Overview of light rail track slab design

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ABSTRACT

Recently Aurecon have developed the design on several urban light rail projects, with a notable example being that recently opened in Newcastle.

With a number of projects currently in development and tender phases, and the likelihood of further stages of light rail expansion, it is important to understand the options available for track slab construction. The choice of track slab approach can significantly affect the commercial and program performance of a project given the complexities of construction in an urban environment.

This paper will outline various approaches to light rail track slab design, including plain concrete, steel reinforced concrete, as well as macro-synthetic fibre reinforced concrete options.

A summary of Australian and overseas practice is also presented along with the perceived benefits and drawbacks for a number of different track slab configurations.