

CUYAHOGA County 2020

INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

	<u>NBIS COUNT</u>
NBIS Bridges > 20'	210
Bridges 10'-20'	149
	359

Item 221	Inspection Responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab Col BV,BW	County	2	210	359
Item 21	Maintenance responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	County	2	201	208
Col D	City or other local	4	0	141
	Railroad	27	6	7
	Private (tohter than RR)	26	2	2
	State Park	11	0	0
	Local Park	23	0	0
	Township	3	1	1
			210	359
Item 42A	Type service on bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Other	0	1	1
Col Q	Highway	1	70	190
	Railroad	2	7	7
	Ped/Bikeway	3	2	2
	Hwy/RR	4	0	0
	Hwy/Ped	5	130	159
			210	359
Item 42B	Type service under bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Other	0	4	4
Col R	Hwy w/ or w/o Ped	1	13	13
	Railroad	2	30	31
	Ped/Bkwy	3	1	2
	Hwy w/ RR	4	1	1
	Waterway	5	158	305
	Hwy/Waterway	6	2	2
	RR/Waterway	7	0	0
	Hwy/Waterway/RR	8	1	1
	Relief (for waterways)	9	0	0
			210	359

ITEMS 43A,B,C Structure Type	Data (Col M,N,O)	CODE	# NBIS	# ALL
Other Culvert (incl frame culverts)		019	0	2
Concrete Slab		101	5	7
Concrete Tee Beam		104	3	3
Concrete Box Beam/Girder Multiple		105	1	1
Concrete Frame		107	18	20
Concrete Deck Arch		111	14	14
Concrete Culvert (incl frame culverts)		119	34	161
Concrete Continuous Slab		201	8	8
Concrete Continuous Tee Beam		204	3	3
ConcreteContinuous Frame		207	2	2
Steel Beam or Girder		302	17	17
Steel Girder w/ Floor System		303	7	7
Steel Thru Truss (inlcudes Pony)		310	3	3
Steel Deck Arch		311	2	2
Steek Movable - Lift		315	1	1
Steel Culvert (incl frame culverts)		319	6	19
Steel Continuous Beam or Girder		402	31	31
Prestressed Concrete Thru Arch		502	10	10
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	30	30
Prestressed Concrete Continuous Thru Arch		602	2	2
Prestr. Conc. Cont. Box Beam/Girder Multiple		605	5	5
Timber Deck Arch		811	1	1
Timber Culvert (incl frame culverts)		819	4	4
Aluminum or Iron Culvert (incl frame culverts)		919	3	6
			210	359

Item 92A Fracture Critical		CODE	# NBIS	# ALL
Data Tab	Requires FC Inspection	Y	9	n/a
Col U,V,Y	Requires FC Inspection	N	201	n/a
			210	n/a
	FC date blank but FC=Y		0	n/a

Item 92B Underwater		CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	205	n/a
Col W,X,Z	requires dive inspection	Y	5	n/a
			210	
	dive insp date blank but Dive=Y		0	n/a

Item 113 Scour			# NBIS	# ALL
Data Tab	Bridge not over waterway	N	49	51
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	6	11
	stable above footing	8	131	235
	countermeasures installed	7	3	3
	no scour evaluation made	6	0	0
	stable within footer limits	5	20	55
	stable action needed	4	1	3
	scour critical - unstable	3	0	0
	scour critical - scour present	2	0	1
	scour critical - failure imminent	1	0	0
	scour critical - bridge failed	0	0	0
			210	359

Item 709 Plan Information		CODE	# NBIS	# ALL
Data Tab	plans not avail	0	4	11
Col. AW	plan avail	1	188	324
	field measured	2	8	14
	Field Testing	3	0	0
	not applicable	N	10	10
			210	359

Item 63 Method of Analysis		CODE	# NBIS	# ALL
Data Tab	Field Eval & Doc. Eng Judgment	0	4	14
Col. AV	Load testing	4	0	0
	No Rating done	5	10	13
	Load Factor (LF)	6	155	270
	WS or AS	7	2	2
	Load & Resistance Factor	8	39	59
	Assigned Rating (LFR) HS20	D	0	0
	Assigned Rating (LRFR) HL93	F	0	1
	Not applicable (Ped, RR, Bldg)	X	0	0
			210	359

REMINDER:

Load Factor required for bridges built after 1993 (exceptions: timber, etc.)
LRFR required for bridges built after 2010

Item 63 Documented Engineering Judgment		# NBIS	# ALL
	Field Eval & Doc EJ	4	n/a

BR_100 for these bridges?

Inspection Data Item 41

Item 41	Operating Status	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Open, No restriction	A	190	327
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	1	1
	closed for load cap. reason	K	5	5
	Posted for load capacity	P	14	26
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			210	359

Load Rating Data

Load Rating Tab		<u># OF ERRORS</u>
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?	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 Qualification (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
PE /Experience	0	1	100.0%	(C)
Comprehensive	1	1	0.0%	(NC)
Refresher	0	1	100.0%	(C)

METRIC 3 - Team Leader Qualification (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
Degree /Experience	0	3	100.0%	(C)
Comprehensive	1	3	66.7%	(NC)
Refresher	1	3	66.7%	(NC)

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	5	100.0%	(C)

METRIC 10 - Insp. Frequency FC Member

FC Inspections Overdue	# OVERDUE	# FC	% PASS	COMPLIANCE
Data Tab Col. Y 24 months	0	9	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 O&P	0	359	100.0%	(C)
Comments	Error	Total Scour	% PASS	
Rating should be = Scour	2	116	98.3%	within tolerance +/- 1
Tab	0	116	100.0%	(C)

METRIC 14 - Posting Load rating data tab

From Files review	# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed	0	210	100.0%	(C)
Op RF = 0 but not closed	0	210	100.0%	(C)
% Legal < 100 but not posted	0	210	100.0%	(C)
Item 41 = B	0	210	100.0%	(C)

METRIC 16 - Fracture Critical Inspection (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
Fract Critical Member ID	1	2	50.0%	(NC)
Fatigue Prone Detail	0	2	100.0%	(C)
Gusset Plate Calculations	0	2	100.0%	(C)
FC Insp. Procedure w. risk factors	2	2	0.0%	(NC)

METRIC 17 - Underwater Inspection (from files examination)

From Files review	Missing	# sampled	% PASS	COMPLIANCE
UW Inspection Procedure	1	1	0.0%	(NC)
Location of UW elements	0	1	100.0%	(C)
UW frequency identified	1	1	0.0%	(NC)

PRELIMINARY FHWA 23 Metric Matrix

23 metrics used by FHWA to measure NBIS compliance

Compliance Codes for the following Metrics:

(C)	Compliant	(CC)	Conditionally Compliant (per approved PCA)
(SC)	Substantially Compliant	(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

2	Must meet comprehensive within 6 months	
3	Must take refresher within 12 months and meet comprehensive within 6 months	
2&3	if not taken with 6/12 months - considered NC Non-compliant	
5	Be sure diver certifications are in the file and uploaded to ASsetWise	
16	Need FPD list, FCM ID, Frequency and Risk Factors in the Insp Procedure	
17	Need complete and unique UW inspection procedure, use ODOT MBI Appendix F	