STR 6937 BRIDGE SAFETY INSPECTION REPORT						
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	1		
N SAGINAW ROAD	43.6782 / -84.3947	56200028000B010	Good Condition(7)			
Feature	Length / Width	Owner				
BIG SALT RIVER	162.4 / 37.73	County: Midland(56)				
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status			
.2 MI NW OF WEST RIVER RD	2001 / / /	Mt. Pleasant(4A)	A Open, no restriction(A)			
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation			
Bay(4) / Midland(56)	5 Prestressed Concrete / 05 Multiple Box Beam	09/28/2015 / 8M3H	5 Stable w/in footing			

NBI INSPECTION						8M3H
Inspector Name			Α	gency / Company Name	Insp. Freq.	Insp. Date
Eric Rickert			G	reat Lakes Engineering Group	24	09/28/2015
GENERAL NOTES						
Good.						
DECK						
	09/11	09/13	09/15			
1. Surface (SIA-58A)	7	7	6	Healer/sealer, estimate 90% worn of in east 15 ft. (09/15)	,	•

(Cirt GG/1)				New healer/sealer, no visible cracks. Healer/sealer wearing off in wheel lines. Spall at west joint filled with healer/sealer. (09/13) Hairline map cracks at piers outside of tining. 0.5 sft spall at west joint, EBD lane. Noted hairline map cracking throughout east and center spans. Transverse crack in center span at east pier EBD lane. (09/11)
2. Expansion Joints	N	7	6	Joint material intact. HMA patch at east reference line. (09/15) Joint material intact (09/13) (09/11)

3. Other Joints	7	N	N	(09/15) (09/13) Joint material intact (09/11)
4. Railings	7	7	7	Shrinkage/ASR cracking on outside of railing, surface sealer on inside of railing. (09/15) Shrinkage/ASR cracking on outside of railing, surface sealer on inside of railing. (09/13) Shrinkage/ASR cracking on outside of railing, surface sealer on inside of railing (09/11)

				Chiminago, tert ordening on edicide of family, curious scales of mislas of re
5. Sidewalks or Curbs	N	N	N	(09/15) (09/13) (09/11)
6. Deck Bottom Surface	N	N	N	Side by side box beams (09/15) Side by side box beams (09/13) Side by side box beams (09/11)

(SIA-58B)				Side by side box beams (09/11)	
7. Deck (SIA-58)	7	7	7	Healer/sealer wearing off with hairline map cracks visible. piers. (09/15)	South fascia spalled over both

piers. (09/15)
New healer/sealer on deck. South fascia spalled over both piers. (09/13) Map cracks in east and center spans, spall in south shoulder (09/11)

8. Drainage

(09/15) Gravel along edges impedes drainage (09/13) Chip seal stone along south edge impedes drainage (09/11)

SUPERSTRUCTURE

	09/11	09/13	09/15	
9. Stringer (SIA-59)	8	8	8	Side by side box beams. Bolts placed in fascia jack inserts are rusting (09/15) Side by side box beams. Bolts placed in fascia jack inserts are rusting (09/13) Side by side box beams. Bolts placed in fascia jack inserts are rusting (09/11)
10. Paint (SIA-59A)	N	N	N	(09/15) (09/13) (09/11)

STR 6937				BRIDGE SAFETY INSI	PECTION REPORT	
Facility N SAGINAW ROAD Feature BIG SALT RIVER Location .2 MI NW OF WEST F Region / County Bay(4) / Midland(56)		RD	43.67 Leng 162.4 Built 2001 Mate 5 Pre	ide / Longitude 182 / -84.3947 th / Width -/ 37.73 / Recon. / Paint / Ovly. / / / rial / Design stressed Concrete / 05 ble Box Beam	MDOT Structure ID 56200028000B010 Owner County: Midland(56) TSC Mt. Pleasant(4A) Last NBI Inspection 09/28/2015 / 8M3H	Structure Condition Good Condition(7) Operational Status A Open, no restriction(A) Scour Evaluation 5 Stable w/in footing
11. Section Loss	N	N	N	(09/15) (09/13) (09/11)		
12. Bearings	8	8	8	Elastomeric pads in place Elastomeric pads in place Elastomeric pads in place	(09/13)	
SUBSTRUCTURE						
	09/11	09/13	09/15			
13. Abutments (SIA-60)	8	7	7	Hairline shrinkage/ASR cra Hairline shrinkage/ASR cra Hairline shrinkage/ASR cra	acks in slope walls (09/13)	ng crack in NW slopewall (09/15)
14. Piers (SIA-60)	7	7	7	piers outside of fascias. (09 Piers have hairline shrinka piers outside of fascias. (09	9̃/15) ge cracks at outer 3'-4' on 9́/13) ge cracks at outer 3'-4' on	both north and south faces and on top of both north and south faces and on top of both north and south faces and on top of
15. Slope Protection	8	8	8	Riprap in place (09/15) Riprap in place (09/13) Riprap in place (09/11)		
16. Channel (SIA-61)	8	8	8	No flow in channel, standin No flow in channel, tall veg No flow in channel, tall veg	etated banks. (09/13)	nks. (09/15)
17. Scour Inspection			7	(09/15) (09/13) (09/11)		
APPROACH						
	09/11	09/13	09/15			
18. Approach Pavement	6	4	5	longitudinal crack in EBD la East approach: north and West approach, outer 2ft h end. (09/13) East approach: the north,	ane. West approach, 100' south 2ft has turned to gra as turned to gravel, HMA south, and east 1ft is spal crack in EBD lane. West a	outh 2ft has been patched with HMA, % patched with HMA. (09/15) avel, longitudinal crack in EBD lane. patches at reference lines and at west led/patched/cracked, 4'x'4 delamination approach: outer 1ft at all 4 edges is
19. Approach Shoulders Sidewalks	7	7	7	HMA shoulders with appro HMA shoulders with appro HMA shoulders with appro	ach curb and gutter. (09/1	3)
20. Approach Slopes				Tall vegetated slopes (09/1 Tall vegetated slopes (09/1 Tall vegetated slopes (09/1	13)	
21. Utilities				Box outs in wingwalls with Box outs in wingwalls with Box outs in wingwalls with	no utilities (09/13)	
22. Drainage Culverts				(09/15) (09/13) (09/11)		

STR 6937	BRIDGE SAFETY IN	ISPECTION REPORT		
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
N SAGINAW ROAD	43.6782 / -84.3947	56200028000B010	Good Condition(7)	
Feature	Length / Width	Owner		
BIG SALT RIVER	162.4 / 37.73	County: Midland(56)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
.2 MI NW OF WEST RIVER RD	2001 / / /	Mt. Pleasant(4A)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Midland(56)	5 Prestressed Concrete / 05 Multiple Box Beam	09/28/2015 / 8M3H	5 Stable w/in footing	
Guard Rail		Other Items		
Item	Rating	<u>Item</u>	Rating	
36A. Bridge Railings	1	71. Water Adequacy	8	
36B. Transitions	1	72. Approach Alignment	8	
36C. Approach Guardrail	1	Temporary Support	0 No Temporary Supports	
36D. Approach Guardrail Ends	1	High Load Hit (M)	No	
		Special Insp. Equipment	2	
		Underwater Insp. Method	1	
False Decking (Timber) Removed	to Complete Inspection	N/A - No False Decking		
Critical Feature Inspections (S	SIA-92)			
	Freq Date			
92A. Fracture Critical				
92B. Underwater				
92C. Other Special				

92D. Fatigue Sensitive

STR 6937		STRUCTURE INVENTOR	Y AND APPRAISA	.L	
Facility	Lati	tude / Longitude	MDOT Structure ID	Structure Condition	1
N SAGINAW ROAD		782 / -84.3947	56200028000B010	Good Condition(7)	
Feature		gth / Width	Owner		
BIG SALT RIVER		4 / 37.73	County: Midland(56)		
Location		t / Recon. / Paint / Ovly.	TSC	Operational Status	
.2 MI NW OF WEST RIVER	RD 200	1 / / /	Mt. Pleasant(4A)	A Open, no restriction(A	A)
Region / County	Mate	erial / Design	Last NBI Inspection	n Scour Evaluation	
Bay(4) / Midland(56)	5 Pr	estressed Concrete / 05	09/28/2015 / 8M3H	5 Stable w/in footing	
	Mult	iple Box Beam			
Bridge History, Type,	Materials	Route Carried By Struc	cture(ON Record)	Route Under Structure (UN	NDER Record)
27 - Year Built	2001	5A - Record Type	1	5A - Record Type	<u> </u>
106 - Year Reconstructed		5B - Route Signing	4	5B - Route Signing	
202 - Year Painted		5C - Level of Service	0	5C - Level of Service	
203 - Year Overlay		5D - Route Number	00000	5D - Route Number	
43 - Main Span Bridge Type	5 05	5E - Direction Suffix	0	5E - Direction Suffix	
44 - Appr Span Bridge Type		10L - Best 3m Unclr-Lt	0 0	10L - Best 3m Unclr-Lt	
77 - Steel Type	0	10R - Best 3m Unclr-Rt	99 99	10R - Best 3m Unclr-Rt	
78 - Paint Type 79 - Rail Type	0	PR Number Control Section		PR Number Control Section	
80 - Post Type		11 - Mile Point	0	11 - Mile Point	
107 - Deck Type	1	12 - Base Highway Network		12 - Base Highway Network	
108A - Wearing Surface	1	13 - LRS Route-Subroute	0000008877 03	13 - LRS Route-Subroute	
108B - Membrane	1	19 - Detour Length	2	19 - Detour Length	
108C - Deck Protection	1	20 - Toll Facility	3	20 - Toll Facility	
Structure Dimens	ions	26 - Functional Class	07	26 - Functional Class	
34 - Skew	25	28A - Lanes On	2	28B - Lanes Under	
35 - Struct Flared	0	29 - ADT 30 - Year of ADT	2899 1999	29 - ADT 30 - Year of ADT	
45 - Num Main Spans	3	32 - Appr Roadway Width	39.04	42B - Service Type Under	5
46 - Num Apprs Spans	0	32A/B - Ap Pvt Type/Width	4 39.99	47L - Left Horizontal Clear	
48 - Max Span Length	65.6	42A - Service Type On	1	47R - Right Horizontal Clear	
49 - Structure Length	162.4	47L - Left Horizontal Clear	0.0	54A - Left Feature	
50A - Width Left Curb/SW 50B - Width Right Curb/SW	0	47R - Right Horizontal Clea		54B - Left Underclearance	99 99
33 - Median	0	53 - Min Vert Clr Ov Deck	99 99	54C - Right Feature	
51 - Width Curb to Curb	35.1	100 - STRAHNET	0	54D - Right Clearance	99 99
52 - Width Out to Out	37.73	102 - Traffic Direct 109 - Truck %	5	Under Clearance Year 55A - Reference Feature	N
112 - NBIS Length	Υ	110 - Truck Network	0	55B - Right Horiz Clearance	0
Inspection Dat	a	114 - Future ADT	5236	56 - Left Horiz Clearance	0
90 - Inspection Date	09/28/2015	115 - Year Future ADT	2019	100 - STRAHNET	
91 - Inspection Freq	24	Freeway	0	102 - Traffic Direct	
92A - Frac Crit Req/Freq	N	Structure Ap	praisal	109 - Truck %	
93A - Frac Crit Insp Date		36A - Bridge Railing	1	110 - Truck Network	
92B - Und Water Req/Freq	N	36B - Rail Transition	1	114 - Future ADT	
93B - Und Water Insp Date	N	36C - Approach Rail	1	115 - Year Future ADT Freeway	
92C - Oth Spec Insp Req/Freq 93C - Oth Spec Insp Date	IN I	36D - Rail Termination	1	•	
92D - Fatigue Req/Freq	N	67 - Structure Evaluation	7	Proposed Improve	ments
93D - Fatigue Insp Date		68 - Deck Geometry	5	75 - Type of Work	
176A - Und Water Insp Method	1	69 - Underclearance 71 - Waterway Adequacy	N 8	76 - Length of Improvement 94 - Bridge Cost	0
58 - Deck Rating	7	71 - Waterway Adequacy 72 - Approach Alignment	8	95 - Roadway Cost	0
58A/B - Deck Surface/Bottom	6 N	103 - Temporary Structure		96 - Total Cost	0
59 - Superstructure Rating	8 N	113 - Scour Criticality	5	97 - Year of Cost Estimate	
59A - Paint Rating 60 - Substructure Rating	7	Miscelland	POUS	Load Rating and P	ostina
61 - Channel Rating	8	37 - Historical Significance	1	31 - Design Load	5
62 - Culvert Rating	N	98A - Border Bridge State	·	41 - Open, Posted, Closed	A
Navigation Dat		98B - Border Bridge %		63 - Fed Oper Rtg Method	1
_	0	101 - Parallel Structure	N	64F - Fed Oper Rtg Load	99.9
38 - Navigation Control39 - Vertical Clearance	0	EPA ID		64MA - Mich Oper Rtg Method	
40 - Horizontal Clearance	0	Stay in Place Forms		64MB - Mich Oper Rtg	149
111 - Pier Protection		143 - Pin & Hanger Code	<u> </u>	64MC - Mich Oper Truck	
116 - Lift Brdg Vert Clear		148 - No. of Pin & Hangers		65 - Inv Rtg Method 66 - Inventory Load	63.9
-				70 - Posting	5
				141 - Posted Loading	
				193 - Overload Class	

STR 6937	WORK RECOM		
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
N SAGINAW ROAD	43.6782 / -84.3947	56200028000B010	Good Condition(7)
Feature	Length / Width	Owner	
BIG SALT RIVER	162.4 / 37.73	County: Midland(56)	
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status
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Region / County	Material / Design	Last NBI Inspection	Scour Evaluation
Bay(4) / Midland(56)	5 Prestressed Concrete / 05 Multiple Box Beam	09/28/2015 / 8M3H	5 Stable w/in footing

WORK RECOMMENDATIONS			8M3H		
Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date		
Eric Rickert	Great Lakes Engineering Gro	up 24	09/28/2015		
RECOMMENDATIONS & ACTION	N ITEMS				
Recommendation Type	Priority	Description			
Appr. Pavement	Н	Replace both appro	paches		
Overlay	M	Healer/sealer in 4	years		
Super Repair	L	Patch south deck f	ascia		
Substr Repair	Н	Apply horizontal surface sealer on top slopewalls.	rizontal surface sealer on top of piers and seal cracks in slopewalls.		



Road and bridge section facing west



Healer/sealer surface





End joint



Hairline cracks in surface





Upstream channel section



Downstream channel section





Spalling/HMA

patch in

approach



New HMA pavement





New HMA pavement



North elevation of bridge





Leaching cracks in slope wall



West pier





West abutment



Bottom of box beams





Bottom of box beams



Hairline map cracks at end of pier





South elevation of bridge



Spall in south deck fascia over west pier





Open crack in slope wall



East pier

