

MARION County 2021

INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

3/9/2021

(October Data Update)

Inventory Data - NBIS Bridges Only

				<u>NBIS COUNT</u>		
NBIS Bridges > 20'				145		
Bridges 10'-20'				113		
				<u>258</u>		
Item 22 Inspection Responsibility				CODE	# NBIS	# ALL
Data Tab	Col B\,B\w	County		2	145	258
Item 21 Maintenance responsibility				CODE	# NBIS	# ALL
Data Tab	County			2	145	258
Col D	City or other local			4	0	0
	Railroad			27	0	0
	Private (tohter than RR)			26	0	0
	State Park			11	0	0
	Local Park			23	0	0
	Township			3	0	0
				<u>145</u>		<u>258</u>
Item 42 Type service on bridge				CODE	# NBIS	# ALL
Data Tab	Other			0	0	0
Col Q	Highway			1	143	256
	Railroad			2	0	0
	Ped/Bikeway			3	0	0
	Hwy/RR			4	0	0
	Hwy/Ped			5	2	2
				<u>145</u>		<u>258</u>
Item 42 Type service under bridge				CODE	# NBIS	# ALL
Data Tab	Other			0	0	0
Col R	Hwy w/ or w/o Ped			1	0	0
	Railroad			2	2	2
	Ped/Bkwy			3	0	1
	Hwy w/ RR			4	0	0
	Waterway			5	143	255
	Hwy/waterway			6	0	0
	RR/waterway			7	0	0
	Hwy/waterway/RR			8	0	0
	Relief (for waterways)			9	0	0
				<u>145</u>		<u>258</u>

ITEMS 43A,B,C Structure Type (Col M,N,O)		CODE	# NBIS	# ALL
Concrete Slab		101	2	9
Concrete Girder		103	1	1
Concrete Tee Beam		104	1	1
Concrete Frame		107	6	11
Concrete Culvert (incl frame culverts)		119	5	27
Concrete Continuous Slab		201	3	3
Steel Beam or Girder		302	26	41
Steel Thru Truss (includes Pony)		310	7	7
Steel Culvert (incl frame culverts)		319	13	73
Steel Continuous Beam or Girder		402	2	2
Prestressed Concrete Thru Arch		502	1	1
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	74	74
Prestressed Concrete Continuous Thru Arch		602	3	3
Timber Thru Truss (includes Pony)		710	1	1
Timber Culvert (incl frame culverts)		719	0	1
Aluminum or Iron Culvert (incl frame culverts)		919	0	3
			145	258

Item 92 Fracture Critical		CODE	# NBIS	# ALL
Data Tab	Requires FC Inspection	Y	7	n/a
Col U,V,Y	Requires FC Inspection	N	138	n/a
			145	n/a

Item 115 Scour			# NBIS	# ALL
Data Tab	Bridge not over waterway	N	2	3
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	3	3
	stable above footing	8	114	203
	countermeasures installed	7	0	0
	no scour evaluation made	6	0	0
	stable within footer limits	5	14	23
	stable action needed	4	12	26
	scour critical - unstable	3	0	0
	scour critical - scour present	2	0	0
	scour critical - failure imminent	1	0	0
	scour critical - bridge failed	0	0	0
			145	258

Item 63 Documented Engineering Judgment			# NBIS	# ALL
	Field Eval & Doc EJ		5	n/a

BR_100 for these bridges?

Item 92 Underwater		CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	145	n/a
Col W,X,Z	requires dive inspection	Y	0	n/a
			145	
	dive insp date blank but Dive=Y		0	n/a

Item 70 Plan Information		CODE	# NBIS	# ALL
Data Tab	plans not avail	0	6	6
Col. AW	plan avail	1	136	249
	field measured	2	3	3
	Field Testing	3	0	0
	not applicable	N	0	0
			145	258

Item 63 Method of Analysis		CODE	# NBIS	# ALL
Data Tab	Field Eval & Doc. Engr Judgm	0	5	8
Col. AV	Work Stress	1	0	0
	LFR	2	0	0
	LRFR	3	0	0
	load test	4	0	0
	No rating done	5	0	49
	LFR	6	84	93
	AS	7	45	85
	LRFR	8	11	21
	Assigned LFR HS20	D	0	0
	Assigned LRFR HL93	F	0	2
	not appl (RR, etc)	X	0	0
			145	258

REMINDER:

Load Factor required for bridges built afte (exceptions: timber, etc.)
LRFR required for bridges built after 2010

Inspection Condition Data - NBIS Bridges Only

Item 41 Operating Status		CODE	# NBIS	# ALL
Data Tab	Open, No restriction	A	136	236
Col AM	Open, posting recommended	B	0	0
	Open, Half width constr.	C	0	0
	Open because of temp. fix	D	0	0
	Open using temp. structure	E	0	0
	New structure not yet open	G	0	0
	closed for load cap. reason	K	1	1
	Posted for load capacity	P	7	20
	Posted for other than load	R	1	1
	Closed for other than load	X	0	0
			145	258

Load Rating Data

Load Rating Tab		# OF ERRORS
Col. AN	Op RF greater than Inv RF?	0
Col. AO	Posting and % Legal OK?	0
Col. AP	"0" used instead of blank	0
Col. AT	% legal <> lowest RF	5
Col. AV	Item 70 correct?	0
Col. AW	Method of Rating Alike?	0
Col. AX	Op & Inv RF in Tons as req'd?	0
Col. AY	Item 575 correct?	0
Col. AZ	Depth of fill completed?	0

5130808 5132436
 5133069 5131405 5136350
 The above bridge errors is caused
 by a rounding issue in check formula

KEY METRICS

(C) Compliant

(SC) Substantially Compliant

(CC) Conditionally Compliant

(NC) Non- Compliant

(NC) (SC) If corrected within 6/12 months
 Refresher=6 mo, Comprehensive=12 mo

METRIC 2 - Program Manager Qualification (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
PE /Experience	0	1	100.0%	(C)
Comprehensive	0	1	100.0%	(C)
Refresher	0	1	100.0%	(C)

METRIC 3 - Team Leader Qualification (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
Degree /Experience	0	2	100.0%	(C)
Comprehensive	0	2	100.0%	(C)
Refresher	0	2	100.0%	(C)

METRIC 6 Insp. Frequency Routine

Bridge Inspections Overdue	Overdue	% PASS	COMPLIANCE
Data Tab NBIS - 24 months	0	100.0%	(C)
Col. Y ORC - Calendar Year	0	100.0%	(C)
BIM - 18 months	0	100.0%	(C)

METRIC 8 - Insp. Frequency Underwater

Dive Inspections Overdue	Overdue	Total UW	% PASS	COMPLIANCE
Data Tab Col. Z 60 months	0	0	100.0%	(C)

METRIC 3 - Team Leader Qualification (from files examination)

From Files review		Missing	#sampled	% PASS	COMPLIANCE
Degree /Experience		0	2	100.0%	(C)
Comprehensive		0	2	100.0%	(C)
Refresher		0	2	100.0%	(C)

METRIC 6 Insp. Frequency Routine

Bridge Inspections Overdue		# OVERDUE	% PASS	COMPLIANCE
Data Tab	NBIS - 24 months	0	100.0%	(C)
Col. AB	ORC - Calendar Year	0	100.0%	(C)
	BIM - 18 months	0	100.0%	(C)

METRIC 8 - Insp. Frequency Underwater

Dive Inspections Overdue		# OVERDUE	# UW	% PASS	COMPLIANCE
Data Tab	Col. Z 60 months	0	0	100.0%	(C)

METRIC 10 - Insp. Frequency FC Member

FC Inspections Overdue		# OVERDUE	# FC	% PASS	COMPLIANCE
Data Tab	Col. Y 24 months	7	7	95.2%	(SC)

METRIC 12 - Routine Inspection

Field Ratings		# > +/-1	# Ratings	% PASS	COMPLIANCE
	field ratings	0	24	100.0%	(C)
Comments		Missing	# < 6	% PASS	
Tab	Comments when Rating < 6	4	144	97.2%	(C)
		Error	total Score	% PASS	
Comment	Rating should be = Scour	0	142	100.0%	within tolerance +/- 1
Tab	Noncompliant Scour Rating E	0	142	100.0%	(C)

MAR-C026X-2678_(5130492)

MAR-C025A-0036_(5130301)

MAR-T040A-0013_(5131006)

MAR-T137B-0159_(5137217)

METRIC 14 - Posting Load rating data tab

		# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed		0	145	100.0%	(C)
Op RF = 0 but not closed		0	145	100.0%	(C)
% Legal < 100 but not posted		0	145	100.0%	(C)
Item 41 = B		0	145	100.0%	(C)

METRIC 16 - Fracture Critical Inspection

From Files review		Missing	# FC	% PASS	COMPLIANCE
Fract Critical Member ID		0	2	100.0%	(C)
Fatigue Prone Detail		0	2	100.0%	(C)
Gusset Plate Calculations		0	2	100.0%	(C)
FC Inspection Procedure		0	2	100.0%	(C)

METRIC 17 - Underwater Inspection

From Files review		Missing	# UW	% PASS	COMPLIANCE
Uw Inspection Procedure		0	0	100%	(C)
Location of Uw elements		0	0	100%	(C)
Uw frequency identified		0	0	100%	(C)

PRELIMINARY FHWA 23 Metric Matrix

23 metrics used by FHWA to measure NBIS compliance

Compliance Codes for the following Metrics:

(C)	Compliant
(SC)	Substantially Compliant
(CC)	Conditionally Compliant (Adhering to approved PCA)
(NC)	Not Compliant

Metric	Description	(C)	(SC)	(CC)	(NC)
1	State Bridge Inspection Organization	██████████			
2	Program Manager Qualification	██████████			
3	Team Leader Qualification	██████████			
4	Load Rating Engineer Qualification	██████████			
5	UW Bridge Inspection Diver Qualification	██████████			
6	Routine Inspection Frequency - Low Risk	██████████			
7	Routine Inspection Frequency - High Risk	██████████			
8	UW Inspection Frequency - Low Risk	██████████			
9	UW Inspection Frequency - High Risk	██████████			
10	FC Inspection Frequency		██████████		
11	Frequency Criteria	██████████			
12	Inspection Quality	██████████			
13	Load Rating	██████████			
14	Posted or Restricted Bridges	██████████			
15	Bridge Files	██████████			
16	FC Bridges	██████████			
17	UW inspection procedures	██████████			
18	Scour Critical Bridges	██████████			
19	Complex Bridges	██████████			
20	QC/QA	██████████			
21	Critical Findings	██████████			
22	Inventory **	██████████			
23	Updating of Data	██████████			

** based on results of Field Review

Metric	Action Needed
10	Need to get FC inspections done on time