

**Development of Structural Improvement Composing with Concrete Slabs
for Renewal of Existing Railway Steel Bridges**

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More than a half of existing railway steel bridges in Japan have been in service for more than seventy years. Some of the aged bridges have various severe problems including corrosion of upper flange, fatigue and noise. In this study, we proposed a method of structural improvement for the existing railway steel bridges by composing with concrete slabs. This method enables to improve the load-carrying capacity of the bridges, extend the service life, and reduce the noise. We carried out workability studies on the proposed method of composition and verified the method was applicable in a tight time schedule. Furthermore we found by loading tests that the strength and the stiffness of the girder improved with the method of composition.