

MUSKINGUM County 2020

INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

1/27/2021

Inventory Data - NBIS Bridges Only

	<u>NBIS COUNT</u>
NBIS Bridges > 20'	204
Bridges 10'-20'	201
	405

Item 221	Inspection Responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab Col BV,BW	County	2	204	405
Item 21	Maintenance responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	County	2	204	405
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
			204	405
Item 42A	Type service on bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Other	0	0	0
Col Q	Highway	1	204	405
	Railroad	2	0	0
	Ped/Bikeway	3	0	0
	Hwy/RR	4	0	0
	Hwy/Ped	5	0	0
			204	405
Item 42B	Type service under bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Other	0	0	0
Col R	Hwy w/ or w/o Ped	1	1	1
	Railroad	2	2	2
	Ped/Bkwy	3	0	0
	Hwy w/ RR	4	0	0
	Waterway	5	201	402
	Hwy/Waterway	6	0	0
	RR/Waterway	7	0	0
	Hwy/Waterway/RR	8	0	0
	Relief (for waterways)	9	0	0
			204	405

ITEMS 43A,B,C Structure Type	Data (Col M,N,O)	CODE	# NBIS	# ALL
Concrete Slab		101	8	123
Concrete Girder		103	3	3
Concrete Tee Beam		104	6	7
Concrete Box Beam/Girder Multiple		105	2	2
Concrete Frame		107	5	25
Concrete Deck Arch		111	3	4
Concrete Culvert (incl frame culverts)		119	2	7
Concrete Continuous Slab		201	4	4
Steel Beam or Girder		302	106	145
Steel Girder w/ Floor System		303	3	3
Steel Thru Truss (includes Pony)		310	35	35
Steel Culvert (incl frame culverts)		319	2	21
Steel Continuous Beam or Girder		402	13	13
Prestressed Concrete Thru Arch		502	1	1
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	8	8
Prestressed Concrete Continuous Thru Arch		602	1	1
Prestr. Conc. Cont. Box Beam/Girder Multiple		605	1	1
Timber Deck Arch		811	1	2
			204	405

Item 92A Fracture Critical		CODE	# NBIS	# ALL
Data Tab	Requires FC Inspection	Y	38	n/a
Col U,V,Y	Requires FC Inspection	N	151	n/a
			189	n/a
	FC date blank but FC=Y		-15	n/a

Item 113 Scour			# NBIS	# ALL
Data Tab	Bridge not over waterway	N	3	3
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	1	1
	stable above footing	8	131	233
	countermeasures installed	7	27	78
	no scour evaluation made	6	0	1
	stable within footer limits	5	41	86
	stable action needed	4	1	2
	scour critical - unstable	3	0	1
	scour critical - scour present	2	0	0
	scour critical - failure imminent	1	0	0
	scour critical - bridge failed	0	0	0
			204	405

Item 63	Documented Engineering Judgment	# NBIS	# ALL
	Field Eval & Doc EJ	28	n/a

Item 92B	Underwater	CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	187	n/a
Col W,X,Z	requires dive inspection	Y	0	n/a
			187	
	dive insp date blank but Dive=Y		0	n/a

Item 709	Plan Information	CODE	# NBIS	# ALL
Data Tab	plans not avail	0	23	51
Col. AW	plan avail	1	125	285
	field measured	2	46	55
	Field Testing	3	0	0
	not applicable	N	10	14
			204	405

Item 63	Method of Analysis	CODE	# NBIS	# ALL
Data Tab	Field Eval & Doc. Eng Judgment	0	28	61
Col. AV	Load testing	4	0	0
	No Rating done	5	0	0
	Load Factor (LF)	6	130	0
	WS or AS	7	11	0
	Load & Resistance Factor	8	34	126
	Assigned Rating (LFR) HS20	D	0	152
	Assigned Rating (LRFR) HL93	F	1	19
	Not applicable (Ped, RR, Bldg)	X	0	39
			204	397
REMINDER:				
	Load Factor required for bridges built after 1993		(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	147	330
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	0
	closed for load cap. reason	K	0	0
	Posted for load capacity	P	57	73
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			204	403

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	27
Col.A V	Item 70 correct?	0
Col. AW	Method of Rating Alike?	4
Col. AX	Op & Inv RF in Tons as req'd?	0
Col. AY	Item 575 correct?	0
Col. AZ	Depth of fill completed?	0

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 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. 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	0	38	100.0%	(C)

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	0	205	100.0%	(C)
Comments	Error	Total Scour	% PASS	
Tab Rating should be = Scour	3	202	98.5% within tolerance +/- 1	
Tab Noncompliant Scour Rating Err	1	202	99.5%	(C)

METRIC 14 - Posting Load rating data tab

From Files review	# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed	0	204	100.0%	(C)
Op RF = 0 but not closed	0	204	100.0%	(C)
% Legal < 100 but not posted	0	204	100.0%	(C)

Item 41 = B	0	204	100.0%	(C)
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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	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
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12	NOTE - comments were not uploaded to AW in past, this metric is for future correction
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