

City of Urbana 2020 Bridge Inspection Report



SN 010-6136 West Opening, November 12, 2020

March 2, 2021

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

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TO: Tim Cowan, PE
Director of Public Works, City of Urbana

FROM: Mary Coombe Bloxdorf, PE, SE
Senior Project Manager, Fehr Graham
NBIS Program Manager for City of Urbana

DATE: February 26, 2021

RE: 2020 Biennial Bridge Inspection Executive Summary and Report

This report is to summarize the 2020 biennial bridge inspections for the City of Urbana. In 2019 the City of Urbana hired Fehr-Graham to manage the inspections of the City owned bridge structures. Mary Coombe Bloxdorf, PE, SE of Fehr-Graham, a certified National Bridge Inspection (NBIS) Program Manager with the Illinois Department of Transportation (IDOT) was designated as the Consultant Program Manager for the City of Urbana. The Urbana Bridge Inspections were performed by Mary in November of 2020 with assistance from Cameron Johns of Fehr Graham. Based on the NBIS guidelines 11 structures over 20' in length were due for routine inspection, 2 of which also required Element Level Inspection. In addition 14 structures under 20' in length were inspected.

Structures added from the 2018 Inspection Report

No additional structures were added.

Structures removed from the 2018 Inspection Report

SN 010-4541, although over 20' in length is not due for inspection again until 2022 so was not inspected.

In addition to the NBIS Inspections performed, Fehr Graham also surveyed bridge openings on the 11 structures over 20' in length that are located over water. The structure cross sections are required to be obtained at intervals of no more than 5 years and are used to monitor scour at the structures. The structure openings will be submitted to the IDOT Bridge Office as required. This is the first time the cross sections have been obtained for these structures.

Conclusions:

Attached as Exhibit A are the individual structural inspection reports for each structure for your reference. The inspection reports show past and present ratings for each element of the structure and reasoning for any rating change. The following Bridge Report Section summarizes the ratings of each report and includes additional comments for each structure inspected.

Bridge Reports

The following Condition Rating System applies to all structural elements evaluated by this report and is based on the Illinois Highway Information System Structure Information and Procedure Manual (ISIS) coding instructions.

NBIS CONDITION RATING SYSTEM (TYP)		
	<u>Rating</u>	<u>Description</u>
<u>Good</u>	9	Excellent Condition (New)
	8	Very Good Condition
	7	Good Condition
<u>Satisfactory/Fair</u>	6	Satisfactory Condition
	5	Fair Condition
<u>Poor</u>	4*	Poor Condition
	3*	Serious Condition
	2*	Critical Condition
	1*	Failed Condition

* Ratings at these levels indicate that structural analysis should be requested for a final determination of whether application or relaxation of loading restrictions is warranted.

NBIS Qualifying Structures

The National Bridge Inspection Standards (NBIS) requires bridge inventory and inspection data to be maintained for all structures over 20 feet face to face of abutments on roads maintained by public agencies that are open to the public. The data is collected to insure public safety and to provide information that helps to determine federal funding for replacement and rehabilitation of bridges.

The following 11 city owned structures are currently NBIS qualifying and were due for Inspection in November of 2020. The reports were reported to IDOT electronically through the Illinois Highway Inventory System.

010-4272 Perkins Road over Un-Named Tributary

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	5	5	Same as 59 (match superstructure)
Superstructure Cond.	5	5	Heavy longitudinal joint leakage
Substructure Cond.	7	6	West embankment slope eroded full length 2 to 3' in front of cap & drops 5' vertical
Culvert Cond.	N/A	N/A	
Channel Cond.	5	5	Erosion west bank
Waterway Adequacy	6	6	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: Reshape west bank under structure from 5' each side of the structure & cover with riprap. Anchor the riprap into the existing bank at each end and at the channel. Channel cross sections are included at the end of the report for reference.

Comments / Repair History: Deck of bridge was chip sealed in 2010.

Illinois-American Water replaced water pipe that is exposed in upstream channel in 2015. Removed abandoned communication cable along north end of bridge in 2015.

010-4556 Olympian Drive

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	8	8	
Superstructure Cond.	8	8	
Substructure Cond.	8	8	
Culvert Cond.	N/A	N/A	
Channel Cond.	N/A	N/A	
Waterway Adequacy	N/A	N/A	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: Remove vegetation from the west slope wall.

Comments / Repair History: Built in 2016, this bridge is a 3-span (1 @ 126'6" and 2 @ 72'6") poured 8" concrete deck supported on 48" WEB Plate Girder (Comp. Full Length) with no deck over overlay. The bridge has an 18° skew to the left. It has bituminous coated aggregate slope walls. It has precast bridge approach slabs and HLMR guided expansion bearings, and preformed joint strip seal. The concrete parapet wall is 2'10" tall with a 6' tall chain link with black PVC coating attached to wall. The width of the bridge is 44' face to face of parapet wall.

Hairline (HL) vertical crack noted in the diaphragm 2nd bay from the north at the East Abutment.

HL longitudinal crack noted bottom of the deck at the center of the 2nd bay from the north starting at the east abutment and moving to 1/3 of the span.

HL long. crack noted bottom of deck near the 2nd beam from the north near east abutment.

HL vertical cracks noted in west face of east pier crash wall at interior columns & 1 on the east side at the 2nd column from the north.

010-5900 Crystal Lake Park (Owned by Park District – Inspected by City)

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	6	6	same as 59 (to match superstructure)
Superstructure Cond.	6	6	Light Joint Leakage
Substructure Cond.	6	6	Map cracking walls & at corners
Culvert Cond.	N/A	N/A	
Channel Cond.	7	7	
Waterway Adequacy	8	8	
Approach Road Alignment	6	6	

Completed Maintenance / Repair Items since last inspection: none noticeable

Recommended Maintenance/Repair Items: None

Comments/Repair History: Rip rap placed at the SE corner of the Bridge in 2001 seems to be holding well. The Park District has added a new swing gate at the SE corner of the bridge, to allow road closure to camp area of the park. Concrete slope wall protection upstream of the structure is beginning to slump, should this bank protection fail, there is a strong possibility of stream erosion behind the abutment wall. Recommend continued monitoring with future inspections.

010-6109 Coler Avenue over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	4	6	slight map cracking spalling at outside drains (item was previously miscoded)
Superstructure Cond.*	4	3	spalls & delaminations along many beam legs & end 4' of several beams
Substructure Cond.	7	7	
Culvert Cond.	N/A	N/A	
Channel Cond.	8	8	
Waterway Adequacy	7	7	
Approach Road Alignment	8	8	

*Due to the coding of 4 at the last inspection IDOT staff inspected and analyzed the structure at the end of 2018. No reduction of loading was deemed necessary. The structure Inventory Rating and Operating Rating were calculated to be 0.88 and 1.48 respectively. No load reduction was required due to the Operating Rating greater than 1. The current inspection coding of 3 more accurately coincides with the IDOT inspection notes.

Completed Maintenance / Repair Items since last inspection: none noticeable

Recommended Maintenance/Repair Items: Clean deck drains, apply herbicide on the chain link fence areas within ROW to avoid visibility issues

Comments / Repair History: Pedestrian sidewalk structures are separate from the main bridge and are in good condition with no noteworthy defects. Epoxy curb patching performed in 1999 has held up very well. Guardrails were removed, sandblasted and repainted in 1999 – east rail is showing 75% rust staining, west rail is 10% rust stained, paint has not chipped or peeled but paint system doesn't seem very effective. Previous superstructure shotcrete repairs performed in 1996 appear in generally good condition. Concrete knee walls at base of sheet piling constructed in 1997 have held up very well.

Approach sidewalks at NE, SE & SW corners were slab jacked to correct settlement problems in summer 2005.

Removed loose concrete from bottom of deck and superstructure in 2008. Patched these areas with polymer modified concrete. Sodemann and Associates (now Fehr Graham) analyzed chloride damage and spalls discovered during concrete removal activities. It was determined that the chloride damage and spalls did not affect the load carrying capacity of the structure.

Sodemann and Associates (now Fehr Graham) performed corrosion testing of the steel sheet piling in 2007 and determined that the sheet piling had adequate section thickness. Applied reflectors to guard rail to aid motorist visibility of railings in 2009.

Replaced curb flumes on the NW, SW, and NE corners of the bridge with new storm sewer inlets and storm sewer.

010-6110 Springfield Avenue over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	6	6	Multiple vertical cracks in walls with leaching
Channel Cond.	8	8	
Waterway Adequacy	6	6	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None

Recommended Maintenance/Repair Items: None

Comments / Repair History:

Repainted fence posts and replaced chain link fence at North side of this structure in fall of 2006.

Removed loose concrete from bottom deck and sides of culvert in 2008. Patched these areas with polymer modified concrete.

010-6114 Griggs Street over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	6	6	
Channel Cond.	8	8	
Waterway Adequacy	8	8	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None

Recommended Maintenance/Repair Items: None

Comments / Repair History:

Curb & gutter at SE corner of structure was replaced in 2006 removing water ponding concern at this approach corner. All four deck drains were retrofitted with steel drain extensions and sealed to the deck in 2004 to help reduce water/ chloride damage on the top slab of the culvert

Asphalt overlay on culvert was resurfaced in 2014. Parapets, sidewalks, drains, and curbs were removed and replaced in 2014. A scenic overlook was added to the north end of the bridge

010-6118 Broadway Avenue over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	6	5	Heavy map cracking & leaching bottom of slab at center w/longitudinal leaching crack full length
Channel Cond.	7	7	
Waterway Adequacy	7	7	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: Epoxy re-surfaced sidewalks and curbs in 2002, look great. Culvert was bituminous overlaid in 2002, looks good.

Illinois American Water repaired water main leak near the NW corner of the structure in 2005 eliminating water inflow around watermain utility, crossing through abutment wall.

Removed loose concrete from bottom deck and sides of culvert in 2008. Patched these areas with polymer modified concrete

Repaired approach pavement at NE corner of structure had settled 2" +/- . Broken storm sewer was reason for the settled pavement. Storm sewer was repaired in 2007.

Asphalt overlay on deck was resurfaced in 2013. Parapets, sidewalks, drains, and curbs were removed and replaced in 2013.

010-6128 Broadway Avenue over the Saline Branch

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	5	5	Same as 59 (superstructure)
Superstructure Cond.	5	5	spall at S. end 4 th bm from west with exposed strands
Substructure Cond.	5	4	Spalls & delaminated concrete bottom & sides most pier bays, > 10% loss in some locations
Culvert Cond.	N/A	N/A	
Channel Cond.	7	7	
Waterway Adequacy	8	8	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: none noticeable

Recommended Maintenance/Repair Items: Consideration of concrete repairs at the piers is recommended to protect reinforcement from deterioration.

Comments / Repair History: Rip rap monitoring on the north bank is showing some loss of rip-rap.

Bridge was overlaid with a new bituminous wearing surface over a new waterproofing membrane in fall 2005. Approach sidewalks at the NE & SE corners of the structure were repaired or replaced in 2004 by Public Works Operations Division; this seems to have been successful in reducing the water runoff to the NE abutment.

Boiler slag seal coat applied in 2016.

010-6129 Somer Road over the Saline Branch

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	6	6	
Superstructure Cond.	6	6	
Substructure Cond.	7	5	spall across bottom of east pier cap at center of 2 nd bay from the south exposing 1 stirrup. Spall on east face of the west pier cap under the north beam
Culvert Cond.	N/A	N/A	
Channel Cond.	7	6	the west slope is sloughed to 1:1 slope midway to the west pier-with concrete slurry covering riprap
Waterway Adequacy	8	8	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: none noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: A construction pop out affecting one box beam component of the superstructure was repaired by Public Works Operations in 2002 with epoxy caulk. This area still looks good and seems to have been an effective repair for the situation. An 8 degree skew of the west piers to the channel results in debris trap and accumulation on the west concrete slope wall, recommend continued monitoring for possible future maintenance needs.

Bank erosion noted in 2004 near the NE corner of the structure seems to have been repaired by others and new storm water detention basin has eliminated source of erosion damage.

010-6130 North Lincoln Avenue over the Saline Branch

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	8	8	
Superstructure Cond.	8	8	
Substructure Cond.	8	8	
Culvert Cond.	N/A	N/A	
Channel Cond.	8	8	
Waterway Adequacy	8	8	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: Shotcrete slope wall protection on the N & S banks does not seem to be toed in below the normal channel flow – recommend continued monitoring for possible undercutting.

Structure was constructed in 2003/2004.

010-6136 Race Street Bridge over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	8	8	
Superstructure Cond.	8	8	
Substructure Cond.	8	8	
Culvert Cond.	N/A	N/A	
Channel Cond.	9	9	
Waterway Adequacy	9	9	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: Repair detached corner of Stone Fascia at bottom northwest corner.

Comments / Repair History:

New bridge constructed in 2013.

Slab jacked approach pavement in 2015 to eliminate settlement bump.

Replaced approach pavements in 2018 to eliminate settlement bumps.

Non-NBIS Structures

Non-NBIS structures are considered local structures and do not meet the NBIS (National Bridge Inspection Standards) requirement for 20 feet face to face of abutments however they are generally still on roads or public spaces maintained by public agencies. The structures were inspected to the same standard as qualifying (NBIS) structures and results maintained in a bridge file but these structures are not reported to IDOT unless there is a concern.

The following 14 structures that are currently Non-NBIS qualifying were inspected in November 2020.

010-6104 Mathews Avenue over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	5	5	2' width of main reinforcement exposed at center of west end. Up to 20% section loss to 1 main rebar
Channel Cond.	8	8	
Waterway Adequacy	8	8	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: This structure was surface “dressed up” and added onto in 2001 by the University of Illinois Boneyard Improvements Project, the new areas look great; however the old culvert below the surface is in fair condition. The structure has been previously patched with a mortar type product and patches seem to be holding however continued deterioration is evidenced by areas of spalling concrete with some exposed reinforcing.

010-6105 Goodwin Avenue over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	6	6	
Superstructure Cond.	6	6	
Substructure Cond.	7	7	
Culvert Cond.	N/A	N/A	
Channel Cond.	8	8	
Waterway Adequacy	8	8	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: Tunnel was added onto the west side of this structure by the University of Illinois in 2003. Bituminous overlay was installed in 2009.

Repaired deteriorated sidewalk and curb in 2016.

010-6106 Gregory Street over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	8	8	
Channel Cond.	8	8	
Waterway Adequacy	8	8	
Approach Road Alignment	7	7	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: Structure was replaced and the channel reconstructed and deepened by the University of Illinois in 2001.

010-6107 Lincoln Avenue over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	5	5	
Superstructure Cond.	5	4	2' long spall with exposed longitudinal bar on the so south leg of the 2 nd beam from the north. The spall starts 2' from the end of the beam.
Substructure Cond.	7	7	
Culvert Cond.	N/A	N/A	
Channel Cond.	8	8	
Waterway Adequacy	6	6	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: Bituminous overlay and waterproofing membrane was installed in 2006, however the contractor ran short on waterproofing membrane material leaving the west curb line unprotected.

Removed loose concrete from bottom of deck and superstructure in 2008. Patched these areas with polymer modified concrete. Sodemann and Associates (now Fehr Graham) analyzed exposed stirrup reinforcement discovered during concrete removal activities. It was determined that the exposed stirrups did not affect the load carrying capacity of the structure. Exposed stirrups were patched with polymer modified concrete.

Sodemann and Associates (now Fehr Graham) performed corrosion testing of the steel sheet piling in 2007 and determined that the sheet piling had adequate section thickness.

Repaired deteriorated sidewalk and curb in 2016.

010-6108 Busey Avenue over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	5	5	
Superstructure Cond.	5	5	Several beam patches are starting to sound hollow
Substructure Cond.	7	7	
Culvert Cond.	N/A	N/A	
Channel Cond.	8	8	
Waterway Adequacy	7	7	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: none noticeable

Recommended Maintenance/Repair Items: Sweep deck and clean deck drains.

Comments / Repair History: Bituminous overlay and waterproofing membrane installed fall 2005. PVC deck drain extensions were installed by operations in fall of 2004 to help protect superstructure from chloride damage.

Removed loose concrete from bottom of deck and superstructure in 2008. Patched these areas with polymer modified concrete. Sodemann and Associates (now Fehr Graham) analyzed flexure cracks discovered during concrete removal activities. It was determined that the flexure cracks did not affect the load carrying capacity of the structure.

Sodemann and Associates (now Fehr Graham) performed corrosion testing of the steel sheet piling in 2007 and determined that the sheet piling had adequate section thickness.

Repaired sinkhole at NE corner of bridge.

Applied reflectors to guard rail to aid motorist visibility of railings in 2009.

010-6111 Thornburn Tunnel (Phillips Recreation Center) over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	5	5	Minor spalling bottom of some beams spalls exposing longitudinal reinforcement several beams including in the end 4' (additional comments below)
Superstructure Cond.	5	3	
Substructure Cond.	7	7	
Culvert Cond.	6	6	
Channel Cond.	8	8	
Waterway Adequacy	7	7	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: The results of this report were reported to the bridge office due to the concerns of the noted superstructure conditions. The Bridge office will inspect and report their findings. Repairs and/or load posting may be required.

Comments / Repair History: The culvert portion of this tunnel is an older structure with past heavy patching performed by the 1996 Bridge Repair Project; these patches have held well but continued deterioration is evidenced at two additional locations.

Bituminous overlay and waterproofing membrane installed fall 2006. Chain link fence at south end of this tunnel was replaced and posts / crossbars repainted in fall 2006.

Removed loose concrete from bottom culvert deck and sides in 2008. Patched these areas with polymer modified concrete.

Sodemann and Associates (now Fehr Graham) performed corrosion testing of the steel sheet piling in 2007 and determined that the sheet piling had adequate section thickness.

Superstructure comments continued as follows:

8th bm from east – spalled on each leg within 4' from the end w/exposed longitudinal reinforcement

12th beam from east – spall in center west leg w/exposed longitudinal reinforcement

43rd bm from the east – spalled at north end 4' w/exposed longitudinal reinforcement

010-6112 McCullough Street over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	5	5	
Superstructure Cond.	5	5	
Substructure Cond.	6	6	
Culvert Cond.	N/A	N/A	
Channel Cond.	8	8	
Waterway Adequacy	7	7	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Recommended Repairs: There is a section of sidewalk at the SE corner of bridge that has settled 1 ¼” that should be fixed as it is a trip hazard.

Comments / Repair History: The culvert top slab was patched at several locations by the 1996 Bridge Repair Project, the patches look good. Steel sheet piling downstream of this structure was fitted with the concrete knee wall in 1998. The knee wall remains in good condition.

Sidewalks were replaced at northwest & southwest corners of Stoughton and McCullough Streets intersection for ADA compliance in 2005. Brick and mortar plugged abandoned storm outfall at the southeast corner of the structure in winter 2004.

Removed loose concrete from bottom of culvert deck and sides in 2008. Patched these areas with polymer modified concrete.

Removed and replaced concrete wearing surface, approach pavement, and curb and gutter in 2007.

In 2011 Midwest Engineering Services took two concrete core samples (one for each travel lane) from the culvert and street pavement. Concrete compressive strengths from core samples exceeded IDOT recommended 3,500 psi design guideline.

010-6113 Main Street Tunnel over the Boneyard Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	6	6	3' wide scattered delaminations throughout, isolated spall with exposed reinforcement
Channel Cond.	8	8	
Waterway Adequacy	7	7	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History: 1996 Bridge Repair Shotcrete efforts are sound and have held well.

Curb & gutter and sidewalks over this structure have been replaced over the last couple of years. New inlets have improved drainage around the structure.

In 2011 Midwest Engineering Services took two concrete core samples (one for each travel lane) from the culvert and street pavement. Concrete compressive strengths from core samples exceeded IDOT recommended 3,500 psi design guideline.

010-6127 South Race Street over the McCullough Creek

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	8	8	
Channel Cond.	7	7	
Waterway Adequacy	7	7	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: none noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History:

This structure was replaced in 2001 with double 5' tall x 7' span box culverts, monitoring since that time has proven stable site conditions and adequate performance of the culverts.

In 2018 received an oil and chip seal pavement preservation treatment.

010-6131 Airport Road Culvert over Un-Named Ditch

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	7	7	
Channel Cond.	7	7	
Waterway Adequacy	6	6	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History:

Added 10-ft corrugated metal extension to each side in 2014 as part of road reconstruction project.

010-6133 Landscape Recycling Center Entrance Road Culvert over the Butzow Ditch

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	7	7	
Channel Cond.	7	7	
Waterway Adequacy	8	8	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: Vegetation downstream may have been cleared, flowable fill placed on slopes

Recommended Maintenance/Repair Items: Continue herbicide application at each end in channel

Comments / Repair History:

Installed new oil and chip surface over the culvert in summer 2007.

010-6134 Washington Street Bridge over Un-named Ditch

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	5	3	same as 59 (deck beams)
Superstructure Cond.	5	3	See comments below
Substructure Cond.	4	4	Section loss of concrete up to 30% in west abutment wall in addition to slight undercutting
Culvert Cond.	N/A	N/A	
Channel Cond.	7	7	
Waterway Adequacy	6	6	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: The Inspection report for this structure was submitted to the IDOT Bridge Office for further inspection and load rating. The structure was previously inspected and load rated by the IDOT Bridge Office in 2010 and was rated high enough at that time to avoid posting of loads. The PPC deck beams have noticeably deteriorated since that time. The guardrail on the north side is loose due to the deterioration of the fascia beam. Once IDOT has finalized their inspection and rating repairs and/or posting may be required. At the least the fascia beam should be repaired to support the guardrail.

Comments / Repair History:

The structure consists of precast prestressed concrete (PPC) deck beams on the north 20' of the bridge width, and (8) 10-1/2"x6" steel "I" beams making up the other 10'. The steel beams are capped with a 5-1/2" thick concrete deck. The structure length is 18'-0" back to back of abutments. The superstructure sits directly on lead or neoprene bearing pads transferring load to the concrete abutments and footings. Curb drainage flumes adjoin the structure at the northwest and northeast corners of the structure. The structure crosses a natural bottomed drainage ditch tributary to the Saint Joseph Drainage District storm sewer inlet on the south side of Washington Street. Pedestrian access is provided by a separate wooden sidewalk structure on the north side of the road bridge.

Low flow channel under drain was constructed by city in 2005.

In 2018 received an oil and chip seal pavement preservation treatment.

2020 superstructure comments:

The north PPC fascia beam is spalled exposing 1 bottom strand and additional longitudinal cracks appear on the south 6"-8" bottom edge. 2 other beams have longitudinal cracks at center span.

The north most steel beam has no web below the poured concrete deck which encases half of the web. Timber blocking extends from the bottom of the deck to bottom flange providing some support to the deck.

010-6135 Stone Creek Blvd (Roadway over golf cart path)

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	N/A	N/A	
Superstructure Cond.	N/A	N/A	
Substructure Cond.	N/A	N/A	
Culvert Cond.	8	8	
Channel Cond.	N/A	N/A	
Waterway Adequacy	N/A	N/A	
Approach Road Alignment	8	8	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance/Repair Items: None

Comments / Repair History:

Constructed in 2000+/- by the Stone Creek development as an addition to the City of Urbana. This is a precast concrete arch culvert approximately 50' in length with a clear span of 12'-0". The structure has cast in place wing and headwalls. Painted steel pedestrian railings with barrier curb on the roadways. The roadway is divided by a grass strip median with a center bike path.

PED-12 High Cross Road Pedestrian Bridge

Element Description	2018 Inspection	2020 Inspection	Comments
Deck Cond.	8	8	
Superstructure Cond.	8	8	
Substructure Cond.	8	8	
Culvert Cond.	N/A	N/A	
Channel Cond.	9	9	
Waterway Adequacy	9	9	
Approach Road Alignment	N/A	N/A	

Completed Maintenance / Repair Items since last inspection: None noticeable

Recommended Maintenance Items: Continue semi-annual herbicide applications on riprap under bridge.

Recommended Repairs: None

Comments / Repair History:

Constructed in 2012.

Inspection Summary:

Of the 26 structures inspected this year the superstructure ratings were as follows:

9 structures received “Good” ratings. 11 structures received “Fair” ratings. Four structures (Washington Street (SN 010-6134), Coler Avenue (SN 010-6109), Thornburn Tunnel (SN 010-6111) and N. Lincoln (SN 010-6107 over Boneyard) received poor ratings.

2 structures received poor ratings at the substructure units, N. Broadway (SN 010-6128) and Washington Street (SN 010-6134).

Two non-NBIS structures, SN 010-6134 and SN 010-6111 which received poor ratings were submitted to IDOT for further inspection and load rating.

The NBIS structures that received poor ratings will be evaluated by IDOT as a part of their NBIS program.

Recommended repairs were as follows:

SN 010-4272 - Perkins road - Reshape west bank under structure from 5' each side of the structure & cover with riprap. Anchor the riprap into the existing bank at each end and at the channel. Channel cross sections are included at the end of the report for reference.

SN 010-4556 - Olympian Drive - Remove vegetation from the west slope wall.

SN 010-6109 - Clean deck drains, apply herbicide on the chain link fence areas within ROW to avoid visibility issues.

SN 010-6112 - McCullough - Fix settled section of sidewalk at SE corner.

SN 010-6128 - N. Broadway - Consideration of concrete repairs at the piers is recommended to protect reinforcement from deterioration. (The piers will be evaluated by IDOT)

SN 010-6136 - Race Street - Repair detached corner of Stone Fascia at bottom northwest corner.

SN 010-6108 - Busey - Sweep deck and clean deck drains.

SN 010-6133 - LRC Entrance - Continue herbicide application at each end in channel

SN 010-6134 – Washington Street - Under IDOT review - the fascia beam should be repaired or other means of support for the guardrail.

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