

**Medina County 2021**

**INVENTORY, APPRAISAL & INSPECTION SNAPSHOT**

10/9/2021

**Inventory Data - NBIS Bridges Only**

				NBIS COUNT
NBIS Bridges > 20'				117
Bridges 10'-20'				169
				286
<b>Item 22 Inspection Responsibility</b>				
		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Col BV, Bw	County	2	117 286
<b>Item 21 Maintenance responsibility</b>				
		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	County	2	116	286
Col D	City or other local	4	0	0
	Railroad	27	1	1
	Private (tohter than RR)	26	0	0
	State Park	11	0	0
	Local Park	23	0	0
	Township	3	0	0
			117	287
<b>Item 42 Type service on bridge</b>				
		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Other	0	0	0
Col Q	Highway	1	116	285
	Railroad	2	1	1
	Ped/Bikeway	3	0	0
	Hwy/RR	4	0	0
	Hwy/Ped	5	0	0
			117	286
<b>Item 42 Type service under bridge</b>				
		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
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	3
	Hwy w/ RR	4	0	0
	Waterway	5	114	280
	Hwy/waterway	6	0	0
	RR/waterway	7	0	0
	Hwy/waterway/RR	8	0	0
	Relief (for waterways)	9	1	1
			117	286

MED-SMITH-RR02\_(5266106)  
RR bridge coded 27 in item 21

<b>ITEMS 43A,B,C Structure Type<sup>a</sup> (Col M,N,O)</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Concrete Slab		101	2	9
Concrete Frame		107	5	6
Concrete Culvert (incl frame culverts)		119	25	137
Concrete Continuous Slab		201	11	11
Concrete Continuous Box Beam/Girder Multiple		205	1	1
Steel Beam or Girder		302	25	27
Steel Girder w/ Floor System		303	1	1
Steel Thru Truss (includes Pony)		310	3	3
Steel Culvert (incl frame culverts)		319	6	32
Prestressed Concrete Thru Arch		502	4	4
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	29	30
Prestressed Conc. Culvert (incl frame culverts)		519	0	2
Prestressed Concrete Continuous Thru Arch		602	2	2
Prestr. Conc. Cont. Box Beam/Girder Multiple		605	2	2
Timber Slab		701	1	3
Timber Culvert (incl frame culverts)		719	0	4
Aluminum or Iron Culvert (incl frame culverts)		919	0	12
			117	286

<b>Item 92 Fracture Critical</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Requires FC Inspection	Y	3	n/a
Col U,V,Y	Requires FC Inspection	N	114	n/a
			117	n/a
	FC date blank		0	n/a
missing Y/N switch RIC-T0258-0040_(7031093)				

<b>Item 11E Scour</b>			<b># NBIS</b>	<b># ALL</b>
Data Tab	Bridge not over waterway	N	2	5
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	0	0
	stable above footing	8	41	83
	countermeasures installed	7	5	8
	no scour evaluation made	6	0	1
	stable within footer limits	5	69	186
	stable action needed	4	0	3
	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
			117	286

Item 63 Documented Engineering Judgment			# NBIS	# ALL
	Field Eval & Doc EJ		0	n/a

BR\_100 for these bridges?

Item 92 Underwater		CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	117	n/a
Col W,X,Z	requires dive inspection	Y	0	n/a
			117	
	dive insp date blank		0	n/a

Item 70 Plan Information		CODE	# NBIS	# ALL
Data Tab	plans not avail	0	1	31
Col. AW	plan avail	1	106	235
	field measured	2	9	17
	Field Testing	3	0	0
	not applicable	N	1	2
			117	285

MED-C0150-0353\_(5235465)  
Column AW left blank in Data TAB

Item 63 Method of Analysis		CODE	# NBIS	# ALL
Data Tab	Field Eval & Doc. Engr Judgmer	0	0	32
Col. AV	Work Stress	1	0	0
	LFR	2	0	0
	LRFR	3	0	0
	load test	4	0	0
	No rating done	5	1	68
	LFR	6	88	131
	AS	7	1	12
	LRFR	8	20	35
	Assigned LFR HS20	D	5	5
	Assigned LRFR HL33	F	2	3
	not appl (RR, etc)	X	0	0
			117	286

**REMINDER:**

**Load Factor required for bridges built after (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	108	275
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	9	11
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			117	287

MED-C0035-0164\_(5233918) Proposed

### 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	2
Col. AV	Item 70 correct?	1
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

Rounding  
Off by 1 OK

## 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	1	99.1%	(SC)
Col. Y ORC - Calendar Year	1	99.1%	(SC)
BIM - 18 months	1	99.1%	(SC)

MED-C0019-0204\_(5243416)  
MED-C0027-0807\_(5233658)  
MED-C0050-0597\_(5234298)

### 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	3	100.0%	(C)

### METRIC 12 - Routine Inspection \*\* (from files examination)

Field Ratings	# > +/-1	# Ratings	% PASS	COMPLIANCE
field ratings	0	24	100.0%	(C)
Comments	Missing	# < 6	% PASS	
Tab Comments when Rating < 6	12	141	91.5%	(C)
Inadequate comments**	0	6	100.0%	(C)
	Error	Total Scour	% PASS	
Comment Rating should be = Scour	0	117	100.0%	(C)
Tab Noncompliant Scour Rating E	0	117	100.0%	(C)

within tolerance +/- 1  
See Comment TAB

<b>METRIC 14 - Posting</b>		Load rating data tab			
<b>From Files review</b>	<b># errors</b>	<b>#sampled</b>	<b>% PASS</b>	<b>COMPLIANCE</b>	
Op RF < 3 tons but not closed	0	117	100.0%	(C)	
Op RF = 0 but not closed	0	117	100.0%	(C)	
% Legal < 100 but not posted	0	117	100.0%	(C)	
Item 41= B	0	117	100.0%	(C)	
<b>METRIC 16 - Fracture Critical Ins</b> (from files examination)					
<b>From Files review</b>	<b>Missing</b>	<b># FC</b>	<b>% PASS</b>	<b>COMPLIANCE</b>	
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)	
<b>METRIC 17 - Underwater Inspecti</b> (from files examination)					
<b>From Files review</b>	<b>Missing</b>	<b># UW</b>	<b>% PASS</b>	<b>COMPLIANCE</b>	
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:

<b>(C)</b>	Compliant
<b>(SC)</b>	Substantially Compliant
<b>(CC)</b>	Conditionally Compliant (Adhering to approved PCA)
<b>(NC)</b>	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
6	Just a couple of bridges late for inspection

