

Bridge 03345 Inspection Report



Latitude:36.12055, Longitude:-93.69399

Route:412 Section:04 Log:2.55

Arnold Road ID:44x412x4xA, Arnold Log mile:2.555

District 09, 87 - Madison County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

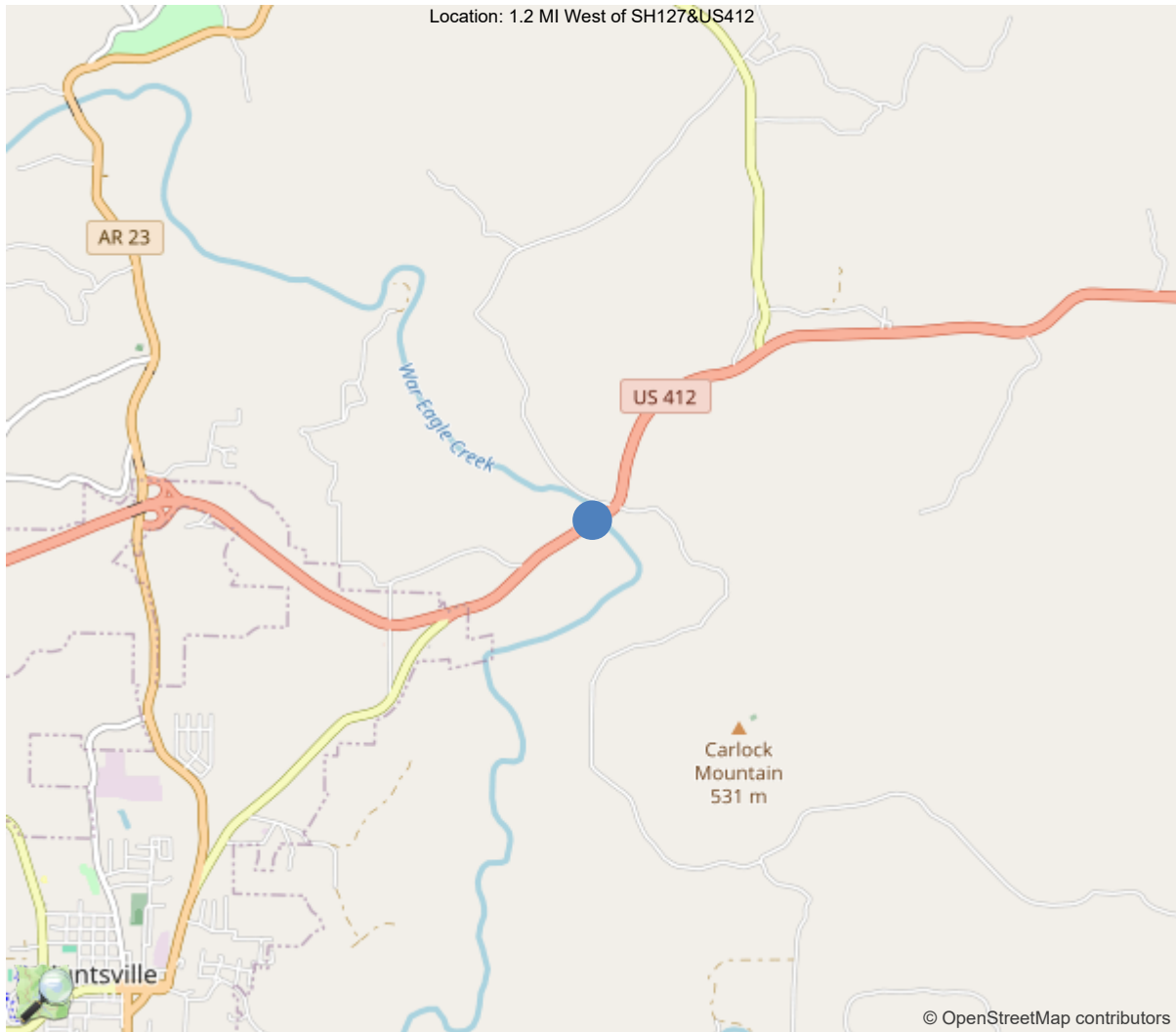
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	50		
Code 5 (40 Tons)	60		

If calculated capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner.



30"x36" AR



36.12055, -93.69399

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	03345
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	87 - Madison County
(4) Place Code	0
(6) Features Intersected	WAR EAGLE CREEK
(7) Facility Carried	U.S. 412 Madison
(9) Location	1.2 MI West of SH127&US412
(11) Mile Point	2.55 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000412040
(16) Latitude	36.12055
(17) Longitude	-93.69399
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3 - Steel
Type	2 - Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	7
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	0 - None (no additional concrete thickne
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1960
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	7800
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	7 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	65 ft
(49) Structure Length	357 ft
(50) Curb or Sidewalk Width	
Left	0.1 ft
Right	0.1 ft
(51) Bridge Roadway Width Curb to Curb	27.9 ft
(52) Deck Width Out to Out	33.6 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	28.2 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(111) Pier Protection	1 - Navigation protection not
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	1
(26) Functional Class	2 - Rural Principal Arterial -
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	1 - The inventory route is par
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	5
(59) Superstructure	7
(60) Substructure	6
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5 - MS 18 / HS 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	36
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	8 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	5959
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			05/29/2024
(91) Frequency			24
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			

Team Lead: Benjamin Smith, Inspection Date: 05/29/2024

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	03345
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	
B.W.01 Year Built	1960

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	87 - Madison County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	09 - District 09
B.L.05 Latitude	36.12055
B.L.06 Longitude	-93.69399
B.L.07 Border Bridge Number	
B.L.08 Border Bridge State or Country Code	
B.L.09 Border Bridge Insp. Resp.	
B.L.10 Border Bridge Designated Lead State	
B.L.11 Bridge Location	1.2 MI W SH 127&US412
B.L.12 Metropolitan Planning Organization	

CLASSIFICATION	
B.CL.01 Owner	S01 - State transportation departme
B.CL.02 Maint. Responsibility	S01 - State transportation departme
B.CL.03 Federal or Tribal Land Access	N - Not Applicable
B.CL.04 Historic Significance	N - Bridge is not eligible for the
B.CL.05 Toll	N - Bridge does not carry a toll ro
B.CL.06 Emergency Evacuation Designation	

ROADSIDE HARDWARE	
B.RH.01A Bridge Railing Type	
B.RH.01B Bridge Railing Year (YY)	
B.RH.01C Bridge Railing Test Level	
B.RH.02A Transition Type	
B.RH.02B Transition Year (YY)	
B.RH.02C Transition Test Level	

BRIDGE GEOMETRY	
B.G.01 NBIS Bridge Length	357
B.G.02 Total Bridge Length	357
B.G.03 Max Span Length	65
B.G.04 Min Span Length	40
B.G.05 Bridge Width Out-to-Out	33.5
B.G.06 Bridge Width Curb-to-Curb	27.9
B.G.07 Left Curb or Sidewalk Width	0
B.G.08 Right Curb or Sidewalk Width	0
B.G.09 Approach Roadway Width	27.9

B.G.10 Bridge Median	0 - No median
B.G.11 Skew	0
B.G.12 Curved Bridge	N - Not curved
B.G.13 Max Bridge Height	29
B.G.14 Sidehill Bridge	N - Not a sidehill bridge
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	11945.4

LOADS AND LOAD RATING	
B.LR.01 Design Load	HS20 - HS-20
B.LR.02 Design Method	
B.LR.03 Load Rating Date	
B.LR.04 Load Rating Method	LFR - Load Factor Rating
B.LR.05 Inventory Load Rating Factor	1
B.LR.06 Operating Load Rating Factor	1.67
B.LR.07 Controlling Legal Load Rating Factor	
B.LR.08 Routine Permit Loads	

INSPECTION REQUIREMENTS	
B.IR.01 NSTM Inspection Required	N - NSTM inspection not required.
B.IR.02 Fatigue Details	N - No E/E' details
B.IR.03 UW Inspection Required	N - Underwater inspection not requi
B.IR.04 Complex Feature	N - Bridge does not have complex fe

COMPONENT CONDITION RATINGS	
B.C.01 Deck Condition Rating	5 - FAIR - Some moderate defec
B.C.02 Superstructure Condition	6 - SATISFACTORY - Widespread
B.C.03 Substructure Condition	6 - SATISFACTORY - Widespread
B.C.04 Culvert Condition	N - NOT APPLICABLE - Component
B.C.05 Bridge Railing Condition	6 - SATISFACTORY - Widespread
B.C.06 Bridge Railing Transitions Condition	N - NOT APPLICABLE - Component
B.C.07 Bridge Bearings Cond.	7 - GOOD - Some minor defects.
B.C.08 Bridge Joints Condition	8 - VERY GOOD - Some inherent
B.C.09 Channel Condition Rating	6 - SATISFACTORY - Widespread
B.C.10 Channel Protection Condition	N - NOT APPLICABLE - Bridge do
B.C.11 Scour Condition Rating	6 - Widespread minor or isolat
B.C.12 Bridge Condition Classification	F - Fair
B.C.13 Lowest Condition Rating	5 - FAIR - Some moderate defec
B.C.14 NSTM Insp. Condition	N - NOT APPLICABLE - Component
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	G - Good
B.AP.02 Overtopping Likelihood	1 - Remote - once every 100 years o
B.AP.03 Scour Vulnerability	AB-T - TEMP - Stable for scour, pos
B.AP.04 Scour Plan of Action	0 - A scour POA is not required.
B.AP.05 Seismic Vulnerability	0 - Seismic evaluation not complete

Team Lead: Benjamin Smith, Inspection Date: 05/29/2024

SPAN SETS			
M1			
B.SP.02 # of Spans	7	B.SP.08 Deck Interaction	CU - Composite - unshored cons
B.SP.03 # of Beam Lines	5	B.SP.09 Deck Material and Type	C01 - Reinforced concrete - ca
B.SP.04 Span Material	S01 - Steel - rolled	B.SP.10 Wearing Surface	0 - None
B.SP.05 Span Continuity	1 - Simple or single span	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	GB-T - TEMP - girder/beam - G0	B.SP.12 Deck Reinforcing Protective System	0 - None
B.SP.07 Span Protective System	C01 - Coating - paint	B.SP.13 Deck Stay-In-Place Forms	0 - None

SUBSTRUCTURE SETS			
A1			
B.SB.02 No. of Substructure Units	2	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	P01 - Pile - steel H-shape
B.SB.04 Substructure Type	A02 - Abutment - stub	B.SB.07 Foundation Protective System	0 - None
P1			
B.SB.02 No. of Substructure Units	6	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	F02 - Footing - on rock
B.SB.04 Substructure Type	P04 - Pier - multiple column w	B.SB.07 Foundation Protective System	0 - None

HIGHWAY FEATURES			
H1			
B.F.02 Feature Location	C - Carried on bridge	B.H.09 Annual ADT	7800
B.F.03 Feature Name	U.S. 412 Madison	B.H.10 Annual ADTT	78
B.H.01 Functional Classification	3 - Principal Arterial - Other	B.H.11 Year of Annual ADT	2018
B.H.02 Urban Code	99999	B.H.12 Highway Max Usable Vertical Clearance	99.9
B.H.03 NHS Designation	Y - NHS	B.H.13 Highway Min Vertical Clearance	99.9
B.H.04 National Highway Freight Network	1-T - TEMP - NHFN - 1 or 2 or	B.H.14 Highway Min Horizontal Clearance, Left	
B.H.05 STRAHNET Designation	N - Not a STRAHNET route	B.H.15 Highway Min Horizontal Clearance, Right	
B.H.06 LRS Route ID	412040	B.H.16 Highway Max Usable Surface Width	27.8
B.H.07 LRS Mile Point	2.55	B.H.17 Bypass Detour Length	7
B.H.08 Lanes On Highway	2	B.H.18 Crossing Bridge Number	

HIGHWAY ROUTES					
Highway Parent	B.RT.01 Route Designation	B.RT.02 Route Number	B.RT.03 Route Direction	B.RT.04 Route Type	B.RT.05 Service Type
H1	R01	412	2-T - TEMP - Two-way traffic - NS or EW	2 - U.S. route	1 - Mainline



Team Lead: Benjamin Smith, Inspection Date: 05/29/2024

WATERWAY FEATURES			
W1			
B.F.02 Feature Location	B - Below bridge	B.N.03 Movable Bridge Max Navigation Vertical Clearance	
B.F.03 Feature Name	WAR EAGLE CREEK	B.N.04 Navigation Channel Width	
B.N.01 Navigable Waterway	N - Not navigable waters	B.N.05 Navigation Channel Min Horizontal Clearance	
B.N.02 Navigation Min Vertical Clearance		B.N.06 Substructure Navigation Protection	

POSTING STATUS DATA	
B.PS.01 Load Posting Status	B.PS.02 Posting Status Change Date
PO - Permanent - Open	

LOAD EVALUATION AND POSTING			
B.EP.01 Legal Load Configuration	B.EP.02 Legal Load Rating Factor	B.EP.03 Posting Type	B.EP.04 Posting Value



Inspection Notes

General Observation

The structure is logged from West to East and is accessible with a large extension ladder.

58 - Deck (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

The driving surface of the deck has a hydro demolition with some short duration cracking in span #1. The curb sections have large areas of spalling with exposed rebar. The undersurface has full depth repairs with efflorescence cracking. The overhangs have large areas of spalling with exposed rebar.

59 - Superstructure (7 - GOOD CONDITION - some minor problems.)

The beams and bearings have had a repainting contract in 2016. The beam paint condition is good with a few small areas of cs2 corrosion. the bearings have cs3 corrosion and pack rust at the abutments.

60 - Substructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

The substructure has small areas of cs3 rebar exposed and delamination in the pier caps. Bent #3 has cs3 abrasion with section loss.

61 - Channel/Channel Protection (7 - Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.)

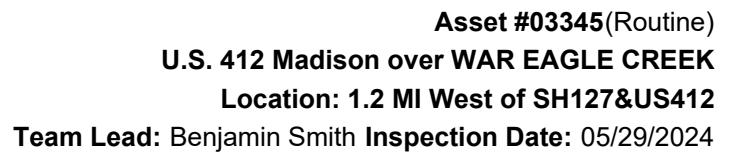
The upstream channel banks are well vegetated. The channel bottom has areas of exposed solid rock.

The channel beneath the structure is solid rock. A local scour was noted around the bent #1 columns. no footings are exposed. The abutment #1 slope has a large area of erosion at the toe of the slope.

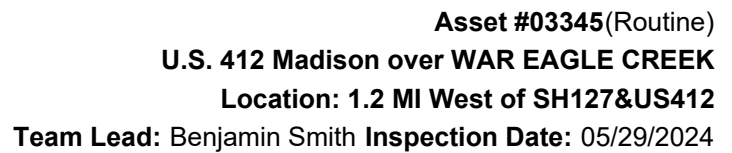
The downstream channel banks are well vegetated. The channel bottom has areas of exposed solid rock.

A-45 - Bats Present (1 - Yes)

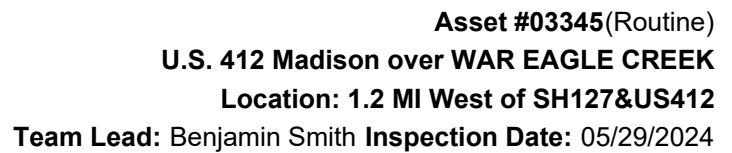
Bat presence was noted on the bent #2 cap.



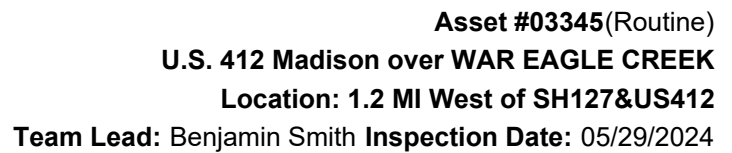
ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	9940	9496	130	314	0
1080	Delamination/Spall/Patched Area	SF	113	0	0	113	0
1090	Exposed Rebar	SF	88	0	0	88	0
1120	Efflorescence/Rust Staining	SF	231	0	118	113	0
1130	Cracking (RC and Other)	SF	12	0	12	0	0
<p>(12) Driving surface- has a hydro demo.</p> <p>Span #1 has 12' of short duration cracking at the end of the span.</p> <p>The left curb sections in spans #3 and #6 have large areas of spalling with cs3 rebar exposed.</p> <p>Under surface-</p> <p>Span 1-</p> <p>Bay #1- has a full depth repair for the length of the span.</p> <p>Bay #2- has 3' of cs2 efflorescence.</p> <p>Bay #3- has hairline transverse cracking.</p> <p>Bay #4- has a full depth repair for the length of the span.</p> <p>Right overhang- the drain area has 1' of cs3 spalling and 1' of cs3 rebar exposed with 4' of cs2 efflorescence.</p> <p>Left overhang- has 4' of cs2 efflorescence and 8' of cs3 spalling with cs3 exposed rebar.</p> <p>Span 2-</p> <p>Bay #1- has a full depth repair for the length of the span with 4' of cs2 efflorescence and 8' of cs3 map cracking with efflorescence.</p> <p>Bay #2- has 6' of cs3 efflorescence map cracking at the beginning of the span.</p> <p>Bay #3- has 1' of cs3 spalling at the end of the span.</p> <p>Bay #4- has a full depth repair for the length of the span that is not the full width of the bay.</p> <p>Right overhang- has 1' of cs3 spalling at the beginning of the span with 5' of cs2 efflorescence.</p> <p>Left overhang- has 5' of cs3 exposed rebar, 6' of cs2 efflorescence and 1' of cs3 spalling at the second drain area.</p> <p>Span #3-</p> <p>Bay #1- has large full depth repairs with 6' of cs2 efflorescence.</p> <p>Bay #2- has 5' of cs2 efflorescence.</p> <p>Bay #3- has 5' of cs2 efflorescence.</p> <p>Bay #4- has large areas of full depth repair with 4' of cs2 efflorescence.</p> <p>The right overhang has 5' of cs3 exposed rebar and 3' of cs3 spalling.</p> <p>The left overhang has 1' of cs3 exposed rebar and 4' of cs2 efflorescence.</p> <p>Span #4-</p> <p>Bay #1- has a large full depth repair at mid span.</p> <p>Bay #2- has a large full depth repair near the end of the span.</p> <p>Bay #3- has 8' of cs2 efflorescence.</p> <p>Bay #4- has a full depth repair for the length of the span.</p> <p>The right overhang has 3' of cs3 spalling.</p> <p>The left overhang has 2' of cs3 exposed rebar and 9' of cs3 spalling.</p> <p>Span #5-</p> <p>Bay #1- has large full depth repairs</p> <p>Bay #2- has 1' of cs3 spalling and 1' of cs2 efflorescence.</p> <p>Bay #3- has two small areas of full depth repairs.</p> <p>Bay #4- has a small area of full depth repair at the beginning of the span and a large area of full depth repair at the end of the span.</p> <p>The left overhang has 7' of cs3 exposed rebar and 2' of cs3 spalling.</p>							



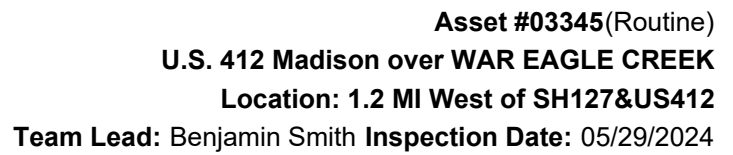
ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>The right overhang has 3' of cs3 exposed rebar and 6' of cs3 spalling.</p> <p>Span #6-</p> <p>Bay #1- has a full depth repair for the length of the span. The repair has 14' of cs2 efflorescence.</p> <p>Bay #2- has 96 square feet of cs3 efflorescence map cracking.</p> <p>Bay #3- has 2' of cs2 efflorescence.</p> <p>Bay #4- has full depth repair for 29' with 4' of cs2 efflorescence.</p> <p>The right overhang has 1' of cs3 exposed rebar and 14' of cs3 patched area and 2' of cs3 spalling.</p> <p>The left overhang has 7' of spalling with exposed rebar and 32' of cs3 patched area.</p> <p>Span #7-</p> <p>Bay #1- has a full depth repair for the length of the span. The repair has 26' of cs2 efflorescence.</p> <p>Bay #2- has a 16 square foot area of cs3 map cracking at the beginning of the span.</p> <p>Bay #3- has a 2' by 2' full depth repair with a 15 square foot area of cs3 map cracking.</p> <p>Bay #4- has a full depth repair for the length of the span. The repair has 8' of cs2 efflorescence.</p> <p>The right overhang has 9' of cs3 exposed rebar and 2' of cs3 spalling with 4' of patched area.</p> <p>The left overhang has 2' of cs3 exposed rebar and 5' of cs2 efflorescence.</p>							
107	Steel Open Girder/Beam	LF	1775	1773	2	0	0
1000	Corrosion	LF	2	0	2	0	0
515	Steel Protective Coating	SF	13050	13048	0	2	0
3440	Effectiveness (Steel Protective Coatings)	SF	2	0	0	2	0
<p>(107) 5 painted steel girder system.</p> <p>Measurements:</p> <p>Spans 3,4, & 5: Web 32" Flange 11.5" Thickness 1" Span length 195 Total: 8,190 sqft</p> <p>Spans 1,2,6 & 7: Web 22" Flange 9" Thickness 0.75" Span length 162 Total: 4,860 sqft</p> <p>The superstructure was repainted under contract in May 2016.</p> <p>Span #1- no deficiencies noted.</p> <p>Span #2- no deficiencies noted.</p> <p>Span #3- no deficiencies noted.</p> <p>Span #4- no deficiencies noted.</p> <p>Span #5- beam #2- has 2' of cs2 corrosion on the bottom flange at the end of the span. No deficiencies noted on beams #1,3,4,5.</p> <p>Span #6- no deficiencies noted.</p> <p>Span #7- no deficiencies noted.</p>							
205	Reinforced Concrete Column	EA	12	4	1	7	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
1090	Exposed Rebar	EA	4	0	0	4	0
1130	Cracking (RC and Other)	EA	1	0	1	0	0
1190	Abrasion/Wear (PSC/RC)	EA	2	0	0	2	0
<p>(205) Bent #1 columns-</p> <p>Left column- has local scour.</p> <p>Right column- has local scour.</p> <p>The footings have cover.</p> <p>Bent #2 columns-</p> <p>Left column- has a short duration crack on the upper portion on the span #3 side.</p>							



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>Right column- no deficiencies noted. The footings have cover.</p> <p>Bent 3 columns- Left column- has heavy cs3 abrasion and areas of spalling with cs3 exposed rebar due the abrasion at the lower portion of the columns. Right column- has heavy cs3 abrasion and areas of spalling with 2' of cs3 exposed rebar due the abrasion at the lower portion of the columns. The footings have cover.</p> <p>Bent 4 columns- The right column has ahead side has cs3 impact spalling. The column has local scour due to minor drift accumulation. The right column has cs2 abrasion on the lower portion. The left column has cs2 abrasion on the lower portion. The footings have cover.</p> <p>Bent 5 columns- The left column has span #6 side has two 1' cs3 spalls and vertical cracking. The span #5 side has vertical cracking. The right column has vertical exposed cs3 rebar on the span #6 side. The footings have cover.</p> <p>Bent #6 columns- Right column has 1' of shallow cs3 rebar exposed. Left column- no deficiencies noted. The footings have cover.</p>							
210	Reinforced Concrete Pier Wall	LF	101	99	2	0	0
1010	Cracking	LF	1	0	1	0	0
1090	Exposed Rebar	LF	1	0	1	0	0
<p>(210) Bent #1 web wall- the ahead side top right corner adjacent to column #1 has approximately 1' of spalling with steel exposed. Bent #2 web wall- has a full height vertical crack at the center. Bent #3 web wall- no deficiencies noted. Bent #4 web wall- no deficiencies noted. Bent #5 web wall- no deficiencies noted. Bent #6 web wall- no deficiencies noted.</p>							
215	Reinforced Concrete Abutment	LF	76	47	29	0	0
1130	Cracking (RC and Other)	LF	29	0	29	0	0
<p>(215) Abutment #1- the top of the back wall visible from the driving surface has longitudinal cracking. No deficiencies noted in the bridge seat. The hand placed rip rap is in place and functioning as intended.</p> <p>Abutment #2- the top of the back wall visible from the driving surface has longitudinal cracking. No deficiencies noted in the bridge seat. The hand placed rip rap is in place and functioning as intended.</p>							
234	Reinforced Concrete Pier Cap	LF	174	141	12	21	0
1080	Delamination/Spall/Patched Area	LF	7	0	0	7	0
1090	Exposed Rebar	LF	14	0	0	14	0
1130	Cracking (RC and Other)	LF	12	0	12	0	0
<p>(234) Bent #1 cap- the right cap end has 2' of shallow cs3 exposed rebar on the underside.</p>							



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>Bent #2 cap- the span #2 side has 4' of cs3 of delamination. The span #3 side has 2' of cs3 exposed rebar on the underside near the left cap end. Bat presence was noted on the bent #2 cap.</p> <p>Bent #3 cap- the right cap end has 2' of cs3 delamination on the span #4 side.</p> <p>Bent #4 cap- has 12' of horizontal cracking on both the ahead and behind sides of the cap. The left cap end has 1' of cs3 delamination on the span #5 side. The left cap end has 1' of cs3 rebar exposed. The right cap end and haunch area has 5' of cs3 of exposed rebar.</p> <p>Bent #5 cap- the right side of the cap has 1' of exposed cs3 rebar on the underside.</p> <p>Bent #6 cap- has 3' of exposed rebar on the right side of the cap haunch and on the right side of the cap.</p>							
300	Strip Seal Expansion Joint	LF	232	232	0	0	0
<p>(300) Abutment #1 seal- has loose debris accumulation. Bent #1 seal- has loose debris accumulation. Bent #2 seal- has loose debris accumulation. Bent #3 seal- has loose debris accumulation. Bent #4 seal- has loose debris accumulation. Bent #5 seal- has loose debris accumulation. Bent #6 seal- has loose debris accumulation. Abutment #2 seal- has loose debris accumulation.</p>							
311	Movable Bearing	EA	35	34	1	0	0
1000	Corrosion	EA	1	0	1	0	0
515	Steel Protective Coating	SF	105	104	1	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	1	0	1	0	0
<p>(311) All bearings were repainted in May 2016.</p> <p>Bent #1 expansion bearings- no deficiencies noted. Bent #2 expansion bearings- no deficiencies noted. Bent #3 expansion bearings- all 10 are expansion. Bearing #1 has cs2 corrosion. Bent #4 expansion bearings- no deficiencies noted. Bent #5 expansion bearings- no deficiencies noted. Bent #6 expansion bearings- no deficiencies noted.</p>							
313	Fixed Bearing	EA	35	27	0	8	0
1000	Corrosion	EA	8	0	0	8	0
515	Steel Protective Coating	SF	70	62	0	8	0
3440	Effectiveness (Steel Protective Coatings)	SF	8	0	0	8	0
<p>(313) All bearings were repainted in May 2016.</p> <p>Abutment #1 bearings- all 5 bearings have cs3 corrosion with pack rust between the sole plate and masonry plate. The corrosion is beginning to bleed back through the paint system.</p> <p>Bent #1 fixed bearings- no deficiencies noted.</p> <p>Bent #2 fixed bearings- no deficiencies noted.</p> <p>Bent #3- does not have fixed bearings.</p>							



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Bent #4 fixed bearings- no deficiencies noted.							
Bent #5 fixed bearings- no deficiencies noted.							
Bent #6 fixed bearings- no deficiencies noted.							
Abutment #2 bearings- bearings #1,2 have no deficiencies. Bearings #3,4,5 have cs3 corrosion.							
330	Metal Bridge Railing	LF	714	709	0	5	0
1000	Corrosion	LF	5	0	0	5	0
515	Steel Protective Coating	SF	2142	1055	0	1082	5
3440	Effectiveness (Steel Protective Coatings)	SF	1087	0	0	1082	5
(330) Both left and right railing have areas that are down to primer throughout railing.							
Left side railing- has large areas of cs2 corrosion. Span #5 has minor vehicle damage.							
Right side railing- has 5' of cs3 corrosion in span #2. Some of the posts in span #4 have areas of cs3 spalling at the base of the posts. A portion of the span #5 and #6 railing has been replaced due to a traffic accident.							

Inspection Photos and Notes



Elevation view.



Cs3 corrosion on the right railing in span #2.



Paint stencil from 2016.



Local scour around the bent #1 columns with embankment erosion at the toe of the abutment #1 slope.



06/04/2024

Bridge plate.



06/04/2024

12' of deck cracking at the end of span #1.



06/04/2024

Strip seal condition over the bents. Loose debris impactation typical.



06/04/2024

Abutment #2 seal condition.



Driving surface view.



Approach view in direction of log mile.



Undersurface view.



Channel beneath the structure.



Upstream channel view.



Downstream channel view.

Maintenance Needs

Date Reported: 06/27/2012

Priority: C - Important

Type of Work: Substructure Repair

Status: Assigned

Component:

Deficiency Description

The left and right columns of bent #3 have spalling and deterioration due to abrasion.

Remarks



Bent 3 ahead side of right column 2 steel exposed.



Bent 3 column 2 ahead side side large areas of spalling with steel exposed.

Maintenance Needs

Date Reported: 06/27/2012

Priority: D- Routine

Type of Work: Repair (General)

Status: Assigned

Component:

Deficiency Description

The curb sections have large spalls with cs3 rebar exposed.

Remarks



Left curb in span #3 showing spalling with exposed rebar.



Left curb in span #6 showing spalling with exposed rebar.



Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is Recommended?
A-54 - Sealable Deck Cracks	No
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	No
A-57 - Beam End and Bearing Paint Needed	No
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	No
A-60 - Full Beam Painting Needed	No
A-61 - Polymer Overlay Advised	No
A-62 - Hydro and LMC Advised	No
A-63 - Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	No
A-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

A-54 - Sealable Deck Cracks (No)

A-55 - Deck Washing Needed (No)

A-56 - Joint Cleaning/Flushing Needed (No)



Asset #03345(Routine)
U.S. 412 Madison over WAR EAGLE CREEK
Location: 1.2 MI West of SH127&US412
Team Lead: Benjamin Smith Inspection Date: 05/29/2024

A-57 - Girder End and Bearing Painting Needed (No)

A-58 - Cap Cleaning/Flushing Needed (No)

A-59 - Joint Repair Needed (No)

A-60 - Full Girder Painting Needed (No)

A-61 - Polymer Overlay Advised (No)

A-62 - Hydro and LMC Advised (No)

A-63 - Missing/Incorrect Log Mile Signage (No)

A-64 - Vegetation Removal Requested (No)

A-65 - Clogged deck drains?



Asset #03345(Routine)

U.S. 412 Madison over WAR EAGLE CREEK

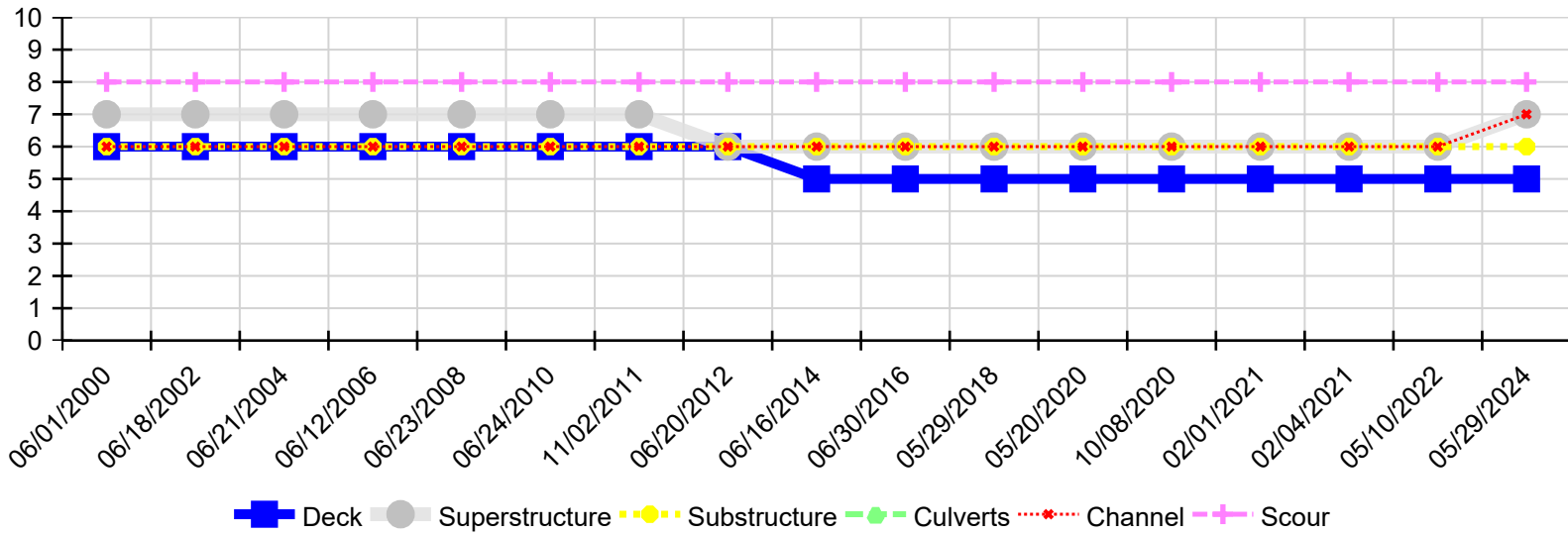
Location: 1.2 MI West of SH127&US412

Team Lead: Benjamin Smith Inspection Date: 05/29/2024

A-66 - Approach minor pothole/leveling needed



Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
05/29/2024	5	7	6	N	7	8
05/10/2022	5	6	6	N	6	8
02/04/2021	5	6	6	N	6	8
02/01/2021	5	6	6	N	6	8
10/08/2020	5	6	6	N	6	8
05/20/2020	5	6	6	N	6	8
05/29/2018	5	6	6	N	6	8
06/30/2016	5	6	6	N	6	8
06/16/2014	5	6	6	N	6	8
06/20/2012	6	6	6	N	6	8
11/02/2011	6	7	6	N	6	8
06/24/2010	6	7	6	N	6	8
06/23/2008	6	7	6	N	6	8
06/12/2006	6	7	6	N	6	8
06/21/2004	6	7	6	N	6	8
06/18/2002	6	7	6	N	6	8
06/01/2000	6	7	6	N	6	8