

BRIDGE INSPECTION REPORT

1805371
Structure File Number

BRIDGE NUMBER CUY 00071 1791 R

YEAR BUILT 1969

DIST 12 Bridge Type 322 TYPE SERVICE 6 1 SR 176(1328)JENNINGS FWY

DECK	out/out 64 Deck Area 115,907 sqft		4 DENSE CONCRETE (IOWA SYSTEM) OVERLAY	
1. FLOOR	1 REINF CONCRT (PRESTRSD, PRECAST)	2	2. WEARING SURFACE	2
	Left N NONE / Right N NONE			
3. CURBS, SIDEWALKS AND WALKWAYS			4. MEDIAN	
			Lanes on 3	
5. RAILING	1 REINFORCED CONCRETE PARAPET	2	6. DRAINAGE	2
			3 SCUPPERS & DWNSPTS	
7. EXPANSION JOINTS	8 ELASTOMERIC STRIP SEAL	2	8. SUMMARY	6
SUPERSTRUCTURE				
9. ALIGNMENT	Max Spans 121	1	10. BEAMS/GIRDERS/SLAB	1
			28 ROLLED STEEL	
11. DIAPHRAGMS or CROSSFRAMES		2	12. JOISTS/STRINGERS	
13. FLOOR BEAMS			14. FLOOR BEAM CONNECTIONS	
15. VERTICALS			16. DIAGONALS	
17. END POSTS			18. TOP CHORD	
19. LOWER CHORD			20. LOWER LATERAL BRACING	1
21. TOP LATERAL BRACING			22. SWAY BRACING	
23. PORTALS			24. BEARING DEVICES	2
			2 ROCKERS	
25. ARCH			26. ARCH COLUMNS or HANGERS	
27. SPANDREL WALLS			28. PROTECTIVE COATING SYSTEM	6
			Paint Date 1/1/1991	
			5 PAINT SYSTEM OZE	
29. PINS/HANGERS/HINGES		2	30. FATIGUE PRONE CONNECTIONS	1
31. LIVE LOAD RESPONSE		S	32. SUMMARY	6
SUBSTRUCTURE				
33. ABUTMENTS	5 STUB GRAVITY	1	34. ABUTMENT SEATS	1
			Abutment: ON PILING	
35. PIERS		2	36. PIER SEATS	1
			5 CAPPED COLUMN	
			Piers: ON PILING	
37. BACKWALLS		2	38. WINGWALLS	1
39. FENDERS and DOLPHINS	Piers = 20 07 NN Spans = 28		40. SCOUR	
41. SLOPE PROTECTION	2 STONE (NO.1 AGGREGATE)	1	42. SUMMARY	6
			Dive Date 12/30/1899	
CULVERTS				
43. GENERAL	N NONE/NOT APPLICABLE		44. ALIGNMENT	
45. SHAPE			46. SEAMS	
47. HEADWALLS or ENDWALLS	Culvert Length 0		48. SCOUR	
			49.	
			50. SUMMARY	
CHANNEL				
51. ALIGNMENT			52. PROTECTION	
	N NOT OVER WATERWAY		X N/A	
53. WATERWAY ADEQUACY			54. SUMMARY	
APPROACHES				
55. PAVEMENT	2 BITUMINOUS	1	56. APPROACH SLABS	1
57. GUARDRAIL	1 STEEL BEAM	1	58. RELIEF JOINTS	1
59. EMBANKMENT		1	60. SUMMARY	7
			Percent Legal = 100	
GENERAL				
61. NAVIGATION LIGHTS			62. WARNING SIGNS	
			Maint Resp 1 OHIO TRAN DEPT	
63. SIGN SUPPORTS	Signs on = Y MVC on = 9999.9 Under C = 15.2	1	64. UTILITIES	
65. VERTICAL CLEARANCE	Under NC = 14.8	1	66. GENERAL APPRAISAL & OPERATIONAL STATUS	6 A
67. INSPECTED BY			68. REVIEWED BY	

SIGNED

PE Number

AWH
INITIALS

SIGNED

70223 AWH
PE Number INITIALS

DATE 12/1/2009

1 1 1 1 1 N N N
SURVEY

DATE 3/8/2010

DECK

FLOOR: LEACHING TRANSVERSE CRACKS. MOTTLED AREAS IN SPAN 7.
TWO FULL DEPTH REPAIRS, ONE WITH FORMWORK. SPALL
FORMING OVER TRAFFIC. SEE WO 244 2008*0023.
5-10% DET.

WS: OVER 2000 SF OF CONCRETE PATCHES. 15 SF BREAKING UP.
20 SF OF ASPHALT PATCHES. DELAMINATED AREAS. 5-10% DET.

RAILING: DELAMINATED AREAS. 6' LONG DETERIORATED AREA IN
RIGHT RAIL OF RAMP TO WEST 14TH/WB 90 (UNIT 4AE).
IMPACT ATTENUATOR DAMAGED @ GORE RAMP AE.

DRAINAGE: HOLES IN DOWNSPOUTS NEAR BOTH MAINLINE ABUTMENTS.
SEE ATTACHED PHOTO DATED 09/25/08. DOWNSPOUT AT
EAST END OF PIER 18 AE IS PLUGGED WITH CONCRETE
AT OUTLET. LOOSE DRAINAGE TROUGH AT JOINT 2A HAS
BEEN REMOVED. DOWNSPOUT PLUGGED @ FINISH ABUT AE.

EXPANSION JOINTS: TORN SEALS. ALL BEAMS 1/2" TO BACKWALL AT
WEST 14TH EXIT RAMP ABUTMENT. (2009 BEAMS #
1 & #2 INTO BACKWALL @ W. 14TH RAMP ABUT.)

SUPERSTRUCTURE

BEAMS: RUST SECTION LOSS UNDER EXPANSION JOINTS.

XFRAMES: RUST THRU HOLES, RUST SEVERED ANGLES AND CRACKED
WELDS OF XFRAMES UNDER SEATED HINGES. SEE ATTACHED
PHOTO DATED 09/18/08.

BEARINGS: ROCKERS FOR BEAMS L AND N ARE TIPPED IN AT PIER 1.
ROCKER #1 TIPPED OUT AT ABUTMENT BE.

PAINT: ACTIVE CORROSION UNDER EXPANSION JOINTS. 2% RUST
OVERALL. 5-10% DET.

HINGES: RUST SECTION LOSS. A FEW BENT STIFFENERS. SEE
ATTACHED PHOTO DATED 09/18/08.

SUBSTRUCTURE

PIERS: DELAMINATIONS AND SPALLS TO COLUMNS BEHIND PARAPETS
OF LOWER BRIDGE. SEE ATTACHED PHOTO DATED 09/25/08.
4SF DELAM PIER 18AE. SOME CAPS HAVE BEEN FIBER WRAPPED.
STEEL PIER CAPS HAVE MANY POOR WELDING DETAILS. SEE
ATTACHED PHOTOS DATED 07/22/05.

BACKWALLS: SPALLS BEHIND BOTH FASCIA BEAMS AT FINISH
ABUTMENT AW I-90 EB. SPALLS & DELAMS @ FINISH
ABUTMENT AE.

GENERAL

LAST CONSULTANT INSPECTION BY EUTHENICS IN 2006.
SNOOPERED ON 09/18/08 BY MJS.
TEAM INSPECT 12/1/09 KB,MS,AP,AH.

SFN		Bridge Number		Yard No.
1805371		CUY - 071 - 1791		240
		Feature Intersected		
		SR 176(1328)JENNINGS FWY		
County	Route	Start Mile	End Mile	Maintenance Yard
CUY	071	246.55	246.55	Cleveland Yard
WO Number	PGAC	SPALL REMOVAL		
6112002C0075	6163			
REMOVE LOOSE SPALLS				
Open Date	Closed Date			
15 Aug 2001	12 Sep 2001			
WO Number	PGAC	SPALL REMOVAL		
6142005000*2	6163	COUNT FROM THE SOUTH END TO THE NORTH. PIER CAP #6 AND #11 HAVE SPALLS FORMING OVER TRAFFIC. #6 ALL LANES. #11 OVER LANES #2 & #3. SEE PHOTOS ON THE I-DRIVE. SPALLS ARE ALL FORMING OVER SR 176 TRAFFIC.		
REMOVE LOOSE SPALLS				
Open Date	Closed Date			
29 Jul 2004	30 Nov 2004			
WO Number	PGAC	L1 SPALL REMOVAL		
241200800009	6163	SPALLS FORMING OVER WEST 14TH RAMP TO STEELYARD COM WORK WAS COMPLETED ON FRIDAY 9 28 2007		
REMOVE LOOSE SPALLS				
Open Date	Closed Date			
28 Sep 2007	28 Sep 2007			
WO Number	PGAC	L1 REMOVE RAILING SPALLS FORMING OVER TRAFFIC.		
2442008*0014	6163	RAILING SPALLS ARE FORMING OVER SR 176 TRAFFIC; SEE THE JPEG DOCUMENT ON THE I-DRIVE FOR THE LOCATIONS. IF YOU HAVE ANY QUESTIONS CALL DAVE EVERETT AT 216-584-2231.		
REMOVE LOOSE SPALLS				
Open Date	Closed Date			
28 Sep 2007	2 Dec 2009			
WO Number	PGAC	L1 REMOVE FLOOR SPALL FORMING OVER TRAFFIC.		
2442008*0023	6163	A 2 SQUARE FOOT FLOOR SPALL IS FORMING AT THE NORTH VERTICAL FACE OF THE TOP FLANGE OF THE STEEL BOX CROSS GIRDER OVER SR 176 NB LANE #1; SEE THE JPEG DOCUMENT ON THE I-DRIVE. IF YOU HAVE ANY QUESTIONS CALL DAVE EVERETT AT 216-584-2231.		
REMOVE LOOSE SPALLS				
Open Date	Closed Date			
28 Feb 2008	2 Dec 2009			
WO Number	PGAC	L1 SPALL REMOVAL		
2402010*0004	6163	REMOVE 2 SF FLOOR SPALL FORMING NEAR TOP FLANGE OF STEEL BOX PIER CAP OVER SR 176 NORTHBOUND LANE #1. SEE JPEG ON THE I-DRIVE. BRIDGE CARRIES I-71 NORTHBOUND OVER SR 176 NORTHBOUND (DOUBLE DECKER) BY STEEL YARD COMMONS. QUESTIONS CALL 312-0124.		
REMOVE LOOSE SPALLS				
Open Date	Closed Date			
2 Dec 2009	OPEN			
WO Number	PGAC	L1 SPALL REMOVAL		
240201000004	6163	REMOVE 2 SF FLOOR SPALL FORMING NEAR TOP FLANGE OF STEEL BOX PIER CAP OVER SR 176 NORTHBOUND LANE #1. SEE JPEG ON THE I-DRIVE. BRIDGE CARRIES I-71 NORTHBOUND OVER SR 176 NORTHBOUND (DOUBLE DECKER) BY STEEL YARD COMMONS. QUESTIONS CALL 312-0124.		
REMOVE LOOSE SPALLS				
Open Date	Closed Date			
8 Mar 2010	OPEN			

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I-71 over SR 176

Photos taken on 07/22/05



Photo 1. Facing south looking at beam 6 framing into steel pier cap 22AE.



Photo 2. Close up of Photo 1, showing a backer bar used to weld the lower flange of beam 6 into the web of the pier cap.

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I-71 over SR 176

Photos taken on 07/22/05



Photo 3. In several locations where a backer bar was not used the weld lacks full penetration between the flange and web plates.



Photo 4. Backer bar and lack of penetration where top flanges were welded together above the steel pier caps.



Holes top and bottom at downspout 1R near star...



Spalls and delams of right column of Pier14 .JPG



Under Joint 1A bent stiffener of Beam 3.JPG



Under Joint 2A rust severed xframe angle in Bay...