

2. Development of a Precast-type Guard Fence for Vehicles

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Many of Japan's expressways were constructed in the high economic growth period and an increasing number of structures have been in service for more than 40 years. These structures have been greatly deteriorated with time and require repair or renovation. The authors developed a precast-type stiff guard fence as a roadside vehicle guard fence on expressways. The developed guard fence has the performance of SB class and is applicable to viaducts and bridge sections on expressways. In order to verify the SB-class performance, the authors conducted static loading tests and then finally requested the Public Works Research Center to conduct vehicle crash tests. As a result, it was verified that the performance requirements for large and passenger vehicles were satisfied in the crash tests and that the developed guard fence had the SB-class performance.

Key words: vehicle guard fences, precast, vehicle crash tests