





# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: INSPECTOR

**BRIDGE 5900**

**TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 04-30-1992**

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General Notes: \*Bridge 5900 Year 92

- 1. \*
- 2. \*
- 4. \*
- 5. \*
- 6. \*
- 7. \*
- 8. \*
- 13. \*
- 14. Some minor transverse cracks to be epoxy sealed.
- 15. Random cracks should be sealed.
- 17. \*
- 32. Painted in 1986. \*

Note: \* See attached "snooper" inspection report.

River soundings taken: 10-89, 11-90

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Inspector's Signature

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Reviewer's Signature / Date



**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: INSPECTOR

**BRIDGE 5900 TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-28-1993**

|        |                      |   |            |          |       |   |   |     |     |
|--------|----------------------|---|------------|----------|-------|---|---|-----|-----|
| 126    | P/STL THRU TRUSS/TOP | 2 | 04-28-1993 | 1,860 LF | 1,860 | 0 | 0 | 0   | 0   |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 131    | PAINT STL DECK TRUSS | 2 | 04-28-1993 | 1,560 LF | 1,560 | 0 | 0 | 0   | 0   |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 152    | PAINT STL FLOORBEAM  | 2 | 04-28-1993 | 3,250 LF | 3,250 | 0 | 0 | 0   | 0   |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 161    | PIN & HANGER-PAINTED | 2 | 04-28-1993 | 12 EA    | 12    | 0 | 0 | 0   | 0   |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 311    | EXPANSION BEARING    | 2 | 04-28-1993 | 52 EA    | 52    | 0 | 0 | N/A | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 313    | FIXED BEARING        | 2 | 04-28-1993 | 28 EA    | 28    | 0 | 0 | N/A | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 205    | CONCRETE COLUMN      | 2 | 04-28-1993 | 49 EA    | 49    | 0 | 0 | 0   | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 210    | CONCRETE PIER WALL   | 2 | 04-28-1993 | 190 LF   | 190   | 0 | 0 | 0   | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 215    | CONCRETE ABUTMENT    | 2 | 04-28-1993 | 70 LF    | 70    | 0 | 0 | 0   | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 234    | CONCRETE CAP         | 2 | 04-28-1993 | 840 LF   | 840   | 0 | 0 | 0   | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 357    | PACK RUST            | 2 | 04-28-1993 | 1 EA     | 0     | 1 | 0 | 0   | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 358    | CONC DECK CRACKING   | 2 | 04-28-1993 | 1 EA     | 0     | 1 | 0 | 0   | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 359    | CONC DECK UNDERSIDE  | 2 | 04-28-1993 | 1 EA     | 0     | 1 | 0 | 0   | 0   |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 984    | DRAINAGE             | 2 | 04-28-1993 | 1 EA     | 1     | 0 | 0 | N/A | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 985    | SLOPES               | 2 | 04-28-1993 | 1 EA     | 1     | 0 | 0 | N/A | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |
| 986    | CURB & SIDEWALK      | 2 | 04-28-1993 | 1 EA     | 1     | 0 | 0 | N/A | N/A |
| Notes: |                      |   |            |          |       |   |   |     |     |

# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: INSPECTOR

**BRIDGE 5900 TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 04-28-1993**

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General Notes: \*Bridge 5900

122 & 126. Some minor transverse deck cracks to be epoxy sealed.  
186. Random cracks should be sealed.

Painted in 1986.

Steel High Truss (Spans 18 - 20) painted in 1992 - 1993.

Note: See attached "snooper" inspection report for additional details.

River soundings taken: 10-89, 11-90, 10-93

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Inspector's Signature

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Reviewer's Signature / Date



## Mn/DOT BRIDGE INSPECTION REPORT

Inspector: INSPECTOR

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-26-1994**

|        |                      |   |            |          |       |     |       |     |     |
|--------|----------------------|---|------------|----------|-------|-----|-------|-----|-----|
| 126    | P/STL THRU TRUSS/TOP | 2 | 04-26-1994 | 1,860 LF | 1,823 | 0   | 0     | 37  | 0   |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 131    | PAINT STL DECK TRUSS | 2 | 04-26-1994 | 1,560 LF | 0     | 0   | 1,248 | 312 | 0   |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 152    | PAINT STL FLOORBEAM  | 2 | 04-26-1994 | 3,250 LF | 1,300 | 488 | 1,138 | 325 | 0   |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 161    | PIN & HANGER-PAINTED | 2 | 04-26-1994 | 12 EA    | 12    | 0   | 0     | 0   | 0   |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 311    | EXPANSION BEARING    | 2 | 04-26-1994 | 52 EA    | 44    | 8   | 0     | N/A | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 313    | FIXED BEARING        | 2 | 04-26-1994 | 28 EA    | 18    | 10  | 0     | N/A | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 205    | CONCRETE COLUMN      | 2 | 04-26-1994 | 49 EA    | 33    | 13  | 3     | 0   | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 210    | CONCRETE PIER WALL   | 2 | 04-26-1994 | 190 LF   | 105   | 67  | 19    | 0   | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 215    | CONCRETE ABUTMENT    | 2 | 04-26-1994 | 70 LF    | 56    | 7   | 7     | 0   | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 234    | CONCRETE CAP         | 2 | 04-26-1994 | 840 LF   | 798   | 34  | 8     | 0   | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 357    | PACK RUST            | 2 | 04-26-1994 | 1 EA     | 0     | 1   | 0     | 0   | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 358    | CONC DECK CRACKING   | 2 | 04-26-1994 | 1 EA     | 0     | 1   | 0     | 0   | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 359    | CONC DECK UNDERSIDE  | 2 | 04-26-1994 | 1 EA     | 0     | 0   | 0     | 1   | 0   |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 984    | DRAINAGE             | 2 | 04-26-1994 | 1 EA     | 1     | 0   | 0     | N/A | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 985    | SLOPES               | 2 | 04-26-1994 | 1 EA     | 1     | 0   | 0     | N/A | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |
| 986    | CURB & SIDEWALK      | 2 | 04-26-1994 | 1 EA     | 1     | 0   | 0     | N/A | N/A |
| Notes: |                      |   |            |          |       |     |       |     |     |

# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: INSPECTOR

**BRIDGE 5900 TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 04-26-1994**

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General Notes: \*Bridge 5900

122 & 126. Some transverse deck cracks to be epoxy sealed.  
186. Random cracks should be sealed.

All steel painted in 1986.  
Steel High Truss (Spans 18 - 20) painted in 1992 - 1993.

Note: See attached "snooper" inspection report  
for additional details.

River soundings taken: 10-89, 11-90, 10-93

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Inspector's Signature

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Reviewer's Signature / Date





# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: INSPECTOR

**BRIDGE 5900 TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 05-30-1995**

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|     |                 |   |            |      |   |   |   |     |     |
|-----|-----------------|---|------------|------|---|---|---|-----|-----|
| 986 | CURB & SIDEWALK | 2 | 05-30-1995 | 1 EA | 1 | 0 | 0 | N/A | N/A |
|-----|-----------------|---|------------|------|---|---|---|-----|-----|

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Notes:

General Notes: \*Bridge 5900

122 & 126. Some transverse deck cracks to be epoxy sealed.  
186. Random cracks should be sealed.

All steel painted in 1986.  
Steel High Truss (Spans 18 - 20) painted in 1992 - 1993.

Note: See attached "snooper" inspection report  
for additional details.

River soundings taken: 10-89, 11-90, 10-93

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Inspector's Signature

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Reviewer's Signature / Date





**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: INSPECTOR

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 05-07-1996**

|        |                 |   |            |      |   |   |   |     |     |
|--------|-----------------|---|------------|------|---|---|---|-----|-----|
| 984    | DRAINAGE        | 2 | 05-07-1996 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 985    | SLOPES          | 2 | 05-07-1996 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 986    | CURB & SIDEWALK | 2 | 05-07-1996 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |

General Notes: \*Bridge 5900

91. Deck constr. joints (Spans 18 - 20) cleaned and sealed with "DOW 888" caulk (1996).  
 122 & 126. Deck cracks over entire bridge epoxy sealed (1996).  
 186. Random cracks should be sealed.

All steel painted in 1986.  
 Steel High Truss (Spans 18 - 20) painted in 1992 - 1993.  
 Some areas repainted 1996.

Note: See attached "Snooper Inspection Report"  
 for additional details.

River soundings taken: 10-89, 11-90, 10-93, 7-96.

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 Inspector's Signature

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 Reviewer's Signature / Date





**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: INSPECTOR

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 06-10-1997**

|        |                 |   |            |      |   |   |   |     |     |
|--------|-----------------|---|------------|------|---|---|---|-----|-----|
| 984    | DRAINAGE        | 2 | 06-10-1997 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 985    | SLOPES          | 2 | 06-10-1997 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 986    | CURB & SIDEWALK | 2 | 06-10-1997 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |

General Notes: \*Bridge 5900

91. Deck constr. joints (Spans 18 - 20) cleaned and sealed with "DOW 888" caulk (1996).  
 122 & 126. Deck cracks over entire bridge epoxy sealed (1996).  
 186. Random cracks should be sealed.

All steel painted in 1986.  
 Steel High Truss (Spans 18 - 20) painted in 1992 - 1993.  
 Some areas repainted 1996.

Note: See attached "Snooper Inspection Report"  
 for additional details.

River soundings taken: 10-89, 11-90, 10-93, 7-96.

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 Inspector's Signature

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 Reviewer's Signature / Date





**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: INSPECTOR

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 06-09-1998**

|        |                 |   |            |      |   |   |   |     |     |
|--------|-----------------|---|------------|------|---|---|---|-----|-----|
| 984    | DRAINAGE        | 2 | 06-09-1998 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 985    | SLOPES          | 2 | 06-09-1998 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 986    | CURB & SIDEWALK | 2 | 06-09-1998 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |

General Notes: \*Bridge 5900

91. Deck constr. joints (Spans 18 - 20) cleaned and sealed with "DOW 888" caulk (1996).  
 122 & 126. Deck cracks over entire bridge epoxy sealed (1996).  
 186. Random cracks should be sealed.

All steel painted in 1986.  
 Steel High Truss (Spans 18 - 20) painted in 1992 - 1993.  
 Some areas repainted 1996.

Note: See attached "Snooper Inspection Report"  
 for additional details.

River soundings taken: 10-89, 11-90, 10-93, 7-96.

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 Inspector's Signature

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 Reviewer's Signature / Date

# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: INSPECTOR

**BRIDGE 5900**

**TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 04-21-1999**

|                                       |                                       |   |
|---------------------------------------|---------------------------------------|---|
| County: WINONA                        | Location: 2.8 MI N OF JCT TH 61       | Length: 2,288.5 ft                        |
| City: WINONA                          | Route: MNTH 43 Ref. Pt.: 044+00.892   | Deck Width: 34.4 ft                       |
| Township:                             | Control Section: 8503 Maint. Area: 6A | Rdwy. Area / Pct. Unsd: 70,945 sq ft      |
| Section: 22 Township: 107N Range: 07W | Local Agency Bridge Nbr:              | Paint Area / Pct. Unsd: 239,130 sq ft 8 % |

Span Type: CSTL DECK TRUSS

NBI Deck: 6 Super: 5 Sub: 6 Chan: 8 Culv: N      Open, Posted, Closed: OPEN

Appraisal Ratings - Approach: 8 Waterway: 8      MN Scour Code: R-CRIT;MONITOR      Def. Stat: F.O.      Suff. Rate:

Required Bridge Signs - Load Posting: NOT REQUIRED      Traffic: NOT REQUIRED

Horizontal: NOT REQUIRED      Vertical: NOT REQUIRED

**STRUCTURE UNIT: 0**

| ELEM NBR | ELEMENT NAME         | ENV | INSP. DATE | QUANTITY  | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|----------|----------------------|-----|------------|-----------|----------|----------|----------|----------|----------|
| 22       | LS O/L (CONC DECK)   | 2   | 04-21-1999 | 78,724 SF | 78,727   | 0        | 0        | 0        | 0        |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 26       | TOP OF CONC DECK-EPX | 2   | 04-21-1999 | 78,724 SF | 0        | 78,727   | 0        | 0        | 0        |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 300      | STRIP SEAL JOINT     | 2   | 04-21-1999 | 372 LF    | 368      | 4        | 0        | N/A      | N/A      |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 301      | POURED DECK JOINT    | 2   | 04-21-1999 | 1,135 LF  | 1,135    | 0        | 0        | N/A      | N/A      |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 303      | ASSEMBLY DECK JOINT  | 2   | 04-21-1999 | 93 LF     | 93       | 0        | 0        | N/A      | N/A      |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 321      | CONC APPROACH SLAB   | 2   | 04-21-1999 | 2 EA      | 2        | 0        | 0        | 0        | N/A      |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 334      | METAL RAIL-COATED    | 2   | 04-21-1999 | 4,580 LF  | 4,580    | 0        | 0        | 0        | 0        |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 107      | PAINTED STEEL GIRDER | 2   | 04-21-1999 | 785 LF    | 510      | 196      | 39       | 39       | 0        |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 109      | P/S CONCRETE GIRDER  | 2   | 04-21-1999 | 421 LF    | 417      | 4        | 0        | 0        | N/A      |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 110      | CONCRETE GIRDER      | 2   | 04-21-1999 | 1,680 LF  | 1,428    | 235      | 17       | 0        | N/A      |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 113      | PAINT STEEL STRINGER | 2   | 04-21-1999 | 12,570 LF | 10,056   | 1,760    | 629      | 126      | 0        |
| Notes:   |                      |     |            |           |          |          |          |          |          |
| 121      | P/STL THRU TRUSS/BOT | 2   | 04-21-1999 | 1,860 LF  | 1,209    | 465      | 112      | 74       | 0        |
| Notes:   |                      |     |            |           |          |          |          |          |          |



**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: INSPECTOR

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-21-1999**

|        |                 |   |            |      |   |   |   |     |     |
|--------|-----------------|---|------------|------|---|---|---|-----|-----|
| 982    | GUARDRAIL       | 2 | 04-21-1999 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 984    | DRAINAGE        | 2 | 04-21-1999 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 985    | SLOPES          | 2 | 04-21-1999 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 986    | CURB & SIDEWALK | 2 | 04-21-1999 | 1 EA | 0 | 1 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 988    | MISCELLANEOUS   | 2 | 04-21-1999 | 1 EA | 0 | 1 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |

General Notes: \*Bridge 5900

91. Deck constr. joints (Spans 18 - 20) cleaned and sealed with "DOW 888" caulk (1996).  
 100. North (WI) approach panel (shoulder and curbs) widened (1998).  
 101. Areas of surface rust starting to show on edges and at back face of metal rail tubes. Tri - beam guardrail placed along face of metal railing throughout entire bridge.  
 158 Deck cracks over entire bridge epoxy sealed (1996).  
 182. New plate beam guardrail at N (WI) end with BCT ends and transition to bridge railing (1998).  
 186. Random cracks should be sealed. Numerous cracks in curbs. Curb at DS (downstream side) has some large delam. areas and a spall, near the exp. joints (Spans 10-15 & Span 21).  
 188. Some minor vertical cracks in the approach roadway retaining walls.

All steel painted in 1986.  
 Steel High Truss (Spans 18 - 20) painted in 1992 - 1993.  
 Some areas repainted 1996.

Note: See attached "Snooper Inspection Report" for additional details.

River soundings taken: 10-89, 11-90, 10-93, 7-96.

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 Inspector's Signature

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 Reviewer's Signature / Date





**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: INSPECTOR

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-04-2000**

|        |                 |   |            |      |   |   |   |     |     |
|--------|-----------------|---|------------|------|---|---|---|-----|-----|
| 982    | GUARDRAIL       | 2 | 04-04-2000 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 984    | DRAINAGE        | 2 | 04-04-2000 | 1 EA | 0 | 1 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 985    | SLOPES          | 2 | 04-04-2000 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 986    | CURB & SIDEWALK | 2 | 04-04-2000 | 1 EA | 0 | 1 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |
| 988    | MISCELLANEOUS   | 2 | 04-04-2000 | 1 EA | 0 | 1 | 0 | N/A | N/A |
| Notes: |                 |   |            |      |   |   |   |     |     |

General Notes: \* Bridge 5900

NOTE: See attached "Snooper Inspection Report" for additional details.

NOTE: All steel painted in 1986.

NOTE: Steel High Truss (Spans 18 - 20) painted in 1992 - 1993. Some areas repainted 1996.

NOTE: River soundings taken: 10-89, 11-90, 10-93, 7-96.

90. There is 1 foot of gland material pulled out of the extrusion near the center line at the north abutment.
91. Deck construction joints in Spans numbered 18 through 20 cleaned and sealed with DOW 888 caulk in 1996.
93. Assembly plates over Piers numbered 18 and 20 in the south bound lane loose.
100. The north approach panels on the Wisconsin side, the shoulders and curbs were widen in 1998.
101. Areas of surface rust starting to show on edges and at back face of metal rail tubes. Tri - beam guardrail placed along face of metal railing throughout entire bridge.
158. Deck cracks over entire bridge were epoxy sealed in 1996.
180. NBI # 8
182. New plate beam guardrail at the Wisconsin end with BCT ends and transition to bridge railing in 1998.
184. Approx. 1/3 of the deck drains at the Minnesota end of the bridge are plugged.
186. Random cracks should be sealed. Numerous cracks in curbs. Curb at downstream side have some delaminated and spalled areas near the expansion joints located in Spans numbered 5, 8, 14, 16 and 21.
188. \* Some minor vertical cracks in the approach roadway retaining walls, which is located at the Minnesota end of the bridge.
- \* Light pole located over Pier # 15 on the up stream side has a 2 inch by 3 inch hole in it. Light pole located over Pier # 21 has a 4 inch by 2 1/2 inch hole in it.

Inspector's Signature

Reviewer's Signature / Date

# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

**BRIDGE 5900**

**TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 04-28-2002**

|  |                                       |  |
|--|---------------------------------------|--|
| County: WINONA                                     | Location: 2.8 MI N OF JCT TH 61       | Length: 2,288.5 ft                         |
| City: WINONA                                       | Route: MNTH 43 Ref. Pt.: 044+00.892   | Deck Width: 34.4 ft                        |
| Township:  | Control Section: 8503 Maint. Area: 6A | Rdwy. Area / Pct. Unsnd: 70,945 sq ft      |
| Section: 22 Township: 107N Range: 07W              | Local Agency Bridge Nbr:              | Paint Area / Pct. Unsnd: 239,130 sq ft 1 % |
| Span Type: CSTL DECK TRUSS                         |                                       |  |
| NBI Deck: 6 Super: 5 Sub: 6 Chan: 8 Culv: N        |                                       |  |
| Open, Posted, Closed: OPEN                         |                                       |  |
| Appraisal Ratings - Approach: 8 Waterway: 8        |                                       | MN Scour Code: R-CRIT;MONITOR              |
| Required Bridge Signs - Load Posting: NOT REQUIRED |                                       | Traffic: NOT REQUIRED                      |
| Horizontal: NOT REQUIRED                           |                                       | Def. Stat: ADEQ Suff. Rate: 49.8           |
| Vertical: NOT REQUIRED                             |                                       |  |

**STRUCTURE UNIT: 0**

| ELEM NBR  | ELEMENT NAME         | ENV | INSP. DATE | QUANTITY  | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|---|----------------------|-----|------------|-----------|----------|----------|----------|----------|----------|
| 26  | TOP OF CONC DECK-EPX | 2   | 04-28-2002 | 78,724 SF | 0        | 78,724   | 0        | 0        | 0        |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 300   | STRIP SEAL JOINT     | 2   | 04-28-2002 | 372 LF    | 372      | 0        | 0        | N/A      | N/A      |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 301   | POURED DECK JOINT    | 2   | 04-28-2002 | 1,135 LF  | 1,095    | 40       | 0        | N/A      | N/A      |
| Notes: All pourable joints have small scattered areas where the joint material has lost adhesion approximately 40 linear feet.          |                      |     |            |           |          |          |          |          |          |
| 303   | ASSEMBLY DECK JOINT  | 2   | 04-28-2002 | 93 LF     | 93       | 0        | 0        | N/A      | N/A      |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 321   | CONC APPROACH SLAB   | 2   | 04-28-2002 | 2 EA      | 1        | 1        | 0        | 0        | N/A      |
| Notes: North approach panels have random unsealed cracks.   |                      |     |            |           |          |          |          |          |          |
| 334   | METAL RAIL-COATED    | 2   | 04-28-2002 | 4,580 LF  | 3,650    | 180      | 700      | 50       | 0        |
| Notes: There are scattered areas on both railing that have fading or failing paint with surface rust or active corrosion and minor LOS. |                      |     |            |           |          |          |          |          |          |
| 107   | PAINTED STEEL GIRDER | 2   | 04-28-2002 | 785 LF    | 325      | 185      | 175      | 100      | 0        |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 109   | P/S CONCRETE GIRDER  | 2   | 04-28-2002 | 421 LF    | 417      | 4        | 0        | 0        | N/A      |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 110   | CONCRETE GIRDER      | 2   | 04-28-2002 | 1,680 LF  | 1,428    | 235      | 17       | 0        | N/A      |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 113   | PAINT STEEL STRINGER | 2   | 04-28-2002 | 12,570 LF | 4,110    | 5,080    | 3,130    | 250      | 0        |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 121   | P/STL THRU TRUSS/BOT | 2   | 04-28-2002 | 1,860 LF  | 1        | 523      | 1,000    | 336      | 0        |
| Notes:  |                      |     |            |           |          |          |          |          |          |
| 126   | P/STL THRU TRUSS/TOP | 2   | 04-28-2002 | 1,860 LF  | 250      | 480      | 1,010    | 120      | 0        |
| Notes:  |                      |     |            |           |          |          |          |          |          |

## Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-28-2002**

|     |  |   |            |          |     |       |       |     |     |
|-----|--|---|------------|----------|-----|-------|-------|-----|-----|
| 131 | PAINT STL DECK TRUSS   | 2 | 04-28-2002 | 1,560 LF | 0   | 75    | 630   | 855 | 0   |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 152 | PAINT STL FLOORBEAM  | 2 | 04-28-2002 | 3,250 LF | 468 | 1,609 | 1,013 | 160 | 0   |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 161 | PIN & HANGER-PAINTED   | 2 | 04-28-2002 | 12 EA    | 4   | 5     | 3     | 0   | 0   |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 310 | ELASTOMERIC BEARING  | 2 | 04-28-2002 | 8 EA     | 8   | 0     | 0     | N/A | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 311 | EXPANSION BEARING  | 2 | 04-28-2002 | 52 EA    | 33  | 19    | 0     | N/A | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 313 | FIXED BEARING  | 2 | 04-28-2002 | 28 EA    | 10  | 18    | 0     | N/A | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 205 | CONCRETE COLUMN  | 2 | 04-28-2002 | 49 EA    | 22  | 20    | 7     | 0   | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 210 | CONCRETE PIER WALL   | 2 | 04-28-2002 | 190 LF   | 140 | 50    | 0     | 0   | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 215 | CONCRETE ABUTMENT  | 2 | 04-28-2002 | 70 LF    | 47  | 18    | 5     | 0   | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 234 | CONCRETE CAP   | 2 | 04-28-2002 | 840 LF   | 598 | 226   | 16    | 0   | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 387 | CONCRETE WINGWALL  | 2 | 04-28-2002 | 2 EA     | 0   | 1     | 1     | 0   | N/A |
|     | Notes:   |   |            |          |     |       |       |     |     |
| 357 | PACK RUST  | 2 | 04-28-2002 | 1 EA     | 0   | 0     | 1     | 0   | N/A |
|     | Notes: Most steel members with faying surfaces have pack rust showing with some areas having rust between the plates that has caused serious distress at the connection, however all connections are still functioning.  |   |            |          |     |       |       |     |     |
| 358 | CONC DECK CRACKING   | 2 | 04-28-2002 | 1 EA     | 0   | 1     | 0     | 0   | N/A |
|     | Notes: Deck cracks were epoxy sealed in 1996 approximately ? linear feet. During last inspection done in 2002 most cracks are open again.  |   |            |          |     |       |       |     |     |
| 359 | CONC DECK UNDERSIDE  | 2 | 04-28-2002 | 1 EA     | 0   | 1     | 0     | 0   | 0   |
|     | Notes: There are scattered areas of transverse cracks with efflorescence or leaching beneath the deck , also ther attached sidewalk on the downstream east side has numerous arreas of active corrosion to the under sides of the stay in place metal forms. Some areas of the in place forms have scattered small holes rusted completely thru the metal forms. |   |            |          |     |       |       |     |     |
| 363 | SECTION LOSS   | 2 | 04-28-2002 | 1 EA     | 0   | 1     | 0     | 0   | N/A |
|     | Notes: There are scattered areas on most steel members with minor LOS that has been cleaned and painted over or that occurred after the last paint contact.  |   |            |          |     |       |       |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-28-2002**

|  |                  |   |            |      |   |   |     |     |     |
|--|------------------|---|------------|------|---|---|-----|-----|-----|
| 964  | CRITICAL FINDING | 2 | 04-28-2002 | 1 EA | 1 | 0 | N/A | N/A | N/A |
| Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.   |                  |   |            |      |   |   |     |     |     |
| 981  | SIGNING          | 2 | 04-28-2002 | 1 EA | 1 | 0 | 0   | 0   | 0   |
| Notes: All signs are in place at this time.  |                  |   |            |      |   |   |     |     |     |
| 982  | GUARDRAIL        | 2 | 04-28-2002 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: All guard railing section are in place at this time and functioning as designed.  |                  |   |            |      |   |   |     |     |     |
| 984  | DRAINAGE         | 2 | 04-28-2002 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: There are approximately 1/3 of the deck drains that are plugged and at functioning at this time mostly at the Minnesota end. Also most deck drains have failed paint with some surface rusting.   |                  |   |            |      |   |   |     |     |     |
| 985  | SLOPES           | 2 | 04-28-2002 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: Noth slope under at the Wisconsin end is in good condition at this time.  |                  |   |            |      |   |   |     |     |     |
| 986  | CURB & SIDEWALK  | 2 | 04-28-2002 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: There are numerous unsealed cracks, small spalls or delaminations along the sidewalk and curb faces on the downstreram east side. Along the downstream east side of the bridge the spalled areas are located at Spans 5, 8, 14, 16 and 21 counting from the south end of the bridge.  |                  |   |            |      |   |   |     |     |     |
| 988  | MISCELLANEOUS    | 2 | 04-28-2002 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: The retaining walls located at the south end of the bridge have scattered vertical cracks with some staining. Also there are two light poles on the bridge with small cuts or tears in them, light pole 15 has a 2 inch by 3 inch cut on the west side and light pole 21 over Pier 21 has a 4 inch by 2 1/2 inch hole on the west side. |                  |   |            |      |   |   |     |     |     |

General Notes: \* Bridge 5900 NOTE: See attached Snooper Inspection Report for additional details. All steel painted in 1986. The high truss spans 18 through 20 were painted in 1992 and 1993. River soundings taken: 10-89, 11-90, 10-93, 7-96. 180. NBI 8 Banks are well protected at this time.

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 Inspector's Signature

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 Reviewer's Signature / Date



## Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

**BRIDGE 5900 TH 43 OVER MISS RVR, RR, STREETS**
**INSP. DATE: 10-06-2003**

|   |                      |   |            |          |     |       |       |     |     |
|---|----------------------|---|------------|----------|-----|-------|-------|-----|-----|
| 131   | PAINT STL DECK TRUSS | 2 | 10-06-2003 | 1,560 LF | 0   | 75    | 630   | 855 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 152   | PAINT STL FLOORBEAM  | 2 | 10-06-2003 | 3,250 LF | 468 | 1,609 | 1,013 | 160 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 161   | PIN & HANGER-PAINTED | 2 | 10-06-2003 | 12 EA    | 4   | 5     | 3     | 0   | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 310   | ELASTOMERIC BEARING  | 2 | 10-06-2003 | 8 EA     | 8   | 0     | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 311   | EXPANSION BEARING    | 2 | 10-06-2003 | 52 EA    | 33  | 19    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 313   | FIXED BEARING        | 2 | 10-06-2003 | 28 EA    | 10  | 18    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 205   | CONCRETE COLUMN      | 2 | 10-06-2003 | 49 EA    | 22  | 20    | 7     | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 210   | CONCRETE PIER WALL   | 2 | 10-06-2003 | 190 LF   | 140 | 50    | 0     | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 215   | CONCRETE ABUTMENT    | 2 | 10-06-2003 | 70 LF    | 47  | 18    | 5     | 0   | N/A |
| Notes: South Abutment ( Winona end) - has 2 vertical cracks and a small delaminated area under beam 3 counting from the west side of the bridge. North Abutment ( Wisconsin end) - has a few scattered vertical or random cracks in the front face that extend across the bridge seat and up the parapet wall with some staining, also there are deteriorated at both ends below the bearings. For more details check the attached snooper inspection report. |                      |   |            |          |     |       |       |     |     |
| 234   | CONCRETE CAP         | 2 | 10-06-2003 | 840 LF   | 598 | 226   | 16    | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 387   | CONCRETE WINGWALL    | 2 | 10-06-2003 | 2 EA     | 0   | 1     | 1     | 0   | N/A |
| Notes: The wingwalls are located at the north end only, south abutment has retaining walls. Northwest Wingwall - has a few vertical rebar spalls along the front face and a small spalled areas along the top edge approximately 4 square feet. Northeast Wingwall - has scattered random cracks with some leaching or staining.  |                      |   |            |          |     |       |       |     |     |
| 357   | PACK RUST            | 2 | 10-06-2003 | 1 EA     | 0   | 0     | 1     | 0   | N/A |
| Notes: Most steel members with faying surfaces have pack rust showing with some areas having rust between the plates that has caused serious distress at the connection, however all connections are still functioning. For more details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 358   | CONC DECK CRACKING   | 2 | 10-06-2003 | 1 EA     | 0   | 1     | 0     | 0   | N/A |
| Notes: Deck cracks were epoxy sealed in 1996 approximately ? linear feet. During last inspection done in 2002 most cracks are open again.   |                      |   |            |          |     |       |       |     |     |
| 359   | CONC DECK UNDERSIDE  | 2 | 10-06-2003 | 1 EA     | 0   | 1     | 0     | 0   | 0   |
| Notes: There are scattered areas of transverse cracks with efflorescence or leaching beneath the deck , also ther attached sidewalk on the downstream east side has numerous arrears of active corrosion to the under sides of the stay in place metal forms. Some areas of the in place forms have scattered small holes rusted completely thru the metal forms. For more details check the attached snooper inspection report.                              |                      |   |            |          |     |       |       |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 10-06-2003**

|   |                  |   |            |      |   |   |     |     |     |
|---|------------------|---|------------|------|---|---|-----|-----|-----|
| 363   | SECTION LOSS     | 2 | 10-06-2003 | 1 EA | 0 | 1 | 0   | 0   | N/A |
| Notes: There are scattered areas on most steel members with minor LOS that has been cleaned and painted over or that occurred after the last paint contact. For more details check the attached snooper inspection report.  |                  |   |            |      |   |   |     |     |     |
| 964   | CRITICAL FINDING | 2 | 10-06-2003 | 1 EA | 1 | 0 | N/A | N/A | N/A |
| Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.  |                  |   |            |      |   |   |     |     |     |
| 981   | SIGNING          | 2 | 10-06-2003 | 1 EA | 1 | 0 | 0   | 0   | 0   |
| Notes: All signs are in place at this time.   |                  |   |            |      |   |   |     |     |     |
| 982   | GUARDRAIL        | 2 | 10-06-2003 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: All guard railing section are in place at this time and functioning as designed.   |                  |   |            |      |   |   |     |     |     |
| 984   | DRAINAGE         | 2 | 10-06-2003 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: There are approximately 1/3 of the deck drains that are plugged and at functioning at this time mostly at the Minnesota end. Also most deck drains have failed paint with some surface rusting.  |                  |   |            |      |   |   |     |     |     |
| 985   | SLOPES           | 2 | 10-06-2003 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: Noth slope under at the Wisconsin end is in good condition at this time.   |                  |   |            |      |   |   |     |     |     |
| 986   | CURB & SIDEWALK  | 2 | 10-06-2003 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: There are numerous unsealed cracks, small spalls or delaminations along the sidewalk and curb faces on the downstreram east side. Along the downstream east side of the bridge the spalled areas are located at Spans 5, 8, 14, 16 and 21 counting from the south end of the bridge.   |                  |   |            |      |   |   |     |     |     |
| 988   | MISCELLANEOUS    | 2 | 10-06-2003 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: There are retaining walls located at the south end of the bridge that have scattered vertical cracks with some staining. Also there are two light poles on the bridge with small cuts or tears in them, light pole 15 has a 2 inch by 3 inch cut on the west side and light pole 21 over Pier 21 has a 4 inch by 2 1/2 inch hole on the west side. |                  |   |            |      |   |   |     |     |     |

General Notes: \* Bridge 5900 BR5900 has a scour code rating of "R". There are no scour monitoring signs on the bridge. Underwater inspection completed in 2000. NOTES: Fracture critical inspection was completed by Bridge CO in 2003. See attached Snooper Inspection Report for additional details. All steel members were painted in 1986. The high truss spans 18 through 20 were painted in 1992 and 1993. River soundings were taken in; 10-89, 11-90, 10-93, 7-96. CHANNEL : NBI #8 Banks are well protected at this time.

\_\_\_\_\_  
Inspector's Signature\_\_\_\_\_  
Reviewer's Signature / Date

# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

**BRIDGE 5900**

**TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 04-28-2004**

County: WINONA

Location: 2.8 MI N OF JCT TH 61

Length: 2,288.5 ft

City: WINONA

Route: MNTH 43 Ref. Pt.: 044+00.892

Deck Width: 34.4 ft

Township:

Control Section: 8503 Maint. Area: 6A

Rdwy. Area / Pct. Unsd: 70,945 sq ft

Section: 22 Township: 107N Range: 07W

Local Agency Bridge Nbr:

Paint Area / Pct. Unsd: 239,130 sq ft 15 %

Span Type: CSTL DECK TRUSS

NBI Deck: 6 Super: 5 Sub: 6 Chan: 8 Culv: N

Open, Posted, Closed: OPEN

Appraisal Ratings - Approach: 8 Waterway: 8

MN Scour Code: R-CRIT;MONITOR

Def. Stat: ADEQ Suff. Rate: 49.8

Required Bridge Signs - Load Posting: NOT REQUIRED Traffic: NOT REQUIRED

Horizontal: NOT REQUIRED Vertical: NOT REQUIRED

**STRUCTURE UNIT: 0**

| ELEM NBR   | ELEMENT NAME         | ENV | INSP. DATE | QUANTITY  | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |  |
|--|----------------------|-----|------------|-----------|----------|----------|----------|----------|----------|--|
| 26   | TOP OF CONC DECK-EPX | 2   | 04-28-2004 | 78,724 SF | 0        | 78,724   | 0        | 0        | 0        |  |
| Notes: There are 2 small spalled areas, there is a 10" X 6" spall in the east bound lane of span 15 and a 6" spall in the east bound lane of span 21.  |                      |     |            |           |          |          |          |          |          |  |
| 26   | TOP OF CONC DECK-EPX | 2   | 04-29-2004 | 78,724 SF | 0        | 78,724   | 0        | 0        | 0        |  |
| Notes: There are 2 small spalled areas, there is a 10" X 6" spall in the east bound lane of span 15 and a 6" spall in the east bound lane of span 21.  |                      |     |            |           |          |          |          |          |          |  |
| 300  | STRIP SEAL JOINT     | 2   | 04-28-2004 | 372 LF    | 368      | 4        | 0        | N/A      | N/A      |  |
| Notes: Strip Seal Joint Over Pier 5 - has approximately 4 linear feet of the gland material has pulled out of the extrusion .  |                      |     |            |           |          |          |          |          |          |  |
| 300  | STRIP SEAL JOINT     | 2   | 04-29-2004 | 372 LF    | 368      | 4        | 0        | N/A      | N/A      |  |
| Notes: Strip Seal Joint Over Pier 5 - has approximately 4 linear feet of the gland material has pulled out of the extrusion .  |                      |     |            |           |          |          |          |          |          |  |
| 301  | POURED DECK JOINT    | 2   | 04-28-2004 | 1,135 LF  | 1,095    | 40       | 0        | N/A      | N/A      |  |
| Notes: All pourable joints have small scattered areas where the joint material has lost adhesion approximately 40 linear feet.   |                      |     |            |           |          |          |          |          |          |  |
| 301  | POURED DECK JOINT    | 2   | 04-29-2004 | 1,135 LF  | 1,095    | 40       | 0        | N/A      | N/A      |  |
| Notes: All pourable joints have small scattered areas where the joint material has lost adhesion approximately 40 linear feet.   |                      |     |            |           |          |          |          |          |          |  |
| 303  | ASSEMBLY DECK JOINT  | 2   | 04-28-2004 | 93 LF     | 93       | 0        | 0        | N/A      | N/A      |  |
| Notes: < none >  |                      |     |            |           |          |          |          |          |          |  |
| 303  | ASSEMBLY DECK JOINT  | 2   | 04-29-2004 | 93 LF     | 93       | 0        | 0        | N/A      | N/A      |  |
| Notes: < none >  |                      |     |            |           |          |          |          |          |          |  |
| 321  | CONC APPROACH SLAB   | 2   | 04-28-2004 | 2 EA      | 1        | 1        | 0        | 0        | N/A      |  |
| Notes: West Approach Slab - Minnesota end OK.<br>East Approach Slab - Wisconsin end, has unsealed random cracks.   |                      |     |            |           |          |          |          |          |          |  |
| 321  | CONC APPROACH SLAB   | 2   | 04-29-2004 | 2 EA      | 1        | 1        | 0        | 0        | N/A      |  |
| Notes: West Approach Slab - Minnesota end OK.<br>East Approach Slab - Wisconsin end, has unsealed random cracks.   |                      |     |            |           |          |          |          |          |          |  |
| 334  | METAL RAIL-COATED    | 2   | 04-28-2004 | 4,580 LF  | 2,280    | 0        | 2,100    | 200      | 0        |  |
| Notes: There are scattered areas along up stream railing that have fading or failing paint with surface rust or active corrosion and minor loss of section. The down stream side has the galvanized tri-beam guard railing which is in good condition. |                      |     |            |           |          |          |          |          |          |  |

## Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-29-2004**

|   |                      |   |            |           |       |       |       |     |     |
|---|----------------------|---|------------|-----------|-------|-------|-------|-----|-----|
| 334   | METAL RAIL-COATED    | 2 | 04-29-2004 | 4,580 LF  | 2,280 | 0     | 2,100 | 200 | 0   |
| Notes: There are scattered areas along the upstream railing that have fading or failing paint with surface rust and active corrosion and minor loss of section. The downstream side has the galvanized tri-beam guardrail which is in good condition. |                      |   |            |           |       |       |       |     |     |
| 107   | PAINTED STEEL GIRDER | 2 | 04-28-2004 | 785 LF    | 325   | 185   | 175   | 100 | 0   |
| Notes: The paint system is mostly sound with some scattered areas of active corrosion and minor loss of section.  |                      |   |            |           |       |       |       |     |     |
| 107   | PAINTED STEEL GIRDER | 2 | 04-29-2004 | 785 LF    | 325   | 185   | 175   | 100 | 0   |
| Notes: The paint system is mostly sound with some scattered areas of active corrosion and minor loss of section.  |                      |   |            |           |       |       |       |     |     |
| 109   | P/S CONCRETE GIRDER  | 2 | 04-28-2004 | 421 LF    | 417   | 4     | 0     | 0   | N/A |
| Notes: These concrete prestressed concrete girders are located 1 each on the east side in spans 3 thru 14. In span 11 there are small chips along the end of the girder over pier 11. For more details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 109   | P/S CONCRETE GIRDER  | 2 | 04-29-2004 | 421 LF    | 417   | 4     | 0     | 0   | N/A |
| Notes: These prestressed concrete girders are located on the east side in spans 3 thru 14. In span 11, there are small chips along the end of the girder over pier 11. For more details check the attached snooper inspection report.                 |                      |   |            |           |       |       |       |     |     |
| 110   | CONCRETE GIRDER      | 2 | 04-28-2004 | 1,680 LF  | 1,428 | 235   | 17    | 0   | N/A |
| Notes: These concrete cast in place T-girders are located in spans 3 thru 14. There are scattered girders with vertical or random cracks and small patches. For more details check the attached snooper inspection report.                            |                      |   |            |           |       |       |       |     |     |
| 110   | CONCRETE GIRDER      | 2 | 04-29-2004 | 1,680 LF  | 1,428 | 235   | 17    | 0   | N/A |
| Notes: These concrete cast in place T-girders are located in spans 3 thru 14. There are scattered girders with vertical or random cracks and small patches. For more details check the attached snooper inspection report.                            |                      |   |            |           |       |       |       |     |     |
| 113   | PAINT STEEL STRINGER | 2 | 04-28-2004 | 12,570 LF | 4,110 | 5,080 | 3,130 | 250 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 113   | PAINT STEEL STRINGER | 2 | 04-29-2004 | 12,570 LF | 4,110 | 5,080 | 3,130 | 250 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 121   | P/STL THRU TRUSS/BOT | 2 | 04-28-2004 | 1,860 LF  | 0     | 0     | 1,500 | 360 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 121   | P/STL THRU TRUSS/BOT | 2 | 04-29-2004 | 1,860 LF  | 0     | 0     | 1,500 | 360 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 126   | P/STL THRU TRUSS/TOP | 2 | 04-28-2004 | 1,860 LF  | 0     | 700   | 1,040 | 120 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 126   | P/STL THRU TRUSS/TOP | 2 | 04-29-2004 | 1,860 LF  | 0     | 700   | 1,040 | 120 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 131   | PAINT STL DECK TRUSS | 2 | 04-28-2004 | 1,560 LF  | 0     | 0     | 700   | 860 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |
| 131   | PAINT STL DECK TRUSS | 2 | 04-29-2004 | 1,560 LF  | 0     | 0     | 700   | 860 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |           |       |       |       |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-28-2004**

|   |                      |   |            |          |     |       |       |     |     |
|---|----------------------|---|------------|----------|-----|-------|-------|-----|-----|
| 152   | PAINT STL FLOORBEAM  | 2 | 04-28-2004 | 3,250 LF | 468 | 1,609 | 1,013 | 160 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 152   | PAINT STL FLOORBEAM  | 2 | 04-29-2004 | 3,250 LF | 468 | 1,609 | 1,013 | 160 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 161   | PIN & HANGER-PAINTED | 2 | 04-28-2004 | 12 EA    | 4   | 5     | 3     | 0   | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 161   | PIN & HANGER-PAINTED | 2 | 04-29-2004 | 12 EA    | 4   | 5     | 3     | 0   | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 310   | ELASTOMERIC BEARING  | 2 | 04-28-2004 | 8 EA     | 8   | 0     | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 310   | ELASTOMERIC BEARING  | 2 | 04-29-2004 | 8 EA     | 8   | 0     | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 311   | EXPANSION BEARING    | 2 | 04-28-2004 | 52 EA    | 29  | 23    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 311   | EXPANSION BEARING    | 2 | 04-29-2004 | 52 EA    | 29  | 23    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 313   | FIXED BEARING        | 2 | 04-28-2004 | 28 EA    | 10  | 18    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 313   | FIXED BEARING        | 2 | 04-29-2004 | 28 EA    | 10  | 18    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 205   | CONCRETE COLUMN      | 2 | 04-28-2004 | 49 EA    | 22  | 20    | 7     | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 205   | CONCRETE COLUMN      | 2 | 04-29-2004 | 49 EA    | 22  | 20    | 7     | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 210   | CONCRETE PIER WALL   | 2 | 04-28-2004 | 190 LF   | 100 | 80    | 10    | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 210   | CONCRETE PIER WALL   | 2 | 04-29-2004 | 190 LF   | 100 | 80    | 10    | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 215   | CONCRETE ABUTMENT    | 2 | 04-28-2004 | 70 LF    | 46  | 18    | 6     | 0   | N/A |
| Notes: South Abutment ( Winona end) - has 2 vertical cracks and a small delaminated area under beam 3 counting from the west side of the bridge. North Abutment ( Wisconsin end) - has a few scattered vertical or random cracks in the front face that extend across the bridge seat and up the parapet wall with some staining, also there are deteriorated at both ends below the bearings. For more details check the attached snooper inspection report. |                      |   |            |          |     |       |       |     |     |

## Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

BRIDGE 5900

TH 43 OVER MISS RVR, RR, STREETS

INSP. DATE: 04-29-2004

|   |                     |   |            |        |     |     |    |     |     |
|---|---------------------|---|------------|--------|-----|-----|----|-----|-----|
| 215   | CONCRETE ABUTMENT   | 2 | 04-29-2004 | 70 LF  | 46  | 18  | 6  | 0   | N/A |
| Notes: South Abutment ( Winona end) - has 2 vertical cracks and a small delaminated area under beam 3 counting from the west side of the bridge.<br>North Abutment ( Wisconsin end) - has a few scattered vertical or random cracks in the front face that extend across the bridge seat and up the parapet wall with some staining. There are deteriorated areas of concrete at both ends below the bearings.<br>For more abutment details check the attached snooper inspection report. |                     |   |            |        |     |     |    |     |     |
| 234   | CONCRETE CAP        | 2 | 04-28-2004 | 840 LF | 595 | 226 | 19 | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                     |   |            |        |     |     |    |     |     |
| 234   | CONCRETE CAP        | 2 | 04-29-2004 | 840 LF | 595 | 226 | 19 | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                     |   |            |        |     |     |    |     |     |
| 387   | CONCRETE WINGWALL   | 2 | 04-28-2004 | 2 EA   | 0   | 1   | 1  | 0   | N/A |
| Notes: The wingwall's are located at the Wisconsin end only the west abutment has retaining walls.<br>Northeast Wingwall - has a few vertical rebar spill's along the front face and a small spalled areas along the top edge approximately 4 square feet.<br>Southeast Wingwall - has scattered random cracks with some leaching or staining.  |                     |   |            |        |     |     |    |     |     |
| 387   | CONCRETE WINGWALL   | 2 | 04-29-2004 | 2 EA   | 0   | 1   | 1  | 0   | N/A |
| Notes: The wingwalls are located at the Wisconsin end only the west abutment has retaining walls.<br>Northeast Wingwall - has a few vertical rebar spalls along the front face and a small spalled areas along the top edge approximately 4 square feet.<br>Southeast Wingwall - has scattered random cracks with some leaching or staining.  |                     |   |            |        |     |     |    |     |     |
| 357   | PACK RUST           | 2 | 04-28-2004 | 1 EA   | 0   | 0   | 1  | 0   | N/A |
| Notes: Most steel members with faying surfaces have pack rust showing with some areas having rust between the plates that has caused serious distress at the connection, however all connections are still functioning. For more details check the attached snooper inspection report.  |                     |   |            |        |     |     |    |     |     |
| 357   | PACK RUST           | 2 | 04-29-2004 | 1 EA   | 0   | 0   | 1  | 0   | N/A |
| Notes: Most steel members with faying surfaces have pack rust showing with some areas having rust between the plates that has caused serious distress at the connection, however all connections are still functioning. For more details check the attached snooper inspection report.  |                     |   |            |        |     |     |    |     |     |
| 358   | CONC DECK CRACKING  | 2 | 04-28-2004 | 1 EA   | 0   | 1   | 0  | 0   | N/A |
| Notes: There are approximately ? linear feet of unsealed cracks in the surface of the deck, last time sealed was in 1996.   |                     |   |            |        |     |     |    |     |     |
| 358   | CONC DECK CRACKING  | 2 | 04-29-2004 | 1 EA   | 0   | 1   | 0  | 0   | N/A |
| Notes: There are unsealed cracks in the surface of the deck, last time sealed was in 1996.  |                     |   |            |        |     |     |    |     |     |
| 359   | CONC DECK UNDERSIDE | 2 | 04-28-2004 | 1 EA   | 0   | 1   | 0  | 0   | 0   |
| Notes: There are scattered areas of transverse cracks with efflorescence or leaching beneath the deck , also there attached sidewalk on the downstream east side has numerous areas of active corrosion to the under sides of the stay in place metal forms. Some areas of the in place forms have scattered small holes rusted completely thru the metal forms. For more details check the attached snooper inspection report.   |                     |   |            |        |     |     |    |     |     |
| 359   | CONC DECK UNDERSIDE | 2 | 04-29-2004 | 1 EA   | 0   | 1   | 0  | 0   | 0   |
| Notes: There are scattered areas of transverse cracks with efflorescence or leaching beneath the deck. The attached sidewalk on the downstream east side has numerous areas of active corrosion to the under sides of the stay in place metal forms. Some areas of the in place forms have scattered small holes rusted completely thru the metal forms. For more details check the attached snooper inspection report.   |                     |   |            |        |     |     |    |     |     |
| 361   | SCOUR               | 2 | 04-29-2004 | 1 EA   | 1   | 0   | 0  | N/A | N/A |
| Notes: R - Scour critical. Monitoring required.   |                     |   |            |        |     |     |    |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-28-2004**

|  |                   |   |            |      |   |   |     |     |     |
|--|-------------------|---|------------|------|---|---|-----|-----|-----|
| 363  | SECTION LOSS      | 2 | 04-28-2004 | 1 EA | 0 | 1 | 0   | 0   | N/A |
| Notes: There are scattered areas on most steel members with minor loss of section that has been cleaned and painted over or that occurred after the last paint contact. For more details check the attached snooper inspection report.   |                   |   |            |      |   |   |     |     |     |
| 363  | SECTION LOSS      | 2 | 04-29-2004 | 1 EA | 0 | 1 | 0   | 0   | N/A |
| Notes: There are scattered areas on most steel members with minor loss of section that has been cleaned and painted over or that occurred after the last paint contact. For more details check the attached snooper inspection report.   |                   |   |            |      |   |   |     |     |     |
| 964  | CRITICAL FINDING  | 2 | 04-28-2004 | 1 EA | 1 | 0 | N/A | N/A | N/A |
| Notes: No critical findings were observed at the time of inspection.   |                   |   |            |      |   |   |     |     |     |
| 964  | CRITICAL FINDING  | 2 | 04-29-2004 | 1 EA | 1 | 0 | N/A | N/A | N/A |
| Notes: No critical findings were observed at the time of inspection.   |                   |   |            |      |   |   |     |     |     |
| 966  | FRACTURE CRITICAL | 2 | 04-29-2004 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: Do Not Remove. See in-depth report for location of F/C members.   |                   |   |            |      |   |   |     |     |     |
| 981  | SIGNING           | 2 | 04-28-2004 | 1 EA | 1 | 0 | 0   | 0   | 0   |
| Notes: All signs were in place at the time of inspection.  |                   |   |            |      |   |   |     |     |     |
| 981  | SIGNING           | 2 | 04-29-2004 | 1 EA | 1 | 0 | 0   | 0   | 0   |
| Notes: All signs were in place at the time of inspection.  |                   |   |            |      |   |   |     |     |     |
| 982  | GUARDRAIL         | 2 | 04-28-2004 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: All guardrail sections were intact at the time of inspection.   |                   |   |            |      |   |   |     |     |     |
| 982  | GUARDRAIL         | 2 | 04-29-2004 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: All guardrail sections were intact at the time of inspection.   |                   |   |            |      |   |   |     |     |     |
| 984  | DRAINAGE          | 2 | 04-28-2004 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: Approximately 1/3 of the deck drains are plugged these are located at the Minnesota ends spans 1 through 15, there are scattered drain along the other spans that are plugged with dirt and debris. All of the deck drains and drain extension have failed paint with active corrosion. |                   |   |            |      |   |   |     |     |     |
| 984  | DRAINAGE          | 2 | 04-29-2004 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: Approximately 1/3 of the deck drains are plugged these are located at the Minnesota ends spans 1 through 15, there are scattered drain along the other spans that are plugged with dirt and debris. All of the deck drains and drain extension have failed paint with active corrosion. |                   |   |            |      |   |   |     |     |     |
| 985  | SLOPES            | 2 | 04-28-2004 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: East Slope - Wisconsin end is in good condition at this time.   |                   |   |            |      |   |   |     |     |     |
| 985  | SLOPES            | 2 | 04-29-2004 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: East Slope - Wisconsin end is in good condition at this time.   |                   |   |            |      |   |   |     |     |     |
| 986  | CURB & SIDEWALK   | 2 | 04-28-2004 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: There are numerous unsealed cracks, small spall's or delaminations along the sidewalk and curb faces on the downstream east side. Along the downstream east side of the bridge the spalled areas are located at Spans 5, 8, 14, 16 and 21 counting from the south end of the bridge.    |                   |   |            |      |   |   |     |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-29-2004**

|     |                 |   |            |      |   |   |   |     |     |
|-----|-----------------|---|------------|------|---|---|---|-----|-----|
| 986 | CURB & SIDEWALK | 2 | 04-29-2004 | 1 EA | 0 | 1 | 0 | N/A | N/A |
|-----|-----------------|---|------------|------|---|---|---|-----|-----|

Notes: There are numerous unsealed cracks, small spalls and delaminations along the sidewalk and curb faces on the downstream east side. Along the downstream east side of the bridge the spalled areas are located at Spans 5, 8, 14, 16 and 21.

|     |               |   |            |      |   |   |   |     |     |
|-----|---------------|---|------------|------|---|---|---|-----|-----|
| 988 | MISCELLANEOUS | 2 | 04-28-2004 | 1 EA | 0 | 1 | 0 | N/A | N/A |
|-----|---------------|---|------------|------|---|---|---|-----|-----|

Notes: No swallow nests.  
There are retaining walls located at the south end of the bridge that have scattered vertical cracks with some staining.  
There are two light poles on the bridge with small cuts or tears in them, light pole 15 has a 2 inch by 3 inch cut on the west side and light pole 21 over Pier 21 has a 4 inch by 2 1/2 inch hole on the west side.

|     |               |   |            |      |   |   |   |     |     |
|-----|---------------|---|------------|------|---|---|---|-----|-----|
| 988 | MISCELLANEOUS | 2 | 04-29-2004 | 1 EA | 0 | 1 | 0 | N/A | N/A |
|-----|---------------|---|------------|------|---|---|---|-----|-----|

Notes: No swallow nests.  
There are retaining walls located at the south end of the bridge that have scattered vertical cracks with some staining.  
There are two light poles on the bridge with small cuts or tears in them, light pole 15 has a 2 inch by 3 inch cut on the west side and light pole 21 over Pier 21 has a 4 inch by 2 1/2 inch hole on the west side.

## General Notes:

\*Bridge 5900

NOTE : This structure has a scour code rating of "R" CRITICAL MONITOR and there no scour monitoring signs mounted on the bridge.

NOTE : Underwater inspection was completed in 2000.

NOTE : Fracture critical inspection was completed by Bridge CO in 2003.

NOTE : See attached Snooper Inspection Report for additional details.

NOTE : All steel members were painted in 1986. The high truss spans 18 through 20 were painted in 1992 and 1993.

NOTE : River soundings were taken in; 10-89, 11-90, 10-93, 7-96.

CHANNEL : NBI 8 Banks are well protected at this time.

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 Inspector's Signature

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 Reviewer's Signature / Date

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-18-2005**

County: WINONA

Location: 2.8 MI N OF JCT TH 61

Length: 2,288.5 ft

City: WINONA

Route: MNTH 43 Ref. Pt.: 044+00.892

Deck Width: 34.4 ft

Township:

Control Section: 8503 Maint. Area: 6A

Rdwy. Area / Pct. Unsd: 70,945 sq ft

Section: 22 Township: 107N Range: 07W

Local Agency Bridge Nbr:

Paint Area / Pct. Unsd: 239,130 sq ft

Span Type: CSTL DECK TRUSS

NBI Deck: 6 Super: 5 Sub: 6 Chan: 8 Culv: N

Open, Posted, Closed: OPEN

Appraisal Ratings - Approach: 8 Waterway: 8

MN Scour Code: R-CRIT;MONITOR

Def. Stat: ADEQ Suff. Rate: 49.8

Required Bridge Signs - Load Posting: NOT REQUIRED Traffic: NOT REQUIRED

Horizontal: NOT REQUIRED Vertical: NOT REQUIRED

**STRUCTURE UNIT: 0**

| ELEM<br>NBR | ELEMENT NAME   | ENV | INSP. DATE | QUANTITY  | QTY<br>CS 1 | QTY<br>CS 2 | QTY<br>CS 3 | QTY<br>CS 4 | QTY<br>CS 5 |
|-------------|--|-----|------------|-----------|-------------|-------------|-------------|-------------|-------------|
| 26          | TOP OF CONC DECK-EPX   | 2   | 04-18-2005 | 78,724 SF | 0           | 78,724      | 0           | 0           | 0           |
|             | Notes: There are 2 small spalled areas in the deck surface. The first spall is a 10" X 6" spall in the east bound lane of span 15 and the second is a 6" spall in the east bound lane of span 21.  |     |            |           |             |             |             |             |             |
| 300         | STRIP SEAL JOINT   | 2   | 04-18-2005 | 372 LF    | 368         | 4           | 0           | N/A         | N/A         |
|             | Notes: The pier 5 joint has approximately 4 linear feet where the gland material has pulled out of the extrusion. The joint located at pier 21 has a broken bolt at the cover plate on the sidewalk side of the deck. The plate is 3/4" high near the inside edge behind the railing and curb. |     |            |           |             |             |             |             |             |
| 301         | POURED DECK JOINT  | 2   | 04-18-2005 | 1,135 LF  | 1,095       | 40          | 0           | N/A         | N/A         |
|             | Notes: All pourable joints have small scattered areas where the joint material has lost adhesion, approximately 40 linear feet.  |     |            |           |             |             |             |             |             |
| 303         | ASSEMBLY DECK JOINT  | 2   | 04-18-2005 | 93 LF     | 93          | 0           | 0           | N/A         | N/A         |
|             | Notes: < none >  |     |            |           |             |             |             |             |             |
| 321         | CONC APPROACH SLAB   | 2   | 04-18-2005 | 2 EA      | 1           | 1           | 0           | 0           | N/A         |
|             | Notes: South Approach Slab - Minnesota end OK.<br>North Approach Slab - Wisconsin end, has unsealed random cracks.   |     |            |           |             |             |             |             |             |
| 334         | METAL RAIL-COATED  | 2   | 04-18-2005 | 4,580 LF  | 2,280       | 0           | 2,000       | 300         | 0           |
|             | Notes: There are scattered areas along the upstream railing that have fading and failing paint with active corrosion and minor loss of section. The downstream side has the galvanized tri-beam guardrail which is in good condition.  |     |            |           |             |             |             |             |             |
| 107         | PAINTED STEEL GIRDER   | 2   | 04-18-2005 | 785 LF    | 325         | 185         | 175         | 100         | 0           |
|             | Notes: The paint system is mostly sound with some scattered areas of active corrosion and minor loss of section.   |     |            |           |             |             |             |             |             |
| 109         | P/S CONCRETE GIRDER  | 2   | 04-18-2005 | 421 LF    | 417         | 4           | 0           | 0           | N/A         |
|             | Notes: There is one prestressed concrete girders located on the east side of the bridge in spans 3 thru 14. In span 11, there are small chips along the end of the girder over pier 11. For more details check the attached snooper inspection report.   |     |            |           |             |             |             |             |             |
| 110         | CONCRETE GIRDER  | 2   | 04-18-2005 | 1,680 LF  | 1,428       | 235         | 17          | 0           | N/A         |
|             | Notes: These concrete cast in place T-girders are located in spans 3 thru 14. There are scattered girders with vertical or random cracks and small patches. For more details check the attached snooper inspection report.   |     |            |           |             |             |             |             |             |
| 113         | PAINT STEEL STRINGER   | 2   | 04-18-2005 | 12,570 LF | 3,570       | 5,500       | 3,200       | 300         | 0           |
|             | Notes: For details check the attached snooper inspection report.   |     |            |           |             |             |             |             |             |
| 121         | P/STL THRU TRUSS/BOT   | 2   | 04-18-2005 | 1,860 LF  | 1           | 0           | 1,399       | 460         | 0           |
|             | Notes: For details check the attached snooper inspection report.   |     |            |           |             |             |             |             |             |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-18-2005**

|   |                      |   |            |          |     |       |       |     |     |
|---|----------------------|---|------------|----------|-----|-------|-------|-----|-----|
| 126   | P/STL THRU TRUSS/TOP | 2 | 04-18-2005 | 1,860 LF | 0   | 700   | 1,040 | 120 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 131   | PAINT STL DECK TRUSS | 2 | 04-18-2005 | 1,560 LF | 0   | 0     | 700   | 860 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 152   | PAINT STL FLOORBEAM  | 2 | 04-18-2005 | 3,250 LF | 141 | 1,609 | 1,300 | 200 | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 161   | PIN & HANGER-PAINTED | 2 | 04-18-2005 | 12 EA    | 0   | 4     | 8     | 0   | 0   |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 310   | ELASTOMERIC BEARING  | 2 | 04-18-2005 | 10 EA    | 10  | 0     | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 311   | EXPANSION BEARING    | 2 | 04-18-2005 | 50 EA    | 29  | 21    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 313   | FIXED BEARING        | 2 | 04-18-2005 | 28 EA    | 10  | 18    | 0     | N/A | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 205   | CONCRETE COLUMN      | 2 | 04-18-2005 | 49 EA    | 22  | 20    | 7     | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 210   | CONCRETE PIER WALL   | 2 | 04-18-2005 | 190 LF   | 100 | 80    | 10    | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 215   | CONCRETE ABUTMENT    | 2 | 04-18-2005 | 70 LF    | 46  | 18    | 6     | 0   | N/A |
| Notes: South Abutment ( Winona end) - has 2 vertical cracks and a small delaminated area under beam 3 counting from the west side of the bridge.<br>North Abutment ( Wisconsin end) - has a few scattered vertical or random cracks in the front face that extend across the bridge seat and up the parapet wall with some staining. There are deteriorated areas of concrete at both ends below the bearings.<br>For more abutment details check the attached snooper inspection report. |                      |   |            |          |     |       |       |     |     |
| 234   | CONCRETE CAP         | 2 | 04-18-2005 | 840 LF   | 595 | 226   | 19    | 0   | N/A |
| Notes: For details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 387   | CONCRETE WINGWALL    | 2 | 04-18-2005 | 2 EA     | 0   | 1     | 1     | 0   | N/A |
| Notes: The wingwalls are located at the Wisconsin end only, the south abutment has retaining walls.<br>Northeast Wingwall - has a few vertical rebar spalls along the front face and a small spalled areas along the top edge approximately 4 square feet.<br>Northwest Wingwall - has scattered random cracks with some leaching or staining.  |                      |   |            |          |     |       |       |     |     |
| 357   | PACK RUST            | 2 | 04-18-2005 | 1 EA     | 0   | 0     | 1     | 0   | N/A |
| Notes: Most steel members with faying surfaces have pack rust showing with some areas having rust between the plates that has caused serious distress at the connection, however all connections are still functioning. For more details check the attached snooper inspection report.  |                      |   |            |          |     |       |       |     |     |
| 358   | CONC DECK CRACKING   | 2 | 04-18-2005 | 1 EA     | 0   | 1     | 0     | 0   | N/A |
| Notes: There are numerous unsealed cracks in the surface of the deck, last time sealed was in 1996.   |                      |   |            |          |     |       |       |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-18-2005**

|   |                     |   |            |      |   |   |     |     |     |  |
|---|---------------------|---|------------|------|---|---|-----|-----|-----|--|
| 359   | CONC DECK UNDERSIDE | 2 | 04-18-2005 | 1 EA | 0 | 1 | 0   | 0   | 0   |  |
| Notes: There are scattered areas of transverse cracks with efflorescence or leaching beneath the deck. The attached sidewalk on the downstream east side has numerous areas of active corrosion to the under sides of the stay in place metal forms. There are scattered small holes rusted completely through the stay in place metal forms. For more details check the attached snooper inspection report.  |                     |   |            |      |   |   |     |     |     |  |
| 361   | SCOUR               | 2 | 04-18-2005 | 1 EA | 1 | 0 | 0   | N/A | N/A |  |
| Notes: R - Scour critical. Monitoring required.   |                     |   |            |      |   |   |     |     |     |  |
| 363   | SECTION LOSS        | 2 | 04-18-2005 | 1 EA | 0 | 1 | 0   | 0   | N/A |  |
| Notes: There are scattered areas on most steel members with minor loss of section that has been cleaned and painted over or that occurred after the last paint contact. For more details check the attached snooper inspection report.  |                     |   |            |      |   |   |     |     |     |  |
| 964   | CRITICAL FINDING    | 2 | 04-18-2005 | 1 EA | 1 | 0 | N/A | N/A | N/A |  |
| Notes: No critical findings were observed at the time of inspection.  |                     |   |            |      |   |   |     |     |     |  |
| 966   | FRACTURE CRITICAL   | 2 | 04-18-2005 | 1 EA | 1 | 0 | 0   | N/A | N/A |  |
| Notes: The last fracture critical inspection was completed in 2003. Refer to the in-depth report for location of F/C members.   |                     |   |            |      |   |   |     |     |     |  |
| 981   | SIGNING             | 2 | 04-18-2005 | 1 EA | 1 | 0 | 0   | 0   | 0   |  |
| Notes: All signs were in place at the time of inspection.   |                     |   |            |      |   |   |     |     |     |  |
| 982   | GUARDRAIL           | 2 | 04-18-2005 | 1 EA | 1 | 0 | 0   | N/A | N/A |  |
| Notes: All guardrail sections were intact at the time of inspection.  |                     |   |            |      |   |   |     |     |     |  |
| 984   | DRAINAGE            | 2 | 04-18-2005 | 1 EA | 0 | 1 | 0   | N/A | N/A |  |
| Notes: Approximately 1/3 of the deck drains are plugged, these are located at the Minnesota ends spans 1 through 15. There are scattered drains along the other spans that are plugged with dirt and debris. All of the deck drains and drain extension have failed paint with active corrosion.  |                     |   |            |      |   |   |     |     |     |  |
| 985   | SLOPES              | 2 | 04-18-2005 | 1 EA | 1 | 0 | 0   | N/A | N/A |  |
| Notes: The north slope is cemented over rocks. The slope is in good condition at this time.   |                     |   |            |      |   |   |     |     |     |  |
| 986   | CURB & SIDEWALK     | 2 | 04-18-2005 | 1 EA | 0 | 1 | 0   | N/A | N/A |  |
| Notes: There are numerous unsealed cracks, small spalls and delaminations along the sidewalk and curb faces on the downstream east side. Along the downstream east side of the bridge the spalled areas are located at Spans 5, 8, 14, 16 and 21.   |                     |   |            |      |   |   |     |     |     |  |
| 988   | MISCELLANEOUS       | 2 | 04-18-2005 | 1 EA | 0 | 1 | 0   | N/A | N/A |  |
| Notes: No swallow nests.<br>There are retaining walls located at the south end of the bridge that have scattered vertical cracks with some staining.<br>There are two light poles on the bridge with small cuts or tears in them, light pole 15 has a 2 inch by 3 inch cut on the west side and light pole 21 over Pier 21 has a 4 inch by 2 1/2 inch hole on the west side.<br>The sidewalk chain link fence and posts are leaning outward due to the condition of the under deck. |                     |   |            |      |   |   |     |     |     |  |

# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

**BRIDGE 5900**

**TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 04-18-2005**

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General Notes:

\*Bridge 5900

NOTE: This structure has a scour code rating of "R" CRITICAL MONITOR and there are no scour monitoring signs mounted on the bridge.

NOTE: Underwater inspection was completed in 2004.

NOTE: Fracture critical inspection was completed by Bridge CO in 2003.

NOTE: See attached Snooper Inspection Report for additional details.

NOTE: All steel members were painted in 1986. The high truss spans 18 through 20 were painted in 1992 and 1993.

NOTE: River soundings were taken in; 10-89, 11-90, 10-93, 7-96.

CHANNEL: NBI 8 Banks are well protected at this time.

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Inspector's Signature

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Reviewer's Signature / Date

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 06-12-2006**

County: WINONA Location: 2.8 MI N OF JCT TH 61 Length: 2,288.5 ft  
 City: WINONA Route: MNTH 43 Ref. Pt.: 044+00.892 Deck Width: 34.4 ft  
 Township: Control Section: 8503 Maint. Area: 6A Rdwy. Area / Pct. Unsd: 70,945 sq ft  
 Section: 22 Township: 107N Range: 07W Local Agency Bridge Nbr: Paint Area / Pct. Unsd: 239,130 sq ft  
 Span Type: CSTL DECK TRUSS

NBI Deck: 6 Super: 5 Sub: 6 Chan: 8 Culv: N

Open, Posted, Closed: OPEN

Appraisal Ratings - Approach: 8 Waterway: 8

MN Scour Code: R-CRIT;MONITOR

Def. Stat: ADEQ Suff. Rate: 49.8

Required Bridge Signs - Load Posting: NOT REQUIRED Traffic: NOT REQUIRED

Horizontal: NOT REQUIRED Vertical: NOT REQUIRED

**STRUCTURE UNIT: 0**

| ELEM<br>NBR   | ELEMENT NAME         | ENV | INSP. DATE | QUANTITY  | QTY<br>CS 1 | QTY<br>CS 2 | QTY<br>CS 3 | QTY<br>CS 4 | QTY<br>CS 5 |
|---|----------------------|-----|------------|-----------|-------------|-------------|-------------|-------------|-------------|
| 26  | TOP OF CONC DECK-EPX | 2   | 06-12-2006 | 78,724 SF | 0           | 78,724      | 0           | 0           | 0           |
| Notes: Span # 2 - has several small spall's near the center line.<br>Span # 15 - has 3 small 1' X 1' spalled areas in the east bound lane.<br>Span # 21 - has a small 1' X 3' spalled area in the east bound lane.  |                      |     |            |           |             |             |             |             |             |
| 300   | STRIP SEAL JOINT     | 2   | 06-12-2006 | 372 LF    | 363         | 9           | 0           | N/A         | N/A         |
| Notes: Joint Over West Abutment - has 1 foot area where the gland material has pulled out of the extrusion.<br>Joint Over Pier # 5 - has a 5 foot long area where the gland material has pulled out of the extrusion.<br>Joint Over Pier # 21 - has a broken bolt at the cover plate on the sidewalk side of the deck. The plate is 3/4" high near the inside edge behind the railing and curb. The cover plate along the sidewalk is loose and not flush with the sidewalk, due possible to the extreme arching upwards of the sidewalk. The plate is 1 1/2 + or - above the sidewalk at the back of the curb.<br>Joint Over Pier # 22 - the cover plate along the sidewalk is loose and not flush with the sidewalk, due possible to the extreme arching upwards of the sidewalk. The plate is 1 1/2 + or - above the sidewalk at the back of the curb.<br>Joint Over Pier # 23 - the cover plate along the sidewalk is loose and not flush with the sidewalk, due possible to the extreme arching upwards of the sidewalk. The plate is 1 1/2 + or - above the sidewalk at the back of the curb. |                      |     |            |           |             |             |             |             |             |
| 301   | POURED DECK JOINT    | 2   | 06-12-2006 | 1,135 LF  | 1,135       | 0           | 0           | N/A         | N/A         |
| Notes: All joints were sealed in 2006.  |                      |     |            |           |             |             |             |             |             |
| 303   | ASSEMBLY DECK JOINT  | 2   | 06-12-2006 | 93 LF     | 93          | 0           | 0           | N/A         | N/A         |
| Notes:  |                      |     |            |           |             |             |             |             |             |
| 321   | CONC APPROACH SLAB   | 2   | 06-12-2006 | 2 EA      | 1           | 1           | 0           | 0           | N/A         |
| Notes: South Minnesota Approach Slab - OK.<br>North Wisconsin Approach Slab - has unsealed random cracks.   |                      |     |            |           |             |             |             |             |             |
| 334   | METAL RAIL-COATED    | 2   | 06-12-2006 | 4,580 LF  | 2,280       | 0           | 1,600       | 700         | 0           |
| Notes: There are scattered areas along the upstream railing that have fading and failing paint with active corrosion and minor loss of section. The downstream side has the galvanized tri-beam guardrail which is in good condition.   |                      |     |            |           |             |             |             |             |             |
| 107   | PAINTED STEEL GIRDER | 2   | 06-12-2006 | 785 LF    | 325         | 185         | 175         | 100         | 0           |
| Notes: The paint system is mostly sound with some scattered areas of active corrosion and minor loss of section. Check the attached snooper inspection report for further details.  |                      |     |            |           |             |             |             |             |             |
| 109   | P/S CONCRETE GIRDER  | 2   | 06-12-2006 | 421 LF    | 417         | 4           | 0           | 0           | N/A         |
| Notes: There is one prestressed concrete girders located on the east side of the bridge in spans 3 thru 14. In span 11, there are small chips along the end of the girder over pier 11. Check the attached snooper inspection report for further details.   |                      |     |            |           |             |             |             |             |             |
| 110   | CONCRETE GIRDER      | 2   | 06-12-2006 | 1,680 LF  | 1,428       | 235         | 17          | 0           | N/A         |
| Notes: These concrete cast in place T-girders are located in spans 3 thru 14. There are scattered girders with vertical or random cracks and small patches. Check the attached snooper inspection report for further details.   |                      |     |            |           |             |             |             |             |             |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 06-12-2006**

|   |                      |   |            |           |       |       |       |     |     |
|---|----------------------|---|------------|-----------|-------|-------|-------|-----|-----|
| 113   | PAINT STEEL STRINGER | 2 | 06-12-2006 | 12,570 LF | 3,570 | 5,500 | 3,200 | 300 | 0   |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 121   | P/STL THRU TRUSS/BOT | 2 | 06-12-2006 | 1,860 LF  | 1     | 0     | 1,399 | 460 | 0   |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 126   | P/STL THRU TRUSS/TOP | 2 | 06-12-2006 | 1,860 LF  | 0     | 700   | 1,040 | 120 | 0   |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 131   | PAINT STL DECK TRUSS | 2 | 06-12-2006 | 1,560 LF  | 0     | 0     | 700   | 860 | 0   |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 152   | PAINT STL FLOORBEAM  | 2 | 06-12-2006 | 3,250 LF  | 141   | 1,609 | 1,300 | 200 | 0   |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 161   | PIN & HANGER-PAINTED | 2 | 06-12-2006 | 12 EA     | 0     | 4     | 8     | 0   | 0   |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 310   | ELASTOMERIC BEARING  | 2 | 06-12-2006 | 10 EA     | 10    | 0     | 0     | N/A | N/A |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 311   | EXPANSION BEARING    | 2 | 06-12-2006 | 50 EA     | 29    | 21    | 0     | N/A | N/A |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 313   | FIXED BEARING        | 2 | 06-12-2006 | 28 EA     | 10    | 18    | 0     | N/A | N/A |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 205   | CONCRETE COLUMN      | 2 | 06-12-2006 | 49 EA     | 22    | 20    | 7     | 0   | N/A |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 210   | CONCRETE PIER WALL   | 2 | 06-12-2006 | 190 LF    | 100   | 80    | 10    | 0   | N/A |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 215   | CONCRETE ABUTMENT    | 2 | 06-12-2006 | 70 LF     | 46    | 18    | 6     | 0   | N/A |
| Notes: South Minnesota Abutment - has 2 vertical cracks and a small delaminated area under beam 3.  |                      |   |            |           |       |       |       |     |     |
| North Wisconsin Abutment - there are a few scattered vertical or random cracks in the front face most extending across the bridge seat and up the parapet wall with some staining. At both ends there are areas of deteriorating concrete and small spall's in the front face and along the bridge seat under the bearings. |                      |   |            |           |       |       |       |     |     |
| Check attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 234   | CONCRETE CAP         | 2 | 06-12-2006 | 840 LF    | 595   | 226   | 19    | 0   | N/A |
| Notes: Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 387   | CONCRETE WINGWALL    | 2 | 06-12-2006 | 2 EA      | 0     | 2     | 0     | 0   | N/A |
| Notes: The wingwall's are located at the Wisconsin end only, the south abutment has retaining walls.  |                      |   |            |           |       |       |       |     |     |
| Northeast Wingwall - has a few vertical rebar spall's along the front face and a small spalled areas along the top edge approximately 4 square feet.  |                      |   |            |           |       |       |       |     |     |
| Northwest Wingwall - has scattered random cracks with some leaching or staining.  |                      |   |            |           |       |       |       |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 06-12-2006**

|  |                     |   |            |      |   |   |     |     |     |
|--|---------------------|---|------------|------|---|---|-----|-----|-----|
| 357  | PACK RUST           | 2 | 06-12-2006 | 1 EA | 0 | 0 | 1   | 0   | N/A |
| Notes: Most steel members with faying surfaces have pack rust showing with some areas having rust between the plates that has caused serious distress at the connection, however all connections are still functioning. Check the attached snooper inspection report for further details.  |                     |   |            |      |   |   |     |     |     |
| 358  | CONC DECK CRACKING  | 2 | 06-12-2006 | 1 EA | 0 | 1 | 0   | 0   | N/A |
| Notes: Approximately 1000 linear feet of deck cracks were sealed in 2006.  |                     |   |            |      |   |   |     |     |     |
| 359  | CONC DECK UNDERSIDE | 2 | 06-12-2006 | 1 EA | 0 | 1 | 0   | 0   | 0   |
| Notes: There are scattered areas of transverse cracks with efflorescence or leaching beneath the deck. The attached sidewalk on the downstream east side has numerous areas of active corrosion to the under sides of the stay in place metal forms. There are scattered small holes rusted completely through the stay in place metal forms. Check the attached snooper inspection report for further details.  |                     |   |            |      |   |   |     |     |     |
| 361  | SCOUR               | 2 | 06-12-2006 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: R - Scour critical. Monitoring required.  |                     |   |            |      |   |   |     |     |     |
| 363  | SECTION LOSS        | 2 | 06-12-2006 | 1 EA | 0 | 0 | 1   | 0   | N/A |
| Notes: There are scattered areas on most steel members with minor loss of section that has been cleaned and painted over or that occurred after the last paint contact. Check the attached snooper inspection report for further details.  |                     |   |            |      |   |   |     |     |     |
| 964  | CRITICAL FINDING    | 2 | 06-12-2006 | 1 EA | 1 | 0 | N/A | N/A | N/A |
| Notes: No critical findings were observed at the time of inspection.   |                     |   |            |      |   |   |     |     |     |
| 966  | FRACTURE CRITICAL   | 2 | 06-12-2006 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: The last fracture critical inspection was completed in 2003. Refer to the in-depth report for location of F/C members.  |                     |   |            |      |   |   |     |     |     |
| 981  | SIGNING             | 2 | 06-12-2006 | 1 EA | 1 | 0 | 0   | 0   | 0   |
| Notes: All signs were in place at the time of inspection.  |                     |   |            |      |   |   |     |     |     |
| 982  | GUARDRAIL           | 2 | 06-12-2006 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: All guardrail sections were intact at the time of inspection.   |                     |   |            |      |   |   |     |     |     |
| 984  | DRAINAGE            | 2 | 06-12-2006 | 1 EA | 0 | 1 | 0   | N/A | N/A |
| Notes: Approximately 1/3 of the deck drains are plugged, these are located at the Minnesota ends spans 1 through 15. There are scattered drains along the other spans that are plugged with dirt and debris. All of the deck drains and drain extension have failed paint with active corrosion.   |                     |   |            |      |   |   |     |     |     |
| 985  | SLOPES              | 2 | 06-12-2006 | 1 EA | 1 | 0 | 0   | N/A | N/A |
| Notes: The north slope is cemented over rocks. The slope is in good condition at this time.  |                     |   |            |      |   |   |     |     |     |
| 986  | CURB & SIDEWALK     | 2 | 06-12-2006 | 1 EA | 0 | 0 | 1   | N/A | N/A |
| Notes: There are numerous unsealed cracks, small spall's and delaminations along the sidewalk and curb faces on the downstream east side. Along the downstream east side of the bridge the spalled areas are located at Spans 5, 8, 14, 16 and 21.<br>The sidewalk is curved upwards in varies places along the bridge, sidewalk was checked using 4' level. The areas checked averaged 1 inch at the curbs, flush at the center line of the sidewalk and 1 1/2 inches along the chain link fence. The most extreme areas were located along the deck truss in spans 22 through 24. The metal fence posts are leaning outwards in these areas. |                     |   |            |      |   |   |     |     |     |

# Mn/DOT BRIDGE INSPECTION REPORT

Inspector: DISTRICT6

**BRIDGE 5900**

**TH 43 OVER MISS RVR, RR, STREETS**

**INSP. DATE: 06-12-2006**

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|     |               |   |            |      |   |   |   |     |     |
|-----|---------------|---|------------|------|---|---|---|-----|-----|
| 988 | MISCELLANEOUS | 2 | 06-12-2006 | 1 EA | 0 | 1 | 0 | N/A | N/A |
|-----|---------------|---|------------|------|---|---|---|-----|-----|

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Notes: Yes swallow nests, they are located in spans 5 through 15 and 18 & 19.  
 There are retaining walls located at the south end of the bridge that have scattered vertical cracks with some staining.  
 There are two light poles on the bridge with small cuts or tears in them, light pole 15 has a 2 inch by 3 inch cut on the west side and light pole 21 over Pier 21 has a 4 inch by 2 1/2 inch hole on the west side.  
 The sidewalk chain link fence and posts are leaning outward due to the condition of the under deck.

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General Notes: Bridge 5900

NOTE: All spans, piers and floorbeam's are numbered from the west and all beams, girders, bearings and columns are numbered from the south.

NOTE: Bridge was inspected using under snooper truck in 2006.

NOTE: This structure has a scour code rating of "R" CRITICAL MONITOR and there are no scour monitoring signs mounted on the bridge.

NOTE: Underwater inspection was completed in 2004.

NOTE: Fracture critical inspection was completed by Bridge CO in 2003.

NOTE: Check the attached Snooper Inspection Report for further details.

NOTE: All steel members were painted in 1986. The high truss spans 18 through 20 were painted in 1992 and 1993.

NOTE: River soundings were taken in; 10-89, 11-90, 10-93, 7-96.

Channel - NBI # 8 Banks are well protected at this time.

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Inspector's Signature

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Reviewer's Signature / Date

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-16-2007**

County: WINONA

Location: 2.8 MI N OF JCT TH 61

Length: 2,288.5 ft

City: WINONA

Route: MNTH 43 Ref. Pt.: 044+00.892

Deck Width: 34.4 ft

Township:

Control Section: 8503 Maint. Area: 6A

Rdwy. Area / Pct. Unsnd: 70,945 sq ft 2 %

Section: 22 Township: 107N Range: 07W

Local Agency Bridge Nbr:

Paint Area / Pct. Unsnd: 239,130 sq ft 30 %

Span Type: CSTL DECK TRUSS

NBI Deck: 6 Super: 5 Sub: 6 Chan: 8 Culv: N

Open, Posted, Closed: OPEN

Appraisal Ratings - Approach: 8 Waterway: 8

MN Scour Code: R-CRIT;MONITOR

Def. Stat: ADEQ Suff. Rate: 49.8

Required Bridge Signs - Load Posting: NOT REQUIRED Traffic: NOT REQUIRED

Horizontal: NOT REQUIRED Vertical: NOT REQUIRED

**STRUCTURE UNIT: 0**

| ELEM<br>NBR  | ELEMENT NAME         | ENV | INSP. DATE | QUANTITY  | QTY<br>CS 1 | QTY<br>CS 2 | QTY<br>CS 3 | QTY<br>CS 4 | QTY<br>CS 5 |  |
|--|----------------------|-----|------------|-----------|-------------|-------------|-------------|-------------|-------------|--|
| 26   | TOP OF CONC DECK-EPX | 2   | 04-16-2007 | 78,724 SF | 0           | 78,724      | 0           | 0           | 0           |  |
| Notes: Span # 2 - has several small spall's near the center line.<br>Span # 15 - has 3 small 1' X 1' spalled areas in the east bound lane.<br>Span # 21 - has a small 1' X 3' spalled area in the east bound lane.   |                      |     |            |           |             |             |             |             |             |  |
| 300  | STRIP SEAL JOINT     | 2   | 04-16-2007 | 372 LF    | 372         | 0           | 0           | N/A         | N/A         |  |
| Notes: Joint Over West Abutment - OK, the strip seal joint was full of dirt and debris, with no signs of leakage below onto the bridge seats.<br><br>Joint Over Pier # 5 - OK, the strip seal joint was full of dirt and debris, with no signs of leakage below.<br><br>Joint Over Pier # 21 - has a broken bolt at the cover plate on the sidewalk side of the deck. The plate is 3/4" high near the inside edge behind the railing and curb. The cover plate along the sidewalk is loose and not flush with the sidewalk, due possible to the extreme arching upwards of the sidewalk. The plate is 1 1/2 + or - above the sidewalk at the back of the curb.<br><br>Joint Over Pier # 22 - the cover plate along the sidewalk is loose and not flush with the sidewalk, due possible to the extreme arching upwards of the sidewalk. The plate is 1 1/2 + or - above the sidewalk at the back of the curb.<br><br>Joint Over Pier # 23 - the cover plate along the sidewalk is loose and not flush with the sidewalk, due possible to the extreme arching upwards of the sidewalk. The plate is 1 1/2 + or - above the sidewalk at the back of the curb. |                      |     |            |           |             |             |             |             |             |  |
| 301  | POURED DECK JOINT    | 2   | 04-16-2007 | 1,135 LF  | 1,135       | 0           | 0           | N/A         | N/A         |  |
| Notes: All joints were sealed at the time of this inspection.  |                      |     |            |           |             |             |             |             |             |  |
| 303  | ASSEMBLY DECK JOINT  | 2   | 04-16-2007 | 93 LF     | 93          | 0           | 0           | N/A         | N/A         |  |
| Notes:   |                      |     |            |           |             |             |             |             |             |  |
| 321  | CONC APPROACH SLAB   | 2   | 04-16-2007 | 2 EA      | 2           | 0           | 0           | 0           | N/A         |  |
| Notes: South Minnesota Approach Slab - OK.<br>North Wisconsin Approach Slab - has unsealed random cracks.  |                      |     |            |           |             |             |             |             |             |  |
| 334  | METAL RAIL-COATED    | 2   | 04-16-2007 | 4,580 LF  | 2,280       | 0           | 1,600       | 700         | 0           |  |
| Notes: There are scattered areas along the upstream railing that have fading and failing paint with active corrosion and minor loss of section. The downstream side has the galvanized tri-beam guardrail which is in good condition.  |                      |     |            |           |             |             |             |             |             |  |
| 107  | PAINTED STEEL GIRDER | 2   | 04-16-2007 | 785 LF    | 325         | 185         | 175         | 100         | 0           |  |
| Notes: The paint system is mostly sound with some scattered areas of active corrosion and minor loss of section. Check the attached snooper inspection report for further details.   |                      |     |            |           |             |             |             |             |             |  |
| 109  | P/S CONCRETE GIRDER  | 2   | 04-16-2007 | 421 LF    | 417         | 4           | 0           | 0           | N/A         |  |
| Notes: There is one prestressed concrete girders located on the east side of the bridge in spans 3 thru 14. In span 11, there are small chips along the end of the girder over pier 11. Check the attached snooper inspection report for further details.  |                      |     |            |           |             |             |             |             |             |  |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-16-2007**

|  |                      |   |            |           |       |       |       |     |     |
|--|----------------------|---|------------|-----------|-------|-------|-------|-----|-----|
| 110  | CONCRETE GIRDER      | 2 | 04-16-2007 | 1,680 LF  | 1,424 | 239   | 17    | 0   | N/A |
| Notes: These concrete cast in place T-girders are located in spans 3 thru 14. There are scattered girders with vertical or random cracks and small patches.<br>Span # 13 - the west fascia girder has a small area of spalling near the mid span.<br><br>Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 113  | PAINT STEEL STRINGER | 2 | 04-16-2007 | 12,570 LF | 3,570 | 5,500 | 3,200 | 300 | 0   |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 121  | P/STL THRU TRUSS/BOT | 2 | 04-16-2007 | 1,860 LF  | 1     | 0     | 1,399 | 460 | 0   |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 126  | P/STL THRU TRUSS/TOP | 2 | 04-16-2007 | 1,860 LF  | 0     | 700   | 1,040 | 120 | 0   |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 131  | PAINT STL DECK TRUSS | 2 | 04-16-2007 | 1,560 LF  | 0     | 0     | 700   | 860 | 0   |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 152  | PAINT STL FLOORBEAM  | 2 | 04-16-2007 | 3,250 LF  | 141   | 1,609 | 1,300 | 200 | 0   |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 161  | PIN & HANGER-PAINTED | 2 | 04-16-2007 | 12 EA     | 0     | 4     | 8     | 0   | 0   |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 310  | ELASTOMERIC BEARING  | 2 | 04-16-2007 | 10 EA     | 10    | 0     | 0     | N/A | N/A |
| Notes: The east side elastomeric bearing pad at the area between the steel beam and the first concrete girder has shifted outwards 1/2 of an inch under the steel plate.<br>Check the attached snooper inspection report for further details.  |                      |   |            |           |       |       |       |     |     |
| 311  | EXPANSION BEARING    | 2 | 04-16-2007 | 50 EA     | 29    | 21    | 0     | N/A | N/A |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 313  | FIXED BEARING        | 2 | 04-16-2007 | 28 EA     | 10    | 18    | 0     | N/A | N/A |
| Notes: Wisconsin Abutment Bearings - both bearings have failed paint with active corrosion.<br>Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 205  | CONCRETE COLUMN      | 2 | 04-16-2007 | 49 EA     | 22    | 20    | 7     | 0   | N/A |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 210  | CONCRETE PIER WALL   | 2 | 04-16-2007 | 190 LF    | 100   | 80    | 10    | 0   | N/A |
| Notes: Check the attached snooper inspection report for further details.   |                      |   |            |           |       |       |       |     |     |
| 215  | CONCRETE ABUTMENT    | 2 | 04-16-2007 | 70 LF     | 52    | 18    | 0     | 0   | N/A |
| Notes: South Minnesota Abutment - has 2 vertical cracks and a small delaminated area under beam 3.<br><br>North Wisconsin Abutment - there are a few scattered vertical or random cracks in the front face most extending across the bridge seat and up the parapet wall with some staining. At both ends there are areas of deteriorating concrete and small spall's in the front face and along the bridge seat under the bearings.<br><br>Check attached snooper inspection report for further details. |                      |   |            |           |       |       |       |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-16-2007**

|  |                     |   |            |        |     |     |     |     |     |
|--|---------------------|---|------------|--------|-----|-----|-----|-----|-----|
| 234  | CONCRETE CAP        | 2 | 04-16-2007 | 840 LF | 595 | 226 | 19  | 0   | N/A |
| Notes: Check the attached snooper inspection report for further details.   |                     |   |            |        |     |     |     |     |     |
| 387  | CONCRETE WINGWALL   | 2 | 04-16-2007 | 2 EA   | 0   | 2   | 0   | 0   | N/A |
| Notes: The wingwall's are located at the Wisconsin end only, the south abutment has retaining walls.   |                     |   |            |        |     |     |     |     |     |
| Northeast Wingwall - has a few vertical rebar spall's along the front face and a small spalled areas along the top edge approximately 4 square feet.   |                     |   |            |        |     |     |     |     |     |
| Northwest Wingwall - has scattered random cracks with some leaching or staining.   |                     |   |            |        |     |     |     |     |     |
| 357  | PACK RUST           | 2 | 04-16-2007 | 1 EA   | 0   | 0   | 1   | 0   | N/A |
| Notes: Most steel members with faying surfaces have pack rust showing with some areas having rust between the plates that has caused serious distress at the connection, however all connections are still functioning. Check the attached snooper inspection report for further details.  |                     |   |            |        |     |     |     |     |     |
| 358  | CONC DECK CRACKING  | 2 | 04-16-2007 | 1 EA   | 0   | 1   | 0   | 0   | N/A |
| Notes: Approximately 1000 linear feet of deck cracks were sealed in 2006.  |                     |   |            |        |     |     |     |     |     |
| 359  | CONC DECK UNDERSIDE | 2 | 04-16-2007 | 1 EA   | 0   | 1   | 0   | 0   | 0   |
| Notes: There are scattered areas of transverse cracks with efflorescence or leaching beneath the deck. The attached sidewalk on the downstream east side has numerous areas of active corrosion to the under sides of the stay in place metal forms. There are scattered small holes rusted completely through the stay in place metal forms. Check the attached snooper inspection report for further details.                                      |                     |   |            |        |     |     |     |     |     |
| 361  | SCOUR               | 2 | 04-16-2007 | 1 EA   | 1   | 0   | 0   | N/A | N/A |
| Notes: R - Scour critical. Monitoring required.  |                     |   |            |        |     |     |     |     |     |
| 363  | SECTION LOSS        | 2 | 04-16-2007 | 1 EA   | 0   | 0   | 1   | 0   | N/A |
| Notes: There are scattered areas on most steel members with minor loss of section that has been cleaned and painted over or that occurred after the last paint contact. Check the attached snooper inspection report for further details.  |                     |   |            |        |     |     |     |     |     |
| 964  | CRITICAL FINDING    | 2 | 04-16-2007 | 1 EA   | 0   | 1   | N/A | N/A | N/A |
| Notes: June 2, 2008. In-depth fracture critical inspection<br>Numerous gusset plates located at the piers of the deck truss spans only exhibited convex bulging distortion in the unbraced compression zones (i.e. at the end of the in-coming compression diagonal member). Significant section loss in most of these areas was also indicated by either 100% section loss (a hole) or ultrasonic thickness testing measurements of up to 52% loss. |                     |   |            |        |     |     |     |     |     |
| Ultrasonic thickness measurements were also performed on the horizontal and vertical shear zone locations at the interface of the gusset plates and the bottom chord. Up to 25% section loss of the gusset plate was indicated in these locations.   |                     |   |            |        |     |     |     |     |     |
| 966  | FRACTURE CRITICAL   | 2 | 04-16-2007 | 1 EA   | 1   | 0   | 0   | N/A | N/A |
| Notes: The last fracture critical inspection was completed in 2003. Refer to the in-depth report for location of F/C members.  |                     |   |            |        |     |     |     |     |     |
| 981  | SIGNING             | 2 | 04-16-2007 | 1 EA   | 1   | 0   | 0   | 0   | 0   |
| Notes: All signs were in place at the time of this inspection.   |                     |   |            |        |     |     |     |     |     |
| 982  | GUARDRAIL           | 2 | 04-16-2007 | 1 EA   | 1   | 0   | 0   | N/A | N/A |
| Notes: All guardrail sections were intact at the time of this inspection.  |                     |   |            |        |     |     |     |     |     |
| 984  | DRAINAGE            | 2 | 04-16-2007 | 1 EA   | 0   | 1   | 0   | N/A | N/A |
| Notes: Approximately 1/3 of the deck drains are plugged, these are located at the Minnesota ends spans 1 through 15. There are scattered drains along the other spans that are plugged with dirt and debris. All of the deck drains and drain extension have failed paint with active corrosion.   |                     |   |            |        |     |     |     |     |     |

**Mn/DOT BRIDGE INSPECTION REPORT**

Inspector: DISTRICT6

**BRIDGE 5900****TH 43 OVER MISS RVR, RR, STREETS****INSP. DATE: 04-16-2007**

|   |                   |   |            |      |   |   |   |     |     |
|---|-------------------|---|------------|------|---|---|---|-----|-----|
| 985   | SLOPES            | 2 | 04-16-2007 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| Notes: The north slope is cemented over rocks. The slopes at the abutments and wingwall's are in stable condition at the time of this inspection.   |                   |   |            |      |   |   |   |     |     |
| 986   | CURB & SIDEWALK   | 2 | 04-16-2007 | 1 EA | 0 | 0 | 1 | N/A | N/A |
| Notes: There are numerous unsealed cracks, small spall's and delamination's along the sidewalk and curb faces on the downstream east side. Along the downstream east side of the bridge the spalled areas are located at Spans 5, 8, 14, 16 and 21.<br>The sidewalk is curved upwards in varies places along the bridge, sidewalk was checked using 4' level. The areas checked averaged 1 inch at the curbs, flush at the center line of the sidewalk and 1 1/2 inches along the chain link fence. The most extreme areas were located along the deck truss in spans 22 through 24. The metal fence posts are leaning outwards in these areas. The fence posts located in the deck truss spans 16 & 17 lean outwards from 2 to 6 inches. |                   |   |            |      |   |   |   |     |     |
| 988   | MISCELLANEOUS     | 2 | 04-16-2007 | 1 EA | 0 | 1 | 0 | N/A | N/A |
| Notes: Yes swallow nests, they are located in spans 5 through 15 and 18 & 19.<br>There are retaining walls located at the south end of the bridge that have scattered vertical cracks with some staining.<br>There are two light poles on the bridge with small cuts or tears in them, light pole 15 has a 2 inch by 3 inch cut on the west side and light pole 21 over Pier 21 has a 4 inch by 2 1/2 inch hole on the west side.<br>The sidewalk chain link fence and posts are leaning outward due to the condition of the under deck.  |                   |   |            |      |   |   |   |     |     |
| 422   | PAINTED BEAM ENDS | 1 | 04-16-2007 | 2 EA | 2 | 0 | 0 | 0   | 0   |
| Notes:  |                   |   |            |      |   |   |   |     |     |

General Notes: Bridge 5900

NOTE: All spans, piers and floorbeam's are numbered from the west and all beams, girders, bearings and columns are numbered from the south.

NOTE: Bridge was inspected using under snooper truck in 2007.

NOTE: This structure has a scour code rating of "R" CRITICAL MONITOR and there are no scour monitoring signs mounted on the bridge.

NOTE: Underwater inspection was completed in 2004.

NOTE: Fracture critical inspection was completed by Bridge CO in 2007.

NOTE: Check the attached Snooper Inspection Report for further details.

NOTE: All steel members were painted in 1986. The high truss spans 18 through 20 were painted in 1992 and 1993.

NOTE: River soundings were taken in; 10-89, 11-90, 10-93, 7-96.

Channel - NBI 8 Banks are well protected at this time.

\_\_\_\_\_  
Inspector's Signature\_\_\_\_\_  
Reviewer's Signature / Date

**Inspection Date: April 16, 2007**  
**Inspected By: District 6**

**Bridge No. 5900**  
**2007 "Snooper Inspection Report"**  
**TH 43**  
**R.P. 44.892**

**Note: Columns and beams are numbered from the west, spans and piers are numbered from the south. An in-depth fracture critical inspection of the bridge was completed in 2007 by the Bridge Office.**

**South Abutment (Minnesota End)**

**Concrete Abutment - there are two vertical cracks in the front face and a small area of delaminated concrete under beam 3.**

**Under Deck - there is one diagonal corner crack beneath the deck.**

**Fixed Bearings – all bearings are fixed, the steel bearing plate under the east fascia beam appears to be sliding out from under the beam.**

**Spans 1 - 14**

**The first 14 spans are eligible for 2-year inspections frequency and are not considered fracture critical. In-depth inspection should be done using a lift truck or snooper.**

**Span 1**

**This Span consists of nine 15-inch continuous steel beams.**

**Painted Steel I Beams – the majority of the paint system is sound and shows little or no active corrosion. The ends of beams 1, 5, 8 and 9 over the south abutment have failed paint with active corrosion that extends out approximately 8 feet on each beam. There is minor LOS at this time.**

**Under Deck – the stay in place forms under the sidewalk have areas of active corrosion.**

## Pier 1

**Concrete Pier Cap** – element shows little or no deterioration at this time.

**Concrete Pier Columns** – Column 1 has small horizontal cracks on the east face of the column.

Columns 2, 3, and 4 have horizontal cracks on the south face of the column.

**Fixed Bearings** – all bearings are fixed.

## Span 2

This Span consists of nine 15-inch continuous steel beams.

**Painted Steel I Beams** - the majority of the paint system is sound and shows little or no active corrosion. There is some active corrosion along the edge of the bottom flange on beams 2 and 3 and at the end diaphragms over Pier 2.

**Under Deck** - the steel stay in place forms under the sidewalk have areas of active corrosion.

There are scattered transverse deck cracks with efflorescence beneath the deck. There is a deck patch visible under the deck approximately 11' in length under the southbound lane near the centerline.

## Pier 2

**Concrete Pier Cap** – the north face of the cap was patched at the bottom between columns 2 and 3.

The patched area is cracked and delaminated. There is a small-delaminated area east of column 3 on the north face. The bottom of the cap is cracked between columns 2 and 3 north face. There is a 2'6" long by 2' wide spall on the south top face of the cap between beams 7 and 8. There is a 2' long crack between columns 1 and 2 on the south face bottom of the cap.

**Concrete Pier Columns** – column 1 and 2 have small spalls along the NW steel corner plate.

Column 1 has a delaminated area on the north side approximately 6 square feet in size and a 3" deep x 1' spalled area on the south face near the steel angle. Column 3 has open cracks above the NW and SW steel corner plates.

**Expansion Bearings** – all bearings are moveable.

### **Span 3**

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

**Concrete Deck Girders** – the ends of all deck girders and concrete diaphragms over the piers have minor vertical cracks.

**Under Deck** - there is one transverse crack with efflorescence beneath the deck near Pier 3. The stay in-place metal forms under the sidewalk have scattered areas of active corrosion and in places is rusted through.

### **Pier 3**

**Concrete Pier Cap** – element shows little or no deterioration at this time.

**Concrete Pier Columns** - element shows little or no deterioration at this time.

**Expansion Bearings** – all bearings are moveable.

### **Span 4**

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

**Concrete Deck Girders** – the ends of all deck girders and concrete diaphragms over the piers have minor vertical cracks with some leaching. The bottom edge of one concrete diaphragm near the centerline has several random cracks and appears to have an area of delaminated concrete.

**Under Deck** – there are scattered transverse cracks with efflorescence beneath the deck. The stay in-place metal forms beneath the sidewalk have scattered areas of active corrosion with areas of LOS and in places has rusted through.

### **Pier 4**

**Concrete Pier Cap** – element shows little or no deterioration at this time.

**Concrete Pier Columns** - element shows little or no deterioration at this time.

**Under Deck** – there is one transverse crack with efflorescence over the centerline above the pier.

**Expansion Bearings** – all bearings are moveable.

### **Span 5**

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

**Concrete Deck Girders** – the ends of all deck girders and concrete diaphragms over the piers have minor vertical cracks.

**Under Deck** – there are scattered active corrosion beneath the deck probably caused by rebar tie chairs. The stay in-place metal forms beneath the sidewalk have scattered areas of active corrosion and in places has rusted through.

### **Pier 5**

**Concrete Pier Cap** – there is a 1' by 1' delaminated area on the north face of the cap west of column 1. Both ends of the cap are stained from the leaking expansion joint.

**Concrete Pier Columns** – column 1 has random horizontal cracking and rust staining near the top on the west side of the column. There is a 2 foot long vertical crack with an area of delaminated concrete near the top on the east side of the column. There is horizontal cracking on the north and south faces of column 1.

**Expansion Bearings** – all bearings are moveable. The bearings were cleaned and greased in 1988. The elastomeric bearing pad under the prestressed concrete girder may have some distortion.

### **Span 6**

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

**Concrete Deck Girders** – the ends of all deck girders and concrete diaphragms over the piers have

minor vertical cracks. There is a small area of delaminated concrete at the south end of deck girder 4 over pier 5.

**Under Deck** – there are a few transverse cracks with efflorescence beneath the deck near pier 6.

There are scattered areas of active corrosion beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk has areas of active corrosion with some minor LOS. There are some small areas that have rusted completely through.

### **Pier 6**

**Concrete Pier Cap** – element shows little or no deterioration at this time.

**Concrete Pier Columns** – element shows little or no deterioration at this time.

**Expansion Bearings** – all bearings are moveable.

### **Span 7**

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

**Concrete Deck Girders** – the ends of all concrete deck girders and concrete diaphragms over the piers have numerous vertical cracks. The west fascia deck girder has several vertical cracks near the center with some leaching.

**Under Deck** – there are a few transverse cracks with efflorescence beneath the deck. There are scattered areas of active corrosion beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk has areas of active corrosion with some minor LOS.

There are some small areas that have rusted completely through.

### **Pier 7**

**Concrete Pier Cap** – element shows little or no deterioration at this time.

**Concrete Pier Columns** – element shows little or no deterioration at this time.

**Expansion Bearings** – all bearings are moveable.

### Span 8

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

Concrete Deck Girders – the ends of all concrete deck girders and concrete diaphragms over the piers have minor vertical cracks.

Under Deck – there are scattered areas of active corrosion beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk have scattered areas of active corrosion and in places has rusted through.

### Pier 8

Concrete Pier Cap – there is a concrete patched area near the centerline on the south side of the cap.

Concrete Pier Columns – both columns have vertical cracks and rust staining near the bottom at the outside corners. Column 1 has an area of random cracking near the top on the north side with delaminated concrete.

Expansion Bearings – all bearings are moveable. The bearings were cleaned and greased in 1988. The elastomeric bearing pad under the prestressed concrete girder may have some distortion.

### Span 9

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

Concrete Deck Girders – the ends of all concrete deck girders and concrete diaphragms over the piers have minor vertical cracks. There is a small spall at the south end of deck girder 4 over Pier 8. The south end of the prestressed girder over Pier 8 has a small crack in the top flange, this crack was probably caused by the support channel being bolted into the beam to carry the sidewalk above.

Under Deck – there are a few transverse cracks with efflorescence beneath the deck near Pier 9 and scattered small rust spots beneath the deck probably caused by rebar tie chairs. The stay in

place metal forms under the sidewalk have scattered areas of active corrosion and small areas that have rusted completely through.

### Pier 9

Concrete Pier Cap –there are 3 small vertical cracks scattered along the bottom edge on both sides of the cap.

Concrete Pier Columns – element shows little or no deterioration at this time.

Expansion Bearings – all bearings are moveable.

### Span 10

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

Concrete Deck Girders – the ends of all concrete deck girders over the piers have minor vertical cracks with some leaching.

Under Deck – there are several transverse cracks with efflorescence beneath the deck and scattered small rust spots beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk have scattered areas of active corrosion.

### Pier 10

Concrete Pier Cap –there are 10 to 12 vertical cracks scattered along the bottom edge on both sides of the cap.

Concrete Pier Columns – element shows little or no deterioration at this time.

Expansion Bearings – all bearings are moveable.

Under Deck – there is a small hole beneath the deck over Pier 10 with rust staining. The hole is approximately 1 inch by 2 inches in size.

### Span 11

**This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.**

**Concrete Deck Girders** – the ends of all concrete deck girders over the piers have minor vertical cracks with some leaching. The ends of all concrete deck girders over Pier 11 have small corner chips. The north end of concrete deck girder 4 has an area of deteriorating concrete.

**Under Deck** – there are transverse cracks with efflorescence beneath the deck near Pier 10 and scattered small rust spots beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk have scattered areas of active corrosion.

### **Pier 11**

**Concrete Pier Cap** – there is a concrete patched area on the south side of the cap near the bottom that has random cracking and an area of delaminated concrete approximately 4 square feet in size. There is a 2' by 3' delaminated area with a 1' by 2' spalled area directly above the delaminated area on the south face of the cap. There is a vertical crack with rust staining on the south side near column 1. The north end of the cap has several spalls or delaminated areas all around beyond the column.

**Concrete Pier Columns** – both columns have vertical cracks and rust staining near the bottom at the outside corners. Column 1 has an area of random cracking near the top on the north side with possible delaminated concrete.

**Expansion Bearings** – all bearings are moveable. The bearings were cleaned and greased in 1988. The elastomeric bearing pad under the prestressed concrete girder may have some distortion.

### **Span 12**

**This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.**

**Concrete Deck Girders** – the ends of all concrete deck girders over the piers have minor vertical cracks with some leaching.

**Under Deck** – there are transverse cracks with efflorescence beneath the deck near Pier 12 and

scattered small rust spots beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk have scattered areas of active corrosion with some minor LOS. There are three areas under the sidewalk that have rusted completely through.

### Pier 12

Concrete Pier Cap – there are a few vertical cracks scattered along the bottom edge of the cap.

Concrete Pier Columns – there are scattered horizontal and vertical random cracks on the south sides of both columns. There is a 3” diameter spall on the east side of column 2 and a 2” diameter spall on the west side of column 1.

Expansion Bearings – all bearings are moveable.

### Span 13

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

Concrete Deck Girders – the ends of all concrete deck girders over the piers have minor vertical cracks with some leaching. The north fascia concrete deck girder has a vertical crack and a patched area near mid span with numerous vertical cracks scattered along the entire length with some leaching and has a 2 foot long spall with exposed rebar.

Under Deck – there are transverse cracks with efflorescence and rust staining beneath the deck and scattered small rust spots beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk have scattered areas of active corrosion with some minor LOS and three areas that have rusted completely through. There is a large patched area beneath the deck near the centerline of the roadway at the mid span.

### Pier 13

Concrete Pier Cap – there are 2 vertical cracks scattered along the bottom edge of the cap on both sides.

**Concrete Pier Columns** – column 2 has a small rebar spall on the west side.

**Expansion Bearings** – all bearings are moveable.

### **Span 14**

This Span consists of 4 concrete deck girders and 1 prestressed concrete girder.

**Concrete Deck Girders** – the ends of all concrete deck girders over the piers have minor vertical cracks with some leaching. Concrete deck girder 4 over Pier 14 was repaired in 1988. The girder was encased with 8 inches of concrete on both sides and end steel back plates were added. There were 3/4” diameter steel rods installed to post-tension the damaged area.

**Under Deck** – there are transverse cracks with efflorescence beneath the deck near Pier 13 and scattered small rust spots beneath the deck probably caused by rebar tie chairs. The stay in place metal forms under the sidewalk has areas of active corrosion.

### **Pier 14**

**Concrete Pier Cap** – there is a 3’ by 2’ spalled area on the south side of the cap near the centerline. There is a 3’ by 3’ area of delaminated concrete directly above pall. The concrete riser step and the north end of the pier cap have random cracks. The spalled concrete should be removed from the cap.

**Concrete Pier Columns** - there are scattered horizontal and vertical random cracks near the corners of both columns. Column 1 has a small spall near the bottom on the west side.

**Expansion Bearings** – all moveable bearings are located on the south side of the pier. All bearings were cleaned, greased and reset in 1995. The elastomeric bearing pad under the prestressed concrete girder has some distortion noted. The pad is tilted 1 ¼ inches towards the north.

**Fixed Bearings** – all fixed bearings are located at the north side of the Pier. All three bearings have failed paint with active corrosion.

## Span 15

This Span consists of three Steel Plate Deck Girder

Steel Plate Girders – the bottom flanges of all plate girders have scattered areas of active corrosion and pitting caused by the removal of the concrete gunite that covered the girders. Some of these areas have been were spot painted with primer. There is active corrosion showing between the fill plates and the plate edges on the bottom flange of each fascia beam. Each fascia girder has a small amount of pack rust approximately 1/8” at the mid span between the plates of the bottom flanges.

Steel Floor Beams - the bottom flanges of all floor beams have scattered areas of active corrosion and pitting caused by the removal of the concrete gunite that covered the floor beams. Some of these areas have been were spot painted with primer.

Under Deck – there are numerous transverse cracks with efflorescence scattered beneath the deck. The stay in place metal forms under the sidewalk has scattered areas of active corrosion.

## Piers 15 through 23

All pier caps, columns and lower concrete pier walls were cleaned and sealed with white concrete surface finish in 1998.

### Pier 15

Concrete Pier Cap – there are 2 or 3 vertical cracks scattered along the bottom edge of the cap on both sides.

Concrete Pier Columns – column 1 has a vertical crack along the east side. There is a small rebar spall on the west side of column 2 approximately 10 feet above the ground line.

Expansion Bearings – all moveable bearings are located on the south side of the pier. All three bearings have failed paint with active corrosion.

Fixed Bearings – all fixed bearings are located on the north side of the pier at each end of the deck truss. The west side of the deck truss the steel plates on both sides of the bearing pin have active

corrosion with pack rust between the plates. The pack rust has started to force the plates apart.

### Span 16

This Span consists of a Steel Deck Truss.

Steel Deck Truss – there are scattered areas of failed paint with active corrosion, minor LOS and pack rust to the lower chords and areas of on the upper chords at the entire south end. The upstream west side of the bottom chord for the entire length shows pack rust between the riveted plates at the top and sides with some pitting. The west side upstream truss connections L2 through L6 along the lower chord has pack rust between the plates.

Steel Floor Beams – all floor beams have scattered areas of failed and peeling paint.

Steel Stringers – the tops of all stringers along the transverse under deck cracks have failed paint with active corrosion and minor LOS.

Under Deck –there are scattered transverse cracks with efflorescence and leaching beneath the deck. The stay in place metal forms under the sidewalk have severe corrosion and scattered areas of exposed concrete and LOS.

### Pier 16

Concrete Pier Cap – there are scattered random cracks near the top on both sides of the cap above both columns. There are scattered horizontal and vertical cracks near the top and on both sides between the columns.

Concrete Pier Columns – both columns have scattered random cracks extending down from the cap above.

Expansion Bearings – all moveable bearings are located on the south side of the pier. Both bearings have failed paint with active corrosion. Both bearings appear to have no movement at this time.

Fixed Bearings – all fixed bearings are located on the north side of the pier. Both bearings have

failed paint with active corrosion.

### Span 17

This Span consists of a Steel Deck Truss.

Steel Deck Truss –the lower chord on both sides of the truss has failed paint with active corrosion and pack rust between the riveted plates. The upper truss on both sides has some pack rust at the connection point with the stringers.

Steel Floor Beams – all floor beams have scattered areas of failed and peeling paint.

Steel Stringers – the tops of all stringers along side the transverse under deck cracks and at the upper chord connection points have failed paint with active corrosion and pack rust.

Under Deck – there are scattered transverse cracks with efflorescence and leaching beneath the deck. The stay in place metal forms under the sidewalk have active corrosion with LOS and holes exposing the under side of the concrete.

### Pier 17

Concrete Pier Cap – there are scattered random cracks near the top on both sides of the cap above both columns. There are scattered horizontal and vertical cracks near the top and on both sides between the columns.

Concrete Pier Columns – both columns have some scattered random cracks extending down from the cap above.

Expansion Bearings – moveable bearings are located on both sides of the pier. All bearings have failed paint with active corrosion. There appears to be no movement of the bearings at this time.

### Spans 18 through 20

Spans 18 through 20 are a continuous high truss.

During 1992 and 1993, all steel members in these Spans from a height of 12 feet and below were sandblasted and repainted with two coats of primer and two coats of finish. Scattered areas of failed paint above 12 feet at that time were also to be sandblasted clean and repainted with two coats of primer and two coats of finish. All remaining areas of steel were to be pressure washed with water and repainted with one coat of finish paint. In May of 1996, during approximately a six-week period, scattered areas below deck started showing paint failure and/or surface corrosion. These areas were repainted by the contractor RAINBOW INC. in accordance with a settlement between MN/DOT and the contractor regarding the 1992-1993 paint project. These areas that were designated for repair were cleaned using water blasting or hand tools, and were then painted with one coat of primer and one coat of finish sealer. There are scattered areas of paint failure with exposed metal surfaces and corrosion now showing on the upper truss members and areas of small rust spots on the edges of some diagonal and vertical members from the deck up approximately 10 feet. The sidewalk chainlink fencing is slanted outward away from the deck across the majority of the high truss. Two panel points west of the lower chord pin the sidewalk has bowed upward from the middle support beam creating a 2” gap between the beam and the sidewalk. This gap happens across four of the supports that are perpendicular to the lower chord. This situation has been reported to Central Office Bridge and Craig Falkum.

### Span 18

#### **Continuous High Truss Span.**

For all continuous high truss spans all panel points and floor beams are numbered from the south to the mid point of the truss and from the mid point of the truss to the north end. For example, the floor beam located over Pier 17 would be numbered 0 at panel point L0, the floor beam located at the mid point would be floor beam 19 at panel point L19, and the floor beam located over Pier 20 at the north end would be floor beam 0’ (zero prime) at panel point L0’ (zero prime).

All steel stringers are numbered from the west to the east.

**Lower Chord** – there are scattered areas of failed paint with pack rust on both sides between the plates on all sides and the topside on each side has surface rust or active corrosion on edges of the small lacing plates and along the west side of the lower chord. Floor beam 1 at panel point L1 has three rivet heads on the bottom flange at the gusset connection area with heavy section loss. Floor beam 6 at panel point L6, the gusset plate has a missing rivet apparently due to pack rust forcing plates apart. Floor beam 9 at panel point L9, the lower chord gusset plate has a hole rusted completely through the gusset plate.

**Upper Chord** - there are scattered areas failed paint with surface rust or active corrosion on both sides from the lower chord up approximately 15 feet.

**Floor Beams** – all floor beams have scattered areas of rust showing along the top flanges where the transverse deck cracks show above them.

**Stringers** – at stringers 1 and 5, there are small holes rusted completely through each of them at the connection point with floor beam 8 at panel point L8. All stringers have small areas of rust showing along the top flanges where transverse deck cracks show above them.

**Expansion Bearings** –both moveable bearings located at L0 have failed paint with active corrosion. There was no movement of the bearings noted at this time.

**Under Deck** – there are scattered transverse cracks with efflorescence or leaching showing. The stay in place metal forms under the sidewalks have scattered areas of active corrosion.

**Steel Assembly Joint** – this joint is located on the roadway surface of the deck, the sliding plate in the eastbound lane is loose.

## **Pier 18**

**Concrete Pier Cap** – there are 5 vertical cracks scattered across both sides and a full length horizontal crack on both sides of the cap along with a few small rebar spalls.

**Concrete Lower Pier Base** – there are numerous horizontal and vertical cracks on both sides of the pier. There is a 5' long horizontal crack at the east end near the top. There is a patched area

extending completely around the pier. In 1993 all loose and deteriorating concrete was removed to the reinforcement bars approximately 5 feet above and 5 feet below the water. After concrete removal the lower base was re-poured with new concrete.

**Concrete Pier Columns** – both columns have some scattered vertical cracks and column 2 downstream has a 3 foot vertical rebar spall on the inside face near the bottom.

**Fixed Bearings** – both bearings located over the pier are fixed. Both bearings have failed paint with active corrosion.

### **Span 19**

**Continuous High Truss Span.**

**NOTE:** The top steel pin located at panel point L15 on the east downstream side of the upper truss was replaced in 1997 after a U.T. inspection showed a possible crack.

**Sliding Expansion Truss Connections** – these connections are located on both sides of the bridge at panels points L15 to L16 and at L16' to L15'. During last in-depth fracture critical inspection in 1999 it has been determined that all of the expansion sliding members appear to be rusted tight and have NO movement.

**Lower Chord** – there are scattered areas on both sides with surface rust on edges of small lacing plates and at some channel section pieces. Also there are areas of pack rust inside of bottom chord and at the panel point connection areas after final painting, one such area is at panel point L11'. The bottoms cross frame T members and some of the connection plates have some holes from section loss at several locations along the upstream west side. Also numerous floor beam gusset connection plate and lower truss cord members on the upstream west side have some surface rust, active corrosion and pack rust with some section loss.

**Upper Chord** - there are scattered areas failed paint with surface rust or active corrosion on both sides from lower chord up approximately 15 feet. Also there are scattered areas above this height with failing or peeling paint.

**Floor Beams** - all floor beams have scattered areas of rust showing along the top flanges where they contact the transverse under deck cracks, also there are scattered gusset plates with active corrosion and LOS.

**Stringers** – most stringers have scattered areas of surface rust showing along the top flanges where they contact the transverse under deck cracks

**Under Deck** – there are scattered transverse cracks beneath the deck with efflorescence or leaching and the stay in place metal forms under the sidewalk have active corrosion with some LOS and holes rusted completely thru exposing the concrete above.

various

### **Pier 19**

**Concrete Pier Cap** – there are horizontal and vertical cracks in both sides of the cap and the horizontal cracks extend for the entire length of the cap.

**Concrete Lower Pier Base** – there are a few scattered vertical cracks on both sides of the pier and open random cracks on the top surface between the columns. There is a patched area extending completely around the Pier, in 1998 all loose and deteriorating concrete was removed to the reinforcement bars approximately 5 feet above and 5 feet below the water. After concrete removal the lower base was re-poured with new concrete.

**Concrete Pier Columns** – column 2, which is the east column, has a long vertical crack and a small horizontal rebar spall on the west sides of the column.

**Fixed Bearings** – both bearings located over the Pier are fixed, also both bearings have failed paint with some surface rusting

### **Span 20**

**Continuous High Truss Span.**

**Lower Chord** – there are scattered areas failed paint with pack rust on both sides between the plates on all sides, the worst areas are on the west upstream side between panel points L4' through L10'. The topside on each side has active corrosion on the edges of the small lacing plates. There are a number of floor beam connection plate on the west upstream side that have active corrosion with some minor to moderate LOS.

**Upper Chord** – there are scattered areas on both sides of the bridge with active corrosion starting at the lower chord and extending up approximately 15 feet.

**Stringers** – there are scattered areas on a number of stringer webs and flanges that have active corrosion with some pitting and minor LOS.

**Floor Beam** - there are small torch cuts near the bottom of the floor beam web at the west upstream side of the bridge at panel point L1' and L3'. This area was marked for future reference. There are a number of floor beam connection plate on the west upstream side that have active corrosion with some minor to moderate LOS. There are scattered areas on a number of floor beam webs and flanges that have active corrosion with some pitting and minor LOS.

### **Pier 20**

**Concrete Pier Cap** – there are scattered vertical and random cracks in both sides of the cap and a few small rebar spalls on the north side. There is a delamination in the bottom of the cap upstream side of the pier.

**Concrete Lower Pier Base** – there is an open crack across the top of the wall approximately 10 feet from column 1 the crack is open as much as 1 ½ inches. There are a few scattered vertical cracks on both sides of the pier and there are open random cracks with some staining on the top surface between the columns. There is a patched area extending completely around the pier. In 1993 all loose and deteriorating concrete was removed to the reinforcement bars approximately 5 feet above and 5 feet below the water. After concrete removal the lower base was re-poured with new concrete.

**Concrete Pier Columns** – column 1 has a long vertical crack on the east side and a 2' X 1' spall on the west side 10 feet down from the top of the column. Column 2 has a horizontal crack and small spall near the bottom on the west side next to lower pier wall.

**Expansion Bearings** – all four bearings located at Pier 20 are moveable.

### **Span 21**

This Span consists of a deck truss.

**NOTE:** - See Fracture Critical Report for numbering system.

**NOTE:** - The upstream side of the lower truss chord has some areas of paint repair done by the Bridge Crew in 1989. These areas were sand blasted and painted, they were also sealed with latex caulk between steel plates and the channel section of the lower chord. All of these areas and caulking have failed.

**Deck Truss** –the lower chord on both sides have scattered areas of active corrosion with pack rust between the riveted plates and areas of pitting and minor to moderate LOS. The ends of most diagonals have active corrosion and the diagonal floor beam cross-bracing has areas that are pitted with some minor LOS after the removal of pack rust during the last bridge painting job. On the east downstream side of the bridge at the lower chord panel point L8 vertical gusset at Pier 21, the interior gusset has 60% loss of section to the gusset at the faying surface across the entire gusset plate. The gusset at this location is a 3/8-inch thick gusset plate. The Bridge Crew repaired the gusset in 2000 by bolting reinforcing plates to the gusset and the lower chord. The east truss baton plates on both sides of panel point L4 have corrosion holes through the plates. The whole east truss lower chord at panel point L4 has advanced corrosion with LOS and pack rust. Areas at panel point L4 are approaching a condition state 5.

**Floor Beams** – there are large areas of failing or peeling paint with surface rust on exposed metal surfaces on all of the floor beam webs. There is failed paint with active corrosion at floor beam 4. The truss at floor beam 4 has pack rust at the center connection plate to the H beam.

**Stringers** - there are large areas of failing or peeling paint with surface rust on exposed metal surfaces on the stringer webs.

**Under Deck** –there are numerous transverse cracks with leaching or efflorescence beneath the deck. The stay in place metal forms under the sidewalk have scattered areas of active corrosion.

### **Pier 21**

**Concrete Pier Cap** – the element shows little or no deterioration only superficial cracking at this time.

**Concrete Pier Columns** - the element shows little or no deterioration only superficial cracking at this time.

**Expansion Bearings** – bearings located on the north side of the pier are moveable and are rocker type with a steel pin. Both bearings have active corrosion along the bottoms and appear to be rusted tight and not able to move in rotation but are free to slide along the bottom plate. There is active corrosion and signs of loss of section around the pin of both bearings similar to the bearings that were replaced at pier 22. Replacement of these bearings should be considered. Both moveable bearings were straight up at 50° F in 2007, 75° F in 2006 and at 55° in 2005. The bearings are not functioning as designed.

**Fixed Bearings** – bearings located on the south side of the pier are fixed. Both bearings have failed paint with active corrosion.

**Floor Beam Truss** – the diagonal floor beam cross bracing at pier 21 has areas of failed paint with active corrosion, pitting, minor LOS and pack rust at the vertical connection plate to the H beam.

The floor beams above pier 21 have failed paint with active corrosion on the bottom flange. The H-beam lower truss bracing over the pier has three small rust holes in web.

### **Span 22**

This Span consists of a deck truss.

**NOTE:** - At the east downstream side lower chord at panel point 1 the baton plate south of the panel point has cracked tacks on the baton plate to the channels bottom flange. The cracks do not propagate into the channel. The upstream side of the lower truss chord had areas of paint repair completed by the Bridge Crew in 1989. These areas were sand blasted and painted, they were also sealed with latex caulk between the steel plates and the channel section of the lower chord. All of these painted and caulked areas have failed. The interior gusset plate along the west upstream truss at panel point L0 has a 4" and a 3" wide hole in the gusset plate above the lower chord. The east truss (down stream) at panel point L8 the external vertical gusset has an advanced corrosion and a 1½" Ø corrosion hole above the lower chord.

**Deck Truss** –the lower chord on both sides have scattered areas of active corrosion with pack rust between the riveted plates and areas of pitting and minor to moderate LOS. The upper area of the deck truss on both sides has failed paint with active corrosion and minor LOS where they make contact with leaching under deck cracks. The diagonal cross bracing has areas that are pitted and have minor LOS prior to last painting. The east downstream side of the lower truss chord has six rivets that have been replaced with bolts near the center of span.

**Stringers** – there are scattered stringers that have failed paint with active corrosion and minor LOS along the top flanges where they make contact with leaching under deck cracks.

**Floor Beam** – at floor beam 4 there are scattered areas of failed or peeling paint with active corrosion along the bottom flange. The end diagonals have active corrosion with minor LOS. All floor beams over the piers, they have failed paint with active corrosion along bottom flanges of both floor beams. The diagonals at the center plate at the horizontal beams on the floor beam truss have failed paint with active corrosion and pack rust. The horizontal beam has failed paint with active corrosion along the entire beam.

**Under Deck** – there are numerous transverse cracks with leaching or efflorescence beneath the deck. The stay in place metal forms under the sidewalk have scattered areas of active corrosion, pack rust and minor to moderate LOS with some scattered holes rusted completely through

exposing the concrete above.

### Pier 22

Concrete Pier Cap – the element shows little or no deterioration only superficial cracking at this time.

Concrete Pier Columns - the element shows little or no deterioration only superficial cracking at this time.

Expansion Bearings – the east and west truss bearings were replaced with elastomeric pads in the winter of 2005. The panel point plates were also replaced during the bearing replacement. The elastomeric pads were deformed in the expanded position at 65°F in 2005, 75°F in 2006, and 50°F in 2007.

Fixed Bearings – bearings located on the south side of the pier are fixed. Both bearings have failed paint with active corrosion.

Floor Beam Truss – the diagonal cross bracing at pier 22 has areas of failed paint with active corrosion, pitting and minor LOS. The floor beam above pier 22 has failed paint with active corrosion on the bottom flange.

Floor Beam – the floor beam above pier 22 has failed paint with active corrosion along the bottom flange.

Strip Seal Joint – the waterproof gland in the deck joint over pier 22 was replaced in 1994. The steel cover plate at the sidewalk over the strip seal joint is approximately 1/2 of an inch higher than the concrete sidewalk next to the curb.

### Span 23

This Span consists of a deck truss.

Note : - See Fracture Critical Report for numbering system.

Deck Truss –the lower chord on both sides have scattered areas of active corrosion with pack rust

between the riveted plates and areas of pitting and minor to moderate LOS. The diagonal floor beam cross bracing had scattered areas of minor LOS prior to the last paint job. At panel points 0 and 8, the diagonals have active corrosion between the channels and at panel 0 this has caused pack rust with pushing apart of the plates. The lower chord with interior plates riveted to the channel have pack rust between the plates and the channel. The upper chord has scattered areas of failed paint and active corrosion. There are 2 cracked tack welds at the upstream east truss baton plate north of panel point L6 top flange of the lower chord. The cracks do not extend into the lower chord, the cracked tack welds were marked in 2004. The down stream lower chord at panel point L8 has up to 25% LOS on the interior web against the vertical gusset.

Floor Beams – the paint system on the floor beams at U1 to U7 are primarily intact with scattered areas of failed paint.

Stringers – there are scattered stringers that have failed paint with active corrosion and minor LOS along the top flanges where they make contact with leaching under deck cracks.

Under Deck - there are numerous transverse cracks with efflorescence beneath the deck. The stay in place metal forms under the sidewalk have scattered areas of active corrosion with some pack rust.

### Pier 23

Concrete Pier Cap – the element shows little or no deterioration only superficial cracking at this time. There is graffiti painted on the pier cap.

Concrete Pier Columns – column 1 has scattered random cracks and a small rebar spall near the bottom on the west side. Column 2 has a vertical crack on the west side.

Expansion Bearings – bearings located on the north side of the pier are moveable and are rocker type with a steel pin. Both bearings have active corrosion along the bottoms and appear to be frozen tight and not able to move in rotation, but are free to slide along the bottom plate. During the 2003, 2004, 2005, 2006, and 2007 inspections both of the moveable bearings are straight up at

55°, 60°, 65°, 75°, 50° F. respectively. These bearings should be replaced like the Pier 22 bearings.

**Fixed Bearings** – bearings located on the south side of the pier are fixed. Both bearings have failed paint with active corrosion.

**Floor Beam Truss** – the diagonal cross bracing at pier 23 has areas of failed paint with active corrosion, pitting or minor LOS. The floor beams above pier 23 has failed paint with active corrosion on the bottom flange.

### **Span 24**

This Span consists of a deck truss.

**Note** ; - See Fracture Critical Report for numbering system.

**Note:** - *The downstream lower chord under all of the deck drains for an area of 3 baton plates, has up to 10% LOS. These areas have extensive pack rust and are deteriorating very rapidly. The corrosion and pack rust to the entire lower chord of the deck truss is advancing rapidly and soon will be considered a Condition State 5.*

**Deck Truss** –the lower chord on both sides have scattered areas of active corrosion with pack rust between the riveted plates and areas of pitting and minor to moderate LOS. The lower chord with interior plates riveted to the channel have pack rust between the plates and the channel. The upper chord has scattered areas of failed paint and active corrosion. On the west upstream side of the bridge the outside vertical plate at panel point L2 and L6 have approximately 10% loss of section, this area needs to be monitored. There is graffiti painted on floor beams L0 and L1. During the 2007 inspection it was noticed on the downstream truss between panel points L4 to L6 at the third baton plate from L4, there is up to 50% LOS to the upstream web at the top. The LOS area is 8” long and 6” down. At the fourth baton plate there is up to 50% LOS on the downstream web. The LOS area is 12” long and 7” down. *This corrosion is rapidly approaching a Condition State 5.*

**Stringers** – there are scattered stringers that have failed paint with active corrosion and minor LOS along the top flanges where they make contact with leaching under deck cracks.

**Under Deck** - there are numerous transverse cracks with efflorescence beneath the deck. The stay in place metal forms under the sidewalk have scattered areas of active corrosion with some pack rust.

### **North Abutment (Wisconsin End)**

**Concrete Abutment** –there are scattered vertical and random cracks in the front face that extend across the bridge seat and up the parapet wall with some leaching or staining. At each end of the abutment, there are areas of deteriorating concrete and small spalls in the front face and bridge seat under the bearings.

**Concrete Wingwalls** – northwest wingwall has a few vertical rebar spalls near the end and a 4 foot long rebar spall at the top edge. The northeast wingwall has scattered random cracks with some leaching or staining.

**Fixed Bearings** – both bearings are fixed. Both bearings have failed paint with active corrosion.

**Strip Seal Joint** – the strip seal gland in the north lane has a small area where the gland material has pulled out of the metal extrusion.