ASHLAND County 2020 INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

Inventory Data - NBIS Bridges Only

 NBIS Bridges > 20'
 136

 Bridges 10'-20'
 86

 222

| Item 221 | Inspection Responsibility | CODE | # NBIS | # ALL |
|--------------|----------------------------|------|--------|-------|
| Data Tab Col | BV,BW County | 2 | 136 | 222 |
| Item 21 | Maintenance responsibility | CODE | # NBIS | # ALL |
| Data Tab | County | 2 | 135 | 220 |
| Col D | City or other local | 4 | 1 | 2 |
| | 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 |
| | | | 136 | 222 |
| Item 42A | Type service on bridge | CODE | # NBIS | # ALL |
| Data Tab | Other | 0 | 0 | |
| Col Q | Highway | 1 | 136 | 222 |
| | Railroad | 2 | 0 | 0 |
| | Ped/Bikeway | 3 | 0 | 0 |
| | Hwy/RR | 4 | 0 | 0 |
| | Hwy/Ped | 5 | 0 | 0 |
| | | | 136 | 222 |
| Item 42B | Type service under bridge | CODE | # NBIS | # ALL |
| Data Tab | Other | 0 | 0 | |
| Col R | Hwy w/ or w/o Ped | 1 | 0 | 0 |
| | Railroad | 2 | 0 | 0 |
| | Ped/Bkwy | 3 | 0 | 0 |
| | Hwy w/ RR | 4 | 0 | 0 |
| | Waterway | 5 | 136 | 222 |
| | Hwy/Waterway | 6 | 0 | 0 |
| | RR/Waterway | 7 | 0 | 0 |
| | Hwy/Waterway/RR | 8 | 0 | 0 |
| | Relief (for waterways) | 9 | 0 | 0 |
| | | | 136 | 222 |

| ITEMS 43A,B,C Structure Type | Pata (Col M.N,O) CODE | # NBIS | # ALL |
|---|-----------------------|--------|-------|
| Concrete Slab | 101 | 0 | 5 |
| Concrete Frame | 107 | 2 | 20 |
| Concrete Culvert (incl frame culverts) | 119 | 1 | 24 |
| Concrete Continuous Slab | 201 | 9 | 9 |
| Steel Beam or Girder | 302 | 23 | 31 |
| Steel Girder w/ Floor System | 303 | 16 | 19 |
| Steel Thru Truss (inlcudes Pony) | 310 | 8 | 8 |
| Steel Culvert (incl frame culverts) | 319 | 1 | 23 |
| Steel Continuous Beam or Girder | 402 | 6 | 6 |
| Prestr. Conc. Cont. Box Beam/Girder Multi | iple 505 | 69 | 73 |
| Prestr. Conc. Cont. Box Beam/Girder Multi | iple 605 | 1 | 1 |

| Timber Culvert (incl frame culverts) | 819 | 0 | 1 |
|--|-----|-----|-----|
| Aluminum or Iron Culvert (incl frame culverts) | 919 | 0 | 2 |
| | | 136 | 222 |

| Item 92A | Fracture Critical | CODE | # NBIS | # ALL |
|-----------|------------------------|------|--------|-------|
| Data Tab | Requires FC Inspection | Υ | 24 | n/a |
| Col U,V,Y | Requires FC Inspection | N | 112 | n/a |
| | | | 136 | n/a |
| | | | | |
| | FC date blank but FC=Y | | 0 | n/a |

| Item 113 | Scour | # NBIS | # ALL |
|----------|-------------------------------------|--------|-------|
| Data Tab | Bridge not over waterway N | 0 | 0 |
| Col AA | unknown foundation U | 0 | 0 |
| | over tidal waters T | 0 | 0 |
| | foundations on dry land 9 | 0 | 0 |
| | stable above footing 8 | 61 | 82 |
| | countermeasures installed 7 | 1 | 1 |
| | no scour evaluation made 6 | 0 | 0 |
| | stable within footer limits 5 | 74 | 139 |
| | stable action needed 4 | 0 | 0 |
| | 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 |
| | | 136 | 222 |

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

| Item 92B | Underwater | CODE | # NBIS | # ALL |
|-----------|---------------------------------|------|--------|-------|
| Data Tab | requires dive inspection | N | 136 | n/a |
| Col W,X,Z | requires dive inspection | Υ | 0 | n/a |
| | | | 136 | |
| | | | | |
| | dive insp date blank but Dive=Y | | 0 | n/a |

| Item 709 | Plan Information | CODE | # NBIS | # ALL |
|----------|------------------|------|--------|-------|
| Data Tab | plans not avail | 0 | 1 | 2 |
| Col. AW | plan avail | 1 | 134 | 218 |
| | field measured | 2 | 1 | 2 |
| | Field Testing | 3 | 0 | 0 |
| | not applicable | N | 0 | 0 |
| | | | 136 | 222 |

| Item 63 | Method of Analysis | CODE | # NBIS | # ALL |
|----------|---|------|---------------------------|-------|
| Data Tab | Tab Field Eval & Doc. Eng Judgment | | 0 | C |
| Col. AV | Load testing | 4 | 0 | C |
| | No Rating done | 5 | 0 | C |
| | Load Factor (LF) | 6 | 101 | C |
| | WS or AS | 7 | 27 | C |
| | Load & Resistance Factor | 8 | 8 | 6 |
| | Assigned Rating (LFR) HS20 | D | 0 | 126 |
| | Assigned Rating (LRFR) HL93 | F | 0 | 80 |
| | Not applicable (Ped, RR, Bldg) | Χ | 0 | 10 |
| | | | 136 | 222 |
| REMINDE | R: | | | |
| | Load Factor required for bridges built after 19 | 93 | (exceptions: timber, etc. | ,) |
| | LRFR required for bridges built after 2010 | | | |
| | tkrk required for bridges built after 2010 | | | |

Inspection Condition Data - NBIS Bridges Only

| Item 41 | Operating Status | CODE | # NBIS | # ALL |
|----------|-----------------------------|------|--------|-------|
| Data Tab | Open, No restriction | Α | 128 | 213 |
| Col AM | Open, posting recommended | В | 8 | 8 |
| | Open, Half width constr. | С | 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 | Р | 0 | 1 |
| | Posted for other than load | R | 0 | 0 |
| | Closed for other than load | X | 0 | 0 |
| | | | 136 | 222 |

| Load | 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.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 (Adhering to approved plan of corrective action) |
|------|-------------------------|------|--|
| (SC) | Substantially Compliant | (NC) | Not Compliant |

METRIC 6 Insp. Frequency Routine

| Bridge Inspections Overdue | | <u>Overdue</u> | % PASS | COMPLIANCE | |
|----------------------------|--------|----------------|--------|------------|-----|
| Data Tab | NBIS - | 24 months | 0 | 100.0% | (C) |
| Col. Y | ORC - | Calendar Year | 0 | 100.0% | (C) |
| | BIM - | 18 months | 0 | 100.0% | (C) |

METRIC 8 - Insp. Frequency Underwater

| Dive Inspections | Overdue | <u>Overdue</u> | Total UW | % PASS | COMPLIANCE |
|-------------------------|-----------|----------------|----------|--------|------------|
| Data Tab Col. Z | 60 months | 0 | 0 | 100.0% | (C) |

METRIC 10 - Insp. Frequency FC Member

| FC Inspections O | verdue | <u>Overdue</u> | Total FC | % PASS | COMPLIANCE |
|------------------|-----------|----------------|----------|--------|------------|
| Data Tab Col. Y | 24 months | 0 | 24 | 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 | 136 | 100.0% | (C) |
| | | Error | Total Scour | % PASS | |
| Comments | Rating should be = Scour | 0 | 136 | 100.0% | |
| Tab | # of Compliance Errors | 0 | 136 | 100.0% | (C) |

METRIC 16 - Fracture Critical Inspection

| From Files review | Missing | # FC | % PASS | COMPLIANCE |
|---------------------------|---------|------|--------|------------|
| Fract Critical Member ID | 0 | 24 | 100.0% | (C) |
| Fatigue Prone Detail | 9 | 24 | 62.5% | (NC) |
| Gusset Plate Calculations | 0 | 24 | 100.0% | (C) |
| FC Inspection Procedure | 9 | 24 | 62.5% | (NC) |

METRIC 17 - Underwater Inspection

| merme in ondermater inspection | | | | |
|--------------------------------|---------|------|--------|------------|
| From Files review | Missing | # UW | % PASS | COMPLIANCE |
| 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:

(CC) (NC) (C) Compliant Conditionally Compliant (per approved PCA)

(SC) Substantially Compliant 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

| Scour Rating should control Substructure or Culvert | |
|---|--|
| Supply FC Insp Procedure and Fatigue Prone Details for each FC bridge | |