on Structure No. 1XXX-XXX (Federal Street over Route US 30 and Service Roads during routine bridge inspection on 9/30/2005.			
	Did anyone witness the theft or vandalism? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Name and address of witness	

DESCRIPTION OF VEHICLE OR EQUIPMENT	Type of vehicle or equipment	Make	Year	License or equipment number
	Indicate any other details of the lost or stolen items which may aid in identifying them			

DESCRIPTION OF ITEMS INCLUDING NON-EXPENDABLE INVENTORY OTHER THAN VEHICLES AND EQUIPMENT	Non-Expendable NJDOT ID Number, if applicable
	VALUE:

POLICE INVESTIGATION	Did you notify the Police? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> State Police <input type="checkbox"/> Local Police	If Police were notified indicate name of department and address
	When did you notify the Police?	Name of the officer to whom you reported the theft or vandalism	

9/30/2005
Date of this report

Rajesh C. Patel
Signature of person completing this report

DO NOT WRITE BELOW THIS LINE – FOR INVESTIGATION USE ONLY

Referred for investigation to	Date assigned
Comments	
DISTRIBUTION: ORIGINAL TO: Internal Investigations Unit, Department of Transportation, 225 E. State St., Trenton, New Jersey 08666, P.O. Box 175 DUPLICATE: Furniture Control Section, Bureau of Central Warehouse Operations. DUPLICATE: Retain for File.	

Structure No.: 1XXX-XXX

Route: 30

Cycle No.: 12

Name: Federal Street over Route US 30 and Service Roads

Insp. Date: 9/30/2005



Photo No: 12-01

Location:

Superstructure, looking South.

Description:

General View. Typical for all spans except 4th span from South.



Photo No: 12-02

Location:

1st pier from South at south lane, looking North.

Description:

Graffiti on pier stem wall. Typical on 2nd pier from South.
Insert: Graffiti on west through girder.