

**2016 ROUTINE
BRIDGE INSPECTION REPORT**



**BRIDGE # 90407
CP RAIL over CSAH 47**

DISTRICT: Metro

COUNTY: Ramsey

CITY/TOWNSHIP: Arden Hills

STATE: Minnesota

Date of Inspection: 10/05/2016

Equipment Used:

Owner: Railroad

Inspected By: Bodelson, Dan

Report Written By: Dan Bodelson
Report Reviewed By: Nicklaus Fischer
Final Report Date: 10/25/2016

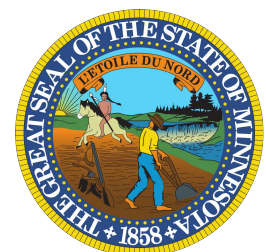


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Minnesota Structure Inventory Report

Bridge ID: 90407

CP RAIL

over CSAH 47

Date: 10/25/2016

GENERAL			
Agency Br. No.			
District Metro			
Maint. Area		Crew	
County 062 - Ramsey			
City Arden Hills			
Township			
Desc. Loc. 0.3 MI N OF JCT CSAH 15			
Sect., Twp., Range		28 - 030N - 23W	
Latitude Deg	45	Min	3 Sec 2.24
Longitude Deg	93	Min	10 Sec 57.72
Custodian 27 - Railroad			
Owner 27 - Railroad			
BMU Agreement			
Year Built		1900	
MN Year Reconstructed		1981	
FHWA Year Reconstructed			
MN Temporary Status			
Bridge Plan Location 0 - NO PLAN			
Date Opened to Traffic			
On-Off System		0 - OFF	
Legislative District 50B			
ABC Suitable			

ROADWAY		
Bridge Match ID (TIS)		
Roadway O/U Key none		
Route Sys		Number
Roadway Name or Description		
Level of Service		
Roadway Type		
Control Section (TH Only)		
Reference Point		
Detour Length mi		
Lanes	On	Under 2
	ADT	Year
HCACT	0	ADTT 0 %
Functional Class		

INSPECTION	
Userkey	102
Unofficial Structurally Deficient	N
Unofficial Functionally Obsolete	N
Unofficial Sufficiency Rating	-2
Routine Inspection Date	10/05/2016
Routine Inspection Frequency	12
Inspector Name	CO Bridge
Status	A - Open

STRUCTURE	
Service On	2 - Railroad
Service Under	1 - Highway, w/ or w/out ped.
Main Span Type	
3 - Steel	01 - Beam Span
Main Span Detail	
Appr. Span Type	
7 - Timber	01 - Beam Span
Appr. Span Detail	
Skew	10 L
Culvert Type	
Barrel Length	ft.
Cantilever ID	

RDWY DIMENSIONS		
If Divided	NB-EB	SB-WB
Roadway Width	ft.	ft.
Vertical Clearance	ft.	ft.
Max. Vert. Clear.	ft.	ft.
Horizontal Clear.	ft.	ft.
Lateral Clearance	ft.	ft.
Appr. Surface Width	ft.	
Bridge Roadway Width	ft.	
Median Width On Bridge	ft.	

NBI CONDITION RATINGS	
Deck	N - Not Applicable
Unsound Deck %	
Superstructure	6 - Satisfactory Condition
Substructure	6 - Satisfactory Condition
Channel	N - Not Applicable
Culvert	N - Not Applicable

MISC. BRIDGE DATA	
Structure Flared	0 - No flare
Parallel Structure	N - No parallel structure
Field Conn. ID	
Abutment Foundation	2 - TIMBER
(Material/Type)	4 - PILE BENT
Pier Foundation	2 - TIMBER
(Material/Type)	4 - PILE BENT
Historic Status	5 - Not eligible

NBI APPRAISAL RATINGS	
Structure Evaluation N	
Deck Geometry	N
Underclearances	2
Water Adequacy	N - Not Applicable
Approach Alignment	N - Not Applicable

NUMBER OF SPANS		
MAIN:	1	APPR: 4
TOTAL:	5	
Main Span Length	27.0	ft.
Structure Length	80.0	ft.
Deck Width (Out-to-Out)	26.3	ft.
Deck Material	N - Not Applicable	
Wear Surf Type	N - Not Applicable (applies onl	
Wear Surf Install Year		
Wear Course/Fill Depth	0.00	ft.
Deck Membrane	0 - None	
Deck Rebars	N - Not Applicable (no deck)	
Deck Rebars Install Year		
Structure Area (Out-to-Out)	2104	sq. ft.
Roadway Area (Curb-to-Curb)		sq. ft.
Sidewalk Width	Lt 0.00	ft. Rt 0.00
Curb Height	Lt 0.00	ft. Rt 0.00
Rail Type	Lt NN	Rt NN

PAINT	
Year Painted	1981
Unsound Paint %	95
Painted Area	sq. ft.
Primer Type	1 - Lead - non 3309
Finish Type	

SAFETY FEATURES	
Bridge Railing	N - NOT REQUIRED
GR Transition	N - NOT REQUIRED
Appr. Guardrail	1 - MEETS STANDARDS
GR Termini	1 - MEETS STANDARDS

BRIDGE SIGNS	
Posted Load	0 - Not Required
Traffic	0 - Not Required
Horizontal	2 - Width Restrictions
Vertical	1 - Rdwy. Clr. Restriction

IN DEPTH INSP.			
	Y/N	Freq	Date
Frac. Critical	N		
Underwater	N		
Pinned Asbly.	N		
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	8 - RAILROAD	
Operating Rating	2 - AS	HS 65.0
Inventory Rating	2 - AS	HS 65.0
Posting VEH:	SEMI:	DBL:
Rating Date		
Minnesota Permit Codes		
A: N - N/A		
B: N - N/A		
C: N - N/A		

Minnesota Structure Inventory Report

Bridge ID: 90407

CP RAIL over CSAH 47

Date: 10/03/2016

+ GENERAL +	+ ROADWAY +	+ INSPECTION +																				
Agency Br. No. Crew District 05 Maint. Area County 062 - Ramsey City Arden Hills Township Desc. Loc. 0.3 MI N OF JCT CSAH 15 Sect., Twp., Range 28 - 030N - 23W Latitude 45 ° 3 ' 2.24 " Longitude 93 ° 10 ' 57.72 " Custodian 27 - Railroad Owner 27 - Railroad BMU Agreement Year Built 1900 MN Year Reconstructed 1981 FHWA Year Reconstructed MN Temporary Status Bridge Plan Location 0 - NO PLAN Date Opened to Traffic On - Off System 0 - OFF Legislative District 50B Potential ABC 2 - N/A	Bridge Match ID (TIS) Roadway O/U Key Route Sys Number Roadway Name or Description Level of Service Roadway Type Control Section (TH Only) Reference Point Detour Length mi. Lanes ON UNDER 2 ADT YEAR HCA DT ADTT % Functional Class	Userkey 102 Structurally Deficient N Functionally Obsolete N Sufficiency Rating -2 Routine Inspection Date 10/05/2016 Routine Inspection Frequency 12 Inspector Name Bodelson, Dan Status A - Open																				
		+ NBI CONDITION RATINGS +																				
		Deck N Unsound Deck % Superstructure 6 Substructure 6 Channel N Culvert N																				
		+ NBI APPRAISAL RATINGS +																				
		Structure Evaluation N Deck Geometry N Underclearances 2 Waterway Adequacy N Approach Alignment N																				
		+ SAFETY FEATURES +																				
		Bridge Railing N - NOT REQUIRED GR Transition N - NOT REQUIRED Appr. Guardrail 1 - MEETS STANDARDS GR Termini 1 - MEETS STANDARDS																				
		+ IN DEPTH INSP. +																				
		<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Y/N</th> <th style="text-align: center;">Freq</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td>Frac. Critical</td> <td style="text-align: center;">N</td> <td></td> <td></td> </tr> <tr> <td>Underwater</td> <td style="text-align: center;">N</td> <td></td> <td></td> </tr> <tr> <td>Pinned Asbly.</td> <td style="text-align: center;">N</td> <td></td> <td></td> </tr> <tr> <td>Spec. Feat.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Y/N	Freq	Date	Frac. Critical	N			Underwater	N			Pinned Asbly.	N			Spec. Feat.			
	Y/N	Freq	Date																			
Frac. Critical	N																					
Underwater	N																					
Pinned Asbly.	N																					
Spec. Feat.																						
		+ WATERWAY +																				
		Drainage Area (sq. mi.) Waterway Opening (sf.) Navigation Control N - Not applicable, no Pier Protection - Nav. Clr. (ft.) Vert. 0.0 Horiz. 0.0 Nav. Vert. Lift Bridge Clear. (ft.) MN Scour Code A - NON																				
		+ CAPACITY RATINGS +																				
		Design Load 8 - RAILROAD Operating Rating 7 - RAILROAD 65.0 Inventory Rating 7 - RAILROAD 65.0 Posting VEH: SEMI: DBL: Rating Date Overweight Permit Codes A N - N/A B N - N/A C N - N/A																				
+ STRUCTURE +	+ RDWY DIMENSIONS +																					
Service On 2 - Railroad Service Under 1 - Highway, w/ or w/out ped. Main Span Type 3 - Steel Main Span Design 01 - Beam Span Main Span Detail Appr. Span Type 7 - Timber Appr. Span Design 01 - Beam Span Appr. Span Detail Skew 10 LEFT Culvert Type Barrel Length Cantilever ID	If Divided NB-EB SB-WB Roadway Width ft. ft. Vertical Clearance ft. ft. Max. Vert. Clear. ft. ft. Horizontal Clear. ft. ft. Lateral Clearance ft. ft. Appr. Surface Width ft. Bridge Roadway Width 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 (Material/Type) 2 - TIMBER 4 - PILE BENT Pier Foundation (Material/Type) 2 - TIMBER 4 - PILE BENT Historic Status 5 - Not eligible																				
		+ PAINT +																				
		Year Painted 1981 Unsound Paint % 95 Painted Area sq. ft. Primer Type 1 - Lead - non 3309 Finish Type																				
		+ BRIDGE SIGNS +																				
		Posted Load 0 - Not Required Traffic 0 - Not Required Horizontal 2 - Width Restrictions Vertical 1 - Rdwy. Clr. Restriction																				
Number of Spans MAIN: 1 APPR: 4 TOTAL: Main Span Length 27.0 ft. Structure Length 80.0 ft. Deck Width (Out-to-Out) 26.3 ft. Deck Material N - Not Applicable Wear Surf Type N - Not Applicable (applies Wear Surf Install Year Wear Course/Fill Depth 0.00 ft. Deck Membrane 0 - None Deck Rebars N - Not Applicable (no deck) Deck Rebars Install Year Structure Area (Out-to-Out) 2104 sq. ft. Roadway Area (Curb-to-Curb) sq. ft. Sidewalk Width 50A. Lt 0.00 ft. 50B. Rt 0.00 ft. Curb Height Lt 0.00 ft. Rt 0.00 ft. Rail Type Lt NN Rt NN																						

MINNESOTA BRIDGE INSPECTION REPORT

10/25/2016

BRIDGE 90407 CP RAIL OVER CSAH 47

ROUTINE INSP. DATE: 10/05/2016

County: Ramsey	Location: 0.3 MI N OF JCT CSAH 15	Length: 80.0 ft.
City: Arden Hills	Route: Ref. Pt.:	Deck Width: 26.3 ft.
Township:	Control Section:	Rdwy. Area/ Pct. Unsnd: sq. ft. / %
Section: 28 Township: 030N Range: 23W Maint. Area:		Paint Area/ Pct. Unsnd: sq. ft. / 95%
Span Type: 3 - Steel 2 - Stringer/Multi-beam or Girder	Local Agency Bridge Nbr.:	Culvert: N/A
List:		Postings:
NBI Deck: N Super: 6 Sub: 6 Chan: N Culv: N		
	Open, Posted, Closed: A - Open	
	MN Scour Code: A - NON WATERWAY	
Appraisal Ratings - Approach: N Waterway: N		Unofficial Structurally Deficient N
Required Bridge Signs - Load Posting: 0 - Not Required	Traffic: 0 - Not Required	Unofficial Functionally Obsolete N
Horizontal: 2 - Width Restrictions	Vertical: 1 - Rdwy. Clr. Restriction	Unofficial Sufficiency Rating N

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY	QTY	QTY	QTY	QTY
						CS 1	CS 2	CS 3	CS 4	CS 5
107	Painted Steel Girder or Beam	1	Routine	10/05/2016	217 LF	0	0	217	0	0
			Routine	10/08/2015	217 LF	0	0	217	0	0

Notes: [2012-2015] Painted steel girders are in proper alignment. The steel diaphragms are in place. No new scrapes to girders to report. Flaking and frecking rust is prevalent.
 [2001-2015] The paint system has failed. Steel girders are in need of sand blasting & painting. Surface corrosion is prevalent.

111	Timber Girder or Beam	1	Routine	10/05/2016	295 LF	0	295	0	0	N/A
			Routine	10/08/2015	295 LF	0	295	0	0	N/A

Notes: [2011-2015] Visible movement during train traffic.
 [2012-2015] Some moderate decay with some splitting and cracking is present.

206	Timber Column	1	Routine	10/05/2016	108 EA	0	90	18	0	N/A
			Routine	10/08/2015	108 EA	0	90	18	0	N/A

Notes: [2015] west bracing has 8" crack @ column # 30.
 [2012-2015] There is some scrapes on columns #56, #57 & #61 from traffic impact. Others have moderate decay & splitting.
 [2003-2015] There has been slight movement of column #23, #25, #30, #33, #39, #40, #44 & #45 on the west side and column #61, #69, #76, #81, #82, #87 & #91 on the east side. Movement appears to have stabilized.

216	Timber Abutment	1	Routine	10/05/2016	72 LF	0	72	0	0	N/A
			Routine	10/08/2015	72 LF	0	72	0	0	N/A

Notes: [2015] 3 - Lag bolts missing on west abutment at NW corner
 [2014] 2 - Lag bolts missing & 1 loose on west abutment at NW corner
 [2012-2014] Lag bolt is missing at the tie rod west abutment near NW corner. Also lag bolts are loose at NW corner. Attaches tie rod to timber girder & abutment.
 [2011-2013] Two center bolts loose under north set of tracks west end.
 [2012-2015] Abutments have some moderate cracking & splitting.
 [2003-2015] Alignment is good at both sides with tie rods in place.

235	Timber Pier Cap	1	Routine	10/05/2016	239 LF	0	239	0	0	N/A
			Routine	10/08/2015	239 LF	0	239	0	0	N/A

Notes: [2012-2015] Moderate decay with cracking and splitting is present.

362	Traffic Impact Smart Flag	1	Routine	10/05/2016	1 EA	0	1	0	N/A	N/A
			Routine	10/08/2015	1 EA	0	1	0	N/A	N/A

Notes: [2005-2015] Moderate scrapes to column #55, #56, #57, #58 and #59.

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
964	Critical Finding Smart Flag	2	Routine	10/05/2016	1 EA	1	0	N/A	N/A	N/A
			Routine	10/08/2015	1 EA	1	0	N/A	N/A	N/A
Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.										
981	Signing	1	Routine	10/05/2016	1 EA	0	1	0	0	0
			Routine	10/08/2015	1 EA	0	1	0	0	0
Notes: [2012-2015] Horizontal clearance signs are in place at the bridge. Narrow bridge signs and low clearance signs are on sign posts both sides of the bridge. [2012] Low clearance signs should be posted near the closest intersection. [2012-2013] Signs Required: Low clearance, horizontal clearance and narrow bridge signs.										
982	Approach Guardrail	1	Routine	10/05/2016	1 EA	0	1	0	N/A	N/A
			Routine	10/08/2015	1 EA	0	1	0	N/A	N/A
Notes: [2012-2015] Guardrail system is in place but contains some moderate collision damage. [2009-2015] Moderate impact to guardrail south side of bridge on the east side of New Brighton Boulevard. No attenuator on the end of guardrail system. Not required as per MNDOT because of low speed.										
985	Slopes & Slope Protection	1	Routine	10/05/2016	4 EA	0	4	0	N/A	N/A
			Routine	10/08/2015	4 EA	0	4	0	N/A	N/A
Notes: [2015] All 4 slopes contain minor to moderate erosion. [2015] Railroad ballast falling from above @ abutments.										

General Notes: [2016] Bridge safety inspection was completed by Dan Bodelson & Brian Essler on 10/05/2015.
 [2015] Bridge safety inspection was completed by Dan Bodelson & Brian Essler on 10/08/2015.
 [2014] Bridge safety inspection was completed by D. Bodelson & Brian Essler on 10/09/2014.
 [2013] Bridge safety inspection was completed by B. Wieman and D. Bodelson on 10/31/2013.
 [2012] Bridge safety inspection was completed by B. Wieman on 10/23/2012.
 2011 Bridge safety inspection was conducted by B. Wieman on 10/21/2011.
 2010 Bridge safety inspection was completed by B. Wieman on 11/24/2010.
 2009 Bridge safety inspection was completed by B. Wieman on 7/17/2009.
 2007 Bridge safety inspection was completed by B. Wieman 8/28/2007
 2005 Bridge safety inspection was completed by Bret Wieman 9/15/2005.
 There is some splitting of longitudinal bracing @ east end 2007-2011.
 Two new catwalks with railings were installed on top of the bridge.
 There is no railing on the south side of the bridge 2003-2011.
 There is one track north side of the bridge 2009-2011.

58. Deck NBI: CP Rail over CSAH # 47

36A. Brdg Railings NBI: no bridge railing
CP Rail over CSAH # 47

36B. Transitions NBI: no bridge railing
CP Rail over CSAH # 47

36C. Appr Guardrail NBI: meets current
CP Rail over CSAH # 47 standards

36D. Appr Guardrail Terminal NBI: twisted end treatment meets current standards - low speed
CP Rail over CSAH # 47

59. Superstructure NBI: moderate corrosion on steel beams
moderate weathering & splitting on timber beams

60. Substructure NBI: moderate weathering & splitting on columns & abutments

61. Channel NBI: CP Rail over CSAH # 47

62. Culvert NBI: CP Rail over CSAH # 47

71. Waterway Adeq NBI: CP Rail over CSAH # 47

72. Appr Roadway Alignment NBI: CP Rail over CSAH # 47

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
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Inventory Notes:

Dan Bodelson
Inspector's Signature

Nicklaus Fischer
Reviewer's Signature

MINNESOTA BRIDGE INSPECTION REPORT

10/25/2016

Inspector: CO Bridge

BRIDGE 90407 CP RAIL OVER CSAH 47

County: Ramsey	Location: 0.3 MI N OF JCT CSAH 15	Length: 80.0 ft.
City: Arden Hills	Route: Ref. Pt.:	Deck Width: 26.3 ft.
Township:	Control Section:	Rdwy. Area/ Pct. Unsd: sq. ft. / %
Section: 28 Township: 030N Range: 23W Maint. Area:		Paint Area/ Pct. Unsd: sq. ft. / 95%
Span Type: 3 - Steel 2 - Stringer/Multi-beam or Girder	Local Agency Bridge Nbr.:	Culvert: N/A
List:		Postings:
NBI Deck: N Super: 6 Sub: 6 Chan: N Culv: N		
	Open, Posted, Closed: A - Open	
	MN Scour Code: A - NON WATERWAY	
Appraisal Ratings - Approach: N Waterway: N		Unofficial Structurally Deficient N
Required Bridge Signs - Load Posting: 0 - Not Required	Traffic: 0 - Not Required	Unofficial Functionally Obsolete N
Horizontal: 2 - Width Restrictions	Vertical: 1 - Rdwy. Clr. Restriction	Unofficial Sufficiency Rating N

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
107	Steel Open Girder/Beam	Routine	10/05/2016	217 LF	0	217	0	0
		Migrated Values		217 LF	0	217	0	0
Notes: [2016] Moderate rust on all 8 beams [2012-2016] Painted steel girders are in proper alignment. The steel diaphragms are in place. No new scrapes to girders to report. Flaking and frecking rust is prevalent. [2001-2016] The paint system has failed. Steel girders are in need of sand blasting & painting. Surface corrosion is prevalent.								
515	Steel Protective Coating	Routine	10/05/2016	1158 SF	0	0	0	1158
		Migrated Values		1158 SF	0	0	0	1158
Notes: [2016] Migrator assumed quantity of 999 SF and estimated the condition states. [2016] Beams have 1.2' flange with 1.0' web and 1" thick = 4.7SF x 27.12 long x 8 beams = 1020 SF [2016] Diaphragms have 9" flange with 9" web and 1" thick = 3.3 SF x 2.33 long x 18 = 138 SF								
111	Timber Open Girder/Beam	Routine	10/05/2016	295 LF	0	295	0	0
		Migrated Values		295 LF	0	295	0	0
Notes: [2011-2016] Visible movement during train traffic. [2012-2016] Some moderate decay with some splitting and cracking is present.								
216	Timber Abutment	Routine	10/05/2016	72 LF	0	72	0	0
		Migrated Values		72 LF	0	72	0	0
Notes: [2015-2016] 3 - Lag bolts missing on west abutment at NW corner [2014-2016] 2 - Lag bolts missing & 1 loose on west abutment at NW corner [2012-2016] Lag bolt is missing at the tie rod west abutment near NW corner. Also lag bolts are loose at NW corner. Attaches tie rod to timber girder & abutment. [2011-2016] Two center bolts loose under north set of tracks west end. [2012-2016] Abutments have some moderate cracking & splitting. [2003-2016] Alignment is good at both sides with tie rods in place.								
228	Timber Pile	Routine	10/05/2016	108 EA	0	90	18	0
		Migrated Values		108 EA	0	90	18	0
Notes: [2015-2016] west bracing has 8" crack @ column # 30. [2012-2016] There is some scrapes on columns #56, #57, #61 & #62 from traffic impact. Others have moderate decay & splitting. [2003-2016] There has been slight movement of column #23, #25, #30, #33, #39, #40, #44 & #45 on the west side and column #61, #69, #76, #81, #82, #87 & #91 on the east side. Movement appears to have stabilized.								
235	Timber Pier Cap	Routine	10/05/2016	239 LF	0	239	0	0
		Migrated Values		239 LF	0	239	0	0
Notes: [2012-2016] Moderate decay with cracking and splitting is present.								

BRIDGE 90407 CP RAIL OVER CSAH 47

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
800	Critical Deficiencies or Safety Hazards	Routine	10/05/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: NO CRITICAL FINDINGS OBSERVED DURING THE LAST INSPECTION.								
880	Impact Damage	Routine	10/05/2016	1 EA	0	1	0	0
		Migrated Values		1 EA	0	1	0	0
Notes: [2005-2016] Moderate scrapes to column #55, #56, #57, #58 and #59.								
890	Load Posting or Vertical Clearance Signing	Routine	10/05/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: [2016] Low clearance (13'-5") signs are installed @ nearest intersection. - Not on bridge [2016] Structure requires a vertical clearance sign or load posting sign.								
891	Other Bridge Signing	Routine	10/05/2016	1 EA	0	1	0	0
		Migrated Values		1 EA	0	1	0	0
Notes: [2016] Low clearance (13'-5") signs are installed @ nearest intersection. - Not on bridge [2012-2016] Horizontal clearance signs are in place at the bridge. Narrow bridge signs and low clearance signs are on sign posts both sides of the bridge. [2012] Low clearance signs should be posted near the closest intersection. [2012-2013] Signs Required: Low clearance, horizontal clearance and narrow bridge signs.								
892	Slopes & Slope Protection	Routine	10/05/2016	4 EA	0	4	0	0
		Migrated Values		4 EA	0	4	0	0
Notes: [2015-2016] All 4 slopes contain minor to moderate erosion. [2015-2016] Railroad ballast falling from above @ abutments.								
893	Guardrail	Routine	10/05/2016	1 EA	0	1	0	0
		Migrated Values		1 EA	0	1	0	0
Notes: [2012-2016] Guardrail system is in place but contains some moderate collision damage. [2009-2016] Moderate impact to guardrail south side of bridge on the east side of New Brighton Boulevard. No attenuator on the end of guardrail system. Not required as per MNDOT because of low speed.								
894	Deck & Approach Drainage	Routine	10/05/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: Use this element to rate the condition, function, and adequacy of the drainage system. CP Rail over CSAH # 47 - No Deck								
900	Protected Species	Routine	10/05/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: Use this element to track the presence of protected species living on this structure. No protective species present.								

General Notes: [2016] Bridge safety inspection was completed by Dan Bodelson & Brian Essler on 10/05/2015.
 [2015] Bridge safety inspection was completed by Dan Bodelson & Brian Essler on 10/08/2015.
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 [2012] Bridge safety inspection was completed by B. Wieman on 10/23/2012.
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 2010 Bridge safety inspection was completed by B. Wieman on 11/24/2010.
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 2007 Bridge safety inspection was completed by B. Wieman 8/28/2007
 2005 Bridge safety inspection was completed by Bret Wieman 9/15/2005.
 There is some splitting of longitudinal bracing @ east end 2007-2011.
 Two new catwalks with railings were installed on top of the bridge.
 There is no railing on the south side of the bridge 2003-2011.
 There is one track north side of the bridge 2009-2011.

58. Deck NBI: CP Rail over CSAH # 47

36A. Brdg Railings NBI: no bridge railing

BRIDGE 90407 CP RAIL OVER CSAH 47

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
	CP Rail over CSAH # 47							
36B.	Transitions NBI:	no bridge railing						
		CP Rail over CSAH # 47						
36C.	Appr Guardrail NBI:	meets current						
		CP Rail over CSAH # 47 standards						
36D.	Appr Guardrail	twisted end treatment meets current standards - low speed						
	Terminal NBI:	CP Rail over CSAH # 47						
59.	Superstructure NBI:	moderate corrosion on steel beams						
		moderate weathering & splitting on timber beams						
60.	Substructure NBI:	moderate weathering & splitting on columns & abutments						
61.	Channel NBI:	CP Rail over CSAH # 47						
62.	Culvert NBI:	CP Rail over CSAH # 47						
71.	Waterway Adeq NBI:	CP Rail over CSAH # 47						
72.	Appr Roadway	CP Rail over CSAH # 47						
	Alignment NBI:							
	Inventory Notes:							

Dan Bodelson

Inspector's Signature

Nicklaus Fischer

Reviewer's Signature

Pictures



Photo 1 -



Photo 2 -

Pictures



Photo 3 -



Photo 4 -

Pictures



Photo 5 -



Photo 6 -

Pictures



Photo 7 -

Maintenance

Element	Source Code	Work Code	Description	P/R	Priority	Work Order #	Year Due	Last Viewed	Entered	Start Date	Completed
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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 Minnesota 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.: 90407	BRIDGE OWNER: Railroad
DATE INSPECTED: 10/05/2016	STRUCTURE TYPE: Steel tringer/Multi-beam or Girder
FACILITY CARRIED: CP RAIL	FEATURES INTERSECTED: CSAH 47
TYPE OF INSPECTION: <input checked="" type="checkbox"/> ROUTINE <input type="checkbox"/> FRACTURE CRITICAL <input type="checkbox"/> PINNED ASSEMBLY: <input type="checkbox"/> SPECIAL: <input type="checkbox"/> DAMAGE: <input type="checkbox"/> COMPLEX:	
<u>Check all that apply:</u>	
Redundancy: <input type="checkbox"/> Load Path <input type="checkbox"/> Structural <input type="checkbox"/> Internal	Connection Type: <input type="checkbox"/> Riveted <input type="checkbox"/> Bolted <input type="checkbox"/> Welded <input type="checkbox"/> 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 immovable, 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:

- | | |
|---|---|
| <input type="checkbox"/> Repair/Maintenance | <input type="checkbox"/> Monitoring Plan |
| <input type="checkbox"/> Complex | <input type="checkbox"/> Increased Inspection Frequency |

Explain recommended actions:

6. Other comments:

Bridge Office Reviewer