LICKING County 2021
INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

10/19/2021

Inventory Data - NBIS Bridges Only

		NBIS COUNT
NBIS Bridges > 20'		227
Bridges 10'-20'		206
		433

Item 22 Inspection Responsibility		CODE	# NBIS	# ALL
Data Tab Col BV,BW	County	2	227	433

Item 21 Maintenance responsibility		CODE	# NBIS	# ALL
Data Tab	County	2	227	434
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
			227	434

Item 42 Type service on bridge		CODE	# NBIS	# ALL
Data Tab	Other	0	0	0
Col Q	Highway	1	226	431
	Railroad	2	0	0
	Ped/Bikeway	3	1	1
	Hwy/RR	4	0	0
	Hwy/Ped	5	0	1
			227	433

Item 42 Type service under bridge		CODE	# NBIS	# ALL
Data Tab	Other	0	0	0
Col R	Hwy w/ or w/o Ped	1	1	1
	Railroad	2	1	1
	Ped/Bkwy	3	0	0
	Hwy w/ RR	4	0	0
	Waterway	5	225	431
	Hwy/Waterway	6	0	0
	RR/Waterway	7	0	0
	Hwy/Waterway/RR	8	0	0
	Relief (for waterways)	9	0	0
			227	433

ITEMS 43A,B,C Structure Type(Col M,N,O)	CODE	# NBIS	# ALL
Concrete Slab	101	5	15
Concrete Tee Beam	104	0	1
Concrete Culvert (incl frame culverts)	119	29	134
Concrete Continuous Slab	201	9	9
Steel Beam or Girder	302	95	125
Steel Thru Truss (inlcudes Pony)	310	34	34
Steel Culvert (incl frame culverts)	319	1	55
Steel Continuous Beam or Girder	402	5	5
Prestressed Concrete Thru Arch	502	1	1
Prestr. Conc. Cont. Box Beam/Girder Multiple	505	48	48
Aluminum or Iron Culvert (incl frame culverts)	919	0	6
		227	433

Item 92 Fracture Critical		CODE	# NBIS	# ALL
Data Tab	Requires FC Inspection	Y	33	n/a
Col U,V,Y	Requires FC Inspection	N	194	n/a
			227	n/a
	FC Switch Y/N is Blank		0	n/a

Item 113 Scour			# NBIS	# ALL
Data Tab	Bridge not over waterway	N	2	2
Col AA	unknown foundation	U	1	1
	over tidal waters	T	0	0
	foundations on dry land	9	1	1
	stable above footing	8	102	192
	countermeasures installed	7	3	12
	no scour evaluation made	6	0	0
	stable within footer limits	5	118	222
	stable action needed	4	0	3
	scour critical – unstable	3	0	0
	scour critical – scour present	2	0	0
	scour critical – failure immine	1	0	0
	scour critical – bridge failed	0	0	0
			227	433

Item 63 Documented Engineering Judgment		# NBIS	# ALL
	Field Eval & Doc EJ	16	n/a
	BR_100 for these bridges?		

Item 92 Underwater		CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	227	n/a
Col W,X,Z	requires dive inspection	Y	0	n/a
			227	

Item 70 Plan Information		CODE	# NBIS	# ALL
Data Tab	plans not avail	0	11	104
Col. AW	plan avail	1	107	166
	field measured	2	107	158
	Field Testing	3	1	1
	not applicable	N	1	2
			227	431

Item 63 Method of Analysis		CODE	# NBIS	# ALL
Data Tab	Work Stress	0	16	96
Col. AV	LFR	1	0	0
	LRFR	2	0	0
	load test	3	0	0
	No rating done	4	0	0
	LFR	5	0	1
	AS	6	138	185
	LRFR	7	12	15
	Assigned LFR HS20	8	60	108
	Assigned LRFR HL93	D	1	23
	not appl (RR, etc)	F	0	5
	Not applicable (Ped, RR, Bld	X	0	0
			227	433

REMINDER:

Load Factor required for bridges built aft (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	197	397
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	1
	closed for load cap. reason	K	0	0
	Posted for load capacity	P	30	36
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			227	434

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. 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	

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 Q (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 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	3		98.7%		(SC)

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	10	33	95.6%	(SC)

METRIC 12 – Routine Inspection

Field Ratings		# > +/-¹	# Rating	% PASS	COMPLIANCE
	field ratings	0	24	100.0%	(C)
Comments		Missing	# < 6	% PASS	
Tab	Comments when Rating < 6	10	226	95.6%	(C)
		Error	otal Scou	% PASS	
Comments	Rating should be = Scour	34	225	84.9%	within tolerance +/- 1
Tab	Noncompliant Scour Rating	8	225	96.4%	(C)

LIC-T0306-0015_(4539044) Bridge has been closed for over a year.

See Comments TAB 6 of the 10 bridges flagged for scour comments have scour comments Channel or Substructure items and are listed below.
LIC-C0204-0010_(4535928); LIC-T0029-0020_(4535200); LIC-T0225-0100_(4530918); Scour comments are in Substructure of channel items
LIC-C0138-0115_(4533682); LIC-C0041-0090_(4537920); LIC-T0290-0120_(4536703); Scour comments are in Substructure of channel items
See Comments TAB
See Comments TAB column AB

METRIC 14 – Posting   Load rating data tab

From Files review	# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed	0	227	100.0%	(C)
Op RF = 0 but not closed	0	227	100.0%	(C)
% Legal < 100 but not posted	0	227	100.0%	(C)
Item 41 = B	0	227	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	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
10	10 overdue FC bridges needing inspection
6	3 routine inspected bridge overdue for inspection by 18 months