

Zeitschrift: IABSE congress report = Rapport du congrès AIPC = IVBH
Kongressbericht

Band: 12 (1984)

Artikel: Continuous reinforced concrete pavement on bridges

Autor: Begin, Ch. van

DOI: <https://doi.org/10.5169/seals-12283>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. [Siehe Rechtliche Hinweise.](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. [Voir Informations légales.](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. [See Legal notice.](#)

Download PDF: 15.03.2025

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>



Continuous Reinforced Concrete Pavement on Bridges

Ch. Van BEGIN

Civil Eng.
Public Works Ministry, Bridges Office
Brussels, Belgium

Continuous reinforced concrete pavement is widely used in Belgium since 1970. It consists of a 20 cm thick slab lying on an adequate foundation.

The longer the segments are, without transversal joints, the better. It is therefore very useful to pass over the under bridges and to avoid expansion joints.

The problem is important in Belgium because of the high density of the highway network and the short intervals between bridges.

Small frame bridges (10-20 m span) can be overpassed without problem.

More complex is the case of bridges with precast girders, the pavement lying on the deck slab with a friction interface.

The last evolution is to use the pavement as bridge slab, supported on the superstructure frame by "neopreen" bearings. Steel beams are incorporated in the pavement.

The main problems are :

- behaviour of the pavement between the embankments, behind the abutments, and the bridge (differential settling)
- interaction between pavement and bridge deck (deflection, expansion)

1400 Km continuous reinforced concrete pavement (2 ways) are in service in Belgium. The longest bridge overpassed is 136 m long and the greatest span is 65 m long.

CONTINUOUS REINFORCED CONCRETE PAVEMENT ON BRIDGES

I Revêtement routier en béton armé continu

II Le franchissement des ponts

Ponts inférieurs rigides et massifs

Coupe B-B

Détail A

Coupe D-D

Détail E

Ponts à poutres et dalle

Détail E

Ponts de grande portée

Coupe F-F

Béton armé continu ≥ 22
Couche de glissement-chape

Coupe G-G

Détail I

Béton armé continu ≥ 22
Nappes frettes
Dalle préfabriquée

Coupe H-H

Clous en rebrousse frette

III Particularités, problèmes

Transition remblai-tablier

Interaction revêtement-tablier