

# CONCRETE IQ

Concrete IQ is the official magazine of Master Concreters Australia

ISSUE 4, 2020



## HOT WEATHER CONCRETING

It is timely to remind ourselves about the problems associated with hot weather concreting.

While hot weather conditions are commonly encountered in summer, combinations of high temperatures, winds and low humidity can also result in conditions which lead to problems with concrete placement and finishing.

Most of the problems associated with placing concrete in hot weather conditions relate to the increased rate of cement hydration (at higher temperatures) and the increased rate of evaporation of moisture from the fresh concrete.

There are a number of properties

of concrete that may be affected by hot weather conditions including setting time, workability and slump, compressive strength, concrete temperature, poor surface appearance, plastic shrinkage cracking and thermal cracking.

Problems usually arise when site personnel are not aware of the effect of the weather conditions and/or when weather conditions have changed during the placing and/or finishing of the concrete. There are a number of precautions that can be taken when planning for the hot weather, including consulting with the concrete supplier as early as possible.

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## MCA HOTLINE

Our highly experienced members can provide advice on various issues affecting concrete contractors through our MCA Hotline.

Members may contact our Hotline representatives or if it is more convenient, call the office on 1300 884 544 and they will start the ball rolling.

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## CEO'S REPORT

Welcome to the final edition of MCA's industry magazine for 2020. It has certainly been a year like no other. As we go into print the number of COVID-19 cases in the northern hemisphere is increasing at an alarming rate and is looking extremely dire in some countries. As a nation we have managed to get on top of the outbreaks and are now able to move about relatively freely albeit in a COVID affected environment. It is difficult to crystal ball what 2021 will bring, however, promising signs are being made in relation to vaccine production in 2021 and interstate travel mostly resumed on 1 December 2020.

As members would have seen on the coal face, it has been up and down depending on region and industry sector. Looking at the industry as a whole housing or domestic construction took a major hit early on, however, government intervention in the form of subsidies and grants reduced the effects and provided some relief. Commercial construction in Victoria was particularly strong prior to the pandemic and while the second wave heavily restricted building activity (due to government imposed on-site restrictions) building confidence remains positive with pent up demand providing solid building levels into Christmas and going forward into 2021. NSW would appear to be the most affected region with developers holding back projects in the later part of 2020 and still taking a wait and see approach in relation to releasing projects in 2021. Queensland is reporting solid construction activity leading up to Christmas and again a solid pipeline of projects coming on line in 2021. Notwithstanding, it is proving highly competitive in the industry, which is not helped by those contractors that tender for work at unsustainable levels and send themselves to the wall just to get work in the hope that they can make a profit on the next project.

## A YEAR LIKE NO OTHER

On the association front we have set up a working group to engage with industry to identify a practical interpretation of tolerances for concrete surfaces. Many of our contractor members are faced with unrealistic interpretations of Australian Standards by builders and an industry standard needs to be identified that can be met by the concrete contractor and signed off at tender stage.

The Association recently held its AGM and election of officer bearers (board of directors). Thank you to our board members for their continuing support of the association, which is crucial to our success.

Moving forward into the New Year it will be full steam ahead for our 2021 Awards after a year's hiatus due to the COVID-19 pandemic. Nominations will open in early January 2021 with projects completed between May 2019 and December 2020 being eligible for the various categories.

The revised Certificate III in Concreting (CPC30320) was released on 27 November 2020. The qualification has been increased to 22 units from 20 to reflect the increase in skills and knowledge required by a concrete placer. New trainees and apprentices signing up to the Certificate III in Concreting will be signed into the new version (CPC30320) which supersedes CPC30318.

In closing the President, directors and I would like to thank our members for their continued support. 2020 has been a difficult year to say the least and many organisations have gone to the wall. It goes without saying that those organisations who have come through this period are stronger for the experience. We wish everyone a safe and well-deserved break over the festive season and look forward to engaging with all our members in 2021.



# HOT WEATHER CONCRETING

## Continued from cover.

The supplier can assist in ensuring the mix arrives as cool as possible and a good delay-free schedule for delivery is maintained where possible. The key aspect for concrete contractors is the placing and finishing of the concrete

The Association strongly advocates the use of aliphatic alcohol which is a low cost option for all placers. The use of aliphatic alcohol (also referred to as an evaporative retarder) during the placing process protects the surface of the concrete slab against excessive evaporation and premature drying out. Aliphatic alcohols are applied to the freshly placed and screeded concrete surface, where they form a chemical film which reduces the rate at which water evaporates from the surface of the concrete. By controlling the premature drying out of the surface layer of the concrete, the tendency for the concrete to shrink and for plastic

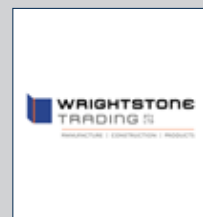
shrinkage cracking to occur is reduced or eliminated.

Curing the slab is another highly important process that needs to be performed correctly. It is essential that all surfaces be kept continuously moist, since drying, even intermittently, can produce drying shrinkage and/or crazy type cracking on the concrete surface.

It is important to note that aliphatic alcohols are not curing compounds and should not be specified or used as substitutes for them. Curing methods include ponding with water, use of wet hessian or cotton mats, continuous spray mist, covering with plastic sheeting or applying sprayed on curing compounds.

Further information can be found by reading the CCAA Hot-weather Concreting Datasheet located on the publications section of the CCAA website.

## SUSTAINING MEMBERS




## Local service and support

Our dedicated and experienced state-based teams can help get your super sorted so you can get on with running your business.

 [cbussuper.com.au](http://cbussuper.com.au)




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# HOW BUSINESS OWNERS CAN GAIN CONTROL IN AN UNCERTAIN CLIMATE



Some of the hardest hit by the COVID-19 outbreak are our business owners, particularly those in small and medium-sized organisations.

Having to stand-down staff, not knowing what the business' future holds and being responsible for people with questions that can't be easily answered are just a few of the issues.

While it can feel extremely stressful having so many unknowns– you may be surprised by the mental and emotional shifts experienced when you get on top of the things you can control.

## **FOCUS ON WHAT YOU CAN CONTROL**

While you may be used to planning months or even years ahead, shifting your focus to days and weeks means you can be more responsive to news and support as it unfolds. This also gives you the brain space to focus on the people and priorities around you more effectively.

Keeping a calm and practical approach as much as possible can help to stop your mind from running ahead to all the 'what-

ifs' that may never happen, and instead deal with those things you're sure of.

## **GET INFORMED SO YOU CAN MAKE THE BEST DECISIONS**

There are many helpful resources out there to support businesses through this tough time. Sifting through them can be overwhelming, so sticking to the official websites can simplify things.

Going directly to the information provided by the Federal Government or your State Government will ensure that all the misinformation isn't adding to your confusion.

## **PRIORITISE YOUR OWN MENTAL HEALTH!**

You will be far more effective in supporting your business and the people in it if you're mentally healthy.

Beyond Blue have created an excellent resource for small business owners to help identify stressors in their business and what actions can be taken to alleviate them.

SuperFriend has also put together a COVID-19 Support Guide.

## **GET EQUIPPED TO SUPPORT THE PEOPLE AROUND YOU**

You don't have to have all the answers – no one does right now – just be as frank as you can with your employees about that and make sure they know you are doing your best to bring them as much information as you can.

Keeping the communications lines open will mean you have opportunity to hear from them about their needs and can avoid misinformation, uncertainty and smaller issues growing into major problems.

Cbus employers enjoy special access to SuperFriend's programs and resources. Contact SuperFriend for more information.

This article was provided by Cbus' workplace mental health and wellbeing Partner, SuperFriend, and reproduced with their permission.

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# WHAT HAPPENS IF A MANDATORY STANDARD CHANGES AFTER YOU SUBMIT A TENDER?

We live in an era of constantly changing mandatory standards and regulations. Failure to keep up with them can have serious consequences for your business. There may be several, including criminal prosecution and disciplinary proceedings by relevant licensing bodies, however this article deals with the contract law consequences of failing to do so.

Most standard building contracts contain a provision which requires the work performed under the contract to comply with all relevant legislative requirements, including regulations, mandated standards and council bylaws. However, even if there is no express provision in the contract to that effect, the common-law implies a term into the contract to a similar effect.

The consequence is that as a matter of contract law, all building work must comply with the relevant legislative requirements. If it does not, not only have you probably committed an offence and may be liable for disciplinary action, but you are also in breach of contract and liable for the cost of rectification work to bring the work up to standard.

This article deals with some of the scenarios which may arise where there is a change in the legislative requirement after a tender is submitted. The article does not cover all possible permutations, but by addressing some potential situations we hope the discussion will provide some guidance for situations not expressly dealt with in this article.

## EXAMPLES

One scenario considers the submission of a tender, where there is a change to the law (or you become aware that you missed a change) before a response to the tender is received. If this is going to make a significant change to the price that you quoted, you need to immediately withdraw your tender and seek to submit a new tender containing the revised price.

A second scenario is becoming aware of a change in a legislative requirement

after a contract has been signed. In that situation, your first port of call is to read your contract. Many standard form contracts deal specifically with the question of a right to a variation where there is a change in legislative requirements.

In the case of AS2545, the starting point is that there is no entitlement to a variation even if the change in legislative requirement occurred after tender.

In AS4903, a change in a legislative requirement which necessitates a change to the sub contract works, that comes into effect after the date of contract but which could not reasonably have been anticipated by a competent sub-contractor, is to be assessed as a variation.

## SO, THE QUESTION UNDER A CLAUSE LIKE THE LATTER MAY BE, WHAT IS THE DATE OF THE CONTRACT?

It is often assumed that a contract comes into existence when a letter of intent accepting a proposal contained in a tender is received by the tenderer. However, the effect of a letter of intent depends on the terms of the letter. Letters of intent generally have effect in one of three ways:

1. They are always "subject to contract" and do not give rise to any binding agreement until a formal contract is signed.
2. They are binding in relation to what are usually considered to be the preliminary or early works referred to in them, but there is no contract in relation to the rest of the works until the formal contract is signed.
3. They are binding as to all the works to be carried out by the contract.

In the first situation, in the context of a clause like that in AS4903, the contractor will have no right to a variation if the change occurred between tender and the signing of the formal contract, and the formal contract does not reflect the change in the legal requirements. If

the change were identified prior to the contract being signed, then there is a case for the contractor refusing to sign the contract unless the price is changed, without the contractor being liable for damages. However, other legal issues such as estoppel might come into play against the contractor. This is another reason why, if you find yourself in such a position, you should seek legal advice.

In the second case, the better view is there are two contracts – the first contract being for the early works and then superseded and incorporated into the formal contract. On this approach, it is the date of the second contract that is the relevant date. The same difficulty applies to a variation claim as discussed above, however the case for being able to refuse to sign the contract may be much weaker given the work that has been done.

In case of the third type of letter of intent, a variation will only be available under the contract after the date of the contract.

## WHAT CAN YOU DO TO PROTECT YOURSELF?

Some might think that this problem can be addressed by an exclusion in a quote or tender. This will not be effective as unless the quote or tender is incorporated into the formal contract (which hardly ever happens), it will be superseded by the provisions of the contract.

The first step is to continuously keep up to date with changes to legislation, regulations and legislated standards, including local government bylaws.

The second step is not to sign any contract without checking there have been no relevant changes. While in some cases you may not legally be able to refuse to sign the contract, you are always going to be in a stronger position, both legally and practically, if you raise the issue before signing.

## QUERIES

If you have any questions about this article please get in touch with a member of our Building & Construction team.



**DISCLAIMER:** This article is general commentary on a topical issue and does not constitute legal advice. If you are concerned about any topics covered in this article, we recommend that you seek legal advice.

# **WAGNERS**

## **MAJOR PROJECTS FOCUS: CROSS RIVER RAIL**

Earlier this year Wagners (members and strong supporters of MCA) won the contract to supply the precast tunnel segments for the Queensland Government's signature Cross River Rail project.

The following article showcases the project and Wagner's significant involvement.

The Cross River Rail project is a 10.2km rail line running from Dutton Park to Bowen Hills in Brisbane; this unique project includes 5.9km of twin tunnels which descend under the Brisbane River and Brisbane CBD. The tunnels provide an additional connection between the northside and southside of the city, aiming to increase commuter train capacities and ease road traffic congestion greatly.







## WORK IS UNDERWAY ON CROSS RIVER RAIL BRISBANE'S NEW UNDERGROUND

After nine months of planning and preparation, the Precast Team cast the first tunnel segments on September 10th which was a significant milestone. Starting the carousel and commencement of the production process met an important program date for our client. However, before the team could get started, several milestones were achieved. The carousel required a complete structural and electrical refurbishment as the last segment project concluded in 2014 and the Simem batch plant received an electrical and control system upgrade to meet current safety and technology standards. This was a great effort from the workshop and precast

teams working together to deliver to program and budget.

A scale trial ring was assembled to assess the quality and dimensional conformance. A highly specified trial mix and a three month long fire testing program was undertaken including having panels fire tested at the CSIRO in Sydney. A quality assurance tracking system was implemented, which included bar code tracking of each segment from casting to placement in the tunnel. We have approximately 25,000 segments at six per ring to produce by August 2021, including 40,000m<sup>3</sup> of Wagners concrete seeing the project employ 70 people across two shifts for the duration.







Master Concreters Australia provides a range of services and support specifically for concrete contractors. Give your company that professional edge by joining your trade association.

- Access to technical information
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- Business mentoring service
- Newsletters, industry news and information
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[www.mca.net.au](http://www.mca.net.au)

Master Concreters Australia is the industry trade association working for and supporting concrete contractors.



## COMPANY DETAILS

Company name: \_\_\_\_\_

Contact name:

Postal address:

Telephone: \_\_\_\_\_

Email:

Signature: \_\_\_\_\_

**Send your completed application for to:**

Master Concreters Australia, 27 Morrisby Street, Geebung QLD 4034

Or scan and email to [info@mca.net.au](mailto:info@mca.net.au)

## MEMBERSHIP DETAILS

MEMBERSHIP CATEGORY (Please tick main area)

- ☐ Contractor Domestic  
\$500 +GST per annum
- ☐ Contractor Commercial  
\$900 +GST per annum

## PAYMENT DETAILS (Please tick)

MEMBERSHIP CATEGORY (Please tick main area)

- ☐ Credit card number and expiry date
- \_\_\_\_\_
- Expiry date: \_\_\_\_ / \_\_\_\_
- ☐ Master Concreters Australia to contact me for a payment via EFT or Direct Debit.

\*Members must hold appropriate license for scope of works.