

**2018 ROUTINE
BRIDGE INSPECTION REPORT**



**BRIDGE # 6837
UP RR over CSAH 37(SHEPARD RD)**

DISTRICT: Metro

COUNTY: Ramsey

CITY/TOWNSHIP: St Paul

STATE: Minnesota

Date of Inspection: 07/08/2018

Equipment Used:

Owner: Railroad

Inspected By: Engel, Michael; Reimer, Dan; Schaaf, Jerry

Report Written By: Dan Reimer

Report Reviewed By: Glenn Pagel

Final Report Date: 10/30/2018

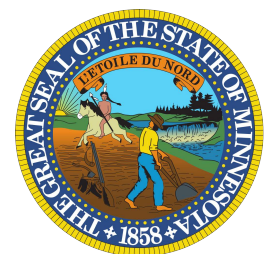


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ELEMENTS	4

Minnesota Structure Inventory Report

Additional Roadways

Bridge ID: 6837

UP RR over CSAH 37(SHEPARD RD)

Date: 10/30/2018

ROADWAY		
Bridge Match ID (TIS):	0	
5A. Roadway On/Under:	2 - UNDERRECORD 2 TYPE (IF ONLY 1	
Bridge Route System:	4 - COUNTY HIGHWAY	
5D. Route Number:	37	
Roadway Name or Description		
CSAH 37		
5C. Level of Service:	1 - MAINLINE	
102. Direction of Traffic:	2 - 2-way traffic	
Control Section (TH Only):	62	
Reference Point:		
19. Detour Length (mi):	0	
Lanes:	4	
29. ADT:	16135	
30. Year:	2008	
26. Functional Class:	14	
Traffic Sequence Number:	41515	
InterRegional Corridor (TH Only):		
ROADWAY DIMENSIONS		
	NB-EB	SB-WB
Roadway Width (ft):	22.40	22.30
Vertical Clearance (ft):	14.4	14.5
Max. Vert. Clear. (ft):	14.4	14.5
Horizontal Clear. (ft):	27.4	25.7
	Left	Right
Lateral Clearance (ft):	1.1	1.4
32. Appr. Roadway Width (ft):	51.0	
51. Brdg Roadway Width (ft):	44.7	
Median Width (ft):	6.00	
10. Vertical Clearance (ft):	14.5	
47. Horizontal Clearance	27.4	

MINNESOTA BRIDGE INSPECTION REPORT

10/30/2018

BRIDGE 6837 UP RR OVER CSAH 37(SHEPARD RD)

County: Ramsey	Location: 0.1 MI W OF JCT TH 52	Length: 110.3 ft.
City: St Paul	Route: Ref. Pt.:	Deck Width: 16.7 ft.
Township:	Control Section:	Rdwy. Area/ Pct. Unsnd: sq. ft. / %
Section: 6 Township: 028N Range: 22W Maint. Area:		Paint Area/ Pct. Unsnd: 5280 sq. ft. / %
Span Type: 3 - Steel 2 - Stringer/Multi-beam or Girder	Local Agency Bridge Nbr.:	Culvert: N/A
List:		Postings:
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: N Waterway: N		Unofficial Structurally Deficient Y
Required Bridge Signs - Load Posting: 0 - Not Required	Traffic: 0 - Not Required	Unofficial Functionally Obsolete
Horizontal: 0 - Not Required	Vertical: 0 - Not Required	Unofficial Sufficiency Rating

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
30	Steel Deck Corrugated/Orthotropic/Etc.	Routine	07/08/2018	1842 SF	1842	0	0	0
		Routine	07/08/2017	1842 SF	1842	0	0	0
Notes: Changed quantity to 110.3 X 16.7 = 1,842 sq. ft. Tracks are active. 2016-18 Deck is covered with ties, tracks and ballast. 2016-18								
107	Steel Open Girder/Beam	Routine	07/08/2018	630 LF	0	618	12	0
		Routine	07/08/2017	630 LF	0	618	12	0
Notes: Surface corrosion / rust present. 2010-18 Flaking rust is present near the ends of the beams. 2016-18 Pack rust is present on the stiffener of the W. girder. S. end. 2016-18 Repairs were made on the cantilever brackets in 2017.								
515	Steel Protective Coating	Routine	07/08/2018	7617 SF	0	0	957	6660
		Routine	07/08/2017	7617 SF	0	0	957	6660
Notes: Paint system failing. 2010-18 Paint system is missing down to the primer and exposed metal. 2016-18								
210	Reinforced Concrete Pier Wall	Routine	07/08/2018	49 LF	20	26	3	0
		Routine	07/08/2017	49 LF	20	27	2	0
Notes: Center pier, N. side, Moderate map cracks in Shot-Crete repair area. 2010-18 Delamination's starting at the Shote-Crete area. 2016-18 The end of the center pier wall has a spall deeper than 1 inch and greater than 6 inches in diameter. 2016-18 Minor horizontal cracks at the west end of the of the center wall. 2018 With exposed rebar. 2016-18 S. side of center pier has a vertical shear crack. 2015-18 S. pier wall - SE corner has a vertical spall - deeper than 1" and greater than 6". 2018								
215	Reinforced Concrete Abutment	Routine	07/08/2018	64 LF	64	0	0	0
		Routine	07/08/2017	64 LF	64	0	0	0
Notes: North abut. has 35 lin. ft. of minor vertical cracks. 2003-18 Debris and ballast on top of abutment. 2016 no change 2017-18 Staining is present. 2018								
234	Reinforced Concrete Pier Cap	Routine	07/08/2018	49 LF	33	12	4	0
		Routine	07/08/2017	49 LF	35	12	2	0
Notes: 2 sq. ft. spall at the top of the center roadway pier. (West and East end) x2 2018 Greater than 1 inch deep - CS3. 2016-17 Center pier cap, N. side, 12 LF of delamination. 2016-18 Recommend repairing the concrete pier cap. 2017								

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ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	
311	Movable Bearing	Routine	07/08/2018	12 EA	0	12	0	0	
		Routine	07/08/2017	12 EA	0	12	0	0	
Notes: Most bearings are slightly tipped. Still tolerable. 2010-18 Freckled rust is present. 2016-18 Cleaning, paint, and lube. recommended. 2010-18									
313	Fixed Bearing	Routine	07/08/2018	12 EA	0	12	0	0	
		Routine	07/08/2017	12 EA	0	12	0	0	
Notes: Cleaning, paint, recommended. 2010-18 Freckled rust is present. 2016-18									
330	Metal Bridge Railing	Routine	07/08/2018	220 LF	110	110	0	0	
		Routine	07/08/2017	220 LF	110	110	0	0	
	Notes: Rail on the E. side is all metal construction. 2016 Rail on the W. side is steel angle and cable. 2016 Railing is for maintenance personnel only. 2016-18								
	515 - Steel Protective Coating	Routine	07/08/2018	410 SF	0	0	200	210	
		Routine	07/08/2017	410 SF	0	0	200	210	
Notes: 210 SF of paint system failure - exposed metal. 2016-18 200 SF of finish coat missing - primer is mostly intact. 2016-18									
800	Critical Deficiencies or Safety Hazards	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
Notes: NO CRITICAL FINDINGS OBSERVED DURING THE LAST INSPECTION. 2016-18									
855	Secondary Members (Superstructure)	Routine	07/08/2018	1 EA	0	1	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
Notes: Diaphragms - freckled rust is present. 2018									
880	Impact Damage	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
Notes: Minor scrapes from high loads. 1985-18									
883	Concrete Shear Cracking	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
Notes: Use this element to monitor the presence of shear cracking on concrete elements. Pay particular attention to the concrete pier caps.									
885	Scour	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
Notes: K - Limited risk. Monitoring required. 2" of scour under N.Side of Pier 3 & 14" under the S. side. 2005 No change - 2011 Additional rip-rap possibly needed at the river side of the S. abutment pier wall. 2017-18									
890	Load Posting or Vertical Clearance Signing	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
Notes: 14' 3" clearance signage is in place - WB direction only. 2016-18									
891	Other Bridge Signing	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
Notes: Object markers in place at the center pier wall location - WB and EB 2018									
892	Slopes & Slope Protection	Routine	07/08/2018	1 EA	0	1	0	0	
		Routine	07/08/2017	1 EA	0	1	0	0	
Notes: Use this element to rate the condition of slopes and slope protection. Additional rip-rap possibly needed at the river side of the S. abutment pier wall. 2017-18									

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ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
894	Deck & Approach Drainage	Routine	07/08/2018	1 EA	1	0	0	0
		Routine	07/08/2017	1 EA	1	0	0	0
Notes: Use this element to rate the condition, function, and adequacy of the drainage system.								
899	Miscellaneous Items	Routine	07/08/2018	1 EA	1	0	0	0
		Routine	07/08/2017	1 EA	1	0	0	0
Notes: The electrical box cover is gone on the north side of the center pier. 2005-18 There are 3 name plates on the bridge -Bethlehem Steel Company 1956.								
NOTE: THIS INSPECTION REPORT IS ASSOCIATED WITH THE ONE BRIDGE SPAN OVER SHEPARD ROAD - NOT ANY PORTION OF THE BRIDGE OVER THE RIVER.								
900	Protected Species	Routine	07/08/2018	1 EA	0	1	0	0
		Routine	07/08/2017	1 EA	1	0	0	0
Notes: Use this element to track the presence of protected species living on this structure. None found in 2016-18.								

General Notes: This bridge is to be MAINTAINED by Railroad per Agreement, dated June 24, 1954.

UP-RR contact:
Mark Watlington 651-552-3934 cell 1-402-570-6947 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:

Dan Reimer

Inspector's Signature

Glenn Pagel

Reviewer's Signature



1. Cantilever brace over WB lane.JPG



2. E end of center Pier wall.JPG



3. Fixed bearing, center Pier wall.JPG



4. Fixed bearing, E side of center Pier wall.JPG



5. Fixed bearing, W side of center Pier wall.JPG



6. Metal rail, E side.JPG



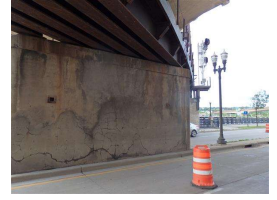
7. Metal rail, W side.JPG



8. N side of center Pier cap (1).JPG



9. N side of center Pier cap (2).JPG



10. N side of center Pier wall (1).JPG



11. NE end of center Pier cap.JPG



12. SE end of E Girder (1).JPG



13. SE end of E Girder (2).JPG



14. SW end of W Girder.JPG



15. 2017 elevation view.JPG



16. beams - fascia.JPG



17. beams - under side.JPG



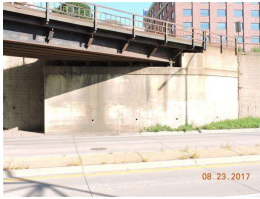
18. center pier wall.JPG



19. facing west view.JPG



20. metal ped railing topside.JPG



21. N. side abutment.JPG



22. north abutment rocker bearings.JPG



23. north pier wall facing south map cracking and spalls on pier cap.JPG



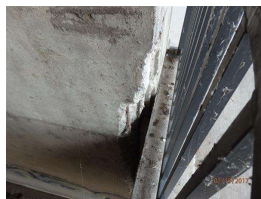
24. north pier wall large spalls exposed rebar.JPG



25. pier wall facing north.JPG



26. S. side abutment.JPG



27. south pier wall large vertical spalls exposed rebar 16'f.JPG



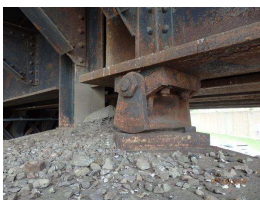
28. three cantilevers repaired 2016.JPG



29. E Girder, S end (1).JPG



30. E Girder, S end (2).JPG



31. SE Bearing at S Pier Wall.JPG