

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 11996

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b> STOEFLET ROAD	<b>Latitude / Longitude</b> 42.09 / -83.1914	<b>MDOT Structure ID</b> 824263600006B04	<b>Structure Condition</b> Fair Condition(5)
<b>Feature</b> E GIBRALTAR WATERWAY	<b>Length / Width / Spans</b> 26.9 / 37.7 / 1	<b>Owner</b> City: GIBRALTAR(2636)	
<b>Location</b> GIBRALTAR, W/BAYVIEW	<b>Built / Recon. / Paint / Ovly.</b> 1992 / / /	<b>TSC</b> Taylor(25)	<b>Operational Status</b> A Open, no restriction(A)
<b>Region / County</b> Metro(7) / Wayne(82)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/02/2023 / GBW2	<b>Scour Evaluation</b> 5 Stable w/in footing



NBI INSPECTION

GBW2

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Joel Thorne	Great Lakes Engineering Group	24	08/02/2023

GENERAL NOTES

Apply for PM work.

DECK


	08/19	08/21	08/23	
<b>1. Surface (SIA-58A)</b>	6	5	5	Concrete surface with 3 full length longitudinal cracks. Along centerline, 12" wide HMA patch along full length of bridge. At midspan, 6"-12" wide full width HMA patch. At east end 12" wide full width HMA patch. (08/23) Concrete surface. Along centerline 12" wide HMA patch along full length of bridge. At midspan, 6"-12" wide full width HMA patch. At east end 12" wide full width HMA patch. (08/21) Cracks and spalls at centerline at midspan are patched and sealed, patches are beginning to fail. Spall in east bound lane at east abutment is open. Spalls in west bound lane near the north side walk. (08/19)
<b>2. Expansion Joints</b>	N	N	N	(08/23) (08/21) (08/19)
<b>3. Other Joints</b>	6	4	4	End joints are covered with HMA patch. (08/23) End joints are covered with HMA patch. (08/21) Joints are sealed. (08/19)
<b>4. Railings</b>	6	6	6	Concrete parapet railing. Hairline vertical cracks in both parapets. South railing: West end of parapet has 1sft map cracking and spalling (8 in x 6 in x 2 in pen). Cracked weld at the SE metal rail to base plate connection. North railing: Metal railing base plate at NE end has 1 of 4 nuts missing. The nuts were generally poorly tightened on the metal railings. (08/23) Concrete parapet railing. Hairline vertical cracks in both parapets. West end of south parapet has 1sft map cracking and spalling (8 in x 6 in x 2 in pen). Metal railing base plate at NE end has 1 of 4 nuts missing. The nuts were generally poorly tightened on the metal railings. Cracked weld at the SE metal rail to base plate connection. (08/21) Hairline vertical cracks in both parapets. West end of south parapet has 1 sq. ft. area of heavy 1/16 in. map cracking and spalling (8 in x 6 in x 2 in pen). Metal railing base plate at NE end has 1 of 4 nuts missing. The nuts were generally poorly tightened on the metal railings. Cracked weld at the SE metal rail to base plate connection. (08/19)
<b>5. Sidewalks or Curbs</b>	7	7	7	Concrete sidewalks along both sides with newer sections at reference lines. Incipient spall in SW sidewalk section. (08/23) Concrete sidewalks along both sides with newer sections at reference lines. (08/21) Sidewalks have been repaired. (08/19)
<b>6. Deck Bottom Surface (SIA-58B)</b>	8	N	N	Side by side box beams. Efflorescence noted along all joints at abutments. (08/23) Side by side box beams (08/21) Bottom of girders are in good condition. (08/19)



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<b>14. Piers (SIA-60)</b>	N	N	N	(08/23) (08/21) (08/19)
<b>15. Slope Protection</b>	N	N	N	(08/23) (08/21) Not used as structure crosses waterway. (08/19)
<b>16. Channel (SIA-61)</b>	8	8	8	Flow north to south. Waterway is open. Retaining walls at NW, SE, and SW quadrants, and embankment with riprap at the NE quadrant. (08/23) Waterway is open. Retaining walls at NW, SE, and SW quadrants, and embankment with riprap at the NE quadrant. (08/21) Waterway is open. Private property retaining walls at NW, SE, and SW quadrants, and embankment with 1 ft. diameter rip rap at the NE quadrant. (08/19)
<b>17. Scour Inspection</b>	8	8	8	2021 UW inspection found no footing exposure or undermining along the abutments. (08/23) See 2021 UW inspection (08/21) Probed from boat. No scour observed. (08/19)

**APPROACH**

	08/19	08/21	08/23	
<b>18. Approach Pavement</b>	6		6	HMA with sealed cracks, sealant beginning to fail. The west approach has HMA wedges at corners. (08/23) HMA with sealed cracks, sealant beginning to fail. The west approach has settled 2"-5". HMA patching at reference lines. (08/21) 95% of the cracks are patched and the patches are beginning to fail. The west approach has settled up to 2 inches. (08/19)
<b>19. Approach Shoulders Sidewalks</b>	6	7	7	Concrete approach sidewalks repaired. 25' of approach sidewalk in each quad. (08/23) Concrete approach sidewalks repaired. 25' of approach sidewalk in each quad. (08/21) Cracks and settlement have been patched with asphalt and sidewalks repaired. (08/19)
<b>20. Approach Slopes</b>				Large, heavy broken pieces of 6 in thick concrete slab. (08/23) Large, heavy broken pieces of 6 in thick concrete slab. No change. (08/21) Large, heavy broken pieces of 6 in thick concrete slab. No change. (08/19)
<b>21. Utilities</b>				Overhead lines across the channel at 15 feet south of the bridge. (08/23) Overhead lines across the channel at 15 feet south of the bridge. No change. (08/21) Overhead lines across the channel at 15 feet south of the bridge. No change. (08/19)
<b>22. Drainage Culverts</b>				(08/23) (08/21) NE and NW quadrants have storm sewer outfalls. No change. (08/19)

**MISCELLANEOUS**

<b>Guard Rail</b>		<b>Other Items</b>	
<u>Item</u>	<u>Rating</u>	<u>Item</u>	<u>Rating</u>
36A. Bridge Railings	1	71. Water Adequacy	7
36B. Transitions	1	72. Approach Alignment	8
36C. Approach Guardrail	1	Temporary Support	0 No Temporary Supports
36D. Approach Guardrail Ends	0	High Load Hit (M)	No
		Special Insp. Equipment	1
		Underwater Insp. Method	3
<b>False Decking (Timber) Removed to Complete Inspection</b>		N/A - No False Decking	


**Critical Feature Inspections (SIA-92)**

<u>Freq</u>	<u>Date</u>
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92A. Fracture Critical

92B. Underwater                      60                      08/18/2021


92C. Other Special

92D. Fatigue Sensitive

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SUPPORTING IMAGES

GBW2 08/02/2023



Document Name: IMG\_4564.JPG  
 Category: Elevation  
 Span Number:  
 Comments: North elevation



Document Name: IMG\_4569.JPG  
 Category: Elevation  
 Span Number:  
 Comments: South elevation



Document Name: IMG\_4552.JPG  
 Category: Approach  
 Span Number:  
 Comments: Looking west through structure




Document Name: IMG\_4553.JPG  
 Category: Approach  
 Span Number:  
 Comments: West approach

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Document Name: IMG\_4557.JPG  
 Category: Approach  
 Span Number:  
 Comments: East approach



Document Name: IMG\_4559.JPG  
 Category: Railing  
 Span Number:  
 Comments: South rail



Document Name: IMG\_4562.JPG  
 Category: Railing  
 Span Number:  
 Comments: North rail




Document Name: IMG\_4555.JPG  
 Category: Deck  
 Span Number:  
 Comments: Deck surface

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Document Name: IMG\_4558.JPG  
 Category: Deck  
 Span Number:  
 Comments: South sidewalk



Document Name: IMG\_4561.JPG  
 Category: Deck  
 Span Number:  
 Comments: North sidewalk



Document Name: IMG\_4554.JPG  
 Category: Joints  
 Span Number:  
 Comments: West reference line




Document Name: IMG\_4556.JPG  
 Category: Joints  
 Span Number:  
 Comments: East reference line

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Document Name: IMG\_4567.JPG  
 Category: Superstructure  
 Span Number:  
 Comments: Beams



Document Name: IMG\_4568.JPG  
 Category: Superstructure  
 Span Number:  
 Comments: Leakage between beams



Document Name: IMG\_4565.JPG  
 Category: Substructure  
 Span Number:  
 Comments: West abutment



Document Name: IMG\_4566.JPG  
 Category: Substructure  
 Span Number:  
 Comments: East abutment



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Document Name: IMG\_4560.JPG  
 Category: Channel  
 Span Number:  
 Comments: South channel



Document Name: IMG\_4563.JPG  
 Category: Channel  
 Span Number:  
 Comments: North channel