CUY-00010-1613 _(1801503)

ODOT District:	12			Date Built:	07/01/1932
Major Maint:	01 - State Highway Agency	Facility Carried:	SR 10	Traffic On: 5 - Highway-pedestrian	Rehab Date: 01/01/1983
Routine Maint:	04 - City or Municipal Highway Agency	Feature Inters:	CUY RIVER VALLEY & FI RR	Traffic Under: 7 - Railroad - waterway	Insp. Resp A: 01 - State Highway Agency
FIPS Code:	16000 - CLEVELAND (CUY county)	Location:	CUY	LORAIN/CARNEGIE BRIDGE	Insp Resp B:

Inspector Rufener,Justin Inspection Date 09/29/2020 Reviewer Johnson,Matthew

National Bridge Inventory

Status 1 - SD

Sufficiency Rating 64.9

Identification

(1) State Code	395 - Ohio
(8) Structure File Number (SFN)	1801503
(7) Facility Carried	SR 10
(208) Route on the Bridge	10 - State (ODOT) (Toll Free)
(2) Highway Agency District	12
(3) County Code	18 - Cuyahoga
(209) Interstate Mile Marker	
(201) Special Designation	
(4) Place Code (FIPS)	16000 - CLEVELAND (CUY county)
(5) Inventory Route	
(A) Record Type On/Under Always "On"	1: Route carried "on" the structure
(B) Route Signing Prefix (Highway System)	3 - STATE HIGHWAY
(C) Designated Level of Service (Highway Designation)	1 - MAINLINE
(D) Route Number	00010
(E) Directional Suffix	0 - NOT APPLICABLE
(6) Features Intersected	CUY RIVER VALLEY & FI RR
(9) Location	LORAIN/CARNEGIE BRIDGE
(11) Milepoint	16.130
(12) Base Highway Network	Inventory Route is not on the Base Network
(13A) LRS Inventory Route	
(13B) Subroute Number	
(16) Latitude	41.48738 Degrees
(17) Longitude	-81.69644 Degrees
(16.01) Latitude - Ohio	41.487378
(17.01) Longitude - Ohio	-81.696442
(98A) Border Bridge State Code	
(98B) Border Bridge State Percent Responsibility	
(99) Border Bridge Struct No.	

Inspections

(90) Inspection Date			09/29/20 20
(91) Designated Inspection Frequency			12
(92) Critical Feature Inspection			(93) CFI Date
A. Fracture Critical Detail	Y	24	07/24/2020
B. Underwater Inspection	Y	60	07/08/2020
C. Other Special Inspection	N	0	
D.01 Snooper Inspection	N		08/01/2014
E.01 Drone Inspection			

Condition

(58) Deck	6 - Satisfactory Condition
(58.01) Wearing Surface	7 - Good (1% distress)
(58.02) Expansion Joint	6- Satisfactory (isolated leaking)
(59) Superstructure	4 - Poor Condition
(59.01) Protective Coating System (PCS)	6 - Satisfactory (5-10% corr.)
(60) Substructure	6 - Satisfactory Condition
(61) Channel & Channel Protection	6 - Bank slump. widespread minor damage
(61.01) Scour	6 - Satisfactory
(62) Culvert	N - Not Applicable
(67.01) General Appraisal	4 - Poor Condition (advanced deterioration)

CUY-00010-1613 _(1801503)

ODOT District:	12			Date Built:	07/01/1932
Major Maint:	01 - State Highway Agency	Facility Carried:	SR 10	Traffic On: 5 - Highway-pedestrian	Rehab Date: 01/01/1983
Routine Maint:	04 - City or Municipal Highway Agency	Feature Inters:	CUY RIVER VALLEY & FI RR	Traffic Under: 7 - Railroad - waterway	Insp. Resp A: 01 - State Highway Agency
FIPS Code:	16000 - CLEVELAND (CUY county)	Location:	CUY	LORAIN/CARNEGIE BRIDGE	Insp Resp B:

Inspector Rufener,Justin Inspection Date 09/29/2020 Reviewer Johnson,Matthew

Structure Type and Material

(43) Main Structure Type	A.	3 - Steel
	B.	09 - Truss - Deck
	C.	N- Not Applicable
(44) Approach Type	A.	3 - Steel
	B.	02 - Stringer/Multi-beam or Girder
	C.	N- Not Applicable
(45) Number of Spans in Main Unit		15
(46) Number of Approach Spans		5
(107) Deck Structure Type		1 - Concrete Cast-in-Place
(107.01)		
(108B) External Deck Protection		2 - Preformed Fabric
(108C) Internal Deck Protection		1 - Epoxy Coated Reinforcing
(422) Wearing Surface Date		09/01/2001
(108A) Wearing Surface Type		2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)
(108A.01)		2- MicroSilica
(423) Wearing Surface Thickness		1.5 in
(483) Protective Coating System Date		03/04/2004

Age of Service

(27) Year Built	1932
(263) Date Built	07/01/1932
(106) Year Reconstructed	1983
(264) Major Reconstruction Date	01/01/1983

(42) Type of Service

On 5 - Highway-pedestrian

Under 7 - Railroad - waterway

(28) Lanes On 04 Under 00

(29) Average Daily Traffic	13835	(30) ADT Yr.	2015
(109) Truck Percentage	7 % Truck		
(114) Future Avg Daily Traffic	19203	(115) Future ADT Yr.	2037
(19) Bypass Detour Length	2 mi.		

Load Rating and Posting

(31) Design Load	4 - H 20
(63) Operating Rating Method	6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.
(64) Operating Rating Factor	1.4
(65) Inventory Rating Method	6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.
(66) Inventory Rating Factor	1.1
(41) Structure Open, Posted, or Closed to Traffic	A - Open
(70) Bridge Posting	5 - Equal to or above legal loads
(70.01) Date Posted	
(70.02) Posted Sign Type	
(70.03) Posted Weight	

Appraisal

(67) Structural Evaluation	4 - Meets minimum tolerable limits
(68) Deck Geometry	5 - Somewhat better than minimum adequacy
(69) Underclearances, Horizontal and Vertical	3 - Intolerable - high priority of corrective action
(71) Waterway Adequacy	8 - Bridge Above Approaches
(72) Approach Roadway Alignment	7 - Better than present minimum criteria

(36) Traffic Safety Feature

A. Bridge Railings:	1 - Meets acceptable standards
B. Transitions:	1 - Meets acceptable standards
C. Approach Guardrail	1 - Meets acceptable standards
D. Approach Guardrail Ends	1 - Meets acceptable standards
(113) Scour Critical	8 - Stable for scour conditions

CUY-00010-1613 _(1801503)

ODOT District: 12
Major Maint: 01 - State Highway Agency
Routine Maint: 04 - City or Municipal Highway Agency
FIPS Code: 16000 - CLEVELAND (CUY county)
Facility Carried: SR 10
Feature Inters: CUY RIVER VALLEY & FI RR
Location: CUY
Traffic On: 5 - Highway-pedestrian
Traffic Under: 7 - Railroad - waterway
LORAIN/CARNEGIE BRIDGE
Date Built: 07/01/1932
Rehab Date: 01/01/1983
Insp. Resp A: 01 - State Highway Agency
Insp Resp B:

Inspector Rufener,Justin Inspection Date 09/29/2020 Reviewer Johnson,Matthew

Classification

(112) NBIS Bridge	Yes
(104) Highway System of the Inventory Route	0 - Structure/Route is NOT on NHS
(26) Functional Classification of Inventory Route	16 - Urban - Minor Arterial
(100) Strahnet Highway Designation	Not a STRAHNET route
(101) Parallel Structure Designation	N - No parallel structure
(102) Direction of Traffic	2-way traffic
(103) Temporary Structure Design	
(105) Federal Lands Highways	Not Applicable
(110) Designated National Network	Inventory route not on network
(20) Toll	3 - On Free Road
(225) Routine Maintenance Responsibility	A. 04 - City or Municipal Highway Agency B.
(21) Maintenance Responsibility	01 - State Highway Agency
(21B) Major Maint. Responsibility B	
(221) Inspection Program Responsibility	A. 01 - State Highway Agency B.
(22) Owner	01 - State Highway Agency
(37) Historical Significance	1 - On National Register

Navigation Data

(38) Navigation Control	1 - Navigation control on waterway (bridge permit required)
(39) Nav Vert Clearance	95.0 Ft.
(40) Nav Horizontal Clearance	185.0 Ft.
(111) Pier or Abutment Protection	1 - Navigation protection not required
(116) Minimum Navigation Vertical Clearance, Vertical Lift Bridge	0.0 Ft.

Geometric Data

(48) Longest Span	299.0	Ft.
(49) Structure Length	3657.3	Ft.
(50A) Curb/Sidewalk Left Side - Width	6.7	Ft.
(50B) Curb/Sidewalk Right Side - Width	6.7	Ft.
(51) Brdg Roadway Width Curb-to-Curb	60.0	Ft.
(52) Deck Width, Out-to-Out	83.0	Ft.
(32) Approach Roadway Width	60.0	Ft.
(33) Bridge Median	0 - No median	
(34) Skew	0	Deg.
(35) Structure Flared	1 - Yes, flared	

Clearances

(10) Practical Maximum Vertical Clearance	99	Ft.
(53) Minimum Vertical Clearance Over Bridge Roadway	99	Ft.
(47) Total Horizontal Clearance (Inventory Route)	60	Ft.
(54) Minimum Vertical Under Clearance	B. 0	Ft.
A. R - Railroad beneath structure		
(56) Minimum Lateral Under Clearance on Left	99	Ft.
(55) Minimum Lateral Under Clearance on Right	B. 99	Ft.
A. R - Railroad beneath structure		

Inventory Route Clearances

NBI 005A: On/Under 1: Route carried "on" the structure

NBI 005D: Route No. 00010

	Cardinal Direction		Non-Cardinal Direction	
(336) Minimum Vertical Clearance on IR	99	Ft.	0	Ft.
(335) Minimum Horizontal Clearance on IR	60	Ft.	0	Ft.

Inspector: Justin Rufener **Structure Number:** 1801503

Inpsection Date: 09/29/2020 **Facility Carried:** SR 10

Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	3 - Mod.	263774	sq. ft.	240674	12000	11000	100
510 - Wearing Surfaces		178959	sq. ft.	169959	9000	0	0
107 - Steel Open Girder/Beam	3 - Mod.	1207	ft.	1195	12	0	0
515 - Steel Protective Coating		11120	sq. ft.	10564	556	0	0
113 - Steel Stringer	3 - Mod.	36709	ft.	32638	3671	400	0
515 - Steel Protective Coating		187210	sq. ft.	183010	4000	200	0
120 - Steel Truss	3 - Mod.	11830	ft.	9464	1183	1183	0
515 - Steel Protective Coating		650910	sq. ft.	572910	65000	13000	0
152 - Steel Floor Beam	3 - Mod.	11218	ft.	10318	900	0	0
515 - Steel Protective Coating		77410	sq. ft.	75010	1600	800	0
161 - Steel Pin and Pin & Hanger Assembly or both	3 - Mod.	192	each	7	185	0	0
162 - Steel Gusset Plate	3 - Mod.	1058	each	324	347	387	0
202 - Steel Column	3 - Mod.	16	each	16	0	0	0
515 - Steel Protective Coating		1100	sq. ft.	1100	0	0	0
205 - Reinforced Concrete Column	3 - Mod.	54	each	12	36	6	0
210 - Reinforced Concrete Pier Wall	3 - Mod.	166	ft.	102	62	2	0
215 - Reinforced Concrete Abutment	3 - Mod.	171	ft.	126	45	0	0
234 - Reinforced Concrete Pier Cap	3 - Mod.	1079	ft.	439	540	100	0
300 - Strip Seal Expansion Joint	3 - Mod.	503	ft.	93	400	10	0
302 - Compression Joint Seal	3 - Mod.	498	ft.	398	100	0	0
303 - Assembly Joint with Seal	3 - Mod.	498	ft.	98	400	0	0
311 - Movable Bearing	3 - Mod.	62	each	0	62	0	0
313 - Fixed Bearing	3 - Mod.	102	each	0	102	0	0
321 - Reinforced Concrete Approach Slab	3 - Mod.	2075	sq. ft.	1971	104	0	0
331 - Reinforced Concrete Bridge Railing	3 - Mod.	10527	ft.	4527	5000	1000	0
815 - Drainage	3 - Mod.	32	each	25	7	0	0
830 - Abutment Backwall	3 - Mod.	171	ft.	130	40	1	0

ODOT District: 12

CUY-00010-1613 _(1801503)

Date Built: 07/01/1932
Rehab Date: 01/01/1983

Major Maint: 01 - State Highway Agency
Facility Carried: SR 10
Traffic On: 5 - Highway-pedestrian

Routine Maint: 04 - City or Municipal Highway Agency
Feature Inters: CUY RIVER VALLEY & FI RR
Traffic Under: 7 - Railroad - waterway

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)
Location: CUY LORAIN/CARNEGIE BRIDGE

Insp Resp B:

Inspector Rufener,Justin
Inspection Date 09/29/2020
Reviewer Johnson,Matthew

Inspector Comments - Deck and Approach

Deck

Element 12 – Reinforced Concrete Deck (SF)

The deck is overall in **Satisfactory** condition. The underside of the deck has areas of spalling with exposed rebar, delaminations, cracking with efflorescence, and failing patches noted throughout. Heavier concrete deterioration is noted near the joints and scuppers. Many of the previous spalls have been coated with a spray-on cathodic protection, but some of these exhibit areas of activating corrosion. Netting and/or wood falsework are in place over the roadways and parking lots to prevent loose concrete from falling into traffic. The edge of the deck has a few isolated spalls throughout with minor cracking adjacent to expansion joints and floorbeam extensions. Sections of the deck in east approach spans between Columns 1 and 6 have been replaced. The deck between Column 6A and the east end of the east approach unit exhibits areas of cracking, saturation, delamination and spalling with exposed and broken reinforcing. The deck in the west approach unit has areas of spalling with exposed rebar, delaminations and cracking with efflorescence. See the inspection report for additional details.

The lower (maintenance) deck is not open to the public and does not present a public safety concern, and therefore it is not included in the element level quantities or considered with the rating of Item N58 Deck or Item N58.01 Wearing Surface. There are areas of cracking, delamination and spalling on the underside of the deck. Many of the deficiencies noted on the 2019 report have been addressed by the ongoing rehabilitation.

See the inspection report for additional details.

Element 300 – Strip Seal Expansion Joint (LF)

Strip seal expansion joints are present at Joints 1 and 2, and 15 through 18. The strip seal expansion joints are in **Satisfactory** condition. There is evidence of leakage through the joint seals. There is debris accumulation through most of the length of the joints. In Joint 18 there are areas of where the seal is tearing or has come out of the retainer.See the inspection report for additional details.

Element 302 – Compression Joint Seal (LF)

Compression seal expansion joints are present at Joints 3, 5, 7, 9, 11 and 13. The compression joints are in **Satisfactory** condition. There is evidence of leakage through the joint membranes. There is some minor debris accumulation in the joints and some gouges in the joint armor. See the inspection report for additional details.

Element 303 – Assembly Joint with Seal (LF)

Modular joints with seals are present at Joints 4, 6, 8, 10, 12 and 14. The modular joints are in **Satisfactory** condition. There is evidence of leakage through the joint membranes. There is debris accumulation through most of the length of the joints. See the inspection report for additional details.

Element 331 – Reinforced Concrete Bridge Railing (LF)

The concrete railings are in **Fair** condition.
The exterior railings have widespread cracking with rust staining and some areas of delamination and spalls with exposed reinforcing. The bikeway railing is in good condition with a few minor deteriorated areas. See the inspection report for additional details.

Element 815 – Drainage (EA)

The deck drainage is in **Good** condition. There is minor debris in the deck scuppers and recesses, and some isolated surface corrosion below the deck in the drainage downspouts. The scuppers and recesses under the multi-use path will be cleaned as part of the ongoing rehabilitation. At Pier 4, the south catch basin is clogged with debris.See the inspection report for additional details.

Curb/Sidewalk

The concrete curb and sidewalk are in **Fair** condition.
The sidewalks have been previously repaired at the expansion joints. Both sidewalks have isolated areas of delamination and light cracking with efflorescence. The South sidewalk shows more deterioration with some areas of spalling and vegetation growing in many of the cracked areas adjacent to the curb. See the inspection report for additional details.

Element 510 – Wearing Surface (SF)

The microsilica concrete wearing surface is in **Good** condition.
There are isolated longitudinal and map cracks up to 1/16” wide throughout the deck (less than 5% of total area). See the inspection report for additional details.

Signs

The signs on the structure are in **Good** condition.

Approach

Item 321 – Approach Slab (SF)

An approach slab is located on the west approach, and has been paved over. The approach slab is in **Good** condition with no signs of settlement or shifting. There pavement on the approach slab exhibits widespread cracking and poor quality patches. Due to this pavement distress, 5% of the area has been assigned to Condition State 2. See the inspection report for additional details.

Approach Wearing Surface

The approach wearing surfaces are in **Fair** condition.
The east approach pavement is in good condition and the west approach pavement is in satisfactory condition with about 25% potholes, patches, or cracks. Approach sidewalks typically have minor delamination and cracking, similar to the deck sidewalk. See the inspection report for additional details.

Embankment

The approach embankments are in **Good** condition.
There are some locations of minor erosion present on the approaches and around the piers. See the inspection report for additional details.

Guardrail

The approach guardrails are in **Fair** condition. The approach guardrail is an extension of the concrete rail on the bridge. It exhibits cracking, minor surface spalling, and rust staining. See the inspection report for additional details.

Inspector Comments - General Appraisal

Superstructure

Element 107 – Steel Open Girder/Beam (LF)

The beams that are part of the west approach superstructure are in overall **Good** condition. There is some minor surface corrosion at the abutments. See the inspection report for additional details.

Element 113 – Steel Stringer (LF)

The stringers are in **Satisfactory** condition.
There are isolated areas of active corrosion at the floorbeam connections and fascia stringers, with some minor web loss. There are areas of isolated corrosion holes which were previously cleaned and painted, and in some locations, repaired. See the inspection report for additional details.

The lower (maintenance) deck is not open to the public and does not present a public safety concern, and therefore it is not included in the element level quantity of Steel Stringers or considered with the rating of Item N59 Superstructure. There are areas of section loss and active corrosion of the stringers, especially near the joints.

Element 120 - Steel Truss (LF)

The truss is in **Poor** condition. The rating is primarily controlled by section loss in the lower chord of the exterior trusses and section loss of members at the deck joints. Areas of corrosion, pitting and pack rust were cleaned, sealed and painted during the 2002 Rehabilitation. At numerous locations, corrosion and pack rust are reactivating. There are numerous locations on the trusses that have on-going repairs as part of the current rehabilitation project.

The lower chords have varying degrees of section loss and pack rust located between the flange angles and the web plates. This pack rust measures up to 1¾" thick, causing significant distortion of the web plates and flange angles. Portions of the flange angles and webs of the lower chords have pockets of deep pitting or corrosion holes. The greatest section loss is typically in located in Spans 11 and 13. In these spans twelve (12) lower chord members had section loss between 5% and 22% measured previously reported by the 2014 Inspection Report. Some of these locations are being repaired with bolted plates as part of the on-going rehab. The lower chords, mainly in Spans 12 and 13, have cracks in the flange angles. The cracks typically run longitudinally along the fillet between the legs of the flange angle. Crack arrest holes have been drilled at some of the crack locations.

The verticals are generally in good condition. The verticals below some of the deck joint locations exhibit moderate painted over pitting

and reactivating corrosion throughout the full height.

The diagonals are generally in satisfactory condition. Areas of section loss or active pack rust are present, mainly near the lower gusset plates and near the deck joints. Exterior diagonals, adjacent to abandoned utility supports, have remnants of brackets welded to the web plates. Several diagonals have lower stay plates with deep section loss or corrosion holes.

The upper chords are in overall good condition. At deck joints and junction box drains, leakage is causing active corrosion to upper chord members. Below the expansion joints there is dirt and construction debris present inside some upper chord connections with to verticals. At several locations, abandoned drainage or utility brackets are welded to the webs. At U0-U1, Span 9, South Exterior Truss, the welds to one of these brackets is cracked.

The lateral and sway bracing members are in fair condition with section loss and some corrosion holes near the connections. Many of the lateral bracing gusset plates have section loss, pack rust, and corrosion holes. Pack rust at the lateral bracing members is causing distortion of the gusset plates. Minor pack rust and corrosion was noted at the connections of the sway bracing to the verticals below the deck joints.

See the inspection report for additional details.

Element 152 – Steel Floor Beam (LF)

The floorbeams are in overall **Satisfactory** condition.
There is minor section loss and surface corrosion along the floorbeams, mainly below deck joint locations. See the inspection report for additional details.

The lower (maintenance) deck is not open to the public and does not present a public safety concern, and therefore it is not included in the element level quantity of the Steel Floor Beams or considered with the rating of Item N59 Superstructure. There are areas of section loss and active corrosion of the floorbeams, especially near the joints. At many locations, the floorbeam webs have arrested cracks at the truss connections.

Item 161 – Steel Pin and Pin & Hanger Assembly (EA)

The pins, hangers, and hinges are in **Fair** condition.
Minor to moderate section loss and pack rust were noted on the pins and the adjacent plates. At some locations, minor misalignments of the pins were noted. More severe defects of pins and adjacent plates noted in previous inspection have been or were being repaired at the time of inspection. At many locations the pins and adjacent members were cleaned, sealed and painted. See the inspection report for additional details.

Item 162 – Steel Gusset Plate (EA)

The truss gusset plates are in **Poor** condition.
Areas of corrosion, pitting and pack rust were cleaned, sealed and painted during the 2002 Rehabilitation. At numerous locations, corrosion and pack rust are reactivating. Areas of heavy corrosion occur below the deck expansion joints. Advanced section loss commonly occurs just above the lower chord, along the edges and at ends of the diagonal connections. Rivet head loss is also common at these locations. At pin locations, the gusset plates typically have section loss and pitting around the pins. Minor bows were noted along the free edges of the gusset plates due to pack rust. The upper chord gusset plates are in good condition with little corrosion and pitting observed, except at locations of deck joint leakage where some section loss and pack rust are present. The free edges of many of the gusset plates have been stiffened in the on-going rehabilitation. Gusset plate repairs and plate replacement are also

underway at several locations to fix previously noted deficiencies.See the inspection report for additional details.

Item 311 Moveable Bearing (EA)

The moveable bearings are in **Satisfactory** condition.
Moderate surface corrosion with areas of section loss was noted on the pins and adjacent plates. There is debris and water accumulation in several of the truss bearings. At the west abutment, the bearings all have light surface corrosion. The stringer saddle bearings exhibit minor corrosion and some pack rust. See the inspection report for additional details.

The lower (maintenance) deck is not open to the public and does not present a public safety concern, and therefore it is not included in the element level quantity of the Moveable Bearings. There is active corrosion and excess tilting of the rocker bearings. Many of these are being refurbished as part of the on-going rehabilitation.

Item 313 Fixed Bearing (EA)

The fixed bearings are in **Satisfactory** condition.
Moderate surface corrosion with areas of section loss was noted on the pins and adjacent plates. There is debris and water accumulation in several of the truss bearings. See the inspection report for additional details.

The lower (maintenance) deck is not open to the public and does not present a public safety concern, and therefore it is not included in the element level quantity of the Fixed Bearings. There is active corrosion and some locations where the bearings are not in contact with the bearing plate. Many of these are being refurbished as part of the on-going rehabilitation.

Item 515 – Steel Protective Coating (SF)

The protective coating system (PCS) is in **Fair** condition.
The most severe areas of PCS degradation noted in the 2019 inspection have been or were being addressed as part of the ongoing rehabilitation. There are areas of peeling and bubbling paint and surface corrosion, especially at expansion joints where water infiltration and active corrosion is occurring. At some locations, corrosion is reinitiating where pack rust was previously cleaned and sealed. There is widespread fading and loss of pigment, particularly on the portions of the truss where sun exposure is the highest. At scattered locations the top coat of paint is peeling, revealing the epoxy intermediate coat. See the inspection report for additional details.

Fatigue Prone Details

The Fatigue Prone Details are in **Satisfactory** condition. Fatigue prone details are present on the abandoned drainage and utility brackets, which are welded to the upper chords and diagonals. At U0-U1, Span 9, South Exterior Truss, the welds to one of these brackets is cracked, but the crack does not propagate into the base metal

Utilities

The utilities are in **Poor** condition. The PVC telecom conduits are damaged, and cables are exposed in many locations. The telecom structural supports, sheds, and corrugated roofs/walls have widespread heavy deterioration. At the utility access hatches in the deck, there is widespread corrosion of the supports and evidence of leakage. Several of the street lights are non-operational, but no damage was detected.

Substructure

Item 202 – Steel Column (EA)

The steel pier columns in the West Approach Spans are in **Good** condition. See the inspection report for additional details.

Item 205 – Reinforced Concrete Column (EA)

The reinforced concrete pier columns are in **Satisfactory** condition. Pier columns have areas of cracking, staining, delamination, or spalling concentrated around previously patched areas.

Item 215 – Reinforced Concrete Abutment (LF)

The abutment walls are in **Satisfactory** condition. There are cracks, areas of patching, rust staining, and some delaminations. See the inspection report for additional details.

Item 234 – Reinforced Concrete Pier Caps (LF)

The pier caps are in **Satisfactory** condition. There are areas of cracking, delamination, and patching on the caps. The inspection manholes in the pier caps are in poor condition. There is insufficient surface bearing area to support the lid and care should be taken when walking near them or opening them. See the inspection report for additional details.

The non-structural pier towers located above the pier caps of Piers 1-12 are not considered in the rating but are in poor condition. Many portions of the pier towers have been removed, but those that remain show active degradation with debris accumulating on the pier cap below.

Item 830 – Abutment Backwalls (LF)

The backwalls are in **Satisfactory** condition. Cracking and delamination were noted in some of the backwall. See the inspection report for additional details.

Wingwalls

The wingwalls are in **Satisfactory** condition with scattered areas of cracking, delamination, and minor spalling. See the inspection report for additional details.

Decorative Pylons

The decorative sandstone pylons are in **Satisfactory** condition.
The sandstone units exhibit some areas of spalling and deterioration. See the inspection report for additional details.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Hydraulic Opening

The hydraulic opening is in **Very Good** condition.
There is no indication of the bridge restricting high flow in the river.

Channel

Alignment

The alignment is in **Satisfactory** condition. The
channel is skewed with respect to the piers, but this is an as-built condition.

Protection

The channel protection is in **Satisfactory** condition.
There are some minor deficiencies to the protection on both banks.

Fenders

The old failing timber fenders were removed and new fenders were under construction at the time of inspection.

Navigation Lights

The navigation lights are in **Poor** condition. On the north side of the bridge, the middle and west navigation lights are not functioning. Damage at these locations was not noted.

Scour

The scour is in Satisfactory condition. An underwater inspection was performed on July 8, 2020. The underwater inspection found the following deficiencies contributing to the scour rating:

Pier 10 (West Pier), Column D: Scour has exposed a maximum height of 3.0 feet of the vertical face of the footing at the southeast corner. This represents a decrease from the 3.7 feet noted in the 2015 underwater inspection. The horizontal footing exposure extends 18 feet on the east face and 11 feet on the south face from the southeast corner.

See the inspection report for additional details.

Scour Critical