

Cable Median Barrier



As traffic volumes have grown, Minnesota has experienced an increase in cross median crashes. Installing cable median barrier in strategic locations has proven to be effective in preventing these crashes that so often have tragic outcomes.

The table below outlines the number of miles to date of cable median barrier that have been installed; are planned and funded for the 2010-2011; and the number of miles planned beyond 2011 that have not yet been funded.

These projects have been funded through the Central Safety Fund and the Area Transportation Partner's (ATP) Highway Safety Improvement Program (HSIP) Funds. Project selection was based on crash data, traffic volume, and existing median width following AASHTO guidance.

	Miles Currently Installed	Miles Funded 2010-2011	Miles Planned Unfunded
Metro Total	69.8	42.5	56.9
Greater MN Total	109.5	25.1	22.1
Statewide Total	179.3	67.6	79.0

A formal study is being conducted on the installation of cable median barrier to date. Preliminary data indicates that no fatal cross-median crashes have occurred at these locations since their installation. Prior to installation, the section of I-94 between Maple Grove and Rogers had 5 fatal cross-median crashes from 2001 to 2003.

The table on the following page outlines the locations of the existing and planned cable median barrier. The typical cost for installation is about \$125,000 per mile. However, there are restrictions in where cable median barrier can



be installed depending on the cross section of the median area. For example, if the side slope is too steep, additional costs can be incurred through grading and/or providing cable median barrier for both directions.

For each installation, engineers must determine how far the barrier should be placed from the shoulder. The placement is influenced by a variety of factors including: ditch slopes, manufacturer and FHWA recommendations, median widths, soil conditions, maintenance issues, and curvature of the roadway. Improper placement of the barrier could result in vehicles overriding the barrier and crossing into oncoming traffic.

In 2009, the annual cost to maintain and repair the cable median barrier system was approximately \$6,700 per mile in the Metro Area and \$6,000 per mile in Greater Minnesota. Approximately 90% of these costs are recovered through insurance companies of those individuals responsible for the causing the damage in the Metro Area and 67% in Greater Minnesota.

Roadway	DIST	DESCRIPTION	Year Installed	Year Funded	Miles Currently Installed	Miles Funded 2010-2011	Miles Planned Unfunded
Metro							
I-94	Metro	Crow River to north of Rice Lake Bridge	2004		9.7		
I-94	Metro	No. of Rice Lake Br. To So. Of Weaver Lake Rd	2004		0.7		
I-494	Metro	East Bush Lk Rd to West Bush Lk Rd	2005		1.0		
I-94	Metro	Brooklyn Blvd to Xerxes Ave	2006		0.7		
I-494	Metro	TH 55 to CSAH 10 (Bass Lake Rd)	2006		3.8		
US 169	Metro	Plymouth Between Medicine Lk Rd And Bass Lk Rd	2006		4.0		
I-35W	Metro	Southcross Drive to Burnsville Pkwy	2006		2.1		
I-94	Metro	Gap Between Ex. Cable Median Barrier And I-494 - Mpl Grv	2007		0.5		
I-494	Metro	Gap Between I-94 And Ex. Cable Median Barrier - Mpl Grv	2007		0.9		
I-35W	Metro	From Ex. Barrier No. Of TH 36 To Ex. Barrier No. Of TH 10	2007		5.5		
TH 36	Metro	West of Cleveland Ave. to west of Edgerton St.	2008	2009	2.9		
TH 62	Metro	Gleason Rd to France Avenue	2008	2009	2.5		
US 10	Metro	1800' East of Hanson to 1800' East of 7th	2008	2009	3.7		
TH 252	Metro	From I-694 to 610	2008	2009	3.5		
I-494	Metro	From Br. 19853 (TH 110) To East Of Pilot Knob Road	2008		4.1		
I-35E	Metro	From Ex. Barrier No. Of Co.Rd. E To No. Of Co. Rd. J	2008		5.3		
I-494	Metro	Gap Between Ex Cable Median Barrier And I-394 - Mtka	2008		2.8		
TH 77	Metro	1500' S of CSAH 38 to I-35E		2009	1.5		
I-35	Metro	CSAH 70 to .5 mi N of CSAH 50		2009	4.2		
US 61	Metro	Pt. Douglas Frontage Rd to 70th		2009	7.6		
US 169	Metro	CSAH 83 to Mn River Br		2009	2.7		
US 10	Metro	Egret to 1800' East of Hanson		2010		1.4	
I-35W	Metro	From 95th to 35E		2010		11.1	
I-694	Metro	TH 61 (Vadnais Heights) to I-94 (Oakdale)		2011		9.7	
I-35E	Metro	South JCT I-35 to TH 110		2011		12.9	
I-94	Metro	From I-494 To Wisconsin					9.6
I-35	Metro	From Jct CSAH 2 To CSAH 50					8.8
I-35	Metro	North 35W/35E JCT to TH 97					2.0
I-35	Metro	From TH 8 (132+00.398) To CSAH 3 (162+00.216).					29.8
I-35E	Metro	Lino Lakes to I-35					6.8
I-35E	Metro	Gap in unweave the weave project		2011		0.2	
I-35E	Metro	Gap in unweave the weave project		2011		0.4	
TH 169	Metro	Conc. barrier S. of I-94 to N. of Brooklyn Blvd.		2011		1.7	
TH 52	Metro	S. of 80th St. to conc. barrier S. of Butler Ave.		2011		5.1	
District 1							
I-35	1	from CR 7 to CR 11	2008	2009	2.3		
I-35	1	from Big Otter Creek to TH 33 bridge over I-35	2008	2009	2.8		
I-35	1	From ref point 244.5 to 246.3		2011		1.8	
District 2							
US 2	2	TH 89 to Beltrami CSAH 11		2009	2.4		
US 2	2	SE End Bridge #04007 WB over old TH 2 EB		2009	6.0		
District 3							
I-94	3	W TH 24 - E TH 24 (Const 04)	2004		1.0		
I-94	3	CSAH 19 - E CSAH 37 (Const 04)	2004		1.0		
I-94	3	W TH 241 - Crow River (Const 04)	2004		0.3		
I-94	3	TH 71 - Cr 186 (Const 06)	2006		1.3		
I-94	3	W TH 238 - TH 238 (Const 06)	2006		0.3		
I-94	3	TH 15 - TH 24 (Const 06)	2006		11.3		
US 10	3	W To E RR Br. E Big Lake (Const 06)	2006		1.0		
I-94	3	Avon median J barrier to CR2	2008	2009	7.7		
I-94	3	CR 2 to TH15	2008	2009	6.7		
I-94	3	Albany Median guardrail to Avon J barrier	2008	2009	5.2		
I-94	3	End of median cable in Sauk Center to CR13		2010		6.5	
I-94	3	CR13 to Freeport CR11		2010		5.9	
I-94	3	Freeport CR 11 to Median Guardrail near Albany		2010		4.9	
I-94	3	1 mile east of CSAH-7 to .5 mile west of Rest Area					7.3
I-94	3	Douglas-Todd Co Line To Sauk Center sp 7380-226		2009	12.0		
I-94	3	TH 24 - Cr 111	2007		7.7		
I-94	3	Cr 111 - 1 mile north of Monticello	2006		6.9		
I-94	3	S End Mn/Road - CSAH 19	2008		1.3		
I-94	3	E CSAH 37 - W TH 241	2008		3.0		
TH 169	3	North of Elk River (excluding 1 mile)		2010		3.5	
District 6							
I-35	6	Mud Creek To CSAH 48	2007		4.8		
I-35	6	TH 19 To CSAH 2	2007		7.2		
I-35	6	TH 14W to BR #97706 Mud Creek/ TH19	2008	2009	8.0		
I-35	6	TH 21 to CSAH 9 bridge	2008	2009	3.6		
I-35	6	CSAH 1 to TH 19	2008	2009	5.7		
I-35	6	CSAH 85 To CSAH 9					5.6
District 8							
US 71	8	CR 30 to North Jct TH 23/71		2009		2.5	
					69.8	42.5	56.9
					109.5	25.1	22.1
					179.3	67.6	79.0
GRAND TOTAL						325.9 Miles	