



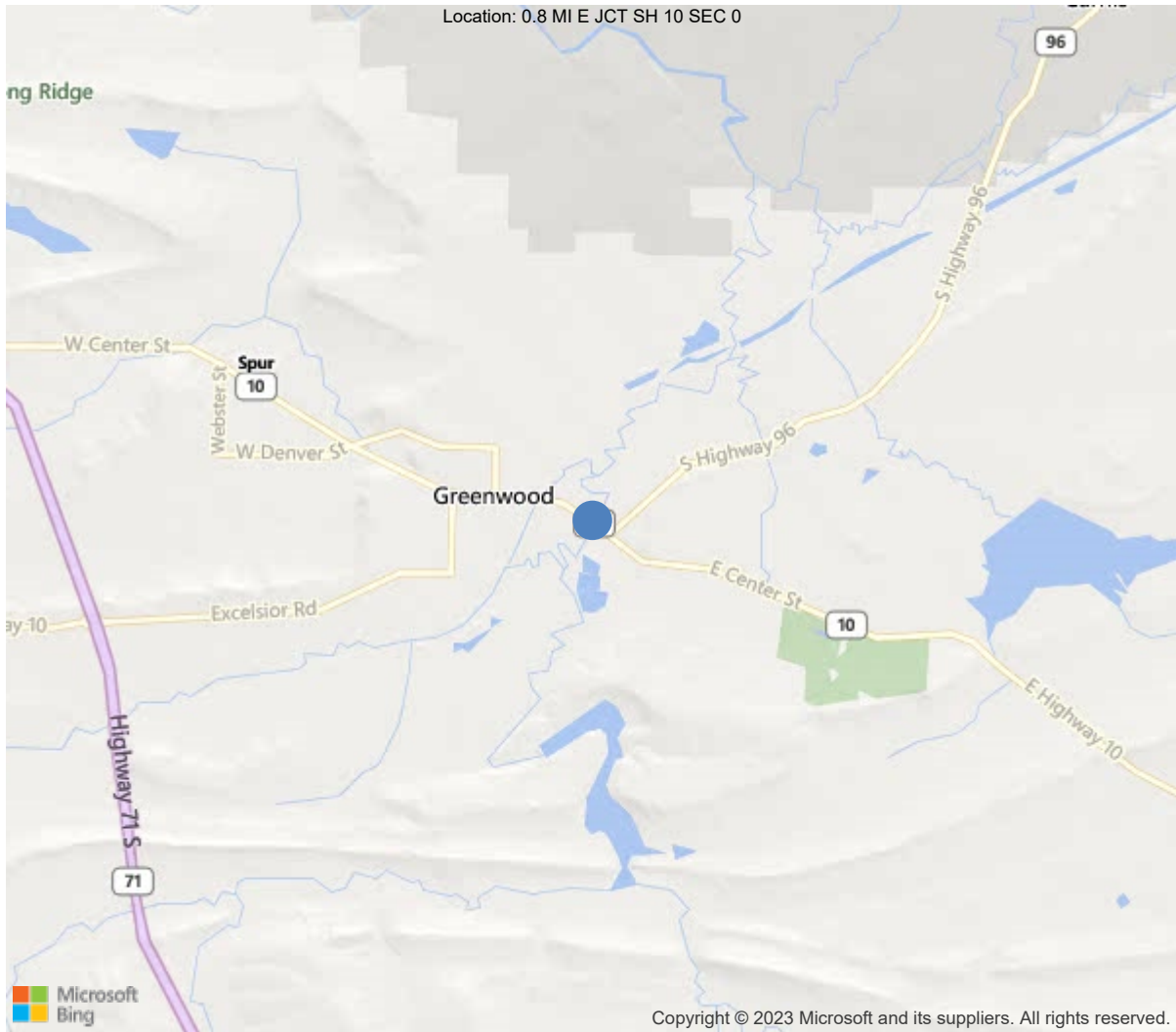
Latitude:35.21052, Longitude:-94.24716

Route:10 Section:01 Log:0.77

Arnold Road ID:65x10x1xA, Arnold Log mile:0.774

District 04, 131 - Sebastian County

Owner: 1 - State Highway Agency



35.21052, -94.24716



Asset #A0425(Routine)

SH 10 - Sebastian over Vache Grasse

Location: 0.8 MI E JCT SH 10 SEC 0

Team Lead: Jeff Jones, Inspection Date: 08/31/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A0425
(5) Inventory Route	1
(2) Highway Agency District	04 - District 04
(3) County Code	131 - Sebastian County
(4) Place Code	28780
(6) Features Intersected	Vache Grasse
(7) Facility Carried	SH 10 - Sebastian
(9) Location	0.8 MI E JCT SH 10 SEC 0
(11) Mile Point	0.77 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000010010
(16) Latitude	35.21052
(17) Longitude	-94.24716
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	14
Material	1 - Concrete
Type	4 - Tee beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	3
(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	1928
(106) Year Reconstructed	1973
(42) Type of Service	55
On	5 - Highway-pedestrian
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	11532
(30) Year of ADT	2018
(109) Truck ADT	4 %
(19) Bypass, Detour Length	8 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	36 ft
(49) Structure Length	108 ft
(50) Curb or Sidewalk Width	
Left	5 ft
Right	5 ft
(51) Bridge Roadway Width Curb to Curb	32.2 ft
(52) Deck Width Out to Out	43.8 ft
(32) Approach Roadway Width (W/Shoulders)	39 ft
(33) Bridge Median	0 - No median
(34) Skew	30 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	32.2 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	0
(26) Functional Class	16 - Urban Minor 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	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	5
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	4 - M 18 / H 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	56
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	34
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	8 - Bridge foundations determined to
PROPOSED IMPROVEMENTS	
(75) Type of Work	35 - Bridge rehabilitation bec
(76) Length of Structure Improvement	108 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 211
(97) Year of Improvement Cost Estimate	2000
(114) Future ADT	13900
(115) Year of Future ADT	2038

INSPECTIONS *			
(90) Inspection Date	08/31/2023		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* 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.			

General Observation

08/31/2023 - JCJ & TJL - Routine Inspection conducted this date.

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

Deck:

- The asphalt driving surface has map cracking in the wheel paths with numerous patches over the expansion joints.
- There are reflective longitudinal cracks over the construction joints where the structure was widened.

Deck Soffit:

- Span # 2 undersurface in Bays # 1 and 2 adjacent to Bent # 2 has several shallow spalls that have exposed reinforcing steel. The exposed reinforcing steel has initial section loss.
- There are a few isolated transverse cracks with light efflorescence visible from the undersurface of the deck.
- There is an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.

Sidewalk:

- The Left sidewalk on Spans # 1 and 3 have shallow spalls with exposed reinforcing steel.
- Exposed reinforcing steel has very little concrete cover from the construction process.
- Exposed reinforcing steel has up to initial section loss.
- There are areas with up to medium scale on the sidewalk.

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

Concrete deck girders:

- There are a few isolated areas with efflorescence adjacent to the intermediate bents.
- There are vertical hairline flexure cracks at approximately 18" centers.

Span # 1:

- Span # 1, Girder # 1 has a shallow 6" spall with no exposed reinforcing steel in the base of girder located approximately 10' from Abutment # 1.
- The exterior edge of Girder # 1 has a shear type crack at Abutment # 1 that measures 0.008" during this inspection.
- There is a moderate width diagonal crack in the end of Girders # 2 and 3 in Span # 1 at Bent # 2. Diagonal cracks are located at the base of girders and are approximately 14" long. (Not shear type cracks)

Span # 2:

- Span # 2 has vertical hairline flexure cracks with no apparent noteworthy problems during this inspection.

Span # 3:

- Span # 3, Girder # 3 at Abutment # 2 Right face has a vertical crack and shallow spalling at the abutment interface.
- Span # 3, Girder # 3 at Abutment # 2 Left face has a vertical crack approximately 1/16" wide located approximately 1' from the face of the abutment backwall.

There is map cracking with efflorescence in the end diaphragms between the girders over Bent # 2.

Slab Soffit:

- The Left edge of the slab at Abutment # 1 has a hairline shear type crack that measures 0.010" during this inspection.
- Span # 1, Left vertical face of slab over Bent # 2 has a delaminated area that is approximately 2" wide and 22" tall.
- Span # 2 has an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.
- Span # 3, Right side of slab portion of structure has a diagonal crack in undersurface and a shear type crack near Abutment # 2 that measures 0.006".
- The sidewalk has several shallow spalls with exposed reinforcing steel on the top surface.



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

- Bent # 2 cap back face has a 12" shallow spall with no exposed reinforcing steel under Beam # 1.
- The cap has 2" wide delaminated concrete adjacent to the exterior girders in both spans.
- Bent # 3 cap back face has a softball size spall with exposed reinforcing steel under Girder # 1.
- Vertical cracking at the construction joints where the caps have been widened.

-Bent #2, Column #2 has shallow spalling with exposed reinforcing steel in the upper portion of the column that has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss and appears to be a hoop around the primary vertical reinforcing steel in the column.

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.)

08/31/2023 - JCJ & TJL - Footings have cover with no apparent scour problems during this inspection.

Abutment # 1 has riprap displacement with embankment erosion at the inlet end of the abutment.

There is earth settlement under the Right side of Abutment # 1 with voids that penetrate approximately 2' past the face of the abutment.

Abutment # 2 has riprap displacement with embankment erosion at the outlet end of the abutment.

Intermediate bent footings have cover with no apparent scour problems during this inspection.

Shale is exposed along the East embankment.

08/31/2023 - JCJ & TJL -

ArDOT Drawing # 561 Layout Drawing indicates that substructure concrete spread footings are keyed into Hard Shale.

ArDOT Drawing # 18178 Layout Drawing General Notes state that footings shall be set a minimum 1'-6" into material designated as hard blue shale. All piling shall be HP10X42 and shall be driven to a minimum bearing capacity of 55 tons per pile.

A-46 - Asset Files

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A-58 - Cap Cleaning/Flushing Needed (Y)

Debris accumulation on Bent # 3 cap.

A-59 - Joint Repair Needed (Y)

Compression deck joints-

Deck joints leak water and debris on substructure caps and on the diaphragms between the concrete deck girders over the intermediate bents.



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Location: 0.8 MI E JCT SH 10 SEC 0

Team Lead: Jeff Jones, Inspection Date: 08/31/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	2116	2076	32	8	0
1090	Exposed Rebar	SF	8	0	0	8	0
1120	Efflorescence/Rust Staining	SF	26	0	26	0	0
1130	Cracking (RC and Other)	SF	6	0	6	0	0
510	Wearing Surfaces	SF	2116	1279	70	767	0
3210	Delam/Spall/Patched Area/Pothole	SF	70	0	70	0	0
3220	Crack (Wearing Surface)	SF	767	0	0	767	0
(16) The deck has an asphalt wearing surface.							
Deck undersurface:							
-Span # 2 undersurface in Bays # 1 and 2 adjacent to Bent # 2 has several shallow spalls that have exposed reinforcing steel. The exposed reinforcing steel has initial section loss.							
-There are a few isolated transverse cracks with light efflorescence visible from the undersurface of the deck.							
(510-16) -The asphalt driving surface has map cracking in the wheel paths with numerous patches over the expansion joints.							
-There are reflective longitudinal cracks over the construction joints where the structure was widened.							
38	RC Slab	SF	1628	1597	29	2	0
1080	Delamination/Spall/Patched Area	SF	4	0	4	0	0
1130	Cracking (RC and Other)	SF	27	0	25	2	0
510	Wearing Surfaces	SF	1357	226	193	938	0
3210	Delam/Spall/Patched Area/Pothole	SF	35	0	0	35	0
3220	Crack (Wearing Surface)	SF	1096	0	193	903	0
(38) -Span # 1, The Left edge of the slab at Abutment # 1 has a hairline shear type crack that measures 0.010" during this inspection.							
-Span # 1, Left vertical face of slab over Bent # 2 has a delaminated area that is approximately 2" wide and 22" tall.							
-Span # 2 has an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.							
-Span # 3, Right side of slab portion of structure has a diagonal crack in undersurface and a shear type crack near Abutment # 2 that measures 0.006".							
-The sidewalk has several shallow spalls with exposed reinforcing steel on the top surface.							
Sidewalk:							
-There is minor scaling in the concrete sidewalk in Span # 3, Left side of the structure.							
-The slab portion of the structure has hairline transverse cracks in random locations.							
110	Reinforced Concrete Open Girder/Beam	LF	326	293	27	6	0
1080	Delamination/Spall/Patched Area	LF	3	0	2	1	0
1130	Cracking (RC and Other)	LF	30	0	25	5	0



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Location: 0.8 MI E JCT SH 10 SEC 0

Team Lead: Jeff Jones, Inspection Date: 08/31/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>(110) -There are a few isolated areas with efflorescence adjacent to the intermediate bents. -There are vertical hairline flexure cracks at approximately 18" centers.</p> <p>Span # 1: -Span # 1, Girder # 1 has a shallow 6" spall with no exposed reinforcing steel in the base of girder located approximately 10' from Abutment # 1. -The exterior edge of Girder # 1 has a shear type crack at Abutment # 1 that measures 0.008" during this inspection. -There is a moderate width diagonal crack in the end of Girders # 2 and 3 in Span # 1 at Bent # 2. Diagonal cracks are located at the base of girders and are approximately 14" long. (Not shear type cracks)</p> <p>Span # 2: Span # 2 has vertical hairline flexure cracks with no apparent noteworthy problems during this inspection.</p> <p>Span # 3: -Span # 3, Girder # 3 at Abutment # 2 Right face has a vertical crack and shallow spalling at the abutment interface. -Span # 3, Girder # 3 at Abutment # 2 Left face has a vertical crack approximately 1/16" wide located approximately 1' from the face of the abutment backwall.</p> <p>There is map cracking with efflorescence in the end diaphragms between the girders over Bent # 2.</p>							
205	Reinforced Concrete Column	EA	8	0	7	1	0
1090	Exposed Rebar	EA	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	EA	7	0	7	0	0
<p>(205) -Bents # 2 and 3 base of the columns have light abrasion with no significant changes since the last inspection. -Bent # 2, Column # 2 has shallow spalling with exposed reinforcing steel in the upper portion of the column that has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss and appears to be a hoop around the primary vertical reinforcing steel in the column.</p>							
215	Reinforced Concrete Abutment	LF	124	124	0	0	0
(215) -There are no apparent noteworthy deficiencies during this inspection.							
225	Steel Pile	EA	1	1	0	0	0
(225) Abutment # 1. Right side has earth settlement with 1 steel pile exposed in the widened portion of the abutment located approximately 4' from Girder # 3.							
234	Reinforced Concrete Pier Cap	LF	83	70	10	3	0
1080	Delamination/Spall/Patched Area	LF	5	0	4	1	0
1090	Exposed Rebar	LF	2	0	0	2	0
1120	Efflorescence/Rust Staining	LF	3	0	3	0	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
<p>(234) -Bent # 2 cap back face has a 12" shallow spall with no exposed reinforcing steel under Beam # 1. -The cap has 2" wide delaminated concrete adjacent to the exterior girders in both spans. -Bent # 3 cap back face has a softball sized spall with exposed reinforcing steel under Girder # 1. -Vertical cracking at the construction joints where the caps have been widened. -Minor staining from apparent joint leakage over the widened sections during this inspection. -There are several patched areas on each cap.</p>							
302	Compression Joint Seal	LF	74	0	0	74	0
2350	Debris Impaction	LF	74	0	0	74	0



Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	2116	2076	32	8	0
1090	Exposed Rebar	SF	8	0	0	8	0
1120	Efflorescence/Rust Staining	SF	26	0	26	0	0
1130	Cracking (RC and Other)	SF	6	0	6	0	0
510	Wearing Surfaces	SF	2116	1279	70	767	0
3210	Delam/Spall/Patched Area/Pothole	SF	70	0	70	0	0
3220	Crack (Wearing Surface)	SF	767	0	0	767	0
(16) The deck has an asphalt wearing surface.							
Deck undersurface:							
-Span # 2 undersurface in Bays # 1 and 2 adjacent to Bent # 2 has several shallow spalls that have exposed reinforcing steel. The exposed reinforcing steel has initial section loss.							
-There are a few isolated transverse cracks with light efflorescence visible from the undersurface of the deck.							
(510-16) -The asphalt driving surface has map cracking in the wheel paths with numerous patches over the expansion joints.							
-There are reflective longitudinal cracks over the construction joints where the structure was widened.							
38	RC Slab	SF	1628	1597	29	2	0
1080	Delamination/Spall/Patched Area	SF	4	0	4	0	0
1130	Cracking (RC and Other)	SF	27	0	25	2	0
510	Wearing Surfaces	SF	1357	226	193	938	0
3210	Delam/Spall/Patched Area/Pothole	SF	35	0	0	35	0
3220	Crack (Wearing Surface)	SF	1096	0	193	903	0
(38) -Span # 1, The Left edge of the slab at Abutment # 1 has a hairline shear type crack that measures 0.010" during this inspection.							
-Span # 1, Left vertical face of slab over Bent # 2 has a delaminated area that is approximately 2" wide and 22" tall.							
-Span # 2 has an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.							
-Span # 3, Right side of slab portion of structure has a diagonal crack in undersurface and a shear type crack near Abutment # 2 that measures 0.006".							
-The sidewalk has several shallow spalls with exposed reinforcing steel on the top surface.							
Sidewalk:							
-There is minor scaling in the concrete sidewalk in Span # 3, Left side of the structure.							
-The slab portion of the structure has hairline transverse cracks in random locations.							

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



Comment: Deck:

- The asphalt driving surface has map cracking in the wheel paths with numerous patches over the expansion joints.
- There are reflective longitudinal cracks over the construction joints where the structure was widened.

Deck Soffit:

- Span # 2 undersurface in Bays # 1 and 2 adjacent to Bent # 2 has several shallow spalls that have exposed reinforcing steel. The exposed reinforcing steel has initial section loss.
- There are a few isolated transverse cracks with light efflorescence visible from the undersurface of the deck.
- There is an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.

Sidewalk:

The Left sidewalk on Spans # 1 and 3 have shallow spalls with exposed reinforcing steel.
Exposed reinforcing steel has very little concrete cover from the construction process.
Exposed reinforcing steel has up to initial section loss.
There are areas with up to medium scale on the sidewalk.

**Superstructure**

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
110	Reinforced Concrete Open Girder/Beam	LF	326	293	27	6	0
1080	Delamination/Spall/Patched Area	LF	3	0	2	1	0
1130	Cracking (RC and Other)	LF	30	0	25	5	0
<p>(110) -There are a few isolated areas with efflorescence adjacent to the intermediate bents. -There are vertical hairline flexure cracks at approximately 18" centers.</p> <p>Span # 1: -Span # 1, Girder # 1 has a shallow 6" spall with no exposed reinforcing steel in the base of girder located approximately 10' from Abutment # 1. -The exterior edge of Girder # 1 has a shear type crack at Abutment # 1 that measures 0.008" during this inspection. -There is a moderate width diagonal crack in the end of Girders # 2 and 3 in Span # 1 at Bent # 2. Diagonal cracks are located at the base of girders and are approximately 14" long. (Not shear type cracks)</p> <p>Span # 2: Span # 2 has vertical hairline flexure cracks with no apparent noteworthy problems during this inspection.</p> <p>Span # 3: -Span # 3, Girder # 3 at Abutment # 2 Right face has a vertical crack and shallow spalling at the abutment interface. -Span # 3, Girder # 3 at Abutment # 2 Left face has a vertical crack approximately 1/16" wide located approximately 1' from the face of the abutment backwall.</p> <p>There is map cracking with efflorescence in the end diaphragms between the girders over Bent # 2.</p>							

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



Comment: Concrete deck girders:

- There are a few isolated areas with efflorescence adjacent to the intermediate bents.
- There are vertical hairline flexure cracks at approximately 18" centers.

Span # 1:

- Span # 1, Girder # 1 has a shallow 6" spall with no exposed reinforcing steel in the base of girder located approximately 10' from Abutment # 1.
- The exterior edge of Girder # 1 has a shear type crack at Abutment # 1 that measures 0.008" during this inspection.
- There is a moderate width diagonal crack in the end of Girders # 2 and 3 in Span # 1 at Bent # 2. Diagonal cracks are located at the base of girders and are approximately 14" long. (Not shear type cracks)

Span # 2:

Span # 2 has vertical hairline flexure cracks with no apparent noteworthy problems during this inspection.

Span # 3:

- Span # 3, Girder # 3 at Abutment # 2 Right face has a vertical crack and shallow spalling at the abutment interface.
- Span # 3, Girder # 3 at Abutment # 2 Left face has a vertical crack approximately 1/16" wide located approximately 1' from the face of the abutment backwall.

There is map cracking with efflorescence in the end diaphragms between the girders over Bent # 2.

Slab Soffit:

- The Left edge of the slab at Abutment # 1 has a hairline shear type crack that measures 0.010" during this inspection.
- Span # 1, Left vertical face of slab over Bent # 2 has a delaminated area that is approximately 2" wide and 22" tall.
- Span # 2 has an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.
- Span # 3, Right side of slab portion of structure has a diagonal crack in undersurface and a shear type crack near Abutment # 2 that measures 0.006".
- The sidewalk has several shallow spalls with exposed reinforcing steel on the top surface.



Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	8	0	7	1	0
1090	Exposed Rebar	EA	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	EA	7	0	7	0	0
(205) -Bents # 2 and 3 base of the columns have light abrasion with no significant changes since the last inspection. -Bent # 2, Column # 2 has shallow spalling with exposed reinforcing steel in the upper portion of the column that has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss and appears to be a hoop around the primary vertical reinforcing steel in the column.							
215	Reinforced Concrete Abutment	LF	124	124	0	0	0
(215) -There are no apparent noteworthy deficiencies during this inspection.							
225	Steel Pile	EA	1	1	0	0	0
(225) Abutment # 1. Right side has earth settlement with 1 steel pile exposed in the widened portion of the abutment located approximately 4' from Girder # 3.							
234	Reinforced Concrete Pier Cap	LF	83	70	10	3	0
1080	Delamination/Spall/Patched Area	LF	5	0	4	1	0
1090	Exposed Rebar	LF	2	0	0	2	0
1120	Efflorescence/Rust Staining	LF	3	0	3	0	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(234) -Bent # 2 cap back face has a 12" shallow spall with no exposed reinforcing steel under Beam # 1. -The cap has 2" wide delaminated concrete adjacent to the exterior girders in both spans. -Bent # 3 cap back face has a softball sized spall with exposed reinforcing steel under Girder # 1. -Vertical cracking at the construction joints where the caps have been widened. -Minor staining from apparent joint leakage over the widened sections during this inspection. -There are several patched areas on each cap.							

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

Comment: -Bent # 2 cap back face has a 12" shallow spall with no exposed reinforcing steel under Beam # 1.
 -The cap has 2" wide delaminated concrete adjacent to the exterior girders in both spans.
 -Bent # 3 cap back face has a softball size spall with exposed reinforcing steel under Girder # 1.
 -Vertical cracking at the construction joints where the caps have been widened.

-Bent #2, Column #2 has shallow spalling with exposed reinforcing steel in the upper portion of the column that has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss and appears to be a hoop around the primary vertical reinforcing steel in the column.

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.)



Asset #A0425(Routine)

SH 10 - Sebastian over Vache Grasse

Location: 0.8 MI E JCT SH 10 SEC 0

Team Lead: Jeff Jones, Inspection Date: 08/31/2023

Comment: 08/31/2023 - JCJ & TJL - Footings have cover with no apparent scour problems during this inspection.

Abutment # 1 has riprap displacement with embankment erosion at the inlet end of the abutment.

There is earth settlement under the Right side of Abutment # 1 with voids that penetrate approximately 2' past the face of the abutment.

Abutment # 2 has riprap displacement with embankment erosion at the outlet end of the abutment.

Intermediate bent footings have cover with no apparent scour problems during this inspection.

Shale is exposed along the East embankment.

08/31/2023 - JCJ & TJL -

ArDOT Drawing # 561 Layout Drawing indicates that substructure concrete spread footings are keyed into Hard Shale.

ArDOT Drawing # 18178 Layout Drawing General Notes state that footings shall be set a minimum 1'-6" into material designated as hard blue shale. All piling shall be HP10X42 and shall be driven to a minimum bearing capacity of 55 tons per pile.



Asset #A0425(Routine)

SH 10 - Sebastian over Vache Grasse

Location: 0.8 MI E JCT SH 10 SEC 0

Team Lead: Jeff Jones, Inspection Date: 08/31/2023

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4



Elevation. Inlet end of structure.



Span # 2. Bay # 2 deck soffit. Spalls with exposed reinforcing steel.



Span # 2 deck soffit: Photo of an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.



Span # 1 deck soffit. Typical.



Sidewalk: The Left sidewalk on Spans # 1 and 3 have shallow spalls with exposed reinforcing steel. Exposed reinforcing steel has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss.



Deck. Span # 1. Typical.



Deck. Typical.



Channel upstream of structure.



Shale is exposed along the East embankment.



Abutment # 2 has riprap displacement with embankment erosion at the outlet end of the abutment.



Abutment # 1 has riprap displacement with embankment erosion at the inlet end of the abutment.

There is earth settlement under the Right side of the abutment with voids that penetrate approximately 2' past the face of the abutment.



Abutment # 1 has riprap displacement with embankment erosion at the inlet end of the abutment.

There is earth settlement under the Right side of the abutment with voids that penetrate approximately 2' past the face of the abutment.



Approach roadway facing East.



Approach roadway facing West.



Debris accumulation on Bent # 3 cap.



Staining due to joint leakage. Photo of Bent # 3. Cap.



Span # 3 deck soffit. Typical.



Span # 2 deck soffit. Typical.



Span # 1 slab soffit. Typical.



Span # 3. Typical.



Asphalt has numerous patches over the expansion joint.
Photo of Bent # 3 expansion joint.



Asphalt has numerous patches over the expansion joint.
Photo of Bent # 3 expansion joint.



Span # 3, Right side of slab portion of structure has a diagonal crack in undersurface and a shear type crack near abutment # 2 that measures 0.006".



Span # 2 has an 18" delaminated area adjacent to the Span # 2 deck drain located near the Left end of Bent # 3 cap.



Span # 1, Left vertical face of slab over Bent # 2 has a delaminated area that is up to approximately 2" wide and 22" tall.



The Left edge of the slab at Abutment # 1 has a hairline shear type crack that measures 0.010" during this inspection.



-Span # 3, Girder #3 at Abutment # 2 Left face has a vertical crack approximately 1/16" wide located approximately 1' from the face of the abutment backwall.



Span # 3 superstructure. Typical.



Span # 2 superstructure. Typical.



Span # 3, Girder # 3 at Abutment # 2 has a vertical crack and shallow spalling at the abutment interface.



There is map cracking with efflorescence in the end diaphragms between the girders over Bent # 2.



There is a moderate width diagonal crack in the end of Girders # 1 and 2 in Span # 1 at Bent # 2. Diagonal cracks are located at the base of girders and are approximately 14" long. (Not shear type cracks). Photo taken at Girder # 1.



There is a moderate width diagonal crack in the end of Girders # 1 and 2 in Span # 1 at Bent # 2. Diagonal cracks are located at the base of girders and are approximately 14" long. (Not shear type cracks). Photo taken at Girder # 2.



Span # 1, Girder # 1 has a shallow 6" spall with no exposed reinforcing steel in the base of girder located approximately 10' from Abutment # 1.



The exterior edge of Girder # 1 has a shear type crack at Abutment # 1 that measures 0.008" during this inspection.



Bent # 2, Column # 2 has shallow spalling with exposed reinforcing steel in the upper portion of the column that has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss and appears to be a hoop around the primary vertical reinforcing steel in the column.



Bent # 2 columns. Typical.



Abutment # 2. Typical.



Abutment # 1. Right side has earth settlement with 1 steel pile exposed in the widened portion of the abutment located approximately 4' from Girder # 3.



Bent # 2 ahead face. Typical.



Bent # 3 back face. Typical.



- Bent # 2 cap back face has a 12" shallow spall with no exposed reinforcing steel under Beam # 1.
- The cap has 2" wide delaminated concrete adjacent to the exterior girders in both spans.



Bent # 2 back face. Typical.



- The asphalt driving surface has numerous patched areas over the expansion joints.
Photo taken over Bent # 2.



The asphalt driving surface has numerous patched areas over the expansion joints.
Photo taken over Bent # 3.



Right bridge railing. Typical.



Left bridge railing. Typical.



The Right bridge railing in Span # 1 has one loose bolted connection where the top rail is attached to Post # 4.

Maintenance Needs

Date Reported: 08/31/2023

Priority: C - Important

Type of Work: Repair (General)

Status: Open

Component: Miscellaneous

Deficiency Description

-The Right bridge railing in Span # 1 has one loose bolted connection where the top rail is attached to Post # 4.

Remarks



The Right bridge railing in Span # 1 has one loose bolted connection where the top rail is attached to Post # 4.

Maintenance Needs

Date Reported: 11/29/2011

Priority: D- Routine

Type of Work: Deck Repair

Status: Monitor

Component: Element

Deficiency Description

Undersurface of deck -

Span # 2 in bays # 1 and # 2 adjacent to bent # 2 has spalls with exposed reinforcing steel in the undersurface of the deck. The exposed reinforcing steel has corrosion with initial section loss.

Remarks



Span # 2-Spalling with exposed reinforcing steel between Girders # 2 and 3 at Bent # 2.



Span # 2-Spalling with exposed reinforcing steel between girders # 2 and 3 at bent # 2.

Maintenance Needs

Date Reported: 08/22/2013

Priority: D- Routine

Type of Work: Superstructure Repair

Status: Monitor

Component: Element

Deficiency Description

R.,C. Deck Girders-

There is a moderate width diagonal crack (Not shear) in the end of girders # 1 and 2 of span # 1 over bent # 2, and a moderate width diagonal crack in the end of girder #2 of span # 2 over bent # 2. Diagonal cracks are located at the base of girders and are approximately 14" long.

Girder # 1 at abutment # 1 has a hairline shear crack during this inspection.

Span # 3, girder # 3 at abutment # 2 Left face has a vertical crack approximately 1/16" wide located approximately 1' from the face of the abutment backwall.

Remarks



Span # 3, girder # 3 at abutment # 2 Left face has a vertical crack approximately 1/16" wide located approximately 1' from the face of the abutment backwall.



There is a moderate width diagonal crack (Not shear) in the end of girders # 1 and 2 of span # 1 over bent # 2.
Photo taken of Span # 1, Girder # 1 at Bent # 2.



Span # 1, girder # 1 at abutment # 1-Hairline shear type crack.



Span # 1, girder # 1-Hairline vertical cracking.

Maintenance Needs

Date Reported: 08/09/2017

Priority: D- Routine

Type of Work: Repair (General)

Status: Repair Documented

Component: Deck

Deficiency Description

The asphalt driving surface of the deck-

The asphalt is breaking apart over the expansion joints with potholes forming in some locations.

Remarks

08/31/2023 - JCJ & TJL - The asphalt driving surface has numerous patched areas over the expansion joints.



08/31/2023 - JCJ & TJL - The asphalt driving surface has numerous patched areas over the expansion joints.



Pothole forming in wearing surface of left lane over bent # 3.

Maintenance Needs

Date Reported: 08/31/2023

Priority: D- Routine

Type of Work: Miscellaneous

Status: Open

Component: Miscellaneous

Deficiency Description

Sidewalk: The Left sidewalk on Spans # 1 and 3 have shallow spalls with exposed reinforcing steel. Exposed reinforcing steel has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss. There are areas with up to medium scale on the sidewalk.

Remarks



The Left sidewalk on Spans # 1 and 3 have shallow spalls with exposed reinforcing steel. Exposed reinforcing steel has very little concrete cover from the construction process. Exposed reinforcing steel has up to initial section loss. There are areas with up to medium scale on the sidewalk.

Maintenance Needs

Date Reported: 08/31/2023

Priority: D- Routine

Type of Work: Channel Work/Drift Removal

Status: Open

Component: Channel

Deficiency Description

Abutment # 1 has riprap displacement with embankment erosion at the inlet end of the abutment. There is earth settlement under the Right side of the abutment with voids that penetrate approximately 2' past the face of the abutment.

Abutment # 2 has riprap displacement with embankment erosion at the outlet end of the abutment.

Remarks



Abutment # 2 has riprap displacement with embankment erosion at the outlet end of the abutment.



Abutment # 1 has riprap displacement with embankment erosion at the inlet end of the abutment.

There is earth settlement under the Right side of the abutment with voids that penetrate approximately 2' past the face of the abutment.



Abutment # 1 has riprap displacement with embankment erosion at the inlet end of the abutment.

There is earth settlement under the Right side of the abutment with voids that penetrate approximately 2' past the face of the abutment.



Asset #A0425(Routine)

SH 10 - Sebastian over Vache Grasse

Location: 0.8 MI E JCT SH 10 SEC 0

Team Lead: Jeff Jones, Inspection Date: 08/31/2023

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	Yes
A-59 - Joint Repair Needed	Yes
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	



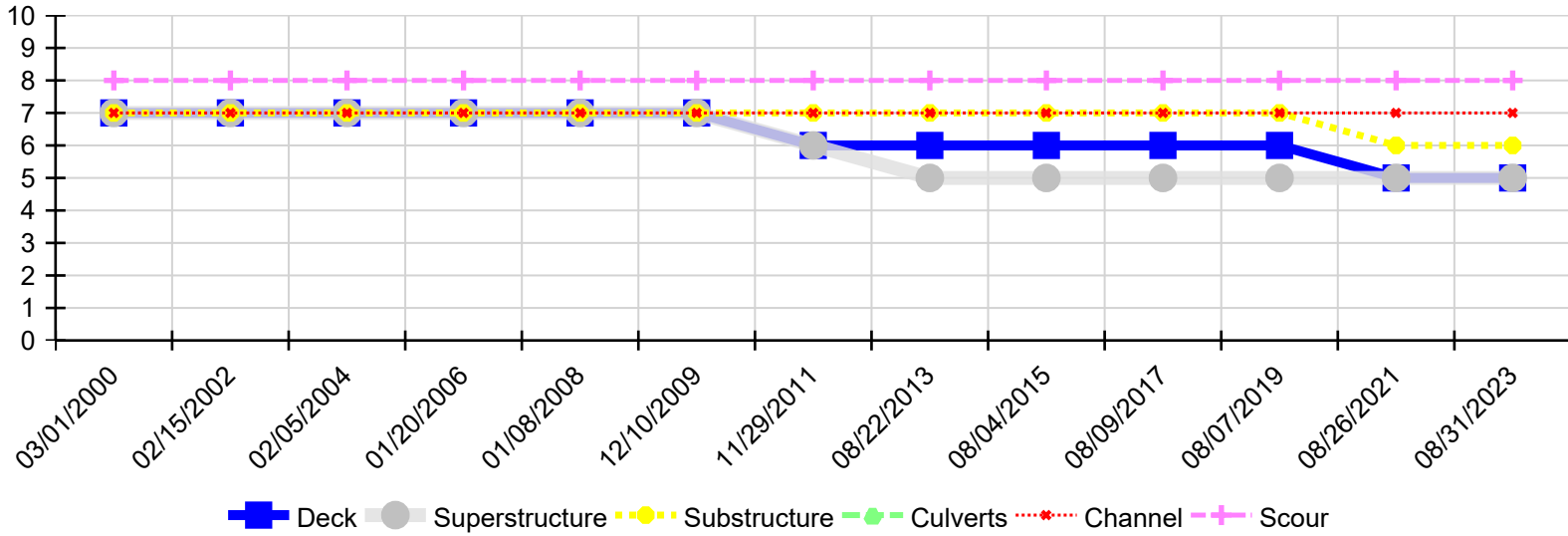
Asset #A0425(Routine)

SH 10 - Sebastian over Vache Grasse

Location: 0.8 MI E JCT SH 10 SEC 0

Team Lead: Jeff Jones, Inspection Date: 08/31/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
08/31/2023	5	5	6	N	7	8
08/26/2021	5	5	6	N	7	8
08/07/2019	6	5	7	N	7	8
08/09/2017	6	5	7	N	7	8
08/04/2015	6	5	7	N	7	8
08/22/2013	6	5	7	N	7	8
11/29/2011	6	6	7	N	7	8
12/10/2009	7	7	7	N	7	8
01/08/2008	7	7	7	N	7	8
01/20/2006	7	7	7	N	7	8
02/05/2004	7	7	7	N	7	8
02/15/2002	7	7	7	N	7	8
03/01/2000	7	7	7	N	7	8