HistoricBridges.org - National Bridge Inventory Data Sheet

2010 Inventory

The National Bridge Inventory contains data submitted by state transportion departments to the Federal Highway Administration in coded format.
Form Interface Design: www.historicbridges.org. Data Conversion Assistance By www.bridgehunter.com. None of the involved parties make any guarantee of accuracy.

Basic Information

Ohio [39]	Summit County [153]	Boston Heights [07790]	0.8MI WEST OF EXIT 12	41-15-30 = 41.258333	081-30-36 = -81.510000

7729693	Highway agency district	4	Owner	State Toll Authority [31]	Maintenance responsibility	State Toll Authority [31]

Route	16	OLDE EIGHT ROAD	Toll	On free road [3]	Features intersected	I80 OHIO TPK

Design - main	Steel [3]	Design - approach		Kilometerpoint	1818 km = 1127.2 mi
1	Arch - Deck [11]	0	Other [00]	Year built	1954	Year reconstructed	1990
				Skew angle	20	Structure Flared	
				Historical significance	Bridge is not eligible for the NRHP. [5]		

Total length	87.8 m = 288.1 ft	Length of maximum span	65.8 m = 215.9 ft	Deck width, out-to-out	10.5 m = 34.5 ft	Bridge roadway width, curb-to-curb	8.5 m = 27.9 ft

Inventory Route, Total Horizontal Clearance	8.5 m = 27.9 ft	Curb or sidewalk width - left	0 m = 0.0 ft	Curb or sidewalk width - right	0 m = 0.0 ft

Deck structure type	Concrete Cast-in-Place [1]
Type of wearing surface	Integral Concrete (separate non-modified layer of concrete added to structural deck) [2]
Deck protection	Epoxy Coated Reinforcing [1]
Type of membrane/wearing surface	Other [9]

Weight Limits

Bypass, detour length	Method to determine inventory rating	Allowable Stress(AS) [2]	Inventory rating	28.8 metric ton = 31.7 tons
0.3 km = 0.2 mi	Method to determine operating rating	Allowable Stress(AS) [2]	Operating rating	40.5 metric ton = 44.6 tons
	Bridge posting	Equal to or above legal loads [5]	Design Load	M 13.5 / H 15 [2]

Functional Details

Average Daily Traffic	28000	Average daily truck traffi	21 %	Year	1990	Future average daily traffic	32576	Year	2028

Road classification	Minor Collector (Rural) [08]	Lanes on structure	2	Approach roadway width	14 m = 45.9 ft
Type of service on bridge	Highway [1]	Direction of traffic	2 - way traffic [2]	Bridge median	
Parallel structure designation	No parallel structure exists. [N]				
Type of service under bridge	Highway, with or without ped	Lanes under structure	4	Navigation control	Not applicable, no waterway. [N]
Navigation vertical clearanc	0 = N/A	Navigation horizontal clearance	0 = N/A		
Minimum navigation vertical clearance, vertical lift bridge		Minimum vertical clearance over bridge roadway	99.99 m = 328.1 ft		
Minimum lateral underclearance reference feature	Highway beneath structure [H]				
Minimum lateral underclearance on right	0 = N/A	Minimum lateral underclearance on left	0 = N/A		
Minimum Vertical Underclearance	15.24 m = 50.0 ft	Minimum vertical underclearance reference feature	Highway beneath structure [H]		
Appraisal ratings - underclearances	Basically intolerable requiring high priority of corrrective action [3]				

Repair and Replacement Plans

Type of work to be performed

Work done by

Bridge improvement cost		Roadway improvement cost	
Length of structure improvement		Total project cost	
Year of improvement cost estimate			
Border bridge - state		Border bridge - percent responsibility of other state	
Border bridge - structure number			

Inspection and Sufficiency

Structure status	Open, no restriction [A]	Appraisal ratings - structural	Equal to present minimum criteria [6]
Condition ratings - superstructur	Good [7]	Appraisal ratings - roadway alignment	Equal to present desirable criteria [8]
Condition ratings - substructure	Satisfactory [6]	Appraisal ratings - deck geometry	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - deck	Fair [5]		
Scour	Bridge not over waterway. [N]		
Channel and channel protection	Not applicable. [N]		
Appraisal ratings - water adequacy	N/A [N]	Status evaluation	Functionally obsolete [2]
Pier or abutment protection		Sufficiency rating	70.3
Culverts	Not applicable. Used if structure is not a culvert. [N]		

Traffic safety features - railings	Inpected feature meets currently acceptable standards. [1]
Traffic safety features - transitions	Inpected feature meets currently acceptable standards. [1]
Traffic safety features - approach guardrail	Inpected feature meets currently acceptable standards. [1]
Traffic safety features - approach guardrail ends	Inpected feature meets currently acceptable standards. [1]

Inspection date	April 2009 [0409]	Designated inspection frequency	12	Months

Underwater inspection	Not needed [N]	Underwater inspection date	
Fracture critical inspection	Every year [Y12]	Fracture critical inspection date	November 1994 [1194]
Other special inspection	Not needed [N]	Other special inspection date	

District: **04** County **SUMMIT**
(101) Location: **0.8MI WEST OF EXIT 12** (102) Facility Carried: **OLDE EIGHT ROAD**
(2)FIPS Code: **BOSTON HEIGHTS** (103) Route On Bridge: **COUNTY** (104) Route Under Bridge: **TOLL (STATE)**
(9) Direction of Traffic: **2-WAY TRAFFIC** (10) Temporary: **N** (11)Truck Network: **Y** (12)Parallel: **N**
(95) Insp: **OTHER ST AGY** (96) Maint: **OTHER ST AGY** (97) Routine: **OTHER ST** (100) Type Serv: (On): **HIGHWAY** (Under): **HIGHWAY, WITH OR WIT**

Inventory Route Data

(3) Route On/Under: **UNDER** Hwy Sys: **INTERSTATE HIGHWAY**
Route No.: **0080K** Dir: Des: **TOLL ROAD** Pref:
(4) Feature Intersected: **AKRON-CLEVELAND RD MP1795**
(5) County: **SUM** Mileage: **0744** Special Desig:
(6) Avg. Daily Traffic(ADT): **23,470** (7) ADT Year: **1972**
(8) Truck Traf: **0** (14) NHS: **YES - N** (15) Corridor: **Y**
(16) Functional Class: **INTERSTATE-RURAL** (19) Strahnt: **Interstate**

Intersected Route Data

(22) Route On/Under: **ON** Hwy Sys: **COUNTY/TOWNSHIP HIGHWAY**
Route No.: **00016** Dir: Des: **1** Pref:
(23) Feature Intersected: **I80 OHIO TPK**
(24) County: **SUM** Mileage: **1129** Special Desig:
(25) Avg. Daily Traffic(ADT): **28,000** (26) ADT Year: **1990**
(27) Truck Traf: **6,000** (28) NHS: **NO - X** (29) Corridor: **N**
(30) Functional Class: **MINOR COLLECTOR-RURAL** (36) Strahnt: **Not Applicable**

Clearance On the Bridge

(154) Min Hriz on Bridge: NC: **0.0** Ft Card: **28.0** Ft
(155) Prac Max Vert On Brg: **9999.9** Ft
(67) Min Vrt Clr On Brg: NC: **0.0** Ft Card: **9999.9** Ft
(80) Min Latl Clr: NC: **2.5 / 0.0** Ft Card: **0.0 / 2.5** Ft
(81) Vrt Clr Lft: **0.0** Ft

Structure Information

(38) Bypass Length: **02** Miles
(39) Latitude: **41 Deg 15.5 Min** Longitude: **81 Deg 30.6 Min**
(40) Toll: **ON FREE ROAD**
(41) Date Built: **07/01/1954** (42) Major Rehabilitation: **01/01/1990**
(43) No. Lanes On: **2** No. Lanes Under: **4**
(44) Horiz Curve: **Deg. Min.** (45) Skew: **20** Deg
(49) App. Rdw Width: **46** Ft (50) Brg. Rdw Width: **28.0** Ft
(51) Deck Width: **34.3** Ft Deck Area: **9871** Sq. Ft
(52) Median Type: **NONE / NON BARRIE / NO JOINT**
(53) Bridge Median: **NO MEDIAN**
(54) Sidewalks: (left) **0** Ft (right) **0** Ft
(55) Type Curb or Sidewalks:
(Left) Matl: **NONE** Type: **NONE**
(Right) Matl: **NONE** Type: **NONE**
(56) Flared: **N** (57) Composite: **non-composite**
(58) Railing: **REINFORCED CONCRETE PARAPET**
(59) Deck Drainage: **SCUPPERS & DWNSPTS**
(60) Deck Type: **REINF CONCRT (PRESTRSD, PRECAST**
(61) Deck Protection: External: **OTHER**
Internal: **EPOXY COATED REINFORCING (BOTH**
(62) Wearing Surface: **INTEGRAL CONCRETE (MONOLITHIC)**
Thickness: **1.2** in (119) Date of Wearing Surface:
Slope Protection: **RIP RAP (DUMPED ROCK)**

(63) Main Spans Number: **1** Type: **STEEL / ARCH / DECK**
Approach Spans Number: **0** Type: **NONE / NONE / NONE**
Total Spans: **1** (65) Max Span: **216** Ft (66) Overall Leng: **288** Ft

(70) Substructure	(71) Foundation and Scour Information	
Abut-Rear Matl: **CONCRETE**	Type: **CELLULAR OR "U"**	Fnd: **STEEL H PILES (OTHER SIZE)**
Abut-Fwd Matl: **CONCRETE**	Type: **CELLULAR OR "U"**	Fnd: **STEEL H PILES (OTHER SIZE)**
Pier-Pred Matl: **NONE**	Type: **NONE**	Fnd: **STEEL H PILES (OTHER SIZE)**
Pier-Other Matl: **NONE**	Type: **NONE**	Fnd: **NONE/NOT APPLICABLE (SUCH AS CULVERTS)**
Pier-Other Matl: **NONE**	Type: **NONE**	Fnd: **NONE/NOT APPLICABLE (SUCH AS CULVERTS)**
No of Piers Predominate: **NN**	Other: **NN**	Other: **NN**

(86) Stream Velocity: **NNN** (74) Scour: **BRIDGE NOT OVER WATERWAY**
(189) Dive: **N Freq: 0** Probe: **N** Freq: **0** (75) Chan Prot: **N/A**
(189) Date of last Dive Insp: (152) Drainage Area: **NNN** Sq Mi

Clearance Under the Bridge

(156) Min. Horiz Under Clear: NC: **62.0** Ft Card: **62.0** Ft
(157) Prac Max Vrt Under Clear: **50.0** Ft
(77) Min Vert Under Clear: NC: **0.0** Ft Card: **50.0** Ft
(78) Min Lat Under Clear: NC: **0.0 / 0.0** Ft Card: **0.0 / 0.0** Ft

Load Rating Information

(48) Design Load: **H/15**
(83) Operating: **45** Ton
Inventory: **32** Ton
Ohio Percent of Legal Load **150**
Year of Rating: **1995**
(84) Analysis: **WORKING STRESS (WS)**
(85) Rate Soft: **NO SOFTWARE USED** Analyzed by:
Analysis on Bars: **NOT ON BARS [DEFAULT]**

(88-89) Appraisal

(Including calculated Items)
(88) Waterway Adequacy **N**
(89) Approach Alignment **8**
Calc Gen Appraisal: **6**
Calc Deck Geometry: **4**
Calc Underclearance: **3**

Approach Information

(109) Approach Guardrail: **STEEL BEAM**
(110) Approach Pavement: **BITUMINOUS** (111) Grade: **GOOD**

Culvert Information

(131) Culvert Type: **NONE/NOT APPLICBLE** (127) Length: **0.0** Ft
(129) Depth of Fill: **0.0** Ft (130) Headwalls: **NONE**

General Information

(121) Main Member **N/A (CULVERTS, TRUSSES, ETC.)** (122) Moment Plate:
(169) Expansion Joint: **COMPRESSION SEAL**
(124) Bearing Devices: **ROCKERS/NONE**
(126) Navigation: **Control- X** Vert Clr: **0.0** Ft Horiz Clear:: **0.0** Ft
(193) Spec Insp: **N** Freq: **0** Date:
(188) Fracture Critical Insp: **Y** Freq: **24** Date: **2011-03-17**
(138) Long Member: **TWO OR MORE ARCHES (RIVETED)** (135) Hinges: **PINS, PIN PLATES**
(141) Structural Steel Memb: **A7** (139) Framing: **STRAIGHT**
Railing: **OTHER**
Pay Wt: **576,885** pounds Prime Loc: **SHOP** Paint: **RED LEAD**
Bridge Dedicated Name:

General Information (Continued)

(---) Hist Significance: **NOT HISTORIC**
(69) NBIS: **Y**
(---) Hist Builder: **NONE N/A**
Hist Build Year:
(69) Hist Type: **NONE N/A**
(161) Special Features (see below):
(105) Border Bridge State: Resp % (106) SFN:

Proposed Improvements

(90) Type Work: **-**
(90) Length: Ft
(90) Bridge Cost ($1000s): **0**
(90) Roadway Cost ($1000s): **0**
(90) Total Project Cost ($1000s): **0**
(90) Year:
(91) Future ADT (On Bridge): **0**
(92) Year of Future ADT: **2028**

Programming Info

PID Number:
PID Status:
PID Date:

Original Plans Information

(142) Fabricator:
(143) Contractor:
(144) Ohio Original Construction Project No.: **001454**
(---) Microfilm Reel: **000TP2**
(151) Standard Drawing:
Aperture Cards: Orig: **N** Repair: **Y** Fabr: **N**
Plan Information Available: **1PLAN INFORMATION AVAILABLE**

(153) Repair Projects

1. **/ 020**	2. **/ MMM**	3.
4.	5.	6.
7.	8.	9.
10.		

Inspection Summary

(I-8) Deck:	**5**
(I-32) Superstructure:	**7**
(I-42) Substructure:	**6**
(I-50) Culvert:	
(I-54) Channel:	
(I-60) Approaches:	**6**
(I-66) General Appraisial:	**6**
(I-66) Operational Status:	**A**
Inspection Date:	**03/17/2011**
(94) Desig Insp Freq:	**12 Months**

(I-69) Survey Items

Railings:	**1 MEETS CURRENT STANDARDS**
Transitions:	**1 MEETS CURRENT STANDARDS**
Guardrail:	**1 MEETS CURRENT STANDARDS**
Rail Ends:	**1 MEETS CURRENT STANDARDS**
In Depth:	**N NONE N/A**
Fracture Critical:	**N NONE N/A**
Scour Critical:	**N NONE N/A**
Critical Findings:	**N NONE N/A**
Insp. Update Date:	**12/09/2011**

Utilities

(46) Electric:	**U**
Gas:	**U**
Sanitary Sewer:	**U**
Telephone:	**U**
TV Cable:	**U**
Water:	**U**
Other:	**U**

Special Features

(161) Lighting:	**N**
Fencing:	**Y**
Glare-Screen:	**N**
Splash-Guard:	**N**
Catwalks:	**N**
Other-Feat:	**U**
(184) Signs-on:	**N**
Signs-Under:	**N**
(162) Fence-Ht:	**0.0** Ft
(163) Noise Barr:	**N**

SFNs Replacing this retired bridge: **-**
SFNs That where replaced by this bridge: **-**
This bridge was retired and copied to:
The bridge was copied from:

INV Field Bridge Marker: **SUM-0080K-0744 -**
INT Field Bridge Marker: **SUM-00016-1133 -**

PONTIS CoRe elements and Condition States

Elem No.	CoRe Element Description	Total Quantity	Unit Meas.	Condition State Percents(*)				
				1	2	3	4	5
26	CONCRETE DECK - PROTECTED W/COATED BARS	1	EA	100	0	0	0	0
141	PAINTED STEEL ARCH	574	LF	0	100	0	0	0
215	REINFORCED CONC ABUTMENT	73	LF	0	100	0	0	0
302	COMPRESSION JOINT SEAL	73	LF	0	100	0	0	0
321	REINFORCED CONCRETE APPROACH SLAB	2	EA	100	0	0	0	0
331	CONCRETE BRIDGE RAILING	574	LF	100	0	0	0	0

(*) Percentages Should add to 100%

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

BRIDGE INSPECTION REPORT

BR-86 REV 02-95

7	7	2	9	6	9	3

1 Structure File Number 7

Bridge Number **SUM** (CO) **0080K** (ROUTE) **0744** (UNIT) **BOSTON HEIGHTS** **Date Built 07/01/1954 - 1990**

District **04** Bridge Type **STEEL/ARCH/DECK** Type Service **2** **11** **AKRON-CLEVELAND RD MP1795** **SUM**

DECK	Out/Out 34.3			THCK = 1.2	
1. Floor	1-REINF CONCRT (PRESTRSD 8	2	2. Wearing Surface	2-INTEGRAL CONCRETE (MON 41	2
	N-NONE			W.S. Date =	
3. Curbs, Sidewalks, Walkways	N-NONE 9		4. Median	42	
5. Railing	1-REINFORCED CONCRETE PA 10	2	6. Drainage	3-SCUPPERS & DWNSPTS 43	3
7. Expansion Joints	3-COMPRESSION SEAL 11	2	**8. Summary**	44	5
SUPERSTRUCTURE	MAX.SPAN=216				
9. Alignment	12	1	10. Beams/Girders/Slab	N-N/A (CULVERTS, TRUSSES 45	
	TOT.LGTH=288				
11. Diaphragms or Crossframes	13	1	12. Joists/Stringers	46	1
13. Floor Beams	14	1	14. Floor Beam Connections	47	1
15. Verticals	15		16. Diagonals	48	
17. End Posts	16		18. Top Chord	49	
19. Lower Chord	17		20. Lower Lateral Bracing	50	
21. Top Lateral Bracing	18		22. Sway Bracing	51	
				2-ROCKERS	
23. Portals	19		24. Bearing Devices	N-NONE 52	2
25. Arch	20	1	26. Arch Columns or Hangers	53	1
				TYPE = 1-RED LEAD	
27. Spandrel Walls	21		28. Protective Coating System	DATE = 01/01/1975 54	7
29. Pins/Hangers/Hinges	22	1	30. Fatigue Prone Connections	55	1
31. Live Load Response	23	S	**32. Summary**	56	7
SUBSTRUCTURE	2-CONCRETE		PIERS=0	SPANS = 1	
33. Abutments	2-CONCRETE 24	2	34. Abutment Seats	57	1
35. Piers	TYPE = N-NONE 25		36. Pier Seats	58	
				ABUTMENT:=STEEL H / STEEL H	
37. Backwalls	26	1	38. Wingwalls	59	1
39. Fenders and Dolphins	27		40. Scour	N-BRIDGE NOT OVER WATERW 60	
41. Slope Protection	3-RIP RAP (ROCK) 28	3	**42. Summary**	DIVE DT=N/A 62	6
CULVERTS					
43. General	29		44. Alignment	63	
45. Shape	30		46. Seams	64	
47. Headwalls or Endwalls	31		48. Scour	65	
49.	32		50. Summary	66	
CHANNEL				X-N/A	
51. Alignment	33		52. Protection	67	
53. Waterway Adequacy	34		**54. Summary**	68	
APPROACHES					
55. Pavement	2-BITUMINOUS 35	2	56. Approach Slabs	69	2
57. Guardrail	1-STEEL BEAM 36	2	58. Relief Joints	70	
59. Embankment	BRDG.WIDTH=28.0 37	1	**60. Summary**	PCT.LEGAL=150 71	6
GENERAL				ROUTINE.RESP: 2-OTHER ST AGY	
61. Navigation Lights	38		62. Warning Signs	MAINT.RESP: 2-OTHER ST AGY 72	
	MVC ON=9999 UND=0000				1
63. Sign Supports	39		64. Utilities	73	
65. Vertical Clearance	40	N	**66. General Appraisal & Operational Status**	74 COND 6 STAT A	

67. INSPECTED BY

SIGNED

76 PE

D B 78 INITIALS

68. REVIEWED BY

SIGNED

5 4 4 8 2 81 PE

P W 83 INITIALS

DOT 2852

DECK AREA 9,871

Date 0 3 1 7 1 1 (86 – 91)

1 1 1 1 N N N N (92 – 69 Survey – 99)

Date 0 8 3 0 1 1 (100 – 105)

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

BRIDGE INSPECTION REPORT

BR-86 REV 02-95

7	7	2	9	6	9	3

1 Structure File Number 7

Bridge Number **SUM** (CO) **0080K** (ROUTE) **0744** (UNIT)

Date Built 07/01/1954 - 1990

District **04** Bridge Type **STEEL/ARCH/DECK**

Type Service **2** **1** **1**

AKRON-CLEVELAND RD MP1795

00 NO REMARKS FOUND FOR THIS INSPECTION.