2016 ROUTINE BRIDGE INSPECTION REPORT



BRIDGE # 62J05 CSAH 77 over RICE CREEK

DISTRICT: Metro COUNTY: Ramsey

CITY/TOWNSHIP: Mounds View

STATE: Minnesota

Date of Inspection: 08/18/2016 Equipment Used:

Owner: County Highway Agency

Inspected By: Bodelson, Dan

Report Written By: Dan Bodelson Report Reviewed By: Nicklaus Fischer Final Report Date: 10/04/2016

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Minnesota Structure Inventory Report

Bridge ID: 62J05 CSAH 77	OVER RICE CREEK	Date: 10/04/2016
GENERAL	ROADWAY	INSPECTION
Agency Br. No.	Bridge Match ID (TIS) 0	Userkey 102
District Metro	Roadway O/U Key Route On Structure	Unofficial Structurally Deficient N
Maint. Area Crew	Route Sys 04 - CSAH Number 77	Unofficial Functionally Obsolete N
County 062 - Ramsey	Roadway Name or Description	Unofficial Sufficiency Rating 99.4
City Mounds View	CSAH 77	Routine Inspection Date 08/18/2016
Township	Level of Service 1 - MAINLINE	Routine Inspection Frequency 48
Desc. Loc. 0.1 MI S OF JCT CSAH 9	Roadway Type 2 - 2-way traffic	Inspector Name CO Bridge
Sect., Twp., Range 8 - 030N - 23W	Control Section (TH Only)	Status A - Open
Latitude Deg 45 Min 5 Sec 35.94	Reference Point 004+00.385	NBI CONDITION RATINGS
Longitude Deg 93 Min 11 Sec 39.27	Detour Length 1.0 mi	Deck N - Not Applicable
Custodian 02 - County Highway Agency	Lanes On 2 Under 0	Unsound Deck %
Owner 02 - County Highway Agency	ADT 6374 Year 2008	Superstructure N - Not Applicable
BMU Agreement	HCADT 0 ADTT 0 %	Substructure N - Not Applicable
Year Built 1997	Functional Class 16 - Urban - Minor Arterial	Channel6 - Bank slump; minor damage
MN Year Reconstructed		Culvert 6 - Deterioration or initial disinte
FHWA Year Reconstructed	RDWY DIMENSIONS If Divided NB-EB SB-WB	NBI APPRAISAL RATINGS
MN Temporary Status		Structure Evaluation 6
Bridge Plan Location 3 - COUNTY	Roadway Width 52.00 ft. ft.	Deck Geometry N
Date Opened to Traffic	Vertical Clearance ft. ft.	Underclearances N
On-Off System 1 - ON	Max. Vert. Clear. ft. ft.	Water Adequacy 8 - Bridge Above Approache
Legislative District 51B	Horizontal Clear. ft. ft.	Approach Alignment 6 - Equal to present minimu
ABC Suitable	Lateral Clearance ft. ft.	SAFETY FEATURES
STRUCTURE	Appr. Surface Width 52.0 ft.	Bridge Railing N - NOT REQUIRED
Service On 1 - Highway	Bridge Roadway Width 0.0 ft.	GR Transition N - NOT REQUIRED
Service Under 5 - Waterway	Median Width On Bridge ft.	Appr. Guardrail 1 - MEETS STANDARDS
Main Span Type	MISC. BRIDGE DATA	GR Termini 1 - MEETS STANDARDS
5 - Prestress or Precast 13 - Box Culvert	Structure Flared 0 - No flare	
Main Span Detail	Parallel Structure N - No parallel structure	Y/N Freq Date
Appr. Span Type	Field Conn. ID	Frac. Critical N
	Abutment Foundation N - N/A	Underwater N
Appr. Span Detail	(Material/Type) N - N/A	Pinned Asbly. N
Skew 15 R	Pier Foundation N - N/A	Spec. Feat.
Culvert Type PCST 128T	(Material/Type) N - N/A	WATERWAY
Barrel Length 94 ft.	Historic Status 5 - Not eligible	Drainage Area (sq. mi.)
Cantilever ID	`	Waterway Opening 288 sq. ft.
NUMBER OF SPANS	PAINT	Navigation Control 0 - No nav. control on waterw
MAIN: 3 APPR: 0 TOTAL: 3	Year Painted	Pier Protection
Main Span Length 12.4 ft.	Unsound Paint %	Nav. Clr. (ft.) Vert. ft. Horiz. ft.
Structure Length 47.6 ft.	Painted Area sq. ft.	Nav. Vert. Lift Bridge Clear. (ft.)
Deck Width (Out-to-Out) 0.0 ft.	Primer Type	MN Scour Code E - CULVERT Year 1997
Deck Material N - Not Applicable	Finish Type	CAPACITY RATINGS
Wear Surf Type 6 - Bituminous	BRIDGE SIGNS	Design Load 9 - HS 25 (OR GREATER)
Wear Surf Install Year		Operating Rating A - Assigned ratir 42.0
Wear Course/Fill Depth 3.50 ft.	Posted Load 0 - Not Required	Inventory Rating A - Assigned ratir 25.0
Deck Membrane N - Not Applicable (applies onl	Traffic 0 - Not Required	Posting VEH: SEMI: DBL:
Deck Rebars N - Not Applicable (no deck)	Horizontal 0 - Not Required	Rating Date 07/08/2013
Deck Rebars Install Year	Vertical N - Not Applicable	Minnesota Permit Codes
Structure Area (Out-to-Out) 0 sq. ft.		A: N - N/A
Roadway Area (Curb-to-Curb) 2185 sq. ft. Sidewalk Width Lt 0.00 ft. Rt 0.00 ft.		B: N - N/A
Sidewalk Width Lt 0.00 ft. Rt 0.00 ft.		
		C: N - N/A
Curb HeightLt 0.00ft.Rt 0.00ft.Rail TypeLt NNRt NN		C: N - N/A

Minnesota Structure Inventory Report

Bridge ID: 62J05 CSAH 77 over RICE CREEK

Date: 09/26/2016

-	GENERAL+	+ R O A D W A Y +	+INSPECTION+			
Agency Br. No.	Crew	Bridge Match ID (TIS) 0	Userkey 102			
District	05 Maint. Area	Roadway O/U Key Route On Structure	Structurally Deficient N			
County	062 - Ramsey		Functionally Obsolete N			
City	Mounds View	Route Sys 04 - CSAH Number 77 Roadway Name or Description	Sufficiency Rating 99.4			
Township		CSAH 77	Routine Inspection Date 08/18/2016			
Desc. Loc.	0.1 MI S OF JCT CSAH 9	Level of Service 1 - MAINLINE	Routine Inspection Frequency48			
Sect., Twp., Range	8 - 030N - 23W	Roadway Type 2 - 2-way traffic	Inspector Name Bodelson, Dan			
Latitude	45 • 5 · 35.94 "	Control Section (TH Only)	Status A - Open			
Longitude	93 • 11 ' 39.27 ''	Reference Point 004+00.385				
Custodian	02 - County Highway Agency	Detour Length 1.0 mi.	+NBI CONDITION RATINGS+			
Owner	02 - County Highway Agency	Lanes ON ² UNDER 0	Deck N Unsound			
BMU Agreement		ADT 6374 YEAR 2008	Superstructure N Deck %			
Year Built	1997	HCADT ADTT %	Substructure N			
MN Year Reconstru		Functional Class 16 - Urban - Minor Arterial	Channel 6			
FHWA Year Recons			Culvert 6			
MN Temporary Stat			+NBI APPRAISAL RATINGS+			
Bridge Plan Locatio		+RDWY DIMENSIONS+	THE AFFRAISAL RAIINGS+			
Date Opened to Tra		If Divided NB-EB SB-WB	Structure Evaluation 6			
On - Off Syster		Roadway Width 52.00 ft. ft.	Deck Geometry N			
Legislative District	51B	Vertical Clearance ft. ft.	Underclearances N			
Potential ABC	2 - N/A	Max. Vert. Clear. ft. ft.	Waterway Adequacy 8			
	2 11/1	Horizontal Clear. ft. ft.	Approach Alignment 6			
+ 5	STRUCTURE+	Lateral Clearance ft. ft.				
Service On	1 - Highway	Appr. Surface Width 52.0 ft.	+SAFETY FEATURES+			
Service Under	5 - Waterway	Bridge Roadway Width 0.0 ft.	Bridge Railing N - NOT REQUIRED			
Main Span Type	5 - Prestress or Precast	Median Width On Bridge ft.	GR Transition N - NOT REQUIRED			
Main Span Design	13 - Box Culvert		Appr. Guardrail 1 - MEETS STANDARDS			
Main Span Detail		+MISC. BRIDGE DATA+	GR Termini 1 - MEETS STANDARDS			
Appr. Span Type		Structure Flared 0 - No flare				
Appr. Span Design		Parallel Structure N - No parallel structure	+IN DEPTH INSP.+			
Appr. Span Detail		Field Conn. ID	Y/N Freq Date			
Skew	15 RIGHT	Abutment N - N/A	Frac. Critical N			
Culvert Type	PCST 128T	Foundation (Material/Type) N - N/A	Underwater N			
Barrel Length	94		Pinned Asbly. N			
Cantilever ID		Pier Foundation N - N/A (Material/Type)	Spec. Feat.			
		N - N/A				
Nu	mber of Spans	Historic Status 5 - Not eligible	+ W A T E R W A Y +			
MAIN: 3 AP	PR: 0 TOTAL:		Drainage Area (sq. mi.)			
Main Span Length	12.4 ft.	+ P A I N T +	Waterway Opening (sf.) 288			
Structure Length	47.6 ft.		Navigation Control 0 - No nav. control on			
Deck Width (Out-to-	Out) 0.0 ft.	Year Painted	Pier Protection			
Deck Material	N - Not Applicable	Unsound Paint %	Nav. Clr. (ft.) Vert. 0.0 Horiz. 0.0			
Wear Surf Type	6 - Bituminous	Painted Area sq. ft.	Nav. Vert. Lift Bridge Clear. (ft.)			
Wear Surf Install Ye	ar	Primer Type	MN Scour Code E - CULVERT Year 1997			
Wear Course/Fill De	epth 3.50 ft.	Finish Type	+CAPACITY RATINGS+			
Deck Membrane	N - Not Applicable (applies					
Deck Rebars	N - Not Applicable (no deck)	+BRIDGE SIGNS+	Design Load 9 - HS 25 (OR GREATER)			
Deck Rebars Install	Year		Operating Rating 2 - HS TRUCK 42.0			
Structure Area (Out	-to-Out) 0 sq. ft.	Posted Load 0 - Not Required	Inventory Rating 2 - HS TRUCK 25.0			
Roadway Area (Cur	b-to-Curb) 2185 sq. ft.	Traffic 0 - Not Required	Posting VEH: SEMI: DBL:			
	DA. Lt 0.00 ft. 50B. Rt 0.00 ft.	Horizontal 0 - Not Required	Rating Date 07/08/2013			
Sidewalk Width 5	JA. LI 0.00 II. JUD. III 0.00 II.					
Sidewalk Width 5 Curb Height	Lt 0.00 ft. Rt 0.00 ft.	Vertical N - Not Applicable	Overweight Permit Codes			

MINNESOTA BRIDGE INSPECTION REPORT

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CSAH 77 OVER RICE CREEK ROUTINE INSP. DATE: 08/18/2016 BRIDGE 62J05 0.1 MI S OF JCT CSAH 9 County: Ramsey Location: Length: 47.6 ft. City: Mounds View Route: 04 - CSAH 77 Ref. Pt.: 004+00.385 Deck Width: 0.0 ft. Rdwy. Area/ Pct. Unsnd: 2185 sq. ft. / % Township: Control Section: Township: 030N Range: 23W Maint. Area: Paint Area/ Pct. Unsnd: sq. ft. / % Section: 8 Span Type: 1 - Concrete 19 - Culvert (includes PCST 128T Local Agency Bridge Nbr .: Culvert: frame culverts) List: Postings: NBI Deck: N Super: N Sub: N Chan: 6 Culv: 6 Open, Posted, Closed: A - Open MN Scour Code: E - CULVERT Appraisal Ratings - Approach: 6 Waterway: 8 **Unofficial Structurally Deficient** Ν Required Bridge Signs - Load Posting: 0 - Not Required Traffic: 0 - Not Required Unofficial Functionally Obsolete Ν Horizntal: 0 - Not Required Vertical: N - Not Applicable Unofficial Sufficiency Rating 99.4 ELEM QTY QTY QTY OTY QTY NBR ELEMENT NAME ENV REPORT TYPE INSP. DATE QUANTITY CS 1 CS 2 CS 3 CS 4 CS 5 **Reinforced Concrete Culvert** 282 LF 0 282 0 0 N/A 241 2 Routine 08/18/2016 282 LF 0 282 0 0 N/A Routine 08/21/2012 Notes: [2008-2012] Moderate amount of riprap & debris deposited throughout all culverts. [2008-2012] Light scaling exists inside all culverts. [2008-2012] Some deterioration at lift holes- cracking with efflorescence. [2006-2012] Some rusting of ties. Debris is blocking flow at west end of culvert #2. [2003-2012] There is spalling at joint #3 of culvert #1 near the west end. [2002-2012] Superficial cracks are present with minor to moderate deterioration & no separation of joints. All joints are tied. Culvert Headwall, Wingwall or 2 EA 0 2 0 0 N/A 388 2 Routine 08/18/2016 Other End Treatment 2 2 EA 0 0 0 N/A Routine 08/21/2012 Notes: [2012] Some infiltration at east side headwalls. All the east side aprons have lifted up moderately. [2008-2012] Moderate spalling exists on all headwalls. [2008-2012] Cracking & spalling is present both sides culvert #1 inside @ headwall & culvert joint. [2003-2012] There is spalling present at the east end of #3 apron. Some spalling @ headwalls - both sides. [2001-2012] Some cracking at all aprons. [2000-2006] Minor cracking at east end apron middle span. [2008-2012] Trees are growing at headwalls. Trees should be cleared at both sides. Critical Finding Smart Flag 1 EA 0 N/A N/A 2 Routine 1 N/A 964 08/18/2016 0 1 EA 1 N/A N/A N/A Routine 08/21/2012 Notes: Approach Guardrail 1 EA 0 1 0 N/A N/A 982 1 Routine 08/18/2016 0 1 0 Routine 08/21/2012 1 EA N/A N/A Notes: [2008-2012] There is moderate- major collision damage to the NE corner guardrail. [2012] Should be repaired. [2006] Guardrail system is in place & functioning properly. Guardrail has been repaired. [2004] There is collision damage to the NW corner guardrail - four broken posts. There is collision damage at the NE corner of Old 8 & Co. Rd. H - 2 broken guardrail posts. 985 Slopes & Slope Protection 1 Routine 08/18/2016 1 EA 0 1 0 N/A N/A 0 1 0 1 F A N/A N/A Routine 08/21/2012 Notes: [2008-2012] Bank @ NW corner is slumping. [2002-2012] Grouted riprap has minor cracking & settlement. [2003-2012] Bank @ NE corner is slumping with erosion of material into and blocking culvert #3.

BRIDGE 62J05 CSAH 77 OVER RICE CREEK						ROUTI	NE INSP	. DATE:	08/18/20 ⁻	16	
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
987	Roadway over Cu	ulvert	2	Routine Routine	08/18/2016 08/21/2012	1 EA 1 EA	0 0	1 1	0 0	N/A N/A	N/A N/A
				e is moderate settler oderate transverse o	nent @ both end	s of the bridge.		·	-		
	General Notes:	[2012] Bridg [2008] Safe Safety inspe	ge safety ins ty inspection ection was o	spection was complet spection was complet n was completed by I completed by Bret Wi of 3 - 12' W X 8' H b	ed by B. Wiemar 3. Paine & B. Wi eman 10/06/200	n & D. Bodelsor eman 9/22/2008 6.	n 8/21/201 3.	2.	e 8/18/2016	5.	
	58. Deck NBI:	Structure is	a culvert								
36A. E	Brdg Railings NBI:	Structure is	s a culvert w	/ No Bridge Railing.							
36E	3. Transitions NBI:	Guardrail is	over culver	t & not connected to	culvert.						
36C. Aj	ppr Guardrail NBI:	Approach g	uardrail me	ets current standards							
36	D. Appr Guardrail Terminal NBI:	Guardrail te	erminations	meet current standar	ds.						
59. Si	uperstructure NBI:	Structure is	a culvert								
60.	Substructure NBI:	Structure is	a culvert								
	61. Channel NBI: Channel has minor aggradation w/ debris slightly restricting flow. Banks have moderate erosion & slumping.										
	62. Culvert NBI:	Concrete cu	ulvert has m	inor to moderate dete	erioration.						
71. Wa	71. Waterway Adeq NBI: Culvert has greater than 3 feet of freeboard.										
7	72. Appr Roadway Very minor speed reduction required. Alignment NBI:										

Inventory Notes:

Dan Bodelson

Inspector's Signature

Nicklaus Fischer

Reviewer's Signature

MINNESOTA BRIDGE INSPECTION REPORT

10/04/2016

Inspector: CO Bridge

BRIDGE 62J05 CSAH 77 OVER RICE CREEK

County	: Ramsey	Location: 0.1 MI S	OF JCT CSAH	9	Length:		47.6 ft.			
City:	Mounds View	Route: 04 - CSAH 7	77 Ref. Pt.: (004+00.385	Deck Wid	lth:	0.0 ft.			
Townsl	nip:	Control Section:			Rdwy. Ar	ea/ Pct. Un	snd: 2185	sq. ft. / %	6	
Sectior	: 8 Township: 030N Range: 2	23W Maint. Area:			Paint Are	a/ Pct. Uns	nd: sq. ft	./%		
Span T	ype: 1 - Concrete 19 - Culvert (includes	Local Agency Brid	ge Nbr.:		Culvert:	PCST	128T			
ist:	frame culverts)				Postings:					
NBI De	ck: N Super: N Sub: N C	han: 6 Culv: 6								
		Open, Pos	ted, Closed: A	- Open						
			Code: E - CUL	/ERT						
	al Ratings - Approach: 6 Waterwa				Un	official Stru	cturally De	eficient	Ν	
Require	ed Bridge Signs - Load Posting: 0 - Not			Not Required		official Fun			Ν	
	Horizntal: 0 - Not	Required V	/ertical: N -	Not Applicable	Un	official Suf	ficiency Ra	iting	99.4	
ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4		
41	Reinforced Concrete Culvert	Routine	08/18/2016	282 LF	0	282	0	0		
		Migrated Values		282 LF	0	282	0	0		
	Notes: [2016] debris in west end of	0								
	[2016] Moderate rust @ lift holes on									
	[2016] Moderate crack on the south [2008-2012] Moderate amount of rip			verts.						
	[2008-2012] Light scaling exists insid	de all culverts.[-							
	2008-2012] Some deterioration at lif [2006-2012] Some rusting of ties. De			ort #2						
	[2003-2012] There is spalling at join			<i>ππΣ</i> .						
	[2002-2012] Superficial cracks are p	resent with minor to mod	derate deteriorat	ion & no separa	ation of join	nts. All joint	s are tied.			
00	Critical Deficiencies or Safety Hazards	Routine	08/18/2016	1 EA	1	0	0	0		
		Migrated Values		1 EA	1	0	0	0		
	Notes: [2016] No critical structural of	leficiencies or serious sa	fety hazards are	present on this	s structure.					
70	Culvert End Treatment	Routine	08/18/2016	2 EA	0	2	0	0		
		Migrated Values		2 EA	0	2	0	0		
	Notes: [2012-2016] Some infiltration [2008-2016] Moderate spalling exist 2008-2016] Cracking & spalling is pi [2003-2016] There is spalling preser [2001-2016] Some cracking at all ap [2008-2016] Trees are growing at he	s on all headwalls.[esent both sides culvert at at the east end of #3 a rons. [2000-2006] Minor	#1 inside @ hea pron. Some spa cracking at eas	adwall & culvert lling @ headwa end apron mid	joint. Ils - both s	-				
71	Roadway Over Culvert	Routine	08/18/2016	1 EA	0	1	0	0		
		Migrated Values		1 EA	0	1	0	0		
	Notes: [2008-2016] There is moderate settlement @ both ends of the bridge. [2008-2016] There is a moderate transverse crack in bituminous pavement at the south end of the bridge.									
92	Slopes & Slope Protection	Routine	08/18/2016	1 EA	0	1	0	0		
		Migrated Values		1 EA	0	1	0	0		
	Notes: [2008-2016] Bank @ NW co [2002-2016] Grouted riprap has min [2003-2016] Bank @ NE corner is sl	or cracking & settlement		blocking culver	t #3.					
93	Guardrail	Routine	08/18/2016	1 EA	0	1	0	0		
		Migrated Values		1 EA	0	1	0	0		
	Notes: [2016] Moderate damage on	•		·	-		-	-		
	[2008-2012] There is moderate- maj [2006] Guardrail system is in place & [2004] There is collision damage to H - 2 broken guardrail posts.	or collision damage to th & functioning properly. G	uardrail has bee	n repaired.	-			r of Old 8	& Co. Ro	

BRIDGE 62J05 CSAH 77 OVER RICE CREEK

ELEM NBR	ELEM	ENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
894	Deck & Approach	Drainage	Routine	08/18/2016	1 EA	1	0	0	0
			Migrated Values		1 EA	1	0	0	0
		Roadway w/ curb & gutten nt to rate the condition, t			e system.				
900	Protected Specie	S	Routine	08/18/2016	1 EA	1	0	0	0
			Migrated Values		1 EA	1	0	0	0
		no species found. nt to track the presence	of protected species	living on this stru	icture.				
	General Notes:	[2016] Bridge safety in [2012] Bridge safety in [2008] Safety inspection Safety inspection was Bridge #62J05 consists	spection was complet in was completed by I completed by Bret Wi	ted by B. Wiema B. Paine & B. Wi ieman 10/06/200	n & D. Bodelsor eman 9/22/2008 6.	n 8/21/201: 3.	2.	e 8/18/2016).
	58. Deck NBI:	Structure is a culvert							
36A. E	Brdg Railings NBI:	Structure is a culvert w	v/ No Bridge Railing.						
36B	. Transitions NBI:	Guardrail is over culve	rt & not connected to	culvert.					
36C. Ap	opr Guardrail NBI:	Approach guardrail me	ets current standards	3.					
36	D. Appr Guardrail Terminal NBI:	Guardrail terminations	meet current standar	ds.					
59. Su	perstructure NBI:	Structure is a culvert							
60. \$	Substructure NBI:	Structure is a culvert							
	61. Channel NBI:	Channel has minor ago Banks have moderate		ightly restricting f	low.				
	62. Culvert NBI:	Concrete culvert has m	ninor to moderate dete	erioration.					
71. Wa	terway Adeq NBI:	Culvert has greater that	n 3 feet of freeboard.						
7	2. Appr Roadway Alignment NBI:	Very minor speed redu	ction required.						
	Inventory Notes:								

Dan Bodelson

Nicklaus Fischer

Inspector's Signature

Reviewer's Signature

Pictures

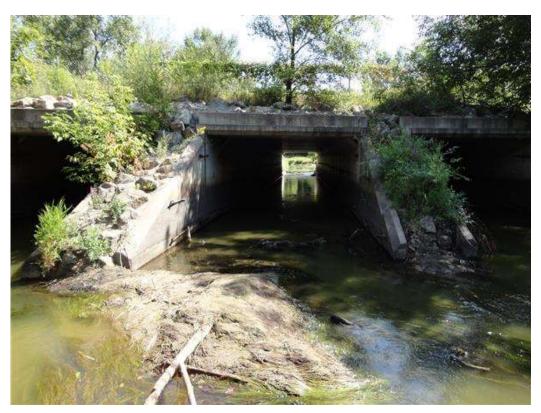


Photo 1 -



Photo 2 -

Pictures



Photo 3 -



Photo 4 -

Pictures



Photo 5 -



Photo 6 -