

MEMORANDUM

DATE: March 24, 2005
TO: Kerry Perrillo, P.E., Highway Research Engineer, Federal Highway Administration
FROM: Hugh McGee, P.E. and Kim Eccles, P.E.
SUBJECT: Low Cost Safety Improvements Pooled Funds Study – Summary of March 8th Meeting Balloting

The purpose of this memorandum is to present a summary of the balloting results of the March 8th Low Cost Safety Improvements Pooled Funds Study meeting. The purpose of the March 8th meeting was to develop a prioritized list of low-cost safety improvement strategies. Representatives from each the 23 State DOTs participating in the study and the FHWA, voted on 61 safety improvement strategies. The 61 strategies were broken down into three categories: Lane Departure Strategies (17), Unsignalized Intersections Strategies (37), and Aggressive Driver Strategies. Each state and the FHWA had one ballot in which they ranked their top ten strategies of interest from one to ten, with one being the highest, The top ranked strategies were then assigned points such that the their top strategy received ten points, their second strategy received nine points, and so on. The points were then totaled and the strategies were ranked.

Table 1 displays the top two strategies in each of the three categories. In addition, where the strategy falls in the overall ranking of strategies is also shown. The ballots column shown in the table refers to the number of individual representatives that voted for that strategy. Therefore by dividing the total score by the number of ballots cast, the average score per ballot was calculated.

Table 1: Top Two Strategies in Each Category

Category	Overall Rank	Strategy	Total Score	Ballots	Average Score Per Ballot
Lane Departure Strategies	1	Install edgeline “profile marking,” edgeline rumble strips or modified shoulder rumble strips on section with narrow or no paved shoulders (LD7)	138	18	7.7
	2	Enhanced shoulder or in-lane delineation and marking for sharp curves (LD11)	119	16	7.4
Unsignalized Intersection Strategies	5	Flashing beacons at stop controlled intersections (U23)	60	9	6.7
	8	Bypass lanes on shoulders at T-intersections (U5)	51	10	5.1

Aggressive Driver Strategies	14	Revised: Target (manual) enforcement for aggressive driving combined with educational and public information (A1)	34	8	4.3
	26	Revised: Target (automated) enforcement for aggressive driving combined with educational and public information (A2)	18	4	4.5

Table 2 displays the top 21 strategies based on the balloting at the meeting. Of the 21 strategies, 10 are Lane Departure Strategies, 9 are Unsignalized Intersection Strategies, and 1 is an Aggressive Driver Strategy. The strategy with the highest overall score was *Install edgeline “profile marking,” edgeline rumble strips or modified shoulder rumble strips on section with narrow or no paved shoulders*. It received a total score of 138, the highest number of ballots, and it received the most top priority votes with five states selected it as their top priority.

Table 2: Top 20 Strategies

Overall Rank	ID	Strategy	Score	Ballots	Average Score Per Ballot
1	LD7	Install edgeline “profile marking,” edgeline rumble strips or modified shoulder rumble strips on section with narrow or no paved shoulders	138	18	7.7
2	LD11	Enhanced shoulder or in-lane delineation and marking for sharp curves	119	16	7.4
3	LD9	Provide enhanced pavement markings	67	12	5.6
4	LD5	Alternating passing lanes or four-lane sections at key locations to prevent HO crashes	61	10	6.1
5	U23	Flashing beacons at stop controlled intersections	60	9	6.7
6	LD3	Center two-way left-turn lanes for four- and two-lane roads	54	9	6.0
7	LD6	Median barriers for narrow-width medians on multilane roads to prevent HO crashes	54	9	6.0
8	U5	Bypass lanes on shoulders at T-intersections	51	10	5.1
9	LD17	Combination of lane width versus shoulders	48	7	6.9
10	U22	Pavement markings with supplementary messages, such as “stop ahead”	47	8	5.9
11	LD1	Install profiled thermoplastic strips for centerlines	44	7	6.3
12	LD4	Narrow "buffer median" on two-lane roadways	39	6	6.5
13	U18	Roadside markers or pavement markings for gap assistance	34	8	4.3

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14	A1	Target (manual) enforcement for aggressive driving combined with educational and public information	34	8	4.3
15	U4	Offset left-turn lanes at intersections	33	8	4.1
16	U35	Stops signs with increased retroreflectivity	32	6	5.3
17	LD15	Automated warning signs when driver too fast for curve (particularly for trucks)	31	6	5.2
18	U6	Left turn acceleration lanes at divided highway intersections	28	5	5.6
19	U36	Intersection lighting intensity	28	7	4.0
20	LD2	Wider cross sections on two-lane roads	24	5	4.8
20	U7	Longer right-turn lanes at intersections	24	3	8.0