

27 February 2026

Industry Notice

Amendment to Design Criteria for Bridges and Other Structures (Feb 2024): Standardisation and rationalisation of manufactured structural components

Purpose

This industry notice serves as an interim amendment to the **Transport and Main Roads (TMR) Design Criteria for Bridges and Other Structures (DCBOS)**. This amendment introduces a new requirement relating to the standardisation of structural components, reaffirming the need for engineering and construction judgement, particularly when digital engineering tools are used.

Context

Across a range of project types and delivery models, TMR has observed increased variability in structural component sizes and configurations of repetitive manufactured components (for example, precast and fabricated elements), particularly for repetitive precast elements. While many projects have legitimate geometric, staging and construction constraints, TMR has identified opportunities to improve consistency, standardisation and alignment with manufacturing and construction practices.

This amendment is effective immediately and overrides existing provisions until incorporated into the next DCBOS update.

Amendment

Add the following clause to DCBOS (Feb 2024)

1.7 Standardisation and Rationalisation

Designs shall standardise repetitive manufactured or modular structural components (for example, precast girders, deck units, barriers, piles, culverts, panels; fabricated steel members with repeatable details) unless justification provided to the Principal demonstrably shows an overall net benefit to the project objectives.

This standardisation requirement is primarily targeted at repetitive manufactured or modular components where variations materially impact fabrication, logistics or construction.

The default expectation is standardisation. Any departure shall be explicitly justified against one or more of the following benefit categories:

- a) program delivery
- b) safety
- c) quality
- d) efficiencies (design, fabrication, logistics, construction)
- e) cost, and
- f) sustainability

Component variants shall be minimised from concept design through to implementation phases. Variants may only be introduced where unavoidable due to documented geometric, structural, hydraulic or geotechnical constraints, or where a quantified case shows net benefit under the categories above.

Responsibility for achieving standardisation sits across the broader delivery chain, including design teams, contractors, TMR project managers, precast suppliers and assurance providers. Design configuration and geometry should be selected, where practicable, to enable standardised manufactured components.

Cast-in-situ components shall likewise be rationalised where practical, acknowledging geometry-driven variations are more necessary.

1.7.1 Documentation

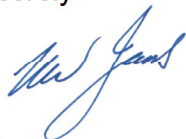
A short standardisation assessment is to be included in the Basis of Design and updated at the design stages prescribed in Section 2.4.2. The assessment shall document:

- a) proposed families/sets of standard manufactured element sizes or lengths,
- b) any departures with quantified justification (using the benefit categories above), and
- c) constructability, manufacturing, transport and erection constraints considered, including tolerance allowances.

[End Amendment]

Questions related to this notice may be directed to Evan Lo, Manager (Engineering Delivery).

Yours sincerely



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