

## ISSUE: 08. ROAD BRIDGES IN WINTER CONDITIONS

**SUB-ISSUE:** Maintenance of road bridges under winter conditions

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**Room:** A

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**Presentation title:**

THE EFFECT OF SILANE-TYPE SURFACE PENETRANTS TO CONTROL SCALING AND SALT DAMAGE OF HIGHWAY BRIDGE WHEEL GUARD CONCRETE IN COLD REGION

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**Summary:**

In cold regions, there is concern about the deterioration of concrete structures caused by freeze-thaw action and deicing salt. In particular, scaling (frost damage of the type that concrete surface peeling) and reinforcing bar corrosion due to chloride-ion penetration is likely to progress in an environment. On the other hand, the maintenance budget of concrete structures is very few. For that reason, the deterioration control technique that economical and easy to adopt is required. As one such method, the silane-type surface penetrants attracts attention. However, there are few data about the effect of deterioration control in cold region. In this study, A test construction of silane-type surface penetrants was thus to evaluation the effect in highway bridge wheel guard concrete of Hokkaido, JAPAN. Although the test period was only six years, the longevity of its effects was confirmed.

