

**2015 ROUTINE
BRIDGE INSPECTION REPORT**



**BRIDGE # 62560
SHEPARD RD over UP RR**

DISTRICT: Metro

COUNTY: Ramsey

CITY/TOWNSHIP: St Paul

Date(s) of Inspection: 10/09/2015

Equipment Used:

Owner: County Highway Agency

Inspected By: Ekstrand, Ron; Engel, Michael; Schaaf, Jerry; Sirian, Kirk

Report Written By: Ron Ekstrand

Report Reviewed By: Glenn Pagel

Final Report Date: 12/30/2015

**MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128**



MnDOT Structure Inventory Report

Bridge ID: 62560

SHEPARD RD

over UP RR

Date: 12/30/2015

GENERAL	
Agency Br. No.	
District	Metro
Maint. Area	Crew
County	062 - Ramsey
City	St Paul
Township	
Desc. Loc.	0.17 MI NE OF JCT CSAH 3
Sect., Twp., Range	12 - 028N - 23W
Latitude	Deg 44 Min 55 Sec 43.61
Longitude	Deg 93 Min 7 Sec 5.89
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	1 - CENTRAL
Date Opened to Traffic	
On-Off System	0 - OFF
Legislative District	65B

STRUCTURE	
Service On	1 - Highway
Service Under	2 - Railroad
Main Span Type	
	1 - Concrete 08 - Rigid Frame
Main Span Detail	
Appr. Span Type	
Appr. Span Detail	
Skew	74 R
Culvert Type	
Barrel Length	ft.
Cantilever ID	

NUMBER OF SPANS	
MAIN: 1	APPR: 0 TOTAL: 1
Main Span Length	53.0 ft.
Structure Length	58.0 ft.
Deck Width (Out-to-Out)	0 ft.
Deck Material	N - Not Applicable
Wear Surf Type	N - Not Applicable (applies onl
Wear Surf Install Year	
Wear Course/Fill Depth	8.00 ft.
Deck Membrane	N - Not Applicable (applies onl
Deck Rebars	N - Not Applicable (no deck)
Deck Rebars Install Year	1993
Structure Area (Out-to-Out)	sq. ft.
Roadway Area (Curb-to-Curb)	sq. ft.
Sidewalk Width	Lt 0.00 ft. Rt 0.00 ft.
Curb Height	Lt 0.50 ft. Rt 0.50 ft.
Rail Type	Lt NN Rt NN

ROADWAY	
Bridge Match ID (TIS)	0
Roadway O/U Key	Route On Structure
Route Sys	04 - CSAH Number 37
Roadway Name or Description	SHEPARD ROAD
Level of Service	1 - MAINLINE
Roadway Type	2 - 2-way traffic
Control Section (TH Only)	
Reference Point	000+00.146
Detour Length	1.0 mi
Lanes	On 4 Under 0
	ADT 18625 Year 2008
HCACT	0 ADTT 0 %
Functional Class	14 - Urban - Other Principal Art

RDWY DIMENSIONS			
If Divided	NB-EB	SB-WB	
Roadway Width	38.00 ft.	38.00 ft.	
Vertical Clearance	ft.	ft.	
Max. Vert. Clear.	ft.	ft.	
Horizontal Clear.	37.9 ft.	37.9 ft.	
Lateral Clearance	ft.	ft.	
Appr. Surface Width	88.0 ft.		
Bridge Roadway Width	0 ft.		
Median Width On Bridge	12.00 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	X - Not Applicable
Finish Type	X - Not Applicable

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

INSPECTION	
Userkey	199
Unofficial Structurally Deficient	N
Unofficial Functionally Obsolete	N
Unofficial Sufficiency Rating	82.9
Routine Inspection Date	10/09/2015
Routine Inspection Frequency	24
Inspector Name	City of St. Paul
Status	A - Open

NBI CONDITION RATINGS	
Deck	N - Not Applicable
Unsound Deck %	
Superstructure	N - Not Applicable
Substructure	N - Not Applicable
Channel	N - Not Applicable
Culvert	7 - Shrinkage cracks, light scali

NBI APPRAISAL RATINGS	
Structure Evaluation	7
Deck Geometry	N
Underclearances	6
Water Adequacy	N - Not Applicable
Approach Alignment	8 - Equal to present desirabl

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

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 34.0
Inventory Rating	1 - LF (LF) HS 25.0
Posting VEH:	SEMI: DBL:
Rating Date	05/13/2011

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

MnDOT BRIDGE INSPECTION REPORT

12/30/2015

Inspector: City of St. Paul

BRIDGE 62560 SHEPARD RD OVER UP RR

ROUTINE INSP. DATE: 10/09/2015

County: Ramsey	Location: 0.17 MI NE OF JCT CSAH 3	Length: 58.0 ft.
City: St Paul	Route: 04 - CSAH 37 Ref. Pt.: 000+00.146	Deck Width: 0 ft.
Township:	Control Section:	Rdwy. Area/ Pct. Unsnd: sq. ft. / %
Section: 12 Township: 028N Range: 23W Maint. Area:		Paint Area/ Pct. Unsnd: sq. ft. / %
Span Type: 1 - Concrete 19 - Culvert (includes frame culverts)	Local Agency Bridge Nbr.:	Culvert: N/A
List:		Postings:
NBI Deck: N Super: N Sub: N Chan: N Culv: 7	Open, Posted, Closed: A - Open	
	MN Scour Code: A - NON WATERWAY	
Appraisal Ratings - Approach: 8 Waterway: N		Unofficial Structurally Deficient N
Required Bridge Signs - Load Posting: 0 - Not Required	Traffic: 0 - Not Required	Unofficial Functionally Obsolete N
Horizontal: 0 - Not Required	Vertical: N - Not Applicable	Unofficial Sufficiency Rating 82.9

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
331	Reinforced Concrete Bridge Railing	2	Routine	10/09/2015	218 LF	0	218	0	0	N/A
			Routine	10/09/2013						
	<input type="checkbox"/> Requires Monitoring <input type="checkbox"/> Monitored									
	Notes: Added element in 2015. Quantity = (68' + 82') SW portal + 68' NE portal = 218 LF total 2015 Moderate cracking with staining is present. 2015 Painted surfaces are peeling / flaking. 2015									
334	Metal Bridge Railing (Coated or Painted)	1	Routine	10/09/2015	1020 LF	0	218	0	0	0
			Routine	10/09/2013	1020 LF	1020	0	0	0	0
	<input type="checkbox"/> Requires Monitoring <input type="checkbox"/> Monitored									
	Notes: Metal railing mounted on a concrete bridge rail. 2013 Paint coating on the metal railing is failing. The primer coat is showing through. 2015 The retaining wall railing is not included in the bridge inspection. 2015									
358	Concrete Deck Cracking Smart Flag	2	Routine	10/09/2015	1 EA	1	0	0	0	N/A
			Routine	10/09/2013	1 EA	1	0	0	0	N/A
	<input type="checkbox"/> Requires Monitoring <input type="checkbox"/> Monitored									
	Notes: Concrete deck is below roadway grade. 2013									
359	Underside of Concrete Deck Smart Flag	2	Routine	10/09/2015	1 EA	1	0	0	0	0
			Routine	10/09/2013	1 EA	1	0	0	0	0
	<input type="checkbox"/> Requires Monitoring <input type="checkbox"/> Monitored									
	Notes: West end tunnel face, vertical and horizontal cracks at corner. 2010-15 Efflorescence and staining present. 2011-15 Cork falling from underdeck joint. 2011-15 The underdeck has little to no distress present. 2015									

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
360	Substructure Settlement & Movement Smart Flag	2	Routine	10/09/2015	1 EA	1	0	0	N/A	N/A
			Routine	10/09/2013	1 EA	1	0	0	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: Roadway over tunnel is busted up. 2010-15 See element # 987 Roadway over Culvert. 2011-15										
381	Tunnel	2	Routine	10/09/2015	1673 LF	1673	0	0	0	N/A
			Routine	10/09/2013	1673 LF	1673	0	0	0	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: One joint is offset. 2011-15 Cork falling from underdeck joint. 2011-15 Graffiti at S.end of tunnel. 2011 Isolated scaling of tunnel walls. 2011-15 Concrete cracking at S.tunnel headwall. 2011-15										
388	Culvert Headwall, Wingwall or Other End Treatment	2	Routine	10/09/2015	2 EA	2	0	0	0	N/A
			Routine	10/09/2013	2 EA	2	0	0	0	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: SW portal headwall face has horizontal and vertical cracking with efflorescence. 2011-15 Cleaning, prep and paint is recommended at the portals. 2015 Minor cracking is present at both portals. 2015										
964	Critical Finding Smart Flag	2	Routine	10/09/2015	1 EA	1	0	N/A	N/A	N/A
			Routine	10/09/2013	1 EA	1	0	N/A	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.										
987	Roadway over Culvert	2	Routine	10/09/2015	1 EA	0	1	0	N/A	N/A
			Routine	10/09/2013	1 EA	0	1	0	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: The roadway is finished and open to traffic. 2001 Moderate cracking of the roadway. 2011-15 Settling of the roadway is present. 2011-15 Bituminous patching on roadway. 2013-15 This is a County Road - CSAH 37										
988	Miscellaneous Items	2	Routine	10/09/2015	1 EA	1	0	0	N/A	N/A
			Routine	10/09/2013						
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: The southeast retaining wall and tunnel has graffiti on it. 05-07. The Shepard Rd. retaining wall is not included in the bridge inspection. 2015										

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
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General Notes: UP-RR contact:
 Mark Watlington (651) 552-3934 cell (1402) 570-6947 mwwatlin@up.com

58. Deck NBI:

36A. Brdg Railings NBI:

36B. Transitions NBI:

36C. Appr Guardrail NBI:

36D. Appr Guardrail
Terminal NBI:

59. Superstructure NBI:

60. Substructure NBI:

61. Channel NBI:

62. Culvert NBI:

71. Waterway Adeq NBI:

72. Appr Roadway
Alignment NBI:

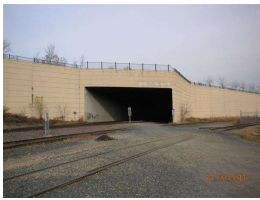
Inventory Notes:

Ron Ekstrand

Inspector's Signature

Glenn Pagel

Reviewer's Signature



1. 2001 Tunnel headwall_S.end_1.jpg



2. 2001 Tunnel headwall_S.end_2.jpg



3. 2011 deckview N.side_1-1.jpg



4. 2011 deckview N.side_1-2.jpg



5. 2011 deckview N.side_1-3.jpg



6. 2011 deckview S.side_1-1.jpg



7. 2011 deckview S.side_1-2.jpg



8. 2011 deckview S.side_1-3.jpg



9. 2011 deckview S.side_1-4.jpg



10. cold joint_1.jpg



11. cold joint_8.jpg



12. cracks EB_1.jpg



13. cracks EB_2.jpg



14. cracks WB_1.jpg



15. cracks WB_2.jpg



16. cracks WB_3.jpg



17. cracks WB_4.jpg



18. cracks WB_5.jpg



19. cracks WB_6.jpg



20. cracks WB_7.jpg



21. cracks WB_8.jpg



22. cracks WB_9.jpg



23. cracks WB_10.jpg



24. cracks WB_11.jpg



25. cracks WB_12.jpg



26. cracks WB_13.jpg



27. cracks WB_14.jpg



28. cracks WB_15.jpg



29. cracks WB_16.jpg



30. grafitti_1.jpg



31. Headwall N.side_1.jpg



32. Headwall N.side_2.jpg



33. Headwall S.end cracks_1.jpg



34. Headwall S.end cracks_2.jpg



35. Headwall S.end cracks_3.jpg



36. Headwall S.end
cracks_4.jpg



37. joint cork.jpg



38. scaling_1.jpg



39. scaling_2.jpg



40. scaling_3.jpg



41. Tunnel view_1.jpg



42. Tunnel view_2.jpg



43. underdeck
patch_1.jpg



44. underdeck
patch_2.jpg



45. underdeck_1.jpg