

Navigating Sustainability in Structural Design

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The quest for sustainable infrastructure practices gathers apace as whole of government policy (e.g. Net Zero Carbon targets) is applied to strategy and then to action. To respond to these imperatives, Transport and Main Roads' Structures section is charting an operational course to measurably improve and embed the sustainability of design, construction, maintenance and life cycle management of structural assets. This paper will present the work completed to date through the National Asset Centre of Excellence (NACOE) program with a focus on the steps that design engineers can take to influence and create more sustainable bridge projects. Year 1 (2023/24) of this project identified and assessed the data available to make and quantify decisions to reduce embodied carbon, and articulated the areas where designers can have the biggest impact. Year 2 (2024/2025) has distilled this into discrete guidance for putting into practice.