



Latitude:46.08500, Longitude:-102.64500

Route:00008 Log:3.882

District 65, Adams County

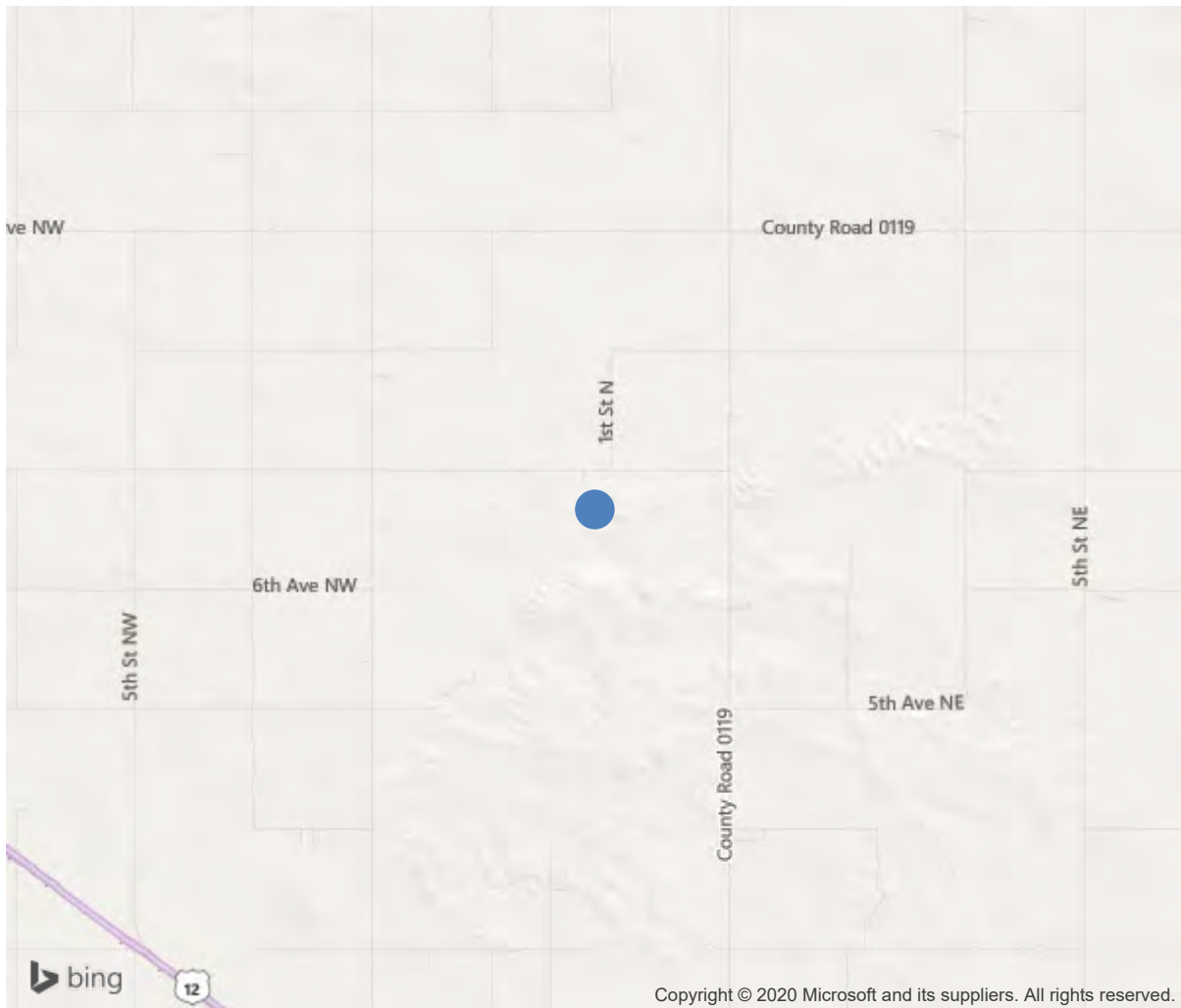
Owner: 1-State Highway Agency

Place Code: HETTINGER TOWNSHIP

Team Leader: Jake Mertz

Approved By: Travis McCloud

SOUTH JCT. US 12



46.08500, -102.64500

IDENTIFICATION	
(1) State Names	North Dakota
(8) Structure Number	0008-003.883
(5) Inventory Route	00008
(2) Highway Agency District	65
(3) County Code	Adams, North Dakota
(4) Place Code	37740
(6) Features Intersected	FLAT CREEK
(7) Facility Carried	ND HIGHWAY 8
(9) Location	SOUTH JCT. US 12
(11) Mile Point	3.882 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte	0000000000
(16) Latitude	46.08500
(17) Longitude	-102.64500
GPS X	217776.3
GPS Y	5100431.5
(98) Border Bridge State Code	-1
(99) Border Bridge Struct. No.	-
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	21
Material	2-Concrete continuous
Type	1-Slab
(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
Culvert	
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
Deck overburden	1
AGE AND SERVICE	
(27) Year Built	1959
(106) Year Reconstructed	
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	1730
(30) Year of ADT	2019
(109) Truck ADT	6 %
(19) Bypass, Detour Length	40 mi
(114) Future ADT	750
(115) Year of Future ADT	2039
GEOMETRIC DATA	
(48) Length of Maximum Span	29.9 ft
(49) Structure Length	89.9 ft
(50) Curb or Sidewalk Width	
Left	1.3 ft
Right	1.3 ft
(51) Bridge Roadway Width Curb to Curb	29.9 ft
(52) Deck Width Out to Out	36.1 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	29.9 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

CLASSIFICATION	
(A-7) Agency Admin Area	1
(112) NBIS Bridge Length	Y
(104) Highway System	Non-NHS
(26) Functional Class	6-Rural Minor Arterial
(100) Defense Highway	0-The inventory route is not a S
(A16) TE Route	
(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 part of
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	5
(59) Superstructure	N
(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	59.2
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	31.9
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	6
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	6
(36) Traffic Safety Features	0000
A) Bridge Railings	0-Inspected feature does not meet cur
B) Transitions	0-Inspected feature does not meet cur
C) Approach Guardrail	0-Inspected feature does not meet cur
D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	3-Bridge is scour critical; bridge fo
APPROVED INSPECTIONS	
(90) Inspection Date	07/2020
(91) Frequency	24 Months
(92) Critical Feature Inspection	Req Freq. (Mon) Date
A: Fracture Critical Detail	No
B: Underwater Inspection	No
C: Other Special Inspection	No
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(111) Pier Protection	-
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clr	ft
(40) Navigation Horizontal Clearance	0 ft
AGENCY ITEMS	
(A-21) Fedaid Project no.	S-5-008(00)000
(A-14) Chaining Date	8/15/2018
(A-15) Delamination Pct	10.6

Inspection Team Lead: Jake Mertz

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	2702	0	2702	0	0
1080	Delamination/Spall/Patched Area	SF	384	0	384	0	0
1090	Exposed Rebar	SF	1	0	1	0	0
1130	Cracking (RC and Other)	SF	2317	0	2317	0	0
(38-1080)							
Deck has many delaminated area picked up w/ walking stick. Some scaling and pop outs on deck and curb - 9/26/2019							
(38-1090)							
There is an exposed rebar on span 1 West face of the deck approximately 12 feet to the North of the South abutment. 15July2020							
(38-1130)							
There is many pop outs and there is map cracking o the entirety of the deck. The cracks average approximately 0.030 in width. 15July2020							
210	Reinforced Concrete Pier Wall	LF	66	55	11	0	0
1130	Cracking (RC and Other)	LF	4	0	4	0	0
1190	Abrasion/Wear (PSC/RC)	LF	7	0	7	0	0
(210-1130)							
The pier wall 2 has approximately 1 crack located approximately 10 feet from the East end of the pier wall on the South face. The crack runs the entire height of the pier wall. The pier wall 3 has approximately 3 cracks that run the entire height of the pier wall. These are spaced greater than 6 feet apart on the North face. 15July2020							
(210-1190)							
Concrete deterioration on pier at water line. - 9/26/2019							
215	Reinforced Concrete Abutment	LF	66	30	3	33	0
1130	Cracking (RC and Other)	LF	36	0	3	33	0
(215-1130)							
Horizontal crack across south abutment - 9/26/2019							
The South abutment has a horizontal crack approximately 0.094 in width and is located 3 feet above the ground level. This crack is the entire width of the abutment and goes through both wings. The North abutment has approximately 3 cracks that are spaced greater than 3 feet apart and average approximately 0.012 in width. 15July2020							
331	Reinforced Concrete Bridge Railing	LF	180	166	10	4	0
1090	Exposed Rebar	LF	4	0	0	4	0
1130	Cracking (RC and Other)	LF	10	0	10	0	0
(331-1090)							
Exposed rebar on concrete bridge railing. - 9/26/2019							
The East bridge rail has three posts at the north end of the structure with exposed rebar with section loss. 15July2020							

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(331-1130)							
Both concrete railings have unsealed cracking .014-.016 7/15/2020							
8398	Slope Protection	EA	2	2	0	0	0
8401	Wings	EA	4	1	1	2	0
1130	Cracking (RC and Other)	EA	3	0	1	2	0
(8401-1130)							
Minor cracking on wings. S.W. & S.E. wings cracking. - 9/26/2019							
The Southeast wing has a large crack that is approximately 0.035 in width through the entire width of the wing. The Southwest wing has diagonal cracking that averages approximately 0.018 in width. The Northwest wing has a diagonal crack that is approximately 0.016 in width. 15JULY2020							

Inspection Comments

NBI Remarks: Some scaling and pop outs on deck and curb.

Horizontal crack across south abutment.

Some concrete deterioration on pier at water line.

Numerous cracks on deck.

9/12/2011 - Minor cracking on wings.

7/22/2013 - Bridge delamination survey done 8/23/2012. 4.6% delamination.

7/22/2013 - Most of deck is sealed because of popouts. Also stream profile done.

10/21/2015 - Deck surface looks like Swiss cheese due to number of popouts.

10/21/2015 - Slope protection under bridge has been washed away.

10/4/2017 - SW & SE wings cracking.

09/26/2019 Deck has many delaminated area picked up w/walking stick. - 9/26/2019

Alert Code 1

The East bridge rail has three posts at the north end of the structure with exposed rebar with section loss. 15July2020



West curb crack .016



Core holes along west curb



SE wing crack.035



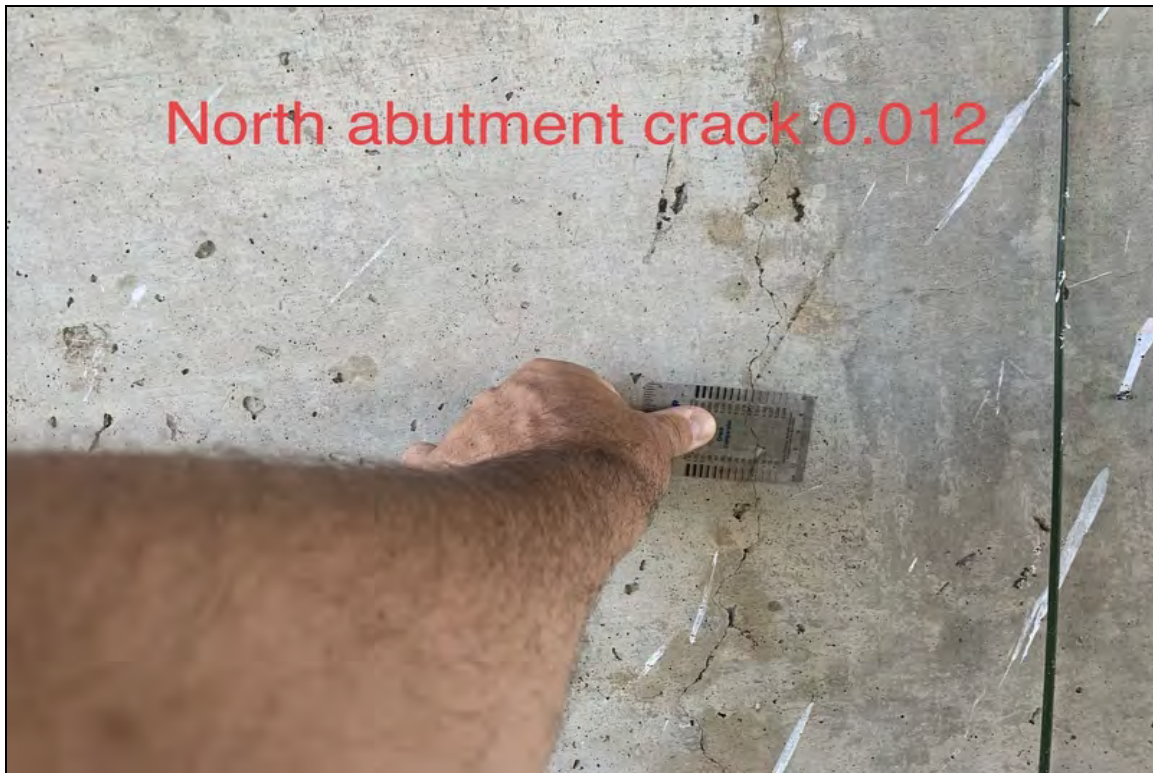
SE wing crack



East curb exposed rebar on pedestals



East curb exposed rebar on pedestals



North abutment crack .012



NW wing crack .016



Deck crack .030



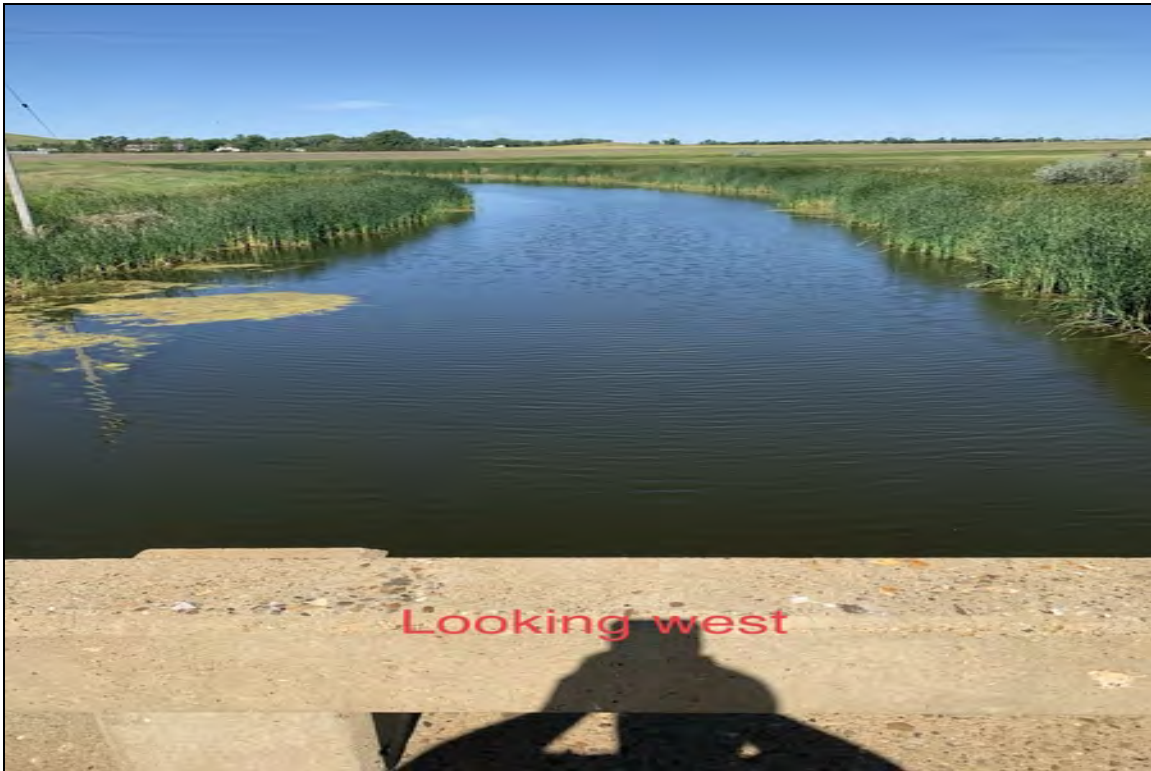
Looking north



Looking south



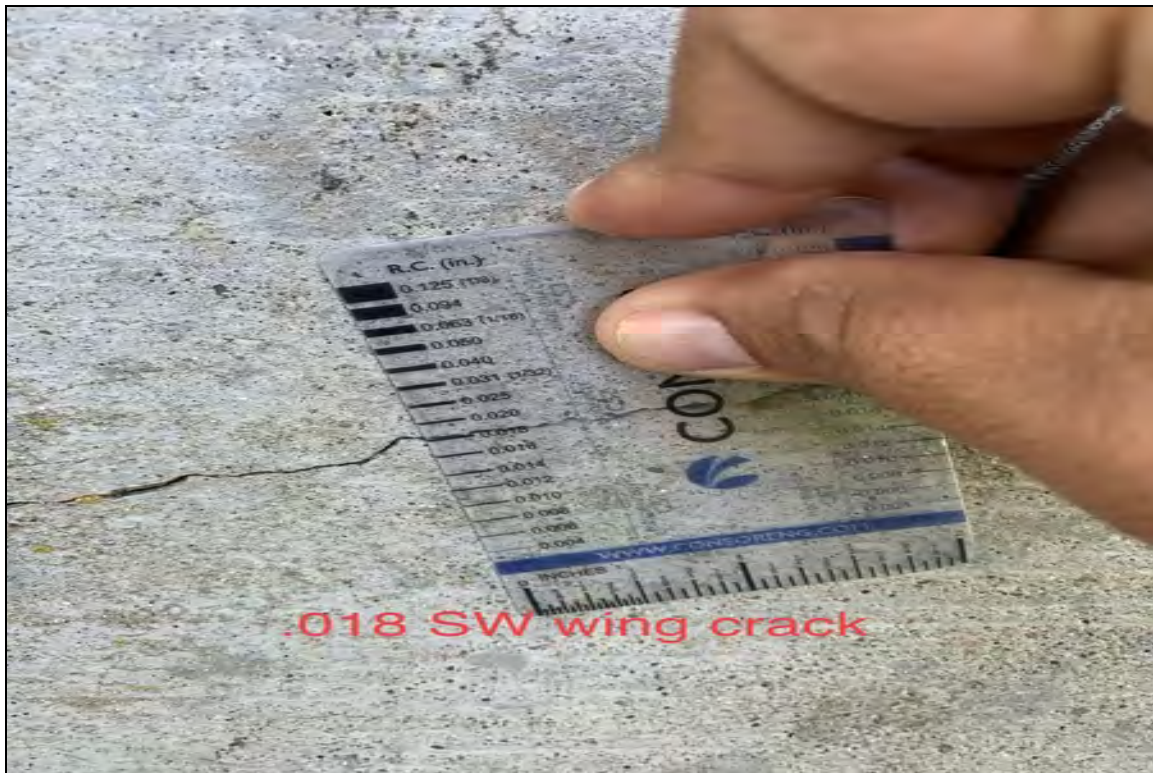
Looking east



Looking west



SW wing cacks



.018 SW wing cracks



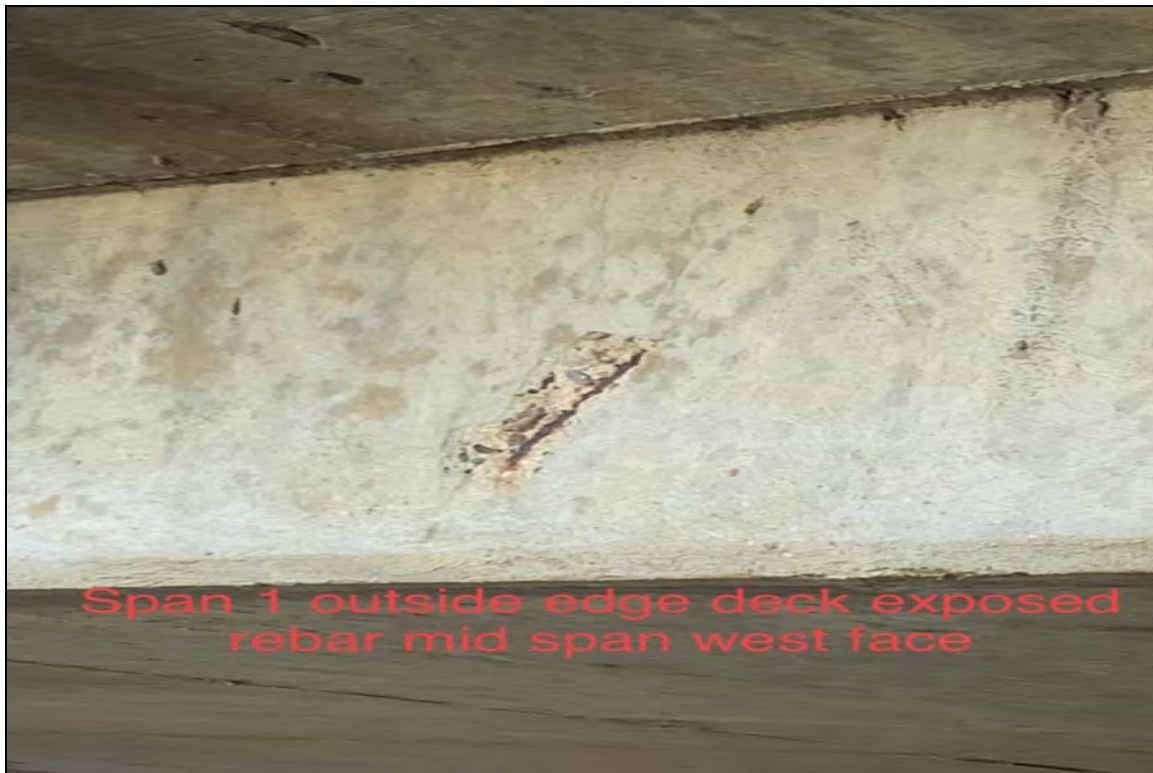
South abutment cracks



.094 south abutment crack horizontal



Pier 2 crack sout hface



Span 1 outside edge deck exposed rebar mid span west face

Span 1 west outside edge of deck exposed rebar mid span



Deck spalls 3

Deck spalls 3 spots



Deck spall 1'x1'



.016 west rail crack



.014 east rail crack

Maintenance Needs

Date Reported: 07/15/2020
Priority: Normal
Type of Work: ----- Other -----
Status: Unknown
Component: Deck

Deficiency Description

There is cracking and spalls on the deck and curb that could be sealed. Recommendation is to overlay the deck due to the numerous pop outs and map cracking. 15JULY2020

Remarks



Looking south



Deck spalls 3 spots



Deck spall 1'x1'



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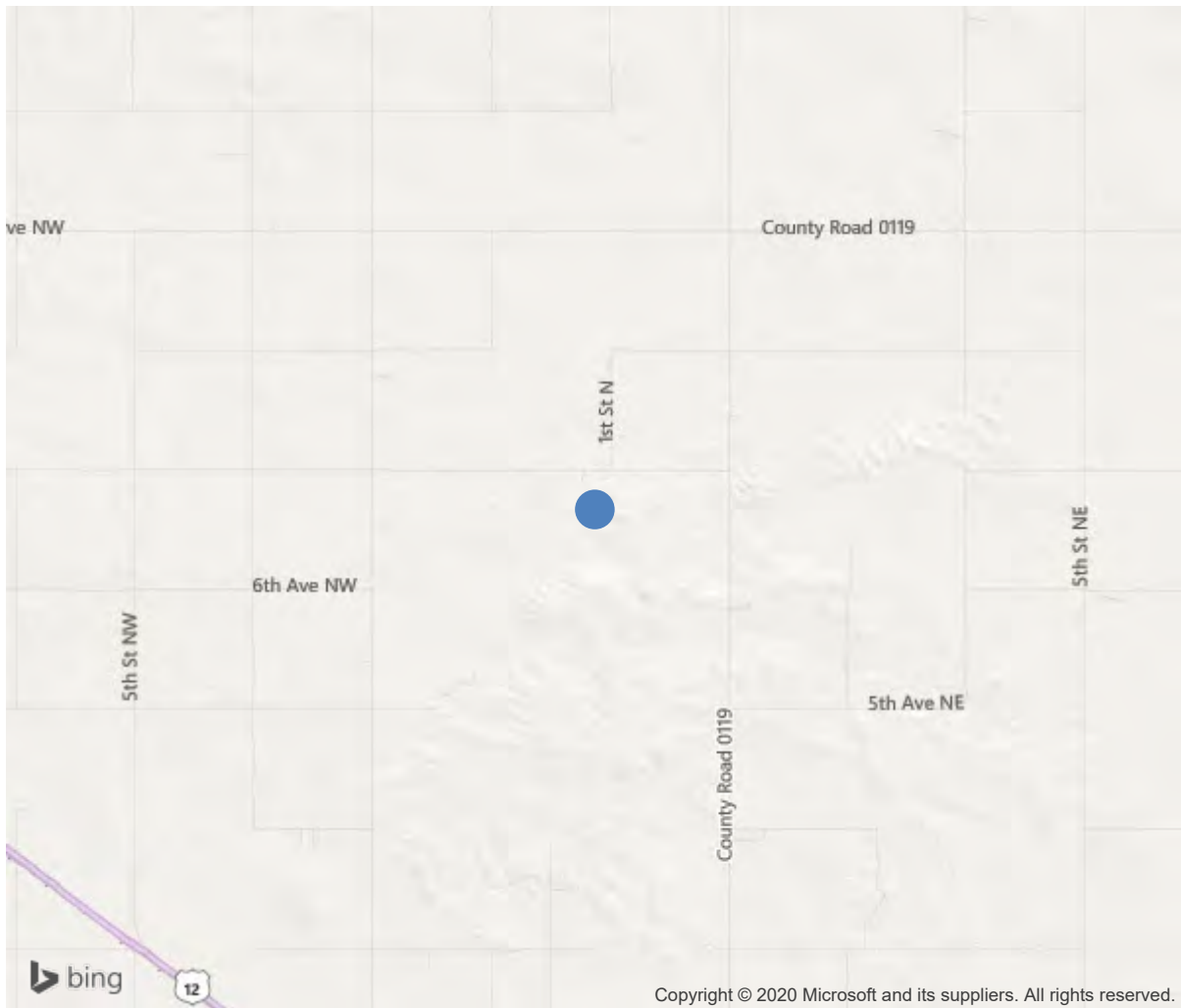
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AGENCY ITEMS	
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(A-15) Delamination Pct	10.6