MORROW County 2021

INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

12/28/2021

Inventory Data - NBIS Bridges Only

	NBIS COUNT
NBIS Bridges > 20'	179
Bridges 10'-20'	175
	354

Item 22 Inspection Responsibility		CODE	# NBIS	# ALL	
Data Tab Col BV,BW	County	2	179	354	
Item 21 Maintenance responsibility		**CODE**	**# NBIS**	**# ALL**	
Data Tab	County	2	179	360	
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	
			179	360	6 proposed SFNs
Item 42 Type service on bridge		**CODE**	**# NBIS**	**# ALL**	
Data Tab	Other	0	0	0	
Col Q	Highway	1	179	354	
	Railroad	2	0	0	
	Ped/Bikeway	3	0	0	
	Hwy/RR	4	0	0	
	Hwy/Ped	5	0	0	
			179	354	
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	0	0	
	Ped/Bkwy	3	0	0	
	Hwy w/ RR	4	0	0	
	Waterway	5	179	354	
	Hwy/Waterway	6	0	0	
	RR/Waterway	7	0	0	
	Hwy/Waterway/RR	8	0	0	
	Relief (for waterways)	9	0	0	
			179	354	

ITEMS 43A,B,C Structure Type	Data (Col M,N,O)	CODE	# NBIS	# ALL
Other Culvert (incl frame culverts)		019	0	4
Concrete Slab		101	0	10
Concrete Tee Beam		104	1	2
Concrete Deck Arch		111	2	3
Concrete Culvert (incl frame culverts)		119	2	7
Concrete Continuous Slab		201	2	2
Steel Beam or Girder		302	100	138
Steel Girder w/ Floor System		303	1	1
Steel Thru Truss (inlcudes Pony)		310	17	17
Steel Culvert (incl frame culverts)		319	10	104
Steel Continuous Beam or Girder		402	1	1
Prestressed Concrete Thru Arch		502	1	1
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	27	27
Prestr. Conc. Cont. Box Beam/Girder Multiple		605	3	3
Timber Deck Arch		811	0	3
Aluminum or Iron Thru Truss (inlcudes Pony)		910	12	12
Aluminum or Iron Culvert (incl frame culverts)		919	0	19
			179	354

Item 92 Fracture Critical		CODE	# NBIS	# ALL
Data Tab	Requires FC Inspection	Y	25	n/a
Col U,V,Y	Requires FC Inspection	N	154	n/a
			179	n/a
	FC Switch Y/N is Blank		0	n/a

Item 113 Scour			# NBIS	# ALL
Data Tab	Bridge not over waterway	N	0	0
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	4	4
	stable above footing	8	73	107
	countermeasures installed	7	0	0
	no scour evaluation made	6	0	0
	stable within footer limits	5	96	231
	stable action needed	4	6	12
	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
			179	354

Item 63 Documented Engineering Judgment		# NBIS	# ALL
	Field Eval & Doc EJ	3	n/a
	BR_100 for these bridges?		

Item 92 Underwater		CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	146	n/a
Col W,X,Z	requires dive inspection	Y	0	n/a
			146	

33 NBIS bridges where Underwater inspection required is blank

See Data TAB fields in Column X highlighted in yellow

Item 70 Plan Information		CODE	# NBIS	# ALL
Data Tab	plans not avail	0	1	4
Col. AW	plan avail	1	158	328
	field measured	2	20	22
	Field Testing	3	0	0
	not applicable	N	0	0
			179	354

Item 63 Method of Analysis		CODE	# NBIS	# ALL
Data Tab	Work Stress	0	3	133
Col. AV	LFR	1	0	0
	LRFR	2	0	0
	load test	3	0	3
	No rating done	4	0	0
	LFR	5	5	5
	AS	6	124	157
	LRFR	7	5	6
	Assigned LFR HS20	8	42	50
	Assigned LRFR HL93	D	0	0
	not appl (RR, etc)	F	0	0
	Not applicable (Ped, RR, Bldg)	X	0	0
			179	354

REMINDER:

Load Factor required for bridges built after 199: (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	138	295
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 struture not yet open	G	0	6
	closed for load cap. reason	K	8	9
	Posted for load capacity	P	33	50
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			179	360

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	0
Col.A V	Item 70 correct?	6
Col. AW	Method of Rating Alike?	1
Col. AX	Op & Inv RF in Tons as req'd?	4
Col. AY	Item 575 correct?	0
Col. AZ	Depth of fill completed?	0

You have 33 bridge that are posted with no sign installation date entered into Assetwise Field 70.01

MRW-C0206-0111719_(5932580) MRW-T0092-0015539_(5930707)

MRW-C0019-0164811_(5930650) MRW-T0055-0157510_(5932653)

MRW-C0149-0036920_(5931533)

The 5 bridges above are not coded correctly. See Load Rating TAB Columns AV and S&T

MRW-C0179-0294528_(5933412); MRW-T0110-00.41 _(5931968)

MRW-C0184-0173 _(5930903); MRW-T0191-0432819_(5930421)

The 4 bridges above load factors are to be in tons using the method coded in Column X

KEY METRICS

(C)	Compliant	(CC)	Conditionally Compliant
(SC)	Substantially Compliant	(NC)	Non- Compliant
		(NC)	(SC) If corrected within 6/12 months
			Refresher=6 mo, Comprehensive=12

METRIC 2 – Program Manager Qu (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 Qualifi (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	#sampled	% PASS	COMPLIANCE
Data Tab	NBIS -	24 months	0	179	100.0%	(C)
Col. Y	ORC -	Calendar Year	0	179	100.0%	(C)
	BIM -	18 months	0	179	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 Qualifi (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	25	**25**	86.0%	(NC)

Bridges inspected in 2021 but no date change in column Y for FC inspection

MRW-C0022-0482522_(5933706); MRW-T0215-0020805_(5932378);

MRW-T0178-0321224_(5933048)

METRIC 12 – Routine Quality Inspection					
Field Ratings		**# > +/-1**	**# Ratings**	**% PASS**	**COMPLIANCE**
	field ratings	**0**	**24**	100.0%	(C)
Comments		**Missing**	**# < 6**	**% PASS**	
Tab	Comments when Rating < 6	41	173	76.3%	(NC)
		Error	**otal Scou**	**% PASS**	
Comment	Rating should be = Scour	29	171	83.0%	within tolerance +/- 1
Tab	Noncompliant Scour Rating E	11	171	93.6%	(C)

Too many fields lacking comment where required. See Comments TAB

29 bridges have scour controlling the Substructure condition rating. See Comments TAB

9 bridges have scour 2 or more points below Sub. See Comments TAB

METRIC 14 – Posting	Load rating data tab			
From Files review	**# errors**	**#sampled**	**% PASS**	**COMPLIANCE**
Op RF < 3 tons but not closed	4	179	97.8%	(SC)
Op RF = 0 but not closed	0	179	100.0%	(C)
% Legal < 100 but not posted	4	179	97.8%	(SC)
Item 41 = B	0	179	100.0%	(C)

You have 4 NBIS bridges load rated Less than 20% , but not closed

You have 4 bridges coded as posted in column S but are over 100% legal

METRIC 16 – Fracture Critical Inspection				
From Files review	**Missing**	**# FC**	**% PASS**	**COMPLIANCE**
Fract Critical Member ID	0	1	100.0%	(C)
Fatigue Prone Detail	0	1	100.0%	(C)
Gusset Plate Calculations	0	1	100.0%	(C)
FC Inspection Procedure	0	1	100.0%	(C)

METRIC 17 – Underwater Inspection				
From Files review	**Missing**	**# UW**	**% PASS**	**COMPLIANCE**
UW Inspection Procedure	0	1	100.0%	(C)
Location of UW elements	0	1	100.0%	(C)
UW frequency identified	0	1	100.0%	(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
12	Scour Rating should control Substructure or Deck Also comments lacking in many bridges.
14	Correct the posting coding errors.
10	FC inspection dates not updated in Assetwise forcing noncompliance