

Formwork Code of Practice 2016



Background

- Joint submission to the Treasurer
 - In June 2015, the CFMEU and Master Builders Association requested the establishment of an industry steering committee to review the Formwork Code of Practice.
- Grounds for proposal
 - Disparity in formwork safety management.
- Proposal approved
 - Review considered timely as the Code is 10 years old.

Formwork Industry Steering Committee

Organisation

Multiplex

Lend Lease

Watpac

Superform

Wideform

Heinrich Construction

Construc Pty Ltd

AusSafe

CFMEU

QMBA

WHSQ

Objectives of the review

- Update the code so it:
 - is responsive to industry needs,
 - reflects current industry best practice, and
 - is consistent with the model WHS laws implemented in Queensland in 2012.
- Provide a platform for consistency for formwork safety management.

Review Process

- Construction injury and fatality statistics more broadly:
 - From 2003 to 2013, 401 workers were killed in the construction industry (approximately 36 workers a year).
 - Over one-quarter of construction worker deaths were due to falls from height.
 - Falls from a height most commonly involved ladders, mobile ramps & stairways, and scaffolding.

Formwork Code Review Process

- Queensland specific injury and incident data:
 - injury data and trends – 954 accepted formwork related claims (2009-2014), and
 - incident types – 240 safety incidents (2009-2014), e.g. 12 known formwork deck collapses over the past two years.
- Jurisdictional comparisons – inter-jurisdictional, including international.

Key Issues – ladders

- Use of stair tread systems over ladders as the primary means of access
 - Stair tread systems identified as the preferred and safer method of access.
 - Noted this may not be practical in all circumstances – examples of exemptions provided.
 - Not considered controversial as the current code recommends stair tread systems be used where practicable.

Key Issues – ladders continued

- Examples of when it may not be practicable to use a stair tread system:
 - Conventional core walls up to 3.5 metres
 - Trenches/pits where a stair tread system would not fit within the space
 - Drop panels/isolated beam to 4.5 metres high
- Trailing stair system should be the primary means of access to a form over a ladder. Two forms of access should be maintained

Key issues – emergency access

	Emergency Access and Egress Solutions required	Additional Emergency Access and Egress Solutions required
1	Man and material hoist	Stretcher stair and single scaffold stair
2	Crane only	Stretcher stair and single scaffold stair
3	Man and Material Hoist and crane	Stretcher stair and single scaffold stair
4	No crane or man and materials hoist	Two stretcher stairs are to be provided for emergency access

Key Issues – imported material

- Imported material (non-conforming building products)
 - Concern about the increased use of non-conforming building products (e.g. formply) sourced internationally.
 - Examples of issues include material not being fit for intended use or incorrectly marked.
 - Solution – certification that material complies with Australian Standards.

Key Issues - penetrations

- Penetrations
 - Concern around incidents involving workers being injured when a penetration cover gives way, collapses or is removed.
 - Additional content added regarding:
 - Mechanically fixing covers
 - Vertical penetrations to be fully enclosed with mesh as a minimum standard
 - Only using single pieces of ply

Key Issues – screening

- Perimeter containment screening
 - Clarification needed around requirements for screening in the immediate vicinity of formwork erecting and dismantling.
 - Agreed that screening should be captive to the building and extend at least one metre above the top of the completed floor slab.
 - Diagrams to clarify this issue have been included in the code.

Key Change

- Code no longer distinguishes between basic and non-basic formwork systems.
- Current 6 metre rules:
 - are loose to interpret;
 - are too generous;
 - don't take into account volume; and
 - not based on risk or the complexity of the job.
- Solution – move to a more risk based approach that focuses on height and volume.

Design and Certification

Formwork design and certification

Vertical formwork (Columns and walls)

Less than 2.4m high	Competent person
2.4 to 3.5m high	Engineer
More than 3.5m high (single arrangement)	Engineer
More than 3.5m high (repetitive arrangement)	Engineer
Single-sided less than 2.4m	Competent person
Single-sided more than 2.4m	Engineer
Self-climbing or crane assisted formwork systems	Engineer

Soffit formwork

Less than 3m high and less than 250mm thick	Competent person
More than 3m high or more than 250mm thick	Engineer
Infill slabs less than 4.5m high, 20m ² and 300mm thick	Competent person
Stair and landing formwork more than 3m high or more than 200mm thick	Engineer
Multistorey formwork and backpropping	Engineer

Verification

	Inspection	
	Access for trades	Pre-pour
Vertical formwork (columns and walls)		
Less than 2.4m high	Competent person	Competent person
2.4 to 3.5m high	Competent person	Competent person
More than 3.5m high (single arrangement)	Competent person	Engineer
More than 3.5m high (repetitive arrangement)	Initial pre-pour inspection by engineer on first arrangement only and then competent person thereafter	
Single-sided less than 2.4m	Competent person	Competent person
Single-sided more than 2.4m	Competent person	Engineer
Self-climbing or crane assisted formwork systems	Initial pre-pour inspection by engineer and then competent person thereafter	
Soffit Formwork		
Less than 3m high and less than 250mm thick	Competent person	Competent person
More than 3m high or more than 250mm thick	Competent person	Engineer
Infill slabs more than 4.5m high, 20m ² and 300mm thick	Competent person	Engineer
Stair and landing formwork more than 3m high or more than 200mm thick	Initial pre-pour inspection by engineer and then competent person thereafter	
Multistorey formwork and backpropping	Competent person	Engineer

Other key changes

- Content added on requirement to consult and sign off before handing over deck.
- Content on lifting methods and trap doors.
- Gaps - Clarification about when nails can be used for fixings used on ply covers/deflector shields.
- Updated to be consistent with other recent codes the model WHS laws implemented in Qld.

Commencement / Application

- The *Formwork Code of Practice 2016* will commence on 31 March 2016.
- It will apply to new construction on or from 31 March 2016.
- New or significantly modified obligations will not be applied retrospectively.

Questions and Contact details

- Further information on the *Formwork Code of Practice 2016* (including a comparison table) can be found at:

<https://www.worksafe.qld.gov.au/>

- Any queries regarding the *Formwork Code of Practice 2016* can be sent to:

WHSpolicy@justice.qld.gov.au