



Bridge Inspection Report

056B00197R

Inspector: Daniel Coulter

Entered by: DCOULTER

12/17/2024

Standard (24 months)

<u>IDENTIFICATION</u>			
Structure Num (8):	056B00197R		
NBI Number	056B00197R		
Structure Name:			
Location (9):	0.2 MI N OF MUH ALI BLVD		
Carries (7):	I-65 NB		
Type of Service (42A):	1 Highway		
Feature Crossed (6):	E LIBERTY ST		
Type of Service (42B):	1 Highway		
Placecode (4):	Not Applicable		
County (3):	Jefferson (056)		
State (1):	21 Kentucky		
Admin Area:	Inventory		
District:	District 5		
Latitude (16):	38° 15' 7"		
Longitude (17):	85° 44' 52"		
Owner (22):	State Highway Agency		
Maint. Resp. (21):	State Highway Agency		
Year Built (27):	1963	Border State (98A):	Not Applicable (P)
Year Recon (106):	1980	Border Number (99):	
		% Responsibility (98B):	

Fair		Heath Index:	75.35
SubStd: No		SubStd Reason:	Not Sub-Standa
Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Routine	24	12/17/2024	12/17/2026
Element	24	12/17/2024	12/17/2026
Fracture Critical (A)		1/1/1901	1/1/1901
Underwater (B)		1/1/1901	1/1/1901
Special Insp (C)		1/1/1901	1/1/1901
<u>LOAD RATING AND POSTING</u>			
Posting Status(41):		A Open, no restriction	
Posting (70):		5 At/Above Legal Loads	
Signs Posted Cardinal:		No	
Signs Posted Non-Cardinal:		No	
Recmd Date:		Posted Date:	
<u>Required Postings (Tons.)</u>		<u>Field Postings (Tons.)</u>	
Gross:		Gross:	
Truck Type 1:		Truck Type 1:	
Truck Type 2:		Truck Type 2:	
Truck Type 3:		Truck Type 3:	
Truck Type 4:		Truck Type 4:	
SUV 5:		SUV 5:	
SUV 6:		SUV 6:	
SUV 7:		SUV 7:	
EV Single Axle:		EV Single Axle:	
EV Tadem Axle:		EV Tadem Axle:	
EV Gross:		EV Gross:	

<u>DECK GEOMETRY</u>	
Deck Geometry (68):	5 Above Tolerable
Deck Area:	5,507.00 ft²
Deck Type (107):	1 Concrete-Cast-in-Place
Wearing Surface (108A):	6 Bituminous
Membrane (108B):	0 None
Deck Protection (108C):	1 Epoxy Coated Reinforci
Approach Roadway width (32):	52.00 ft.
Width Curb to Curb (51):	52.00 ft.
O. to O. Width (52):	54.80 ft.
Curb / Sidewalk Width L (50A):	0.00 ft.
Curb / Sidewalk Width R (50B):	0.00 ft.
Median (33):	0 No median

<u>DECK CONDITION</u>									
Deck Rating (58):		5 Fair							
Bridge Rail (36A):		0 Substandard							
Transition (36B):		0 Substandard							
Approach Rail (36C):		0 Substandard							
Approach Rail Ends (36D):		0 Substandard							



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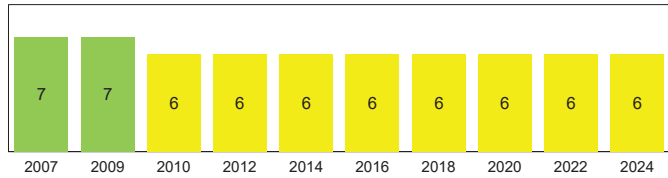
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SUPERSTRUCTURE GEOMETRY

of Main Spans (45): 1
of Approach Spans (46): 0
Main Material (43 A): 3 Steel
Main Design (43 B): 02 Stringer/Girder
Max Span Length (48): 95.30 ft.
Structure Length (49): 100.50 ft.
NBIS Length (37): Long Enough
Temp Structure (103): Not Applicable (P)
Skew (34): 30°
Structure Flared (35): 0 No flare
Parallel Structure (101): Right of || bridge
Approach Alignment (72): 8 Equal Desirable Crit

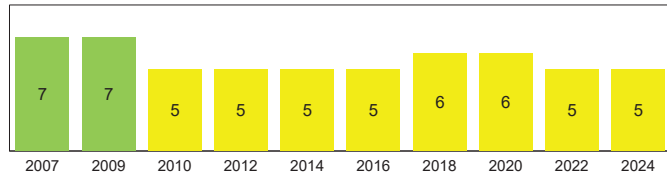


SUPERSTRUCTURE CONDITION

Superstructure Rating (59): 6 Satisfactory
Structure Evaluation (67): 5 Above Min Tolerable

SUBSTRUCTURE GEOMETRY

Navigation Control (38): NA-no waterway
Nav Vert Clearance (39): 0.00 ft.
Nav Horiz Clearance (40): 0.00 ft.
Pier Protection (111): Not Applicable (P)
Lift Bridge Vertical Clearance (116):
Scour Rating (113): N Not Over Waterway
Waterway Adequacy (71): N Not applicable



SUBSTRUCTURE CONDITION

Substructure Rating (60): 5 Fair
Channel Rating (61): N N/A (NBI)

KYTC FIELDS

Overlay:	Yes	Scour Observed:	N/A
Overlay Type:	H T Polymer Asph	Scour Risk :	N/A
Overlay Thickness:	1.50 in.	Scour Analysis/Assessment :	Not Required
Overlay Year:	2006	Scour POA :	Not Required
Cross Section:	Not Required	Scour POA Date :	
Cross Section Date:		Next Cross Section Due Date :	

ROUTE UNDER STRUCTURE: E LIBERTY ST

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
Pos Prefix (5A):	One Route Under	Funcnt Class (26):	14 Urban Other Princ	Vertical (10):	18.08 ft.
Kind of Hwy (5B):	5 City Street	Level Service (5C):	3 Bypass	Min Vert Over (53):	99.99 ft.
Route Num (5D):	01009	NHS (104):	1 On the NHS	Vert Ref (54A):	H Hwy beneath struct
LRS Route (13A/B):	CS1009B000/00	Defense Hwy (100):	0 Not a STRAHNET hwy	Undrclearnce (54B):	17.58 ft.
Milepost (11):	0.25 mi	Toll Facility (20):	3 On free road	Horizontal (47):	51.84 ft.
Suffix (5E):	0 N/A (NBI)	ADT (29):	2,724 Cars/Day	Min Lat Left (56):	12.00 ft.
Lanes Under (28B):	5	Pct Trucks (109):	0.00%	Min Lat Right (55B):	12.00 ft.
Detour Length (19):	1.24 mi	ADT Year (30):	2017	Horiz Ref (55A):	H Hwy beneath struct
				Underclearance (69):	6 Equal Minimum



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ROUTE ON STRUCTURE: I-65

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
Pos Prefix (5A):	Route On Structure	Funct Class (26):	11 Urban Interstate	Vertical (10):	99.99 ft.
Kind of Hwy (5B):	1 Interstate Hwy	Level Service (5C):	1 Mainline	Min Vert Over (53):	99.99 ft.
Route Num (5D):	00065	NHS (104):	1 On the NHS	Vert Ref (54A):	H Hwy beneath struct
LRS Route (13A/B):	IO0065_000/00	Defense Hwy (100):	1 On Interstate STRAHNET	Undrclearnce (54B):	17.58 ft.
Milepost (11):	135.81 mi	Toll Facility (20):	3 On free road	Horizontal (47):	52.00 ft.
Suffix (5E):	0 N/A (NBI)	ADT (29):	42,001 Cars/Day	Min Lat Left (56):	12.00 ft.
Lanes On (28A):	3	Pct Trucks (109):	16.00%	Min Lat Right (55B):	12.00 ft.
Detour Length (19):	8.00 mi	ADT Year (30):	2012	Horiz Ref (55A):	H Hwy beneath struct
				Underclearance (69):	6 Equal Minimum

STRUCTURE NOTES

-As part of the LSIORBP, the northbound portion of previous steel girder bridge 056B00197N (G9-G16) is remaining in-place and has been changed to 056B00197R (G1-G8). PWD 10-10-2016

-The southbound portion of the steel girder bridge (previous 056B00197N) has been replaced with PCI beam bridge (056B00501L/056T00902L).

-In 2022 and 2023, AECOM used infrared thermography to identify and locate areas of concrete delamination and overlay debonding in the deck, plus they obtained core samples for testing to determine chloride ion levels in the concrete. See Media tab for results.

INSPECTION NOTES

-Routine inspection performed by Daniel Coulter and Stephanie Stoops.

SCOUR NOTES

LOAD RATING NOTES

4/7/21 Controlling member is a interior beam with latex overlay and 1.5 inch asphalt. DGA

COMPLIANCE NOTES



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ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
12	Re Concrete Deck	3	12/17/2024	5,375.00	sq.ft	4,496.00	333.00	546.00	0.00

Top of deck cannot be inspected due to 2006 Rosphalt overlay. In the middle lane near the north bridge end, overlay has failed, exposing 2 square feet of deck with spalling at least 3 inches deep. Soffit has areas of full depth deterioration in Bays 4, 6, and 7 located below spalled areas in overlay. West overhang below the longitudinal joint and Bay 1 soffit have possible full depth deterioration and staining plus a few spalls with exposed rebar.

813	AC Wearing Surf w/ Membrane	3	12/17/2024	5,092.00	sq.ft	4,492.00	510.00	88.00	2.00
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Deck was patched and overlaid with 2 inches of Rosphalt in 2006. Overlay has several cracks and spalls, mostly along the joints. Center lane near the north bridge end has asphalt patching roughly 7 feet in diameter and spalling exposing the bridge deck. Approximately 2 square feet of deck is exposed at least 3 inches deep.

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
107	Steel Opn Girder/Beam	3	12/17/2024	784.00	ft	235.00	549.00	0.00	0.00

Beams have freckling rust scattered throughout the bottom flanges.

515	Steel Protective Coating	3	12/17/2024	7,840.00	sq.ft	0.00	7,824.00	16.00	0.00
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Steel protective coating is dulling throughout, with areas of limited effectiveness where corrosion is present. At the beam ends, coating has local areas of limited effectiveness.

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
215	Re Conc Abutment	3	12/17/2024	130.00	ft	66.00	10.00	54.00	0.00

Abutments have moderate to wide horizontal and vertical cracking - some with rust staining - plus diagonal cracking and spalling at the ends of the backwalls. Abutments also have several delaminated areas. Abutment 1 has a spall with exposed rebar below Beam 3. Abutment 2 has 8 feet of spalling with exposed rebar below Beam 6.



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ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
301	Pourable Joint Seal	3	12/17/2024	130.00	ft	0.00	0.00	0.00	130.00

Pourable joint seals have lost adhesion and are missing nearly throughout, exposing original, ineffective compression joint seals. Adjacent overlay has cracking and spalling. Water drains moderately to freely onto elements below; standing water was noted on the Abutment 2 seat.

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
311	Moveable Bearing	3	12/17/2024	8.00	each	0.00	6.00	2.00	0.00

Rocker bearings at Abutment 2 are expanded. Rocker bearings have corrosion, and Beams 6 and 8 bearings have corrosion with pitting in the masonry plate.

515 Steel Protective Coating 3 12/17/2024 32.00 sq.ft 0.00 16.00 14.00 2.00

Steel protective coating is dulling throughout, with areas of limited effectiveness where corrosion is present. Beams 6 and 8 bearings at Abutment 2 have some paint failure.

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
313	Fixed Bearing	3	12/17/2024	8.00	each	0.00	8.00	0.00	0.00

Fixed bearings at Abutment 1 have freckling rust.

515 Steel Protective Coating 3 12/17/2024 32.00 sq.ft 0.00 32.00 0.00 0.00

Steel protective coating is dulling throughout.

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
331	Re Conc Bridge Railing	3	12/17/2024	195.00	ft	174.00	21.00	0.00	0.00

Barriers have moderate cracking and shallow spalls.



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Pourable joint seal over Abutment 1.



Deck overlay has several cracks and spalls. Center lane near the north bridge end has asphalt patching and spalling exposing the bridge deck.



Pourable joint seal over Abutment 2.

056B00197R Routine Inspection 12/17/24



West profile



East profile

056B00197R Routine Inspection 12/17/24



Abutment 1



Abutments have moderate to wide horizontal and vertical cracking plus some delaminated areas.



Abutment 1 vertical crack.



Abutment 1 delamination below Beam 2.



Superstructure



Soffit has areas of full depth deterioration in Bays 4, 6 and 7. Bays 6 and 7 shown.



Bay 4 deterioration near Abutment 2.



Abutment 2



Rocker bearings at Abutment 2 are expanded.



Abutment 2 has 8 feet of spalling with exposed rebar below Beam 6.



Abutment 2 vertical crack.



Abutment 2 has spalls with exposed rebar and rust staining around utility box at the east end.