



**TS 01622:1.0**

**Procedure**

# **TfNSW Concrete Mix Registration Process for Bridgeworks**

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## Document information

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## Document history

Revision	Effective date	Summary of changes
1.0	29/10/2025	First issue.

## Preface

This is the first issue.

TfNSW assesses, maintains, and oversees a Concrete Mix Register that lists the concrete mixes for use across its infrastructure projects.

The listed concrete mixes are assessed against the Transport standards that are current at the time of evaluation to ensure that the listed mixes are fit-for-purpose.

In November 2001, the New South Wales concrete industry associations proposed the development of a centralised database of approved concrete mixes to TfNSW (legacy Roads and Traffic Authority at that time). This initiative aimed to reduce the duplication of effort associated with repeated submissions for mix registration on TfNSW projects.

In response, a business support project was funded that facilitated the development of the database. During the scoping phase, TfNSW consulted with its clients, industry associations, and contractors. Subsequently, the database was developed, and the resulting concrete mix register has since been implemented across all TfNSW infrastructure projects requiring approved concrete mixes.

To streamline the process, in July 2023, TfNSW launched the Bridgeworks Supplier CMR Submission Portal which was implemented in October 2023 following stakeholder consultation. The initiative enhanced the consistency and quality of technical data in submissions by offering clear guidance on the required information for mix assessments and relevant standards. It also addressed information gaps and streamlined the assessment process, resulting in more consistent and efficient evaluations.

The Bridgeworks Supplier CMR Submission Portal is the central platform for submitting bridgeworks mix registration data. It is a mandatory tool for initiating and managing mix assessments, ensuring standardised data collection and streamlined review processes.

This document describes the procedure for the assessment of concrete mixes that can be used on bridges and structures within the Transport Network.

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# 1 Scope

This document describes the procedure for assessing the concrete mixes that are registered for use on bridges and structures within the Transport Network.

A concrete mix that has been successfully assessed and registered against the relevant Transport standards will be listed in the publicly accessible CMR, with the supplier notified of the outcome via the Bridgeworks Supplier CMR Submission Portal. All registrations will be considered as a 'provisional approval' until a project-specific fit-for-purpose assessment is completed in accordance with the relevant Transport standards and any project-specific specifications requirements applicable for bridgeworks concrete.

An updated list of registered concrete mixes for bridgeworks is available in the CMR.

This document should be read in conjunction with the following bridgeworks concrete Transport standards:

- TS 00003.1
- TS 00077
- TS 00145
- TS 00146
- TS 00147
- TS 00148
- TS 00149
- TS 00151
- TS 01733.1
- TS 01733.2
- TS 03323.1.

This document does not cover information on project-specific fit-for-purpose assessment.

# 2 Application

This document is intended to be used by professional engineers, in the capacity of designers, suppliers, contractors, proof engineers, independent verifiers, technical managers, project managers, project engineers, implementing the requirements for selecting a registered product as part of a quality assurance plan during design, construction, operation, and maintenance stages of the asset life cycle.

### 3 Reference documents

For dated references, only the cited edition applies. For undated references, the latest edition of the referenced document applies.

#### **Australian standards**

AS ISO/IEC 17050.1 *Conformity assessment – Supplier's declaration of conformity Part 1: General requirements*

#### **Transport for NSW Standards**

TS 00003.1 *Concessions to Transport Standards*

TS 00077 *Supply and Placement of Steel for the Reinforcement of Concrete*

TS 00145 *Formwork for concrete*

TS 00146 *Supply of Special Class Concrete*

TS 00147 *Cementitious Mortars and Grouts*

TS 00148 *Coring of Hardened Concrete*

TS 00149 *Placement of Concrete*

TS 00151 *Code of Practice for the Management of Alkali Aggregate Reactivity*

TS 01733.1 (IC-QA-B80) *Concrete Work for Bridges- QA*

TS 01733.2 (IC-DC-B80) *Concrete Work For Bridges - DC*

TS 03323.1 (IC-QA-3211) *Cementitious Materials, Binders and Fillers - QA*

#### **Other referenced documents**

*Concrete Mix Register*

### 4 Terms, definitions and abbreviations

The following terms, definitions and abbreviations apply in this document.

**approved concrete mix** a registered concrete mix which has been assessed as 'fit-for-purpose' by TfNSW and approved for a specific application

**CMR** Concrete Mix Register

**fit-for-purpose assessment** ability of a product, process or service to serve a defined purpose under specific conditions

**QA** quality assurance

**registered concrete mix** a concrete mix which is provisionally approved and listed in the CMR

**SDoC** Supplier Declaration of Conformity

**TfNSW** Transport for NSW

**Transport Network** the transport system (transport services and transport infrastructure) owned and operated by TfNSW, its operating agencies or private entities upon which TfNSW has power to exercise its functions as conferred by the *Transport Administration Act* or any other Act.

## 5 General

TfNSW CMR process for bridgeworks simplifies and streamlines appropriate product selection on TfNSW projects, subject to project-specific fit-for-purpose assessments.

Contractors shall ensure that the concrete mixes used on TfNSW bridges and infrastructure projects conform to those listed in the CMR. If compliance is not feasible due to project-specific constraints, the contractor shall submit a full, project-specific concrete mix proposal through the appropriate TfNSW technical hubs and disciplines for approval.

## 6 Registration process

The CMR submissions for bridgeworks shall be completed and submitted via the Bridgeworks Supplier CMR Submission Portal. The assessment and registration of the concrete mix are undertaken in accordance with the latest versions of the relevant standards, as current at the time of application submission. The registered mixes are publicly available through CMR.

TfNSW undertakes the assessment of proprietary bridge concrete mix designs against the bridgeworks concrete Transport standards. Only those mix designs listed in the CMR shall be used on TfNSW bridge and structural assets, subject to a fit-for-purpose assessment. For product categories not included in the register, project-specific approval shall be sought from TfNSW relevant technical hubs and disciplines.

Registration submissions are processed through the following steps:

1. **Supplier registration:** The supplier shall submit a registration request through the Bridgeworks Supplier CMR Submission Portal. Once the login registration review is complete and is acceptable, the supplier will receive an invitation to register.
2. **Application submission:** After registering, the supplier shall submit the product application, along with readable PDFs, through the Bridgeworks Supplier CMR Submission Portal, in accordance with the bridgeworks concrete Transport standards, to request inclusion of the product in the register.
3. **CMR application review:** The product application is submitted, and the submitted documents are reviewed by TfNSW to verify conformance with relevant Transport specifications.

4. Detailed technical assessment: TfNSW will conduct a comprehensive technical review. This may include follow-up meetings and/or requests for additional information to support the decision-making process.
5. Concession management: If a supplier seeks to have a product included on the list without corresponding bridgeworks concrete Transport standards or CMR conformity requirements or both, the proposal is typically rejected or assessed further. Any minor deviations from applicable bridgeworks concrete Transport standards are reviewed in accordance with TS 00003.1. The deviations are assessed on a case-by-case basis, with risk and value-for-money assessments conducted by TfNSW, based on available internal and industry expertise. If multiple material constituent's substitutions are required, a full trial is conducted to the bridgeworks concrete Transport standards to validate the modified mix. To obtain the signed concessions or concession control details associated with the concession numbers ('CN') listed in the CMR, project managers should email [standards@transport.nsw.gov.au](mailto:standards@transport.nsw.gov.au). The project managers should submit the performance of the registered mixes with the concession number to the CMR team at [cmr\\_bridges@transport.nsw.gov.au](mailto:cmr_bridges@transport.nsw.gov.au).
6. Delivery docket submission: The supplier shall provide site delivery docket site template, as required by the bridgeworks concrete Transport standards, through the Bridgeworks Supplier CMR Submission Portal.
7. Conclusion and outcome: Based on the detailed assessment of the submitted materials and test data, TfNSW shall record the details submitted and determine one of the following outcomes for each nominated mix:
  - Conforming: The submitted results meet all or most of the bridgeworks concrete Transport standards criteria and any minor applicable deviations have been assessed and approved through the concessions process. Therefore, the product is registered, and any approved concession numbers are listed on the CMR.
  - Failed/Rejected: The submission does not meet the required bridgeworks concrete Transport standards criteria and is therefore not registered.
  - Conditional: The project-specific material or mix meets most of the bridgeworks concrete Transport standards criteria. Conditions, limitations, and any approved concession numbers are listed in the CMR.
  - Withdrawal: If TfNSW finds a previously registered mix unfit for its intended purpose, or if a contractor uses a registered mix that fails to meet bridgeworks concrete Transport standards without a valid explanation, TfNSW may request a written justification or additional information from the supplier. Failure to provide satisfactory response within 14 days may lead to the mix being withdrawn from the register, with immediate effect upon written notice.

8. SDoC: For mix designs that include proprietary elements, advanced or innovative components, and in anticipation of potential material advancements following acceptance of the CMR application, the supplier’s director identified by a unique director ID shall sign a SDoC in accordance with the requirements of AS ISO/IEC 17050.1.

Figure 1 shows the flow chart of the CMR process.

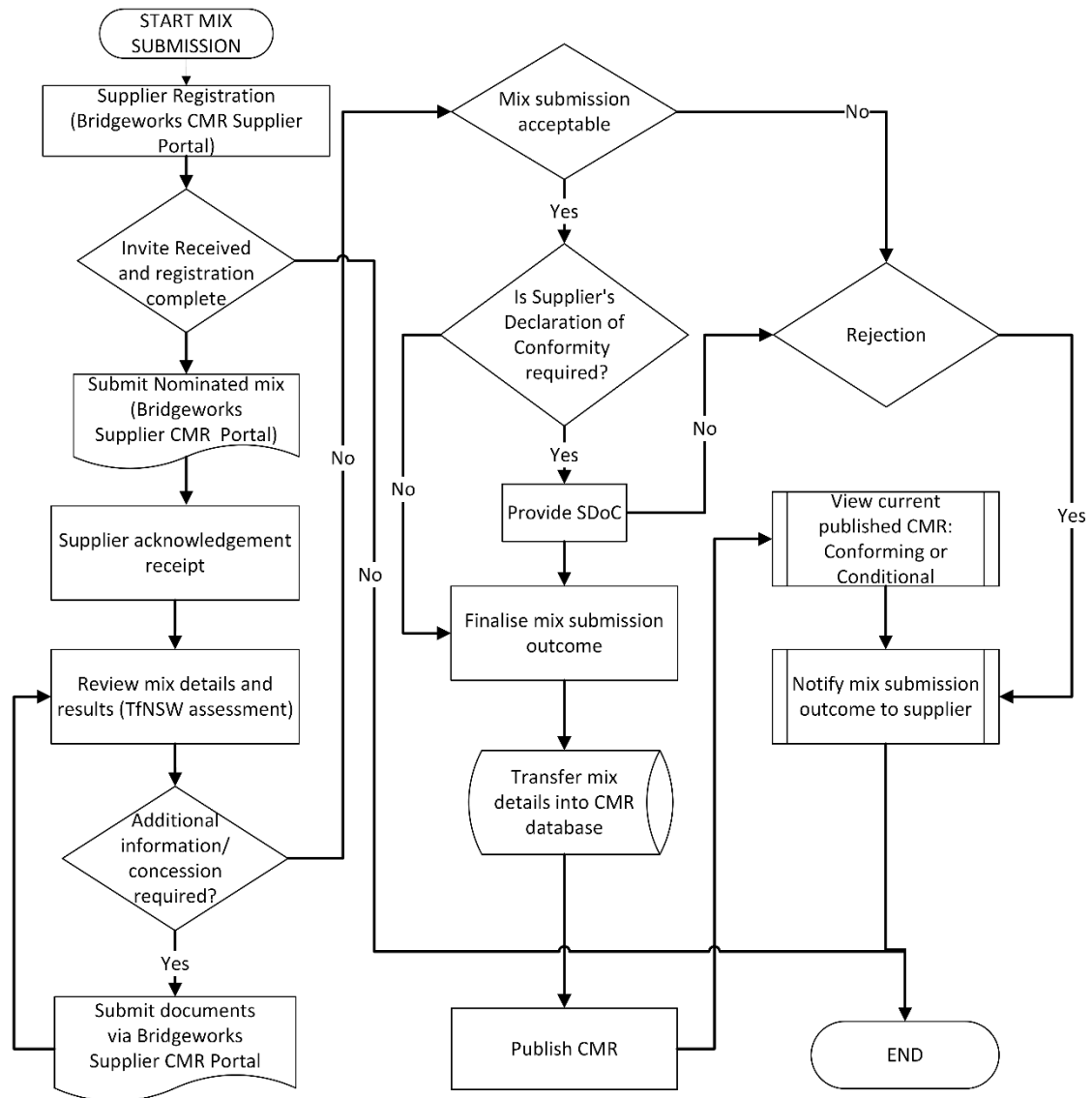


Figure 1 – CMR process

## 7 Conditions of CMR

The outcome of the assessment is based on information obtained from suppliers, and/or trial testing undertaken at, or in connection “with, specific” samples for the purpose of registration.

TfNSW does not accept liability in connection with the supplied registered concrete mixes to the projects.

The supplier shall ensure that the concrete mix supplied to TfNSW projects comply with the registration conditions and relevant bridgeworks concrete Transport standards.

Subsequent quality assurance testing, in accordance with the specification (and any applicable concessions), still applies and any special conditions of registration shall be observed when used on TfNSW projects. The final approval for the use of products in TfNSW assets is subject to assessment of the actual concrete mix supplied to the TfNSW project.

TfNSW reserves the right to revoke any registration at its discretion if any cause for concern is identified.

## 8 Updates

The CMR list will be updated frequently under the following conditions, including, but not limited to:

- a new product is added
- a product is withdrawn / removed due to discontinuity
- performance of a product is considered unsatisfactory by TfNSW
- a supplying company is dissolved or deregistered
- a supplying company is recognised as unstable by TfNSW
- a supplier cannot successfully pass post-registration renewal
- a product is identified as not suitable by TfNSW due to safety, environmental and regulation issues
- changes in assessment criteria.

## 9 Security and confidentiality

Access to these records shall not exceed the scope of an individual's authorised permissions. The CMR applications supporting the assessment of TfNSW concrete mix registration queries are accessible only to authorised TfNSW staff. The authorised access list shall be reviewed at least every six months.

## 10 Mix registrations

Upon receiving a complete submission via the Bridgeworks Supplier CMR Submission Portal, TfNSW will assess the mix for conformance within four business weeks from the submission acknowledgement date. Suppliers are required to provide any additional information requested by TfNSW within eight business weeks of the request. Failure to submit the requested information/response within this timeframe will result in the rejection or withdrawal of the

nominated or renewal mix. The registration timeframe may vary depending on the nature and completeness of the information submitted.

## **11 Validity and renewal of concrete mix register**

The registered concrete mix is valid for two years, with the option for the supplier to renew it twice, allowing a total validity of six years.

For each renewal mix submission, the supplier shall provide raw material test reports (less than 12 months old) along with field performance results and delivery docket details supplied to the site, if the mix has been supplied to any projects. After six years, any CMR submission shall include trial test reports that fully comply with bridgeworks concrete Transport standards in effect at that time.

## **12 Implementation**

Once a concrete mix is registered, complete submission along with supporting correspondence and documents shall be stored within the CMR database system. The details of registered mixes, including supporting documentation and conditions of registration are entered into the database. The outcome of the published mix registration via CMR will be communicated to the supplier through the Bridgeworks Supplier CMR Submission Portal.

## **13 Contact information**

For enquiries or information regarding submitting proprietary concrete mix for TfNSW registration in accordance with this specification, contact TfNSW via email to [CMR\\_bridges@transport.nsw.gov.au](mailto:CMR_bridges@transport.nsw.gov.au).