

# Designing geosynthetics-reinforced pile-supported embankments

The [Design Guideline Basal Reinforced Piled Embankments](#) can be purchased at [Taylor&Francis Group/CRC Press](#), [Amazon](#) or [Bol.com](#). This paper provides a summary.

- Offering the most reliable and complete guideline available for the design of basal reinforced piled embankments
- Featuring the most up-to-date insights in the behaviour of basal reinforced piled embankments, including the Concentric Arches model
- Extensive calculation examples are included
- Providing construction details and many practical tips

Prof. Richard Bathurst has written a review of our design guideline. You can read it [here](#), with free access on the [Geosynthetics International website](#).

The 2016 revision adopted the Concentric Arches model developed by Deltares. This model was described in [the doctorate dissertation of Van Eekelen, 2015](#) and two open access journal papers: [Van Eekelen, et al, 2015](#) and [Van Eekelen, S.J.M. et al, 2013](#).



Design Guideline Basal Reinforced Piled embankments.

The design guideline consists of:

- Requirements and limitations, how to calculate with traffic, partial safety factors
- Requirements and design of the piles and the pile caps.
- Requirements and design of the basal reinforcement.
- Construction, maintenance.
- Extensive calculation examples for the design of the basal reinforcement and the pile caps.

The Dutch version of Piled Embankment: [Paalmatrassystemen](#)