



# Bridge Inspection Report

056B00194N

Inspector: Stephanie Stoops

Entered by: SSTOOPS

12/11/2024

Standard (24 months)

<u>IDENTIFICATION</u>			
Structure Num (8):	056B00194N		
NBI Number	056B00194N		
Structure Name:			
Location (9):	0.1 MI S OF 1ST ST		
Carries (7):	I-65 SB ON RAMP		
Type of Service (42A):	1 Highway		
Feature Crossed (6):	E MUHAMMAD ALI BLVD		
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' 2"		
Longitude (17):	85° 45' 7"		
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):	

<b>Fair</b>		Heath Index:	83.77
SubStd: No		SubStd Reason:	Not Sub-Standa
Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Routine	24	12/11/2024	12/11/2026
Element	24	12/11/2024	12/11/2026
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):	7 Above Min Criteria
Deck Area:	1,765.00 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):	24.10 ft.
Width Curb to Curb (51):	24.10 ft.
O. to O. Width (52):	27.40 ft.
Curb / Sidewalk Width L (50A):	0.00 ft.
Curb / Sidewalk Width R (50B):	0.00 ft.
Median (33):	0 No median

DECK CONDITION	
Deck Rating (58):	6 Satisfactory
Bridge Rail (36A):	0 Substandard
Transition (36B):	0 Substandard
Approach Rail (36C):	0 Substandard
Approach Rail Ends (36D):	0 Substandard



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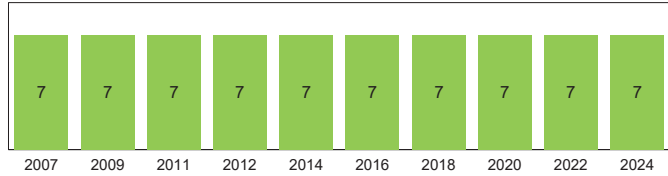
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## SUPERSTRUCTURE GEOMETRY

# 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): 62.40 ft.  
Structure Length (49): 64.40 ft.  
NBIS Length (37): Long Enough  
Temp Structure (103): Not Applicable (P)  
Skew (34): 7°  
Structure Flared (35): 0 No flare  
Parallel Structure (101): No || bridge exists  
Approach Alignment (72): 8 Equal Desirable Crit

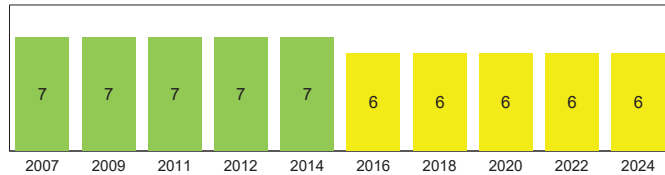


## SUPERSTRUCTURE CONDITION

Superstructure Rating (59): 7 Good  
Structure Evaluation (67): 6 Equal Min Criteria

## 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): 6 Satisfactory  
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 MUHAMMAD ALI BLVD

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
Pos Prefix (5A):	One Route Under	Funcnt Class (26):	16 Urban Minor Arterial	Vertical (10):	16.60 ft.
Kind of Hwy (5B):	5 City Street	Level Service (5C):	0 None of the below	Min Vert Over (53):	99.99 ft.
Route Num (5D):	01048	NHS (104):	0 Not on NHS	Vert Ref (54A):	H Hwy beneath struct
LRS Route (13A/B):		Defense Hwy (100):	0 Not a STRAHNET hwy	Undrclearnce (54B):	15.30 ft.
Milepost (11):	1.01 mi	Toll Facility (20):	3 On free road	Horizontal (47):	40.00 ft.
Suffix (5E):	0 N/A (NBI)	ADT (29):	7,708 Cars/Day	Min Lat Left (56):	8.00 ft.
Lanes Under (28B):	4	Pct Trucks (109):	0.00%	Min Lat Right (55B):	8.00 ft.
Detour Length (19):	0.00 mi	ADT Year (30):	2024	Horiz Ref (55A):	H Hwy beneath struct
				Underclearance (69):	4 Tolerable



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ROUTE ON STRUCTURE: I-65 RAMP from S 1ST ST

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
<b>Pos Prefix (5A):</b>	Route On Structure	<b>Funct Class (26):</b>	11 Urban Interstate	<b>Vertical (10):</b>	99.99 ft.
<b>Kind of Hwy (5B):</b>	1 Interstate Hwy	<b>Level Service (5C):</b>	7 Ramp	<b>Min Vert Over (53):</b>	99.99 ft.
<b>Route Num (5D):</b>	00065	<b>NHS (104):</b>	1 On the NHS	<b>Vert Ref (54A):</b>	H Hwy beneath struct
<b>LRS Route (13A/B):</b>		<b>Defense Hwy (100):</b>	1 On Interstate STRAHNET	<b>Undrclearnce (54B):</b>	15.30 ft.
<b>Milepost (11):</b>	135.60 mi	<b>Toll Facility (20):</b>	3 On free road	<b>Horizontal (47):</b>	24.10 ft.
<b>Suffix (5E):</b>	0 N/A (NBI)	<b>ADT (29):</b>	84,001 Cars/Day	<b>Min Lat Left (56):</b>	8.00 ft.
<b>Lanes On (28A):</b>	1	<b>Pct Trucks (109):</b>	16.00%	<b>Min Lat Right (55B):</b>	8.00 ft.
<b>Detour Length (19):</b>	0.00 mi	<b>ADT Year (30):</b>	2012	<b>Horiz Ref (55A):</b>	H Hwy beneath struct
				<b>Underclearance (69):</b>	4 Tolerable

### STRUCTURE NOTES

-In 2022, 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.

-Structure has been reviewed and meets criteria set forth in the Inspection Interval Implementation Memo from FHWA sent June 13, 2022. Routine inspection can be extended to 48 months based on equivalent criteria per the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, however the inspection will remain at 24-month inspection and will not be extended. EDV 11/25/2024

### INSPECTION NOTES

-Routine inspection performed b Stephanie Stoops and Marcella Kennedy. 12/11/2024

### SCOUR NOTES

### LOAD RATING NOTES

4/7/21 Controlling member is a interior beam with latex overlay and 1.5 inches of 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	12/11/2024	1,759.00	sq.ft	1,557.00	175.00	27.00	0.00

Top of deck cannot be visually inspected due to asphalt overlay. An infrared deck scan was completed by AECOM in 2022, which indicated no delaminations or patches in the top of the deck. Soffit has a few transverse cracks with efflorescence. Spalls with exposed rebar noted in Bay 1 (1.5 inches long by 1.5 feet wide) and Bay 3 (4 inches long by 3 feet wide) mid-span. Soffit also has diagonal cracking and full depth deterioration with seepage, efflorescence, and exposed rebar in Bay 3 at both abutments, worse at Abutment 2.

813	AC Wearing Surf w/ Membrane	3	12/11/2024	1,547.00	sq.ft	1,495.00	0.00	52.00	0.00
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Wearing surface is in good condition except for some cracks/deterioration along joints and diagonal cracking at the northeast corner. Infrared thermographic deck scan from 2022 indicated debonding along the Abutment 2 joint in the lanes.

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	12/11/2024	257.00	ft	187.00	70.00	0.00	0.00

Beams have some surface rust at ends. Beams have some scattered freckled rust on bottom flanges and webs, with Beams 2 and 3 having the heaviest amount.

515	Steel Protective Coating	3	12/11/2024	2,492.00	sq.ft	0.00	2,422.00	70.00	0.00
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Steel protective coating is generally substantially effective with some dulling. Areas with freckled rust have 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	12/11/2024	74.00	ft	53.00	8.00	13.00	0.00

Quantity includes parallel wingwalls at the abutments. Abutments have full height vertical cracks below Beams 2 and 3, plus cracks with efflorescence at the ends of the backwalls. Abutment 1 has dense pattern cracking with efflorescence near the tops of the wingwalls, a 3-foot long by 1-foot high spall in the backwall at the west end/behind Beam 1, and 4 feet of wide horizontal cracking near the top of the breastwall below Bay 1 with rust staining and efflorescence.





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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	12/11/2024	54.00	ft	0.00	11.00	8.00	35.00

Pourable joint seal was installed over existing compression seals. Seal is missing at Abutment 1, and only partially present at Abutment 2 exposing the old compression joint. The exposed compression joint is shredded and filled with debris.

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	12/11/2024	4.00	each	0.00	3.00	1.00	0.00

Movable bearings at Abutment 1 have some surface rust, with heavier corrosion on the Girder 1 bearing.

515 Steel Protective Coating 3 12/11/2024 5.00 sq.ft 0.00 2.00 2.00 1.00

Steel protective coatings of the moveable bearings generally exhibit substantial to limited effectiveness. Some has failed on the Girder 1 bearing.

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	12/11/2024	4.00	each	0.00	3.00	1.00	0.00

Fixed bearings at Abutment 2 have some surface rust, with heavier corrosion on the Girder 1 bearing.

515 Steel Protective Coating 3 12/11/2024 5.00 sq.ft 0.00 2.00 2.00 1.00

Steel protective coatings of the fixed bearings generally exhibit substantial to limited effectiveness. Some has failed on the Girder 1 bearing.

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	12/11/2024	128.00	ft	49.00	79.00	0.00	0.00

Concrete railings have some moderate cracks and small spalls. West railing has longitudinal cracking along base for the length.



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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
859	Vegetation	3	12/11/2024	1.00	each	0.00	0.00	1.00	0.00

West face of the structure, along with much of Abutment 2, is covered in vines, restricting proper inspection.



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Looking north along I-65 SB on ramp from S 1st St.



Joint over Abutment 1





Joint over Abutment 2



Asphalt overlay has cracking near the north bridge end. Pourable joint seals have also generally failed.





West rail has cracking throughout the length.



Looking south along ramp towards mainline I-65 SB.



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West Profile



East Profile





Abutment 1



SW wingwall has dense pattern cracking with efflorescence near the top.





Abutment 1 has wide horizontal cracking with some rust staining near the top of the seat under Bay 1.



SE wingwall also has dense pattern cracking near the top.





Superstructure



Deck soffit has an area of spalling with exposed rebar in Bay 3 at Abutment 1.





Soffit has an area of full depth deterioration in Bay 3 at Abutment 2.



Vines are growing along Girder 1.





Abutment 2



Abutment 2 backwall has cracking with efflorescence at the ends. West end shown.