2015 ROUTINE
BRIDGE INSPECTION REPORT

BRIDGE # 62563
CSAH 23(CR C) over REC TRAIL

DISTRICT: Metro **COUNTY: Ramsey** **CITY/TOWNSHIP: Maplewood**

Date(s) of Inspection: 09/16/2015
Equipment Used:

Owner: County Highway Agency

Inspected By: Bodelson, Dan

Report Written By: Dan Bodelson
Report Reviewed By: Kathy Jaschke
Final Report Date: 12/08/2015

MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128

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MnDOT Structure Inventory Report

Bridge ID: 62563 CSAH 23(CR C) **over** REC TRAIL **Date:** 12/08/2015

GENERAL

Agency Br. No.
District Metro
Maint. Area **Crew**
County 062 - Ramsey
City Maplewood
Township
Desc. Loc. 0.6 MI E OF JCT TH 61
Sect., Twp., Range 10 - 029N - 22W
Latitude **Deg** 45 **Min** 1 **Sec** 15.19
Longitude **Deg** 93 **Min** 2 **Sec** 24.53
Custodian 02 - County Highway Agency
Owner 02 - County Highway Agency
BMU Agreement
Year Built 1993
MN Year Reconstructed
FHWA Year Reconstructed
MN Temporary Status
Bridge Plan Location 3 - COUNTY
Date Opened to Traffic
On-Off System 1 - ON
Legislative District 55A

STRUCTURE

Service On 5 - Highway-pedestrian
Service Under 3 - Pedestrian - bicycle
Main Span Type
1 - Concrete 09 - Slab Span
Main Span Detail
Appr. Span Type
Appr. Span Detail
Skew 10 R
Culvert Type
Barrel Length ft.
Cantilever ID

NUMBER OF SPANS

MAIN: 1 **APPR:** 0 **TOTAL:** 1
Main Span Length 46.7 ft.
Structure Length 51.8 ft.
Deck Width (Out-to-Out) 52.8 ft.
Deck Material 1 - Concrete Cast-in-Place
Wear Surf Type 4 - Low Slump Concrete
Wear Surf Install Year 1993
Wear Course/Fill Depth 0.17 ft.
Deck Membrane 0 - None
Deck Rebars 1 - Epoxy Coated Reinforcing
Deck Rebars Install Year 1993
Structure Area (Out-to-Out) 2735 sq. ft.
Roadway Area (Curb-to-Curb) 2282 sq. ft.
Sidewalk Width **Lt** 0.00 ft. **Rt** 6.00 ft.
Curb Height **Lt** 0.50 ft. **Rt** 0.67 ft.
Rail Type **Lt** 28 **Rt** 28

ROADWAY

Bridge Match ID (TIS) 0
Roadway O/U Key Route On Structure
Route Sys 04 - CSAH **Number** 23
Roadway Name or Description
CSAH 23
Level of Service 1 - MAINLINE
Roadway Type 2 - 2-way traffic
Control Section (TH Only)
Reference Point 007+00.685
Detour Length 1.0 mi
Lanes **On** 2 **Under** 0
ADT 4731 **Year** 2008
HCADT 0 **ADTT** 0 **%**
Functional Class 16 - Urban - Minor Arterial

RDWY DIMENSIONS

If Divided	NB-EB	SB-WB
Roadway Width	44.00 ft.	ft.
Vertical Clearance	ft.	ft.
Max. Vert. Clear.	ft.	ft.
Horizontal Clear.	43.9 ft.	ft.
Lateral Clearance	ft.	ft.

Appr. Surface Width 44.0 ft.
Bridge Roadway Width 44.0 ft.
Median Width On Bridge ft.

MISC. BRIDGE DATA

Structure Flared 0 - No flare
Parallel Structure N - No parallel structure
Field Conn. ID
Abutment Foundation 1 - CONC
(Material/Type) 3 - FTG PILE
Pier Foundation N - N/A
(Material/Type) N - N/A
Historic Status 5 - Not eligible

PAINT

Year Painted
Unsound Paint %
Painted Area sq. ft.
Primer Type
Finish Type

BRIDGE SIGNS

Posted Load 0 - Not Required
Traffic 0 - Not Required
Horizontal 0 - Not Required
Vertical N - Not Applicable

INSPECTION

Userkey 102
Unofficial Structurally Deficient N
Unofficial Functionally Obsolete N
Unofficial Sufficiency Rating 99.6
Routine Inspection Date 09/16/2015
Routine Inspection Frequency 24
Inspector Name County, Ramsey
Status A - Open

NBI CONDITION RATINGS

Deck 7 - Good Condition
Unsound Deck %
Superstructure 7 - Good Condition
Substructure 7 - Good Condition
Channel N - Not Applicable
Culvert N - Not Applicable

NBI APPRAISAL RATINGS

Structure Evaluation 7
Deck Geometry 7
Underclearances N
Water Adequacy N - Not Applicable
Approach Alignment 7 - Better than present minir

SAFETY FEATURES

Bridge Railing 1 - MEETS STANDARDS
GR Transition 1 - MEETS STANDARDS
Appr. Guardrail 1 - MEETS STANDARDS
GR Termini 1 - MEETS STANDARDS

IN DEPTH INSP.

	Y/N	Freq	Date
Frac. Critical			
Underwater			
Pinned Asbly.			
Spec. Feat.			

WATERWAY

Drainage Area (sq. mi.)
Waterway Opening sq. ft.
Navigation Control N - Not applicable, no waterw
Pier Protection
Nav. Clr. (ft.) **Vert.** ft. **Horiz.** ft.
Nav. Vert. Lift Bridge Clear. (ft.)
MN Scour Code A - NON WATER' **Year**

CAPACITY RATINGS

Design Load 9 - HS 25 (OR GREATER)
Operating Rating 1 - LF (LF) HS 45.0
Inventory Rating 1 - LF (LF) HS 25.0
Posting VEH: **SEMI:** **DBL:**
Rating Date 10/29/1992

MnDOT Permit Codes
A: N - N/A
B: N - N/A
C: N - N/A

MnDOT Structure Inventory Report

Additional Roadways

Bridge ID: 62563 CSAH 23(CR C) over REC TRAIL **Date:** 12/08/2015

12/08/2015

Inspector: County, Ramsey

BRIDGE 62563 CSAH 23(CR C) OVER REC TRAIL **ROUTINE INSP. DATE: 09/16/2015**

County: Ramsey
City: Maplewood
Township:
Section: 10 Township: 029N Range: 22W
Span Type: 1 - Concrete 01 - Slab
List:
NBI Deck: 7 Super: 7 Sub: 7 Chan: N Culv: N
Open, Posted, Closed: A - Open
MN Scour Code: A - NON WATERWAY
Appraisal Ratings - Approach: 7 Waterway: N
Required Bridge Signs - Load Posting: 0 - Not Required Traffic: 0 - Not Required
Horizntal: 0 - Not Required Vertical: N - Not Applicable

Location: 0.6 MI E OF JCT TH 61
Route: 04 - CSAH 23 Ref. Pt.: 007+00.685
Control Section:
Maint. Area:
Local Agency Bridge Nbr.:

Length: 51.8 ft.
Deck Width: 52.8 ft.
Rdwy. Area/ Pct. Unsnd: 2282 sq. ft. / %
Paint Area/ Pct. Unsnd: sq. ft. / %
Culvert: N/A
Postings:

Unofficial Structurally Deficient N
Unofficial Functionally Obsolete N
Unofficial Sufficiency Rating 99.6

Structure Unit:

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
215	Reinforced Concrete Abutment	2	Routine	09/16/2015	108 LF	0	97	11	0	N/A
			Routine	09/19/2013	108 LF	0	97	11	0	N/A

☐Requires Monitoring ☐Monitored

Notes: There are 4 moderate 1" - 2" spalls w/ rust present on the NE corner of east abutment 2015.
The south end of east abutment has 3' moderate horizontal crack up by the SE corner of parapet -2013-2015.
The south end of west abutment has 2' minor horizontal crack up by the SW corner of parapet - 2013-2015.
There is a full height crack on both abutments at construction joints 2011-2015.
The west abutment has minor spalls present 2009-2015.
Debris on both abutments - need to be cleaned for further inspection.
There is graffiti on the west abutment 2005-2015.
There is minor vertical cracking of backwall of west abutment at SW corner 2007-2015.
There are 4-14' minor vertical cracks on west abutment and 5-14' minor vertical cracks on east abutment + 5 LF of horizontal cracking east abutment for a total of 131 LF of cracks 2009-2015.
The north 1/2 of east abutment contains alligator cracks. The east abutment contains spalls with re-bar corrosion present @ SE & NE corners 2007-2015.
There is moderate - major horizontal cracking of backwall of east abutment at SE corner 2007-2015.
Also SW corner of west abutment.
Minor area of cracking with spalls present. 7' vertical crack @ SE corner + 2-14' vertical cracks on east abutment and 3-14' vertical cracks on west abutment for a total of 77 LF of vertical cracks 2001-2015.

[2007-2009] 10% in condition state 3.

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
300	Strip Seal Deck Joint	2	Routine	09/16/2015	108 LF	0	108	0	N/A	N/A
			Routine	09/19/2013	108 LF	0	108	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Expansion device should be cleaned & flushed for inspection. Some leakage is present with debris in joints 2001-2015.

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
310	Elastomeric (Expansion) Bearing	2	Routine	09/16/2015	16 EA	0	16	0	N/A	N/A
			Routine	09/19/2013	16 EA	0	16	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Minor deterioration of elastomeric bearings. Debris around assemblies. Need to be cleaned for further inspection.
Alignment is within tolerance 2009-2015.
No deterioration. Quantity was changed to 16 each 2003-2013.

Structure Unit:

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
321	Concrete Approach Slab-Concrete Wearing Surface	2	Routine	09/16/2015	2 EA	0	2	0	0	N/A
			Routine	09/19/2013	2 EA	0	2	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: There are 74 LF of longitudinal cracking in the west approach slab & 58 LF of longitudinal cracking in the east approach slab 2011-2015.
Cracks are unsealed minor- moderate 2015.
There are 65 LF of longitudinal cracking in the west approach slab & 54 LF of longitudinal cracking in the east approach slab 2009-2015.
Cracks are unsealed minor- moderate 2015.
There are 45 LF of longitudinal cracking in the west approach slab & 42 LF of longitudinal cracking in the east approach slab 2005-2007.
Slight movement at NW corner. Bit approach roadway needs patching at both approach slabs. 2003-2011.
Some deterioration at both ends of approach panels due to settlement of bit. approach roadway 2009-2011.
There is deterioration of hot poured joints @ approach slabs both sides 2003-2011.
The west approach has been diamond ground shortly after construction.

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
333	Masonry, Other or Combination Material Railing	2	Routine	09/16/2015	236 LF	0	236	0	N/A	N/A
			Routine	09/19/2013	236 LF	0	236	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: The south rail has 10 vertical cracks full height 2015.
The north rail has 15 vertical cracks full height. The south rail has 9 vertical cracks full height 2013-2015.
Paint is pealing on north railing - 2013-2015
Minor - moderate numerous vertical cracking and spalling both sides 2003-2015.
The north rail has 10 vertical cracks full height. The south rail has 8 vertical cracks full height 2011-2015.
There is some chalking of the galvanized metal railing 2011-2015.
Railing is Type "F" with ornamental galvanized

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
359	Underside of Concrete Deck Smart Flag	1	Routine	09/16/2015	1 EA	0	1	0	0	0
			Routine	09/19/2013	1 EA	0	1	0	0	0

☐Requires Monitoring ☐Monitored

Notes: 1' of re-bar corrosion present in center of deck (under 2% of total deck area) - 2013-2015
There is minor cracking at the south fascia. There are numerous minor cracks with efflorescence at north fascia 2009-2015.
There are some voids at centerline east end due to consolidation problem during construction 2007-2015.
Minor cracking with minor spalling present 2005-2007.

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
378	Low Slump O/L (Concrete Slab with Epoxy Rebar)	2	Routine	09/16/2015	2734 SF	0	2734	0	0	0
			Routine	09/19/2013	2734 SF	0	2734	0	0	0

☐Requires Monitoring ☐Monitored

Notes: Minor hairline cracking & spalls less than 2% of total deck area. 100% of concrete slab is in condition state 2 2009-2015.
There is some diagonal cracking @ NE corner. There is shrinkage cracking WB between the wheel tracks 2007-2015.
Some minor but numerous longitudinal cracking with spalls present 2009-2013.
Some minor but numerous longitudinal cracking is present but no spalls 2001-2007.

Structure Unit:

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
387	Reinforced Concrete Wingwall	2	Routine	09/16/2015	4 EA	0	4	0	0	N/A
			Routine	09/19/2013	4 EA	0	4	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: Minor cracking and spalls on all wingwalls 2015.
The NE wingwall has a 10' mior - moderate horizontal crack 2001-2015.

964	Critical Finding Smart Flag	2	Routine	09/16/2015	1 EA	1	0	N/A	N/A	N/A
			Routine	09/19/2013	1 EA	1	0	N/A	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.

981	Signing	2	Routine	09/16/2015	1 EA	1	0	0	0	0
			Routine	09/19/2013	1 EA	1	0	0	0	0

☐Requires Monitoring ☐Monitored

Notes: Horizontal clearance signs are in place 2013-2015.
Horizontal clearance signs are in place 2011. Element added 2011.

982	Approach Guardrail	2	Routine	09/16/2015	1 EA	0	1	0	N/A	N/A
			Routine	09/19/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Minor damage to guardrail system - 2013-2015
Minor damage to guardrail system - 2011
There is no crash attenuator @ SW corner 2007-2011. Not required due to low speed as per MNDOT.
Guardrail is in place and functioning 2003-2005.

984	Deck & Approach Drainage	2	Routine	09/16/2015	1 EA	1	0	0	N/A	N/A
			Routine	09/19/2013	1 EA	1	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Water runs off the bridge. No problems 2005-2015.

986	Curb & Sidewalk	2	Routine	09/16/2015	1 EA	0	1	0	N/A	N/A
			Routine	09/19/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Expansion plate @ SE corner has been repaired - 2015
Expansion plate @ SE corner was damaged by snow plow & needs to be fastened to walk - 2013
Expansion plate @ SE corner is sticking up and should be bent downward 2005-2011. Debris needs to be cleaned out at expansion plate 2011.
Curb & sidewalk has significant cracking and spalling 2009-2015.
Slight settlement of sidewalk at SW corner 2005-2015.
Expansion plate @ SE corner is OK, must have been repaired 2009.
Curb has exposed aggregate on north side 2001-2011.

Structure Unit:

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5

General Notes:	2015 Bridge safety inspection was conducted by Dan Bodelson on 9/16/15. 2013 Bridge safety inspection was conducted by Dan Bodelson & Brian Essler on 9/18/13. 2011 Bridge safety inspection was conducted by B. Wieman and D. Bodelson on 9/23/2011. 2009 Inspection was completed by B. Wieman 9/21/2009. 2007 Inspection was completed by B. Wieman and B. Essler 8/08/2007. 2005 Inspection was completed by Bret Wieman 9/8/2005. Railroad tracks were removed in 1988.
58. Deck NBI:	Minor hairline cracking & spalls
36A. Brdg Railings NBI:	Vehicular railings meet currant standards
36B. Transitions NBI:	Guardrail transitions meet current standards
36C. Appr Guardrail NBI:	Approach guardrail meets currant standards
36D. Appr Guardrail Terminal NBI:	Guardrail terminations meet current standards
59. Superstructure NBI:	Minor cracking & delamination
60. Substructure NBI:	Minor cracking in abutments
61. Channel NBI:	
62. Culvert NBI:	
71. Waterway Adeq NBI:	
72. Appr Roadway Alignment NBI:	no speed recuction required
Inventory Notes:	

Dan Bodelson
Inspector's Signature

Kathy Jaschke
Reviewer's Signature

Pictures

Photo 1 -

Photo 2 -

Pictures

Photo 3 -

Photo 4 -

Pictures

Photo 5 -

Photo 6 -

Pictures

Photo 7 -

Photo 8 -

Pictures

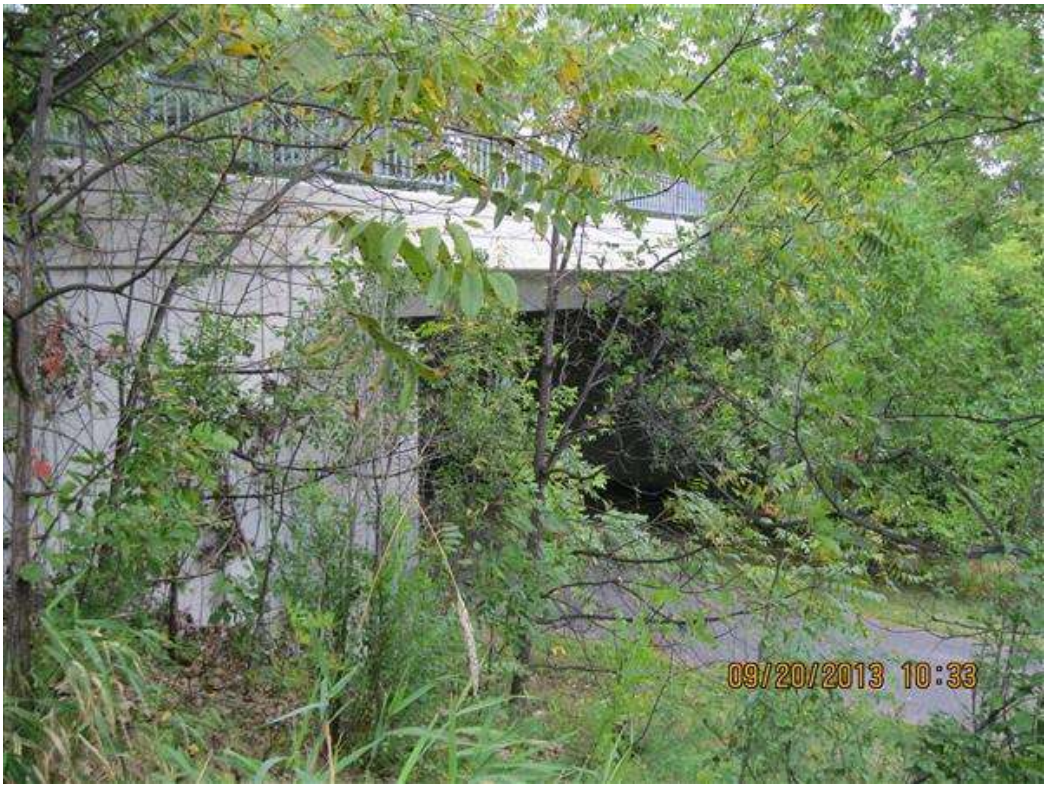


Photo 9 -

1. Crack in SE Parapet.JPG

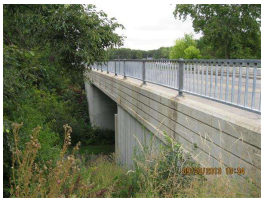
2. Crack in SW Parapet.JPG

3. Looking East.JPG

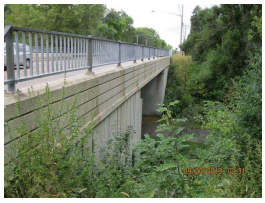
4. Looking North.JPG

5. Looking South.JPG

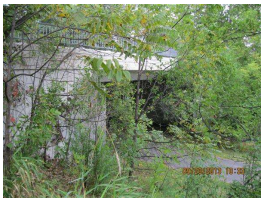
6. Looking West.JPG



7. North Side 2.JPG



8. North Side.JPG



9. South Side.JPG

Culvert

Bridge No.: 62563

Culvert

Item	*Description*	*Condition*	*Comments*
Culvert Overall:	**NBI Item 62**	N	

MnDOT Scour Code: A - NON WATERWAY

Waterway Inspection

Item No.	Yes, No, NA or Not Visible	Description
1.		Is there a significant build-up of debris?
2.		Is there erosion of the embankment around the headwalls?
3.		Is there any indication of cracking or settlement of the culvert barrel or headwalls?
4.		Is there shifting of the channel alignment or erosion of the stream banks? Also are there cracks in the soil of the banks parallel to the stream?
5.		Do scour measurements indicate that the streambed is below the bottom of the cutoff walls at the ends of the culvert?
6.		Is there evidence of distress in the roadway or approaches such as cracks in the pavement and sags in the guardrail or roadway? Also, is there cracking, erosion, or failure of the side slopes at or adjacent to the culvert?
7.		Is there an indication of "piping" of water along the outside of the culvert such as cavities adjacent to the barrel?
8.		Is the culvert without a bottom and scour measurements indicate that the streambed is below the plan streambed elevations?
9.		Has the riprap or other scour protection been damaged or otherwise made ineffective?
10.		If the culvert was designed to be buried (fill inside the culvert), is the material still in the barrel?

Notes:

- Streambed sounding data is to be documented.

- Soundings of the streambed should be done at each end of the culvert. If Items #5 or #8 are "Yes", then a streambed profile of the scoured area should be done.

- If "Yes" is the answer to any items on the checklist, notify the Program Administrator for further instructions.

Comments:

Completed On _____ By _____

Channel

Bridge No.: 62563

Channel

Item	*Description*	*Condition*	*Comments*
Channel Overall:	**NBI Item 61**	N	

Bank Protection/Revetment

Item	*Description*	*Condition*	*Comments*
Upstream Bank Protection:			
Downstream Bank Protection:			
Bridge Revetment:			

MnDOT Scour Code: A - NON WATERWAY

Underwater Inspection

Underwater Inspection By Divers:

No. of Piers To Be Inspected:

Waterway Characteristics

Reference Point:		**High Water Elev.:**		**Current Water Elev.:**	
Pile Tip Elev.:		**Low Water Elev.:**		**Current Streambed Elev.:**	
		Scour Hole Elev.:		**Current Scour Hole Elev.:**	

Waterway Inspection: (Not applicable for culverts)

Item No.	Yes, No, NA or Not Visible	Description
1.		Is there a significant build-up of debris?
2.		Is there a change in the horizontal alignment of the handrail or structure members such as beams?
3.		Is there any indication of vertical movement of the superstructure?
4.		Is there shifting of the channel alignment or erosion of the stream banks? Also are there cracks in the soil of the banks parallel to the stream?
5.		Is there a significant change in the alignment of hte exterior bearings?
6.		Are there cracks or other signs of distress in the approach pavement?
7.		Is the water currently on the superstructure?
8.		Are the slopes unstable?
9.		Do scour measurements indicate: (place a check by all that apply.)

- ☐ A. that the streamed is two or more feet below the bottom of pier footings which are supported on piles?
- ☐ B. scour below the bottom of spread footings?
- ☐ C. scour below the bottom of high abutment footings?
- ☐ D. that the streambed has scoured five feet or more below the original streambed elevation at pier bents?

10. _____ Have the scour countermeasures been damaged or otherwise made ineffective?

Notes:

- Streambed sounding data is to be documented.

- Per MnDOT Bridge Inspection Manual Section 2.2.5, at bridges that require x-sections, take channel x-sections, along the upstream and/or downstream face of the bridge.

- If "Yes" is the answer to any items on the checklist, notify the Program Administrator for further instructions.

Comments:

Completed On _____ By _____

Scour POA

Bridge No.: 62563

Scour POA

1. Is POA on File? _____
2. Date of most recent POA: _____
3. Here is a link to MnDOT's Bridge Scour website for other resources:
   - *http://www.dot.state.mn.us/bridge/hydraulics/scour.html*
   - The Scour POA should be kept in the bridge file and/or uploaded to SIMS using the "Inspection Files" tab.

Implementation

Scour POAs are required to be implemented by FHWA.

1. Is this POA being implemented? _____

Channel Section

Upstream

Custom Label	Location	Elevation

Downstream

Custom Label	Location	Elevation

Distance Measured From:

Elev. of Ref. Pt:

Depth to Water Surface:

WS Elev:

Vertical Datum:

Comments:

Distance Measured From:

Elev. of Ref. Pt:

Depth to Water Surface:

WS Elev:

Vertical Datum:

Maintenance

Element	Source Code	Work Code	Description	P/R	Priority	Work Order #	Year Due	Last Viewed	Entered	Start Date	Completed

BRIDGE STRUCTURAL ASSESSMENT REPORT

PURPOSE:

This report is a structural assessment of the structure and its ability to carry loads based on conditions identified in the attached bridge inspection report. The assessment is only a cursory review intended to provide guidance as to the relative hazards for structural conditions and deficiencies identified. This report is mandatory for all fracture critical bridges and is completed by the MnDOT Bridge Office upon receipt of the 7 Day FC Report; however, it is an OPTIONAL tool for agencies to utilize at their discretion for all other inspection types.

BRIDGE NO.: 62563

BRIDGE OWNER: County Highway Agency

DATE INSPECTED: 09/16/2015

STRUCTURE TYPE: Concrete Slab

FACILITY CARRIED: CSAH 23(CR C)

FEATURES INTERSECTED: REC TRAIL

TYPE OF INSPECTION:
- ☑ ROUTINE
- ☐ FRACTURE CRITICAL
- ☐ PINNED ASSEMBLY:
- ☐ SPECIAL:
- ☐ DAMAGE:
- ☐ OTHER:

Check all that apply:

Redundancy:
- ☐ Load Path
- ☐ Structural
- ☐ Internal

Connection Type:
- ☐ Riveted
- ☐ Bolted
- ☐ Welded
- ☐ Other:

1. Was a critical finding identified during this inspection or upon structural review? ☐ Yes ☐ No

   a) If selected "**Yes**" above, state briefly the finding(s):

2. If a critical finding was identified, what is the current status?
   - ☐ Pending
   - ☐ Resolved
   - ☐ N/A

   a) Briefly state actions taken:

3. Does the condition of any bridge component indicate impaired function? Examples of bridge components with impaired function include elements that are: frozen or immoveable, out-of-plumb or misaligned, distorted or structurally deformed, excessively deteriorated, cracked, broken, eroded or scoured. ☐ Yes ☐ No

a) If selected "**Yes**" above, state briefly the component(s) and condition(s):

4. Does the overall condition of the bridge, or any of its components mentioned in Question 3, suggest the need for detailed structural analysis and/or a revised load rating? ☐ Yes ☐ No

   a) If selected "**Yes**", state the reason for this recommendation and indicate a proposed timeframe in accordance with State of Minnesota Rule 8810.9500 (Subpart 2):

5. Based on the structural assessment of these findings, recommendations include:

   ☐ Repair/Maintenance ☐ Monitoring Plan
   ☐ Other ☐ Increased Inspection Frequency

   Explain recommended actions:

6. Other comments:

Bridge Office Reviewer