

Intricacies surrounding the machine placement of concrete pavements in tunnels - current state of practice

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ABSTRACT

Transport tunnels built in Australia within the past 25 years have typically been designed and constructed consecutively. However, in recent years Australia (and Sydney in particular) is witnessing these projects being delivered concurrently, which is in turn diluting the skills pool across all facets of the industry.

Sydney is currently in the midst of an unprecedented level of infrastructure spending and a significant proportion of this is being funnelled into the construction of road tunnels. The author's recent experience on the NorthConnex project has driven him to help educate the wider concrete pavement industry on the construction of rigid pavements in road tunnels.

This paper seeks to highlight to industry professionals that are not currently engaged in the design, oversight and/or placement of concrete pavements in tunnels some of the finer complexities around the execution. This is not a literature review, nor is it a technically focused paper. Its purpose is to educate all parties that are involved in the full life cycle of a project including designers, contractors and asset owners on some of the finer points of tunnel pavement construction. Operational phase can be interpreted to be during the design life of the pavement and to include beyond the initial design life.