



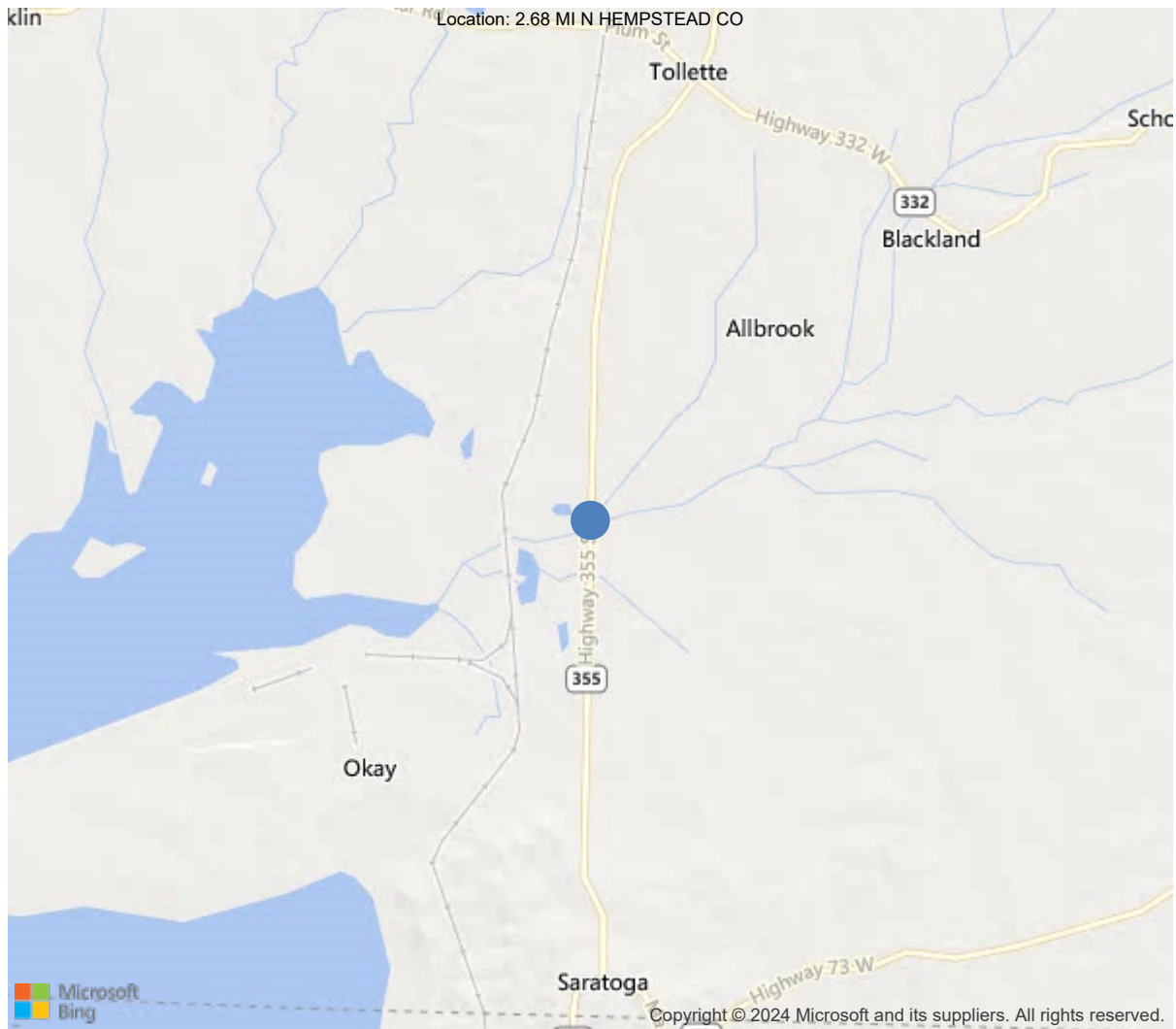
Latitude:33.78573, Longitude:-93.90465

Route:355 Section:01 Log:7.15

Arnold Road ID:31x355x1xA, Arnold Log mile:7.145

District 03, 61 - Howard County

Owner: 1 - State Highway Agency



33.78573, -93.90465



Asset #A2927 (Routine, Underwater type 2)

SH 355 - 01- 7.15 over PLUM CREEK

Location: 2.68 MI N HEMPSTEAD CO

Team Lead: John King, Inspection Date: 04/12/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A2927
(5) Inventory Route	1
(2) Highway Agency District	03 - District 03
(3) County Code	61 - Howard County
(4) Place Code	0
(6) Features Intersected	PLUM CREEK
(7) Facility Carried	SH 355 - 01- 7.15
(9) Location	2.68 MI N HEMPSTEAD CO
(11) Mile Point	7.15 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.785728
(17) Longitude	-93.904648
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1 - Concrete
Type	1 - Slab
(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	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1954
(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	2700
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	9 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	28 ft
(49) Structure Length	196 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	26 ft
(32) Approach Roadway Width (W/Shoulders)	24 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	24.9 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 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	0
(26) Functional Class	7 - Rural Major Collector
(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	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	44
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	27
(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	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(72) Approach Roadway Alignment	7
(36A) Bridge Railings	1 - Inspected feature meets current
(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	5 - Bridge foundations determined to
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	228 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 125
(96) Total Project Cost	\$ 534
(97) Year of Improvement Cost Estimate	2003
(114) Future ADT	2653
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	04/12/2022		
(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		
<p>* 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.</p>			



Asset #A2927(Routine, Underwater type 2)

District: 03, County: 61 - Howard County

Team Lead: John King, Inspection Date: 04/12/2022

General Observation

4/17/2018 AL,SS,DECK,DEF.PHOTOS TAKEN PER THIS INSPECTION,PROBED AROUND FOOTINGS NEAR CHANNEL UNDER WATER TYPE 2 DONE BOTTOM OF FOOTINGS NOT EXPOSED AT THIS TIME
WATER LEVEL LOW SOUNDINGS NOT TAKEN...4/1/2020...AL, Elevation, Deck, Def. Photos taken...
4/12/2022... Alignment and Elevation photos taken. Soundings taken per this inspection

58 - Deck (7 - GOOD CONDITION - some minor problems.)

Joints: Covered by asphalt. Underside of Deck: Small spalls and some rebar exposed...Wearing Surface: 2.5 in....04/2022.
Little to no change per this inspection. Asphalt overlay over concrete deck is cracking at various locations. Asphalt covering joints and not allowing them to move properly.

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

Girders/Beams: slab...04/2022. Little to no change in condition per this inspection

60 - Substructure (7 - GOOD CONDITION - some minor problems.)

Piles: yes see plans

Footing: BENTS 4 & 5 seen see plans...04/2022. Concrete caps and columns have spalls with rebar exposed at various locations. sounding were taken 04/2022 and bottom of pile cap per plan elevation is 258.54 at station 11+12.00 sounding show elevation of ground line at 257.4 this is at bottom of concrete cap. note that sub cap has 17.5 ft of piles under cap. lowered item 61 channel from 7 good to 6 satisfactory due to erosion.

61 - Channel/Channel Protection (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.)
04/12/2022... Soundings taken per this inspection..... sounding were taken 04/2022 and bottom of pile cap per plan elevation is 258.54 at station 11+12.00 sounding show elevation of ground line at 257.4 this is at bottom of concrete cap. note that sub cap has 17.5 ft of piles under cap. lowered channel from 7 good to 6 satisfactory due to erosion.

A-2 - Wearing Surface Thickness (2.5)

asphalt



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SH 355 - 01- 7.15 over PLUM CREEK

Location: 2.68 MI N HEMPSTEAD CO

Team Lead: John King, Inspection Date: 04/12/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	5096	5088	3	5	0
1080	Delamination/Spall/Patched Area	SF	3	0	3	0	0
1090	Exposed Rebar	SF	5	0	0	5	0
510	Wearing Surfaces	SF	4704	3504	0	1200	0
3220	Crack (Wearing Surface)	SF	1200	0	0	1200	0
(38) 2.5 inch asphalt overlay spall and delam bottom side of deck							
(1090-38) 4/1/2020...Rebar exposed bottom of deck in span 2 and 3...							
(510-38) 04/22 bridge has a asphalt over concrete deck. asphalt is cracking in various locations....							
(3220-510-38) Cracking throughout deck various locations							
205	Reinforced Concrete Column	EA	24	22	0	2	0
1090	Exposed Rebar	EA	2	0	0	2	0
(205) CONCRETE COLUMN AT BENT #5, COLUMN #2							
(NUMBERED LEFT TO RIGHT) MINOR SPALLS WITH REBAR EXPOSED							
(1090-205) Bent 5 column 2 spalls with exposed rebar							
215	Reinforced Concrete Abutment	LF	97	97	0	0	0
234	Reinforced Concrete Pier Cap	LF	118	115	2	1	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1090	Exposed Rebar	LF	1	0	0	1	0
301	Pourable Joint Seal	LF	156	0	0	156	0
2350	Debris Impaction	LF	156	0	0	156	0
(2350-301) Asphalt over joints not allowing them to move properly. All joints are leaking on underside of deck							
330	Metal Bridge Railing	LF	392	0	392	0	0
1000	Corrosion	LF	392	0	392	0	0
(1000-330) Corrosion and paint loss on both metal railings on bridge							
331	Reinforced Concrete Bridge Railing	LF	784	784	0	0	0



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Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	5096	5088	3	5	0
1080	Delamination/Spall/Patched Area	SF	3	0	3	0	0
1090	Exposed Rebar	SF	5	0	0	5	0
510	Wearing Surfaces	SF	4704	3504	0	1200	0
3220	Crack (Wearing Surface)	SF	1200	0	0	1200	0
(38) 2.5 inch asphalt overlay spall and delam bottom side of deck							
(1090-38) 4/1/2020...Rebar exposed bottom of deck in span 2 and 3...							
(510-38) 04/22 bridge has a asphalt over concrete deck. asphalt is cracking in various locations....							
(3220-510-38) Cracking throughout deck various locations							

58 - Deck (7 - GOOD CONDITION - some minor problems.)

Comment: Joints: Covered by asphalt. Underside of Deck: Small spalls and some rebar exposed...Wearing Surface: 2.5 in....04/2022. Little to no change per this inspection. Asphalt overlay over concrete deck is cracking at various locations. Asphalt covering joints and not allowing them to move properly.



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Location: 2.68 MI N HEMPSTEAD CO

Team Lead: John King, Inspection Date: 04/12/2022

Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4

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

Comment: Girders/Beams: slab...04/2022. Little to no change in condition per this inspection



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SH 355 - 01- 7.15 over PLUM CREEK

Location: 2.68 MI N HEMPSTEAD CO

Team Lead: John King, Inspection Date: 04/12/2022

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	24	22	0	2	0
1090	Exposed Rebar	EA	2	0	0	2	0
(205) CONCRETE COLUMN AT BENT #5, COLUMN #2 (NUMBERED LEFT TO RIGHT) MINOR SPALLS WITH REBAR EXPOSED (1090-205) Bent 5 column 2 spalls with exposed rebar							
215	Reinforced Concrete Abutment	LF	97	97	0	0	0
234	Reinforced Concrete Pier Cap	LF	118	115	2	1	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1090	Exposed Rebar	LF	1	0	0	1	0

60 - Substructure (7 - GOOD CONDITION - some minor problems.)

Comment: Piles: yes see plans

Footing: BENTS 4 & 5 seen see plans...04/2022. Concrete caps and columns have spalls with rebar exposed at various locations. sounding were taken 04/2022 and bottom of pile cap per plan elevation is 258.54 at station 11+12.00 sounding show elevation of ground line at 257.4 this is at bottom of concrete cap. note that sub cap has 17.5 ft of piles under cap. lowered item 61 channel from 7 good to 6 satisfactory due to erosion.

61 - Channel/Channel Protection (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.)

Comment: 04/12/2022... Soundings taken per this inspection..... sounding were taken 04/2022 and bottom of pile cap per plan elevation is 258.54 at station 11+12.00 sounding show elevation of ground line at 257.4 this is at bottom of concrete cap. note that sub cap has 17.5 ft of piles under cap. lowered channel from 7 good to 6 satisfactory due to erosion.



04/2022... Elevation



04/2022... Elevation



04/2022... Alignment



04/2022... Alignment



Deck



Underside of deck typical all spans



Alignment



Elevation



Rebar exposed span 2



04/2022... typical deck photo all spans



Cracking throughout deck various locations



04/2022... Underside of deck typical of all spans



Cracking throughout deck various locations



Bent 5 column 2 spalls with exposed rebar



Asphalt over joints not allowing them to move properly



Asphalt over joints not allowing them to move properly



Underside of deck joints leaking



Underside of deck joints leaking



Corrosion and paint loss on both metal railings on bridge

Maintenance Needs

Date Reported: 04/12/2022

Priority: C - Important

Type of Work: Repair (General)

Status: Open

Component: Element

Deficiency Description

All joints on deck have asphalt overlay not allowing them to move properly

Remarks



All joints on deck have asphalt overlay not allowing them to move properly

Maintenance Needs

Date Reported: 04/13/2022

Priority: C - Important

Type of Work: Repair (General)

Status: Open

Component: Approach

Deficiency Description

Both approach's at bridge ends have debris impacting joints not allowing them to move properly.

Remarks



End of bridge debris impacting



End of bridge debris impacting



Beginning of bridge debris impacting



Beginning of bridge debris impacting

Maintenance Needs

Date Reported: 04/12/2022

Priority: D- Routine

Type of Work: Replace (General)

Status: Open

Component: Approach

Deficiency Description

Rt side end of bridge flareboard is missing

Remarks



Maintenance Needs

Date Reported: 04/13/2022

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 9 - None

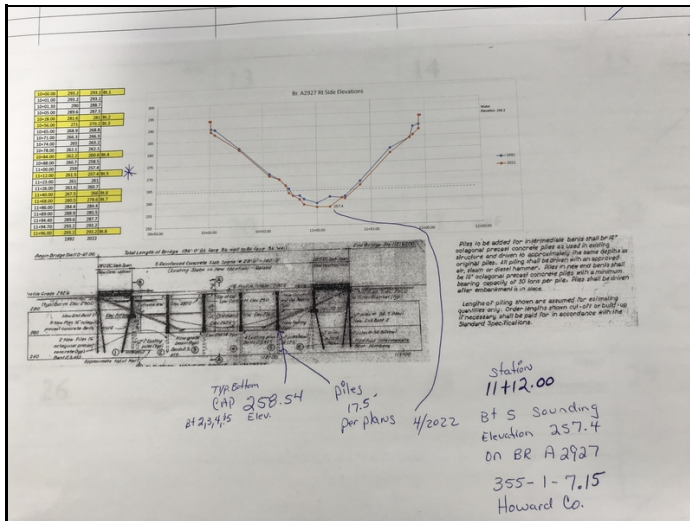
Status: Open

Component: Substructure

Deficiency Description

sounding were taken 04/2022 and bottom of pile cap per plan elevation is 258.54 at station 11+12.00 sounding show elevation of ground line at 257.4 this is at bottom of concrete cap. note that sub cap has 17.5 ft of piles under cap. lowered item 61 channel from 7 good to 6 satisfactory due to erosion.

Remarks



2022 Sounding Sheet lowered channel from 7 good to 6 satisfactory due to erosion.

Maintenance Needs

Date Reported: 06/15/2012

Priority: (Inactive) (Inactive) G - General/
Preventive maintenance

Status: Assigned

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

BOTTOM OF CONCRETE DECK
SPAN #2 HAS A 1'X1' SPALL W/REBAR EXPOSED.
SPAN 3 DELAM BOTTOM DECK AT BT 3 16'X16' CENTER BRIDGE.
SPAN #5 AT THE DRAIN HAS AN 18"X18" SPALL W/REBAR EXPOSED
ON LEFT SIDE.

Remarks



BOTTOM OF CONCRETE DECK
SPAN #2 HAS A 1'X1' SPALL W/REBAR EXPOSED.



SPAN 3 DELAM BOTTOM DECK AT BT 3 16'X16'
CENTER BRIDGE.

Maintenance Needs

Date Reported: 06/15/2012

Priority: (Inactive) (Inactive) G - General/
Preventive maintenance

Status: Assigned

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

Bent 3 SPALL BOTTOM CAP REBAR EXPOSED, CONCRETE CAP AT BENT #4, NORTH FACE 18"X24"
DELAMINATION ON CAP BETWEEN COLUMNS 1 & 2

Remarks



CONCRETE CAP AT BENT #4, NORTH FACE
18"X24" DELAMINATION ON CAP BETWEEN
COLUMNS 1 and 2

Maintenance Needs

Date Reported: 06/15/2012

Priority: (Inactive) (Inactive) G - General/
Preventive maintenance

Status: Assigned

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

CONCRETE COLUMN AT BENT #5, COLUMN #2
(NUMBERED LEFT TO RIGHT)
MINOR SPALLS WITH REBAR EXPOSED

Remarks



CONCRETE COLUMN AT BENT #5, COLUMN #2
(NUMBERED LEFT TO RIGHT)
MINOR SPALLS WITH REBAR EXPOSED



Asset #A2927(Routine, Underwater type 2)

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Location: 2.68 MI N HEMPSTEAD CO

Team Lead: John King, **Inspection Date:** 04/12/2022

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57 - Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	



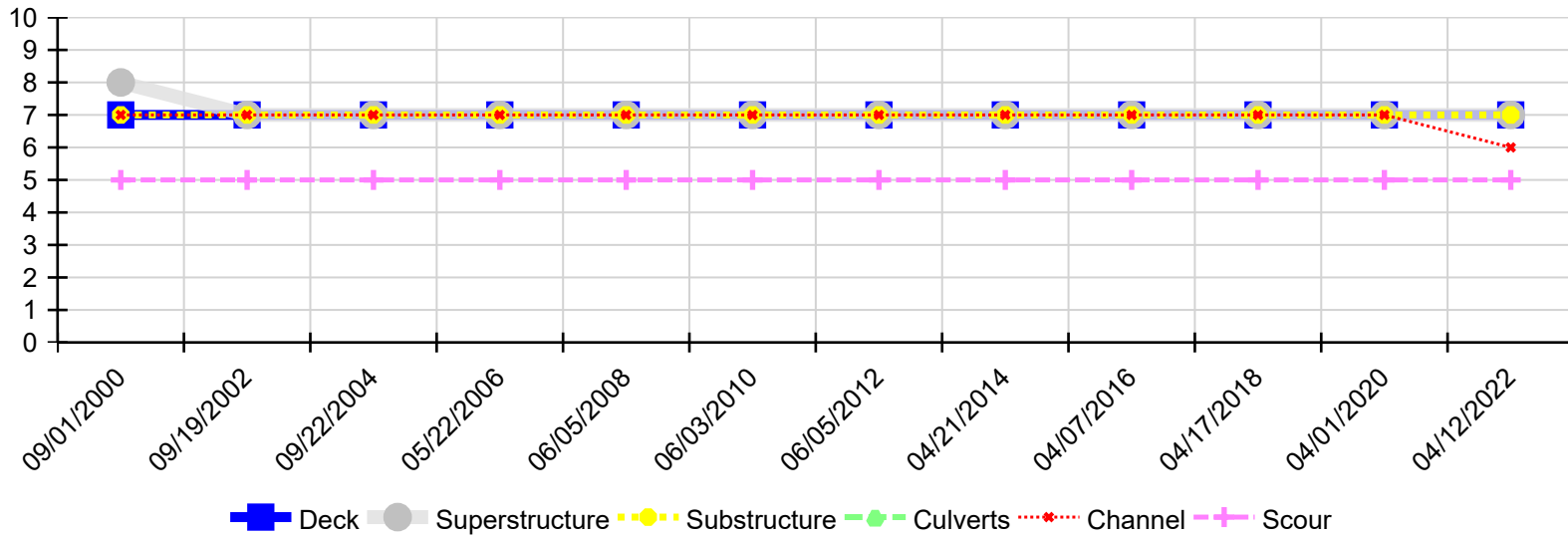
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Location: 2.68 MI N HEMPSTEAD CO

Team Lead: John King, Inspection Date: 04/12/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
04/12/2022	7	7	7	N	6	5
04/01/2020	7	7	7	N	7	5
04/17/2018	7	7	7	N	7	5
04/07/2016	7	7	7	N	7	5
04/21/2014	7	7	7	N	7	5
06/05/2012	7	7	7	N	7	5
06/03/2010	7	7	7	N	7	5
06/05/2008	7	7	7	N	7	5
05/22/2006	7	7	7	N	7	5
09/22/2004	7	7	7	N	7	5
09/19/2002	7	7	7	N	7	5
09/01/2000	7	8	7	N	7	5