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# FHWA NBIS 23 METRIC'S COMPLIANCE REVIEW

PRESENTED BY: JOSE J. ORTIZ

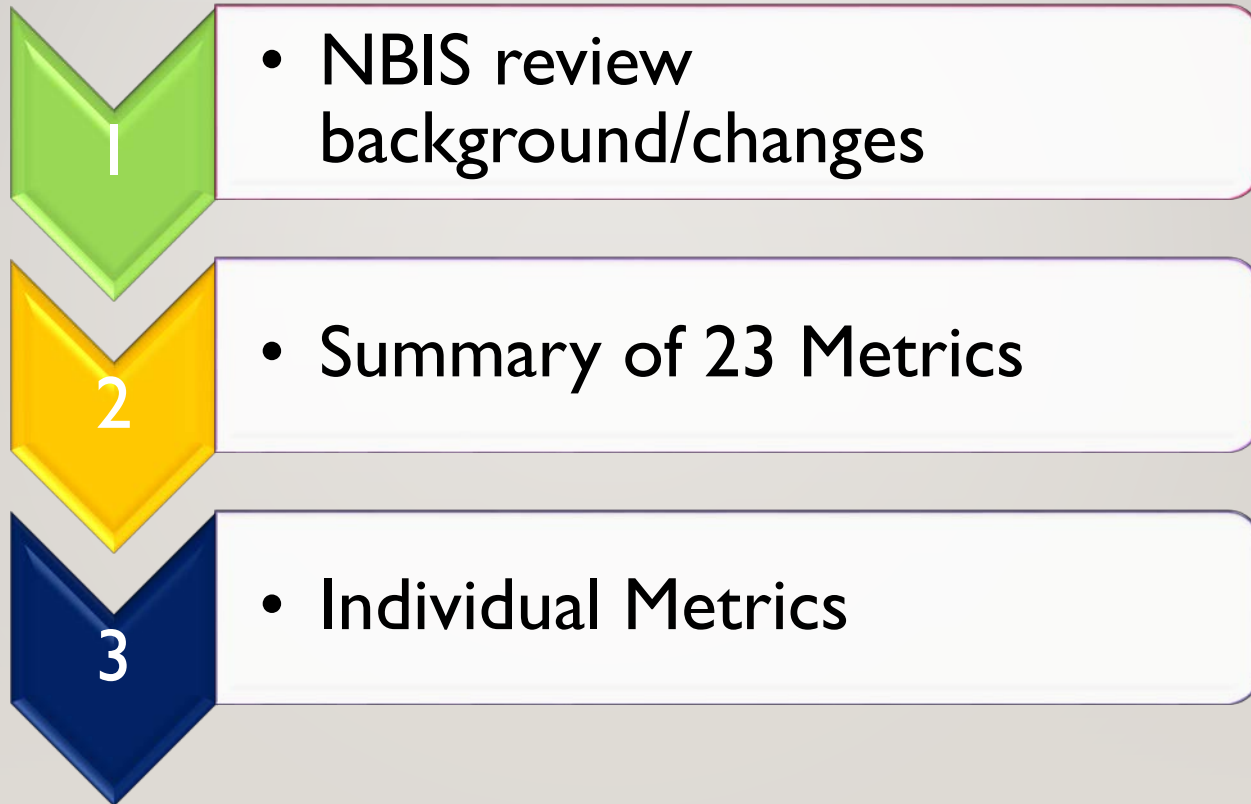
FHWA DIVISION BRIDGE ENGINEER

BRIDGE INSPECTION CONFERENCE

FEBRUARY 6<sup>TH</sup>, 2018

# AGENDA

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# NBIS REVIEW...WHY?

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- Required by law (MAP-21)
- To ensure public safety and bridge preservation
- NBIS sets the national standards for the proper safety inspection and evaluation of all highway bridges.
- FHWA ensure that all bridges are inspected accordingly.

## Notes:

- INDOT is responsible for all bridge inspections in the state; this includes ensuring compliance of NBIS regulations by LPAs
- Review provides a bridge inspection program assessment that potentially identify any deviation from the standards.

# NBIS REVIEW...WHAT IS IT?

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- Risk-based and data driven review
- Performed annually and is based on 23 bridge metrics identified in the NBIS regulations
- Each metric is assessed and determined to be in:
  - Compliance
  - Substantially Compliance - **requires action by INDOT**
  - Non-Compliance – **requires action by INDOT**
  - Conditional Compliance - **requires action by INDOT**



# NBIS REVIEW...WHAT IS IT?

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- **I: Bridge inspection organization**
- **Qualifications**
  - 2: Qualifications of Program Manager
  - 3: Qualifications of Team Leaders
  - 4: Qualifications of Load Rating Engineer
  - 5: Qualifications of UW Bridge Inspection Diver
- **Frequency**
  - 6: Routine inspection frequency – Lower risk bridges
  - 7: Routine inspection frequency – Higher risk bridges
  - 8: UW inspection frequency – Lower risk bridges
  - 9: UW Inspection frequency – Higher risk bridges
  - 10: FC inspection frequency
  - 11: Inspection frequency criteria

# NBIS REVIEW...WHAT IS IT?

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## ➤ Procedures

- 12: Inspection procedures – Quality Inspections
- 13: Load Rating
- 14: Load Post or Restrict
- 15: Bridge Files
- 16: FC inspection procedures
- 17: UW Inspection procedures
- 18: Scour Critical inspection procedures
- 19: Complex inspection procedures
- 20: QC/QA procedures
- 21: Critical findings procedures

# NBIS REVIEW...WHAT IS IT?

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## ➤ **Inventory**

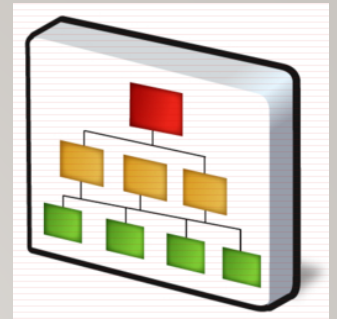
- 22: Prepare and maintain bridge inventory
- 23: Timely updating of bridge inventory data

# PY18 METRICS REVIEW RESULTS

RevYr	Metric	Prev	AL	Dec 31	
		CL		CL	Complete
PY18	01 - Bridge Inspection Organization	C	Min	C	✓
PY18	02 - Qualifications of Personnel - Program Manager	C	Int	C	✓
PY18	03 - Qualifications of Personnel - Team Leader(s)	C	Min	C	✓
PY18	04 - Qualifications of Personnel - Load Rating Engineer	C	Min	C	✓
PY18	05 - Qualifications of Personnel - UW Bridge Inspection Diver	C	Min	C	✓
PY18	06 - Inspection Frequency - Routine - Lower Risk Bridges	SC	Min	SC	✓
PY18	07 - Inspection Frequency - Routine - Higher Risk Bridges	SC	Min	SC	✓
PY18	08 - Inspection Frequency - Underwater - Lower Risk Bridges	C	Min	C	✓
PY18	09 - Inspection Frequency - Underwater - Higher Risk Bridges	C	Min	C	✓
PY18	10 - Inspection Frequency - Fracture Critical Member	SC	Min	SC	✓
PY18	11 - Inspection Frequency - Frequency Criteria	C	Min	SC	✓
PY18	12 - Inspection Procedures - Quality Inspections	SC	Min	SC	✓
PY18	13 - Inspection Procedures - Load Rating	CC	Min	CC	✓
PY18	14 - Inspection Procedures - Post or Restrict	C	Int	C	✓
PY18	15 - Inspection Procedures - Bridge Files	CC	Min	CC	✓
PY18	16 - Inspection Procedures - Fracture Critical Members	CC	Min	CC	✓
PY18	17 - Inspection Procedures - Underwater	C	Min	C	✓
PY18	18 - Inspection Procedures - Scour Critical Bridges	CC	Min	CC	✓
PY18	19 - Inspection Procedures - Complex Bridges	CC	Int	SC	✓
PY18	20 - Inspection Procedures - QC/QA	C	Min	C	✓
PY18	21 - Inspection Procedures - Critical Findings	SC	Min	C	✓
PY18	22 - Inventory - Prepare and Maintain	C	Min	C	✓
PY18	23 - Inventory - Timely Updating of Data	SC	Int	SC	✓



# RESULTS: METRIC # 1



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## ➤ **Bridge Inspection Organization**

### ➤ **Determination:**

- Compliance

### ➤ **Reason for determination:**

- Organizational roles and responsibilities are clearly defined and documented; including delegated roles and responsibilities.

### ➤ **Action Expected:**

- Continue to monitor any delegated functions.

# RESULTS: METRIC # 2, 3,4, & 5



- 
- **Qualification of Personnel – Program Manager**
  - **Qualification of Personnel – Team Leader**
  - **Qualification of Personnel – Load Rating Engineer**
  - **Qualification of Personnel – UW Bridge Inspection Diver**
  - **Determination:**
    - Compliance
  - **Reason:**
    - All personnel in the population had the required qualifications.
  - **Action Expected:**
    - INDOT approves qualified personnel and maintain updated documentation
      - PE certifications
      - NHI courses certificates

# RESULTS: METRIC # 6,7,8,9 & 10

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- **Inspection Frequency – Lower Risk Bridges**
- **Inspection Frequency – Higher Risk Bridges**
- **Inspection Frequency – Underwater – Lower Risk Bridges**
- **Inspection Frequency – Underwater – Higher Risk Bridges**
- **Inspection Frequency – Fracture Critical Member**
- **Determination:**
  - Compliance & Substantially Compliance
- **Reason for determination:**
  - Routine Inspection intervals < 24 months
  - Underwater Inspection intervals < 60 months
  - Fracture Critical Member Inspection Intervals <24 months

# RESULTS: METRIC # 6 – LOW RISK ROUTINE

Metric Criteria	Frequency Interval Percentage meeting interval			Snapshot Key	Assessment Level (AL)	Snapshot (All owners)
	≤24-mo	≤25-mo	≤28-mo			
Regular Frequency (NTE 24-mo)	≤24-mo	≤25-mo	≤28-mo			
Regular Frequency (NTE 48-mo)	≤48-mo	≤49-mo	≤52-mo			
Compliance (C)	85%	100%	100%		Min-AL	 Basis: PY17
Substantial Compliance (SC)	50%	90%	100%			
Further Review/ Corrective Action Required	Does not meet SC criteria					
<b>Summary</b>	≤24-mo + ≤48-mo	25-mo + 49-mo	26-28-mo + 50-52-mo	>28-mo + >52-mo	<b>Overdue Inspections</b>	<b>Total</b>
Regular + Extended Frequencies	NA	NA	NA	NA	0	NA
Number meeting interval criteria	NA	NA	NA	NA	0	
Metric Criteria Calculation	≤24 + ≤48	≤26 + ≤48	≤28 + ≤52			
Cumulative number meeting interval	NA	NA	NA			
Percentage meeting interval	NA	NA	NA	NA = criteria not applicable for Min-AL		

**20 Inspections Reported overdue**  
**1 Overdue Inspection**

# RESULTS: METRIC # 7 – HIGH RISK ROUTINE

Metric Criteria	Frequency Interval Percentage meeting interval			Snapshot Key	Assessment Level (AL)	Snapshot (All Owners)
	≤24-mo	≤25-mo	≤28-mo			
Regular Frequency (NTE 24-mo)	95%	100%	100%		Min-AL	 Basis: FY17
Compliance (C)	50%	95%	100%			
Substantial Compliance (SC)	Does not meet SC criteria					
Further Review/ Corrective Action Required	Does not meet SC criteria					

Regular NTE 24-mo category	≤24-mo	25-mo	26-28-mo	>28-mo	Overdue	Total
Number meeting interval criteria	NA	NA	NA	NA	0	NA
Metric Criteria Calculation	≤24-mo	≤25-mo	≤28-mo		0	
Cumulative number meeting interval	NA	NA	NA		0	
Percentage meeting interval	NA	NA	NA			

NA = criteria not applicable for Min-AL

**0 Inspections Reported overdue**  
**0 Overdue Inspection**



# RESULTS: METRIC # 8 – LOW RISK UNDERWATER

Metric Criteria	Frequency Interval Percentage meeting interval			Snapshot Key	Assessment Level (AL)	Snapshot (All owners)
	≤60-mo	≤61-mo	≤64-mo			
Regular Frequency (NTE 60-mo)	≤60-mo	≤61-mo	≤64-mo			
Regular Frequency (NTE 72-mo)	≤72-mo	≤73-mo	≤76-mo			
Compliance (C)	85%	100%	100%	○	Min-AL	○ <small>Base: FY17</small>
Substantial Compliance (SC)	50%	90%	100%	◐		
Further Review/ Corrective Action Required	Does not meet SC criteria			●		

Summary	≤60-mo + ≤72-mo	61-mo + 73-mo	62-64-mo + 74-76-mo	>64-mo + >76-mo	Overdue Inspections	Total
Regular + Extended Frequencies	NA	NA	NA	NA	0	NA
Metric Criteria Calculation	≤80 + ≤72	≤81 + ≤73	≤84 + ≤78		0	
Cumulative number meeting interval	NA	NA	NA			
Percentage meeting interval	NA	NA	NA			

NA = criteria not applicable for Min-AL

**4 Inspections Reported overdue**  
**0 Overdue Inspection**

# RESULTS: METRIC # 9 – HIGH RISK UNDERWATER

Metric Criteria	Frequency Interval Percentage meeting interval			Snapshot Key	Assessment Level (AL)	Snapshot (All Owners)
	≤60-mo	≤61-mo	≤64-mo			
Regular Frequency (NTE 60-mo)	≤60-mo	≤61-mo	≤64-mo	<input type="radio"/>	Min-AL	<input type="radio"/>
Compliance (C)	95%	100%	100%			
Substantial Compliance (SC)	90%	95%	100%			
Further Review/ Corrective Action Required	Does not meet SC criteria			<input type="radio"/>		Basis: FY17

Regular Frequency (NTE 60-mo)	≤60-mo	61-mo	62-64-mo	>64-mo	Overdue	Total
Number meeting interval criteria	NA	NA	NA	NA	0	NA
Metric Criteria Calculation	≤60-mo	≤61-mo	≤64-mo		0	
Cumulative number meeting interval	NA	NA	NA			
Percentage meeting interval	NA	NA	NA			

NA = criteria not applicable for Min-AL

**0 Inspections Reported overdue**  
**0 Overdue Inspection**

# RESULTS: METRIC # 10 – FRACTURE CRITICAL

Metric Criteria	Frequency Interval Percentage meeting interval			Snapshot Key	Assessment Level (AL)	Snapshot (All Owners)
	≤24-mo	≤25-mo	≤28-mo			
Regular Frequency (NTE 24-mo)	95%	100%	100%		Min-AL	 Basis: FY17
Compliance (C)	50%	95%	100%			
Substantial Compliance (SC)	Does not meet SC criteria					
Further Review/ Corrective Action Required						

Regular NTE 24-mo category	≤24-mo	25-mo	26-28-mo	>28-mo	Overdue	Total
Number meeting interval criteria	NA	NA	NA	NA	0	NA
Metric Criteria Calculation	≤24-mo	≤25-mo	≤28-mo		0	
Cumulative number meeting interval	NA	NA	NA			
Percentage meeting interval	NA	NA	NA			

NA = criteria not applicable for Min-AL

**9 Inspections Reported overdue**  
**0 Overdue Inspection**

# RESULTS: METRIC # 11- FREQUENCY CRITERIA

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- **Inspection Frequency – Frequency Criteria**
- **Determination:**
  - Substantial Compliance

Bridges requiring reduced interval inspections	Status Key	Routine	FC	UW	Other Special
Reduced Interval Inspections meet + 1 month	✓	1,136	67	19	261
Exceeded reduced interval inspections + 1 month	▲	67	5	2	17
Overdue reduced interval inspections	▲	4	2	0	30
Reduced Interval < (analysis span or 12 mo.) *	▬	0	0	0	0
Missing data / errors in data	◆	0	0	0	0
<b>Total number of bridges evaluated</b>		<b>1,207</b>	<b>74</b>	<b>21</b>	<b>308</b>
<b>Percentage meeting reduced interval</b>		<b>94%</b>	<b>91%</b>	<b>90%</b>	<b>85%</b>
<b>Snapshot (for information only)</b>		🌓	🌓	🌓	🌓

# RESULTS: METRIC # 12

## ➤ Inspection procedures – Quality Inspections

### ➤ Determination:

- Substantial Compliance

81%

### ➤ Reason:

- At least 80% of inspection reports meet criteria for quality assessments, ratings and documentation

Structure No.	58,59,60,62	Notable Deficiencies	Justify	FC/UW/Complex Properly done	FC/UW/Complex reflected in condition rating	Folloed MBE?	TL?	Diver?	Pass M12?
Total Structures	21	21	21	21	21	21	21	21	21
Yes	21	21	19	20	20	17	21	21	17
No	0	0	2	1	1	4	0	0	4
% Met	100.0%	100.0%	90.5%	95.2%	95.2%	81.0%	100.0%	100.0%	81.0%



# RESULTS: METRIC # 12

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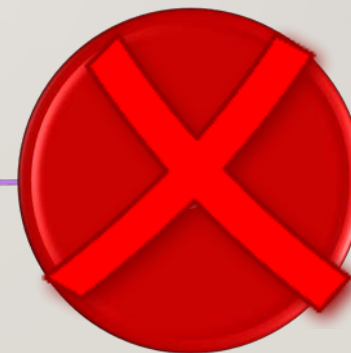


Condition  
Rating

58,59,60,62
21
21
0
100.0%



4



# RESULTS: METRIC # 12

## ➤ Notable deficiency identified

### ➤ “Notable deficiency” definition

- Those deficiencies leading to NBI component rating of 5 or less, or required some kind of immediate action.

Notable Deficiencies
21
21
0
100.0%

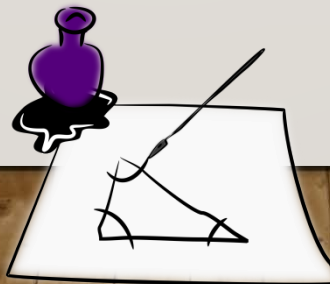
## ➤ Narrative justifies condition rating

### ➤ “Appropriate justification” definition

- The lower the condition rating the higher amount of documentation

Justify
21
19
2
90.5%

## ➤ How to identify or justify condition?

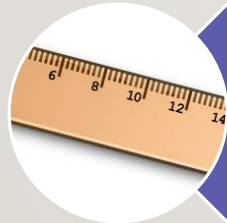


# RESULTS: METRIC # 12

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Location



Extent



Severity

# RESULTS: METRIC # 12



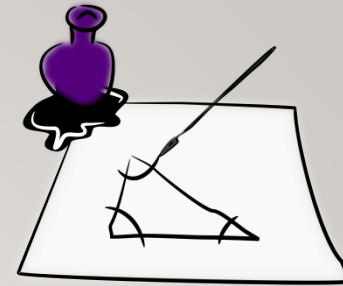
Deck underside has significant map cracking (~50% SA) with moderate to severe efflorescence; South coping in spans A and B has spalled exposing up to 5 strands of reinforcement - primarily around drain in span A



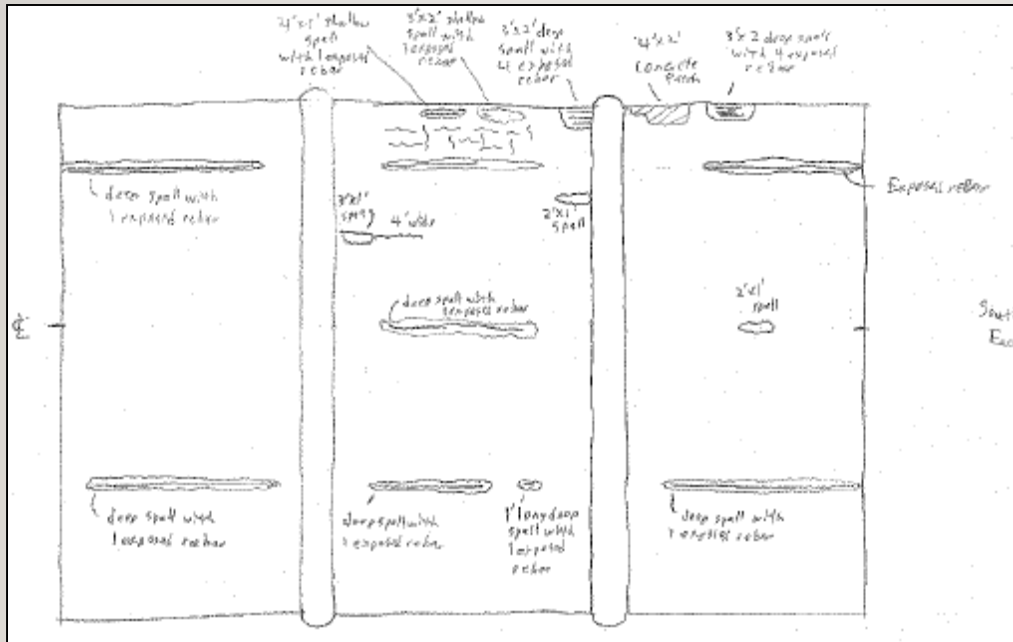
POOR-SPALLED-CRACKED

CRITICAL-SECTION LOSS-RUST THROUGH

# RESULTS: METRIC # 12



- Use sketches to support your condition ratings.
- The lower the condition rating the higher amount of documentation



- Description
- Dimensions
- Distances



# RESULTS: METRIC # 12



PHOTO 6

Description Spalling exposing reinforcement (up to 5 strands) with moderate section loss (30%) along South coping of spans A and B



# RESULTS: METRIC # 12



PHOTO 20

Description Delamination near beam seat at Pier No. 9



# RESULTS: METRIC # 12

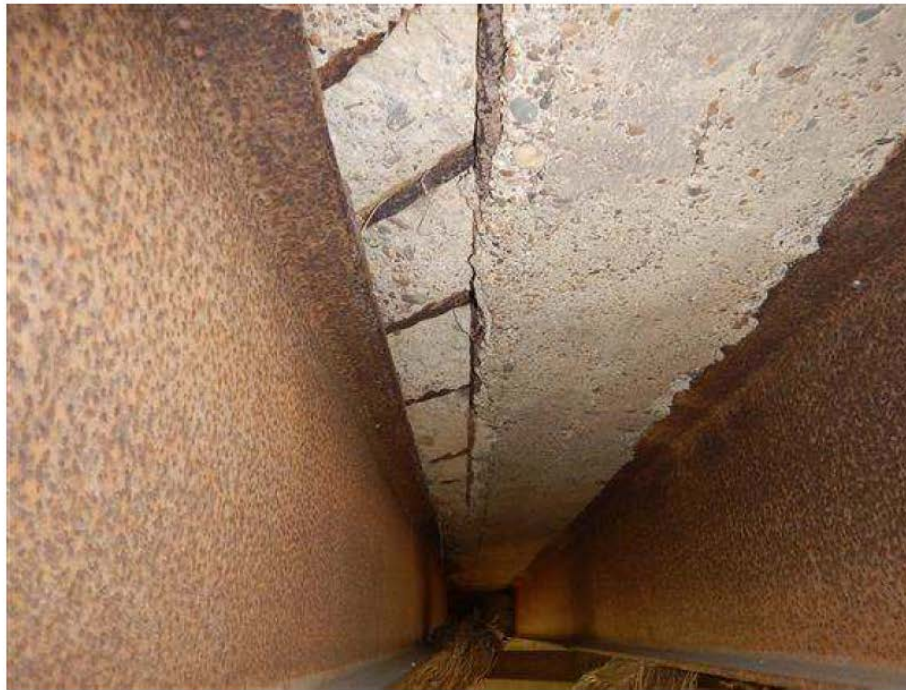


PHOTO 7

Description DECK SPALLS WITH EXPOSED STEEL





# RESULTS: METRIC # 12



PHOTO 13

Description W. Channel



# RESULTS: METRIC # 12



- Photo #1: Approach looking in one direction
- Photo #2: Approach looking in the other direction
- Photo #3: General deck condition
- Photo #4: General/typical expansion joint condition
- Photo #5: One side of structure (profile)
- Photo #6: Other side of the structure (another profile)
- Photo #7: General/typical deck underside
- Photo #8: General view abutment #1
- Photo #9: General view abutment #2
- Photo #10: General/typical view pier
- Photo #11: Looking upstream
- Photo #12: Looking downstream





# RESULTS: METRIC # 13

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## ➤ Inspection Procedure – Load Rating

## ➤ Determination:

- Conditional Compliance

## ➤ Reason:

- Adhering to FHWA approved plan of corrective action (PCA).
- All bridges are load rating are accurate to current conditions.

Metric Criteria	Risk	
	Lower	Higher
Compliance (C)	100%	100%
Substantial Compliance (SC)	95%	100%
Further Review/ Corrective Action Required	Does not meet SC criteria	

# RESULTS: METRIC # 13



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Lower Risk Bridges			Higher Risk Bridges		
✓	✗	%	✓	✗	%
15,765	785	95%	2,440	58	98%

2016

Lower Risk Bridges			Higher Risk Bridges		
✓	✗	%	✓	✗	%
16,150	507	97%	2,407	27	99%

2017

➤ **Action Expected:**

- INDOT continue implementing their revised load rating policy on all LPA bridges.

# RESULTS: METRIC # 14

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## ➤ Inspection Procedure – Post or restrict bridges

### ➤ Determination:

- Compliance

### ➤ Reason:

- All bridges are properly posted or restricted as required.

### ➤ Criteria:

- FHWA HQ report (compares item 70 with item 41)
- Posting Signs



# RESULTS: METRIC # 14

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## ➤ Item 41: Structure Open, Posted, or Closed to Traffic

### Item 41 - Structure Open, Posted, or Closed to Traffic (cont'd)

<u>Code</u>	<u>Description</u>
A	Open, no restriction
B	Open, posting recommended but not legally implemented (all signs not in place or not correctly implemented)
D	Open, would be posted or closed except for temporary shoring, etc. to allow for unrestricted traffic
E	Open, temporary structure in place to carry legal loads while original structure is closed and awaiting replacement or rehabilitation
G	New structure not yet open to traffic
K	Bridge closed to all traffic
P	Posted for load (may include other restrictions such as temporary bridges which are load posted)
R	Posted for other load-capacity restriction (speed, number of vehicles on bridge, etc.)



# RESULTS: METRIC # 14

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## ➤ Coding Guide Definition:

- **R: Posted for other load-capacity restriction (speed, number of vehicles on bridge, etc.)**



- Geometry restriction?
- Load capacity restriction?
- Other restriction?



# RESULTS: METRIC # 15

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- **Inspection Procedure – Bridge Files**
- **Determination:**
  - Conditional Compliance
- **Reason:**
  - Adhering to FHWA approved plan of corrective action (PCA).
- **Criteria:**
  - All bridges have files.
  - All bridges have the applicable significant files.
- **Significant files:**
  - Routine Inspection Reports
  - Special Inspection Reports
  - Load Rating Documentation
  - Critical Findings and Actions
  - Scour Assessments
  - Posting Documentation
  - Significant Correspondence

# RESULTS: METRIC # 15

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➤ **Bridge Inventory Assessment System (BIAS)**, is the approved method for maintaining bridges files.



# RESULTS: METRIC # 16

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## ➤ **Inspection Procedure – Fracture Critical Members**

### ➤ **Determination:**

- Conditional Compliance

### ➤ **Bridge Inspection Manual updated**

- Each FCM inspection should have 3 main components

- Location of all FCMs identified

- Inspection frequency

- Inspection procedures

# RESULTS: METRIC # 16

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## ➤ **Inspection Procedures**

- FCM procedure in bridge record
- Procedure identify FCM's to be inspected
- Procedure identify needed special access
- Procedure detail methods/equipment and frequencies
- Report provides evidence that procedures were followed
- FCM designation correct
- Risk factors identified

# RESULTS: METRIC # 16

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## ➤ Risk factors

Risk Factors (check all that apply)			
Fatigue and fracture prone details:	<input type="checkbox"/>	Posted for load:	<input type="checkbox"/>
Problematic materials:	<input type="checkbox"/>	Superstr condition code of 4 or less:	<input type="checkbox"/>
Poor welding techniques:	<input type="checkbox"/>	Subjected to overloads or impact damage:	<input type="checkbox"/>
Potential out-of-plane distortion details:	<input type="checkbox"/>	Older service life:	<input type="checkbox"/>
Previous cracking or repairs:	<input type="checkbox"/>	Debris build-up:	<input type="checkbox"/>
Source of prior cracking:	<input type="checkbox"/>	High ADTT:	<input type="checkbox"/>
Cold service temps:	<input type="checkbox"/>		



# RESULTS: METRIC # 17

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## ➤ **Inspection Procedure – Underwater**

### ➤ **Determination:**

- Compliance

### ➤ **Reason:**

- All bridges requiring UW inspection have written inspection procedures
- Bridges are inspected according to those procedures.

### ➤ **INDOT's Action:**

- Keep inspecting bridges according to established procedures.

# RESULTS: METRIC # 17

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## ➤ **Inspection Procedures**

- UW procedure in bridge record
- Procedure identify UW elements to be inspected
- Procedure identify needed special access
- Procedure identify physical scour countermeasures
- Procedure identify hydraulic features and characteristics
- Procedures identify inspection methods and frequencies
- Report provides evidence that procedures were followed
- UW bridge inspection designation correct
- Risk factors identified

# RESULTS: METRIC # 17

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➤ **Risk factors**

Risk Factors (check all that apply)	
Rapid stream or tidal flows:	<input type="checkbox"/>
Significant debris accumulation:	<input type="checkbox"/>
Constricted waterway opening:	<input type="checkbox"/>
Soft or unstable streambed:	<input type="checkbox"/>
Pollutants in water:	<input type="checkbox"/>
Limited visibility under water:	<input type="checkbox"/>
Marine environment:	<input type="checkbox"/>
Meandering channel:	<input type="checkbox"/>

# RESULTS: METRIC # 18

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- **Inspection Procedure – Scour Critical Bridges**

- **Determination:**

- Conditional Compliance

- **Reason:**

- Adhering to FHWA approved plan of corrective action (PCA).

- **INDOT's Action:**

- Develop Scour Screening Assessment Policy for LPA bridges and develop a Scour Plan of Action and monitoring policy.
- On schedule – The BIM have been revised and a new scour forms is now available in BIAS.



# RESULTS: METRIC # 19

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➤ **Inspection Procedure – Complex Bridges**

➤ **Determination:**

- Substantial Compliance

➤ **Reason:**

- All 6 complex bridges had a Plan of action for the complex bridge inspection

➤ **Actions taken:**

- Quality assurance





# RESULTS: METRIC # 20

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➤ **Inspection Procedure – QC/QA**

- Compliance

➤ **Reason:**

- Quality Control and Quality Assurance procedures are established and implemented.

➤ **INDOT's Actions:**

- Continuing monitoring their QC/QA consultant to make sure the final product will help INDOT to analyze their process effectiveness.



# RESULTS: METRIC # 21

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## ➤ Inspection Procedure – Critical Findings

- Compliance

## ➤ Reason:

- 73 Critical Findings identified during 2017 were resolved.

## ➤ INDOT's Actions:

- Ensure documentation is complete and that a proper level of urgency is given to all critical findings.

## ➤ Critical Findings Definition

- “A structural or safety related deficiency that requires **immediate** follow-up inspection or action”.

# RESULTS: METRIC # 21

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Critical Finding  
Identified

Action Recommended

Timely Action Taken

Close out Critical  
Finding

# RESULTS: METRIC # 21

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- ✓ Lane restriction
- ✓ Closure
- ✓ Load Rating / Posting
- ✓ Temporary repair
- ✓ In-depth Inspection



- ✓ Permanent repair
- ✓ Load Rating / Posting
- ✓ Schedule maintenance



# RESULTS: METRIC # 21

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# RESULTS: METRIC # 21

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# RESULTS: METRIC # 22

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- **Inventory – Prepare and Maintain**
- **Determination:**
  - Compliance
- **Reasons:**

98%

Metric 22 Summary	
Number of Bridges	21
Typcial Number of Items per Bridge	25
Total Items	315
Total Items Incorrectly Coded	7
Total Items Correctly Coded	308
<b>Percent Items Correctly Coded</b>	<b>97.78%</b>

# RESULTS: METRIC # 22

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Item
16- Latitude
17- Longitude
28A- Lanes on Structure
41- Structure Open/Posted/Closed/NA
43A- Kind of Materia/Design
43B- Type of Design/Construction
61- Channel/ Channel Protection
72- Approach Roadway Alignment
92A- Fracture Critical Detail
92B- Underwater Inspection
92C- Other Special Inspections
103- Temprary Structure Designation
104- Highway System Inventory
112- NBIS Bridge Length
113- Scour Critical Bridges
2- Highway Agency District
26- Functional Class of Inv RTE
42A- Type of Service on
42B- Type of Service Under
45- Number of Spans in Main Unit
51- Bridge Roadway Width C-C
52- Deck Width Out - Out
90- Inspection Date
91- Designated Inspection Frequency
100- STRAHNET Designation

# RESULTS: METRIC # 23

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- **Inventory – Timely updating of data**
- **Determination:**
  - Substantial Compliance
- **Reasons:**
  - SI&A data is updated in the State Inventory within 90/180 days.
- **Requirements:**
  - State Bridges are Required to be Approved and Updated 90 Days After Inspection Date.
    - **INDOT Requires Approval 30 Days After Inspection**
  - Local Bridges are Required to be Approved and Updated 180 Days After Inspection Date.
    - **INDOT Requires Approval 60 Days After Inspection**



# RESULTS: METRIC # 23

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- **Inventory –Timely updating of data**
- **Determination:**
  - Substantial Compliance
- **INDOT's action:**
  - Develop a process to verify SI&A data updates

RESULTS	
Total Bridges Inspected	19
Compliant Bridges	18
Non-Compliant Bridges	1
% Met	94.74%



# Thank you!

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