Foreword

Roughly half of the fatal traffic accidents in Hokkaido occur on national highways in rural areas, and most of these are vehicle-to-vehicle or single-vehicle collisions. In Hokkaido, head-on collisions account for the greatest share of two-vehicle collisions, and they account for more than 20% of fatal accidents, nearly twice the national average. Approximately 40% of head-on collisions in the prefecture are caused by inattentitive driving. This is why the Civil Engineering Research Institute for Cold Region has been studying rumble strips, a measure widely used in the United States against run-off-the-road accidents on highways, and it is why the Institute has been developing standards and installation methods, toward introducing the strips at the centerlines of two-lane roads in Japan.

Rumble strips installed on roads in service have shown dramatic effects, roughly halving the number of head-on collisions and reducing the number of traffic fatalities by about 70%. In 2005, Hokkaido succeeded in shedding the title of "worst prefecture for traffic fatalities," a dubious distinction it had held for 13 consecutive years. Rumble strips are recognized as a significant contributor to this success.

The measure has achieved practical application and broad recognition of its benefits. As one of the researchers involved, I am gratified to see the *Rumble Strip Installation Guidelines (Draft)* finally complete. Last but not least, I would like to express my sincere gratitude to the various government organizations and their staff who have lent their generous support and to Professor Kazuo Saito of Muroran Institute of Technology and Nippo Corporation for their valuable guidance and cooperation in this joint research.

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