

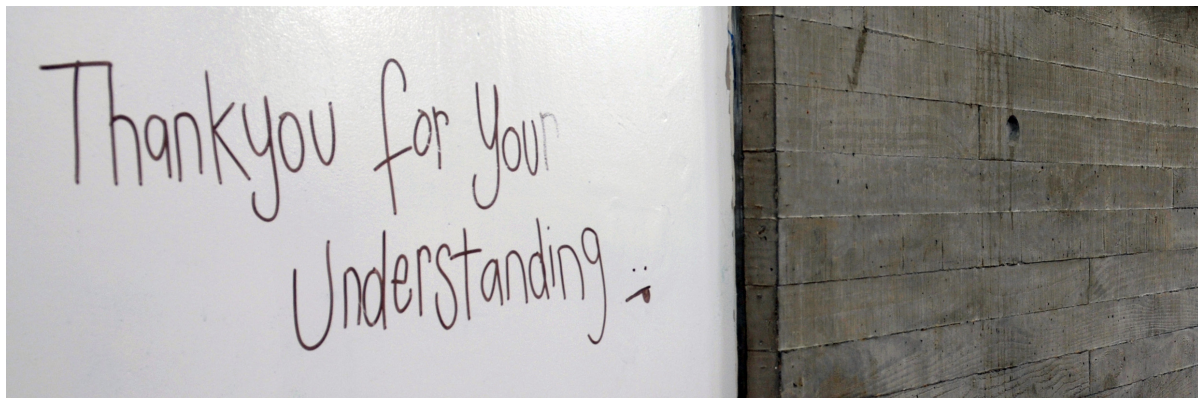
## Points to consider when producing quality fair faced Architectural concrete work

In order to produce the best possible finish for exposed concrete works all stages of the process must be thoroughly considered and executed with consistency always at the fore.

GreyMatter concrete has produced the following bullet points in order to provide general advice on the successful planning, design and procurement of such works. These points aim to highlight factors we consider of fundamental importance:

- Plan the use of Architectural Exposed concrete from the concept stage and address levels of expectation from the outset.
- Set up fluid lines of communication between Architect, Client, contractor, sub contractor and concrete supplier.
- Choose the most appropriate formwork material from both a design, finishing and possible repair perspective. Maintain the same formwork supplier throughout the project.
- Draw up a clear contractor checklist when preparing, handling, storing, fixing and striking of formwork. Store all formwork according to manufacturers recommendations.
- Ensure that the specification in terms of surface finish quality is realistic and achievable.
- Arrange to visit a similar project with the contractor that displays the quality of finish you hope to achieve.
- Plan the setting out of formwork so that it takes into account the position of any bolt-holes, board joints and day joints that may be required. This plan will further inform the pour programme.
- Instruct a series of samples to be produced on site that realistically replicate site conditions so that potential difficulties can be experienced and learned from. Selected a scale of sample work that similarly will replicate that of the actual works as closely as possible. Agree viewing distances.
- Inspect the formwork during construction paying particular attention to board setting out, grout check details, tie hole positions, even application of release oil, fixings, concrete cover and protection and care of formwork generally.

- The concrete mix design should exhibit cohesion with a water cement ratio and fines to aggregate ratio that whilst facilitating placement and compaction will avoid segregation or excessive bleeding.
- Cube tests will be the key guide as to the consistency of quality supplied.
- The concrete supplier should remain constant throughout the project and be able to supply accurate consistent mixes and ensure prompt delivery times.
- There should be considered and planned placement of concrete in both cast and trowelled scenarios.
- Thorough consistent compaction of the material is required especially when considering formed concrete.
- Insist on more than adequate lighting for any placement and finishing works.
- Do not underestimate the importance of paying full, close attention to the trowel finishing of top surfaces to cast elements. See [www.greymatterconcrete.co.uk](http://www.greymatterconcrete.co.uk) in the finishing download section for more information.
- An understanding of timing is key when trowelled finishing operations or placement of batches for cast surfaces is concerned.
- Striking regimes for formed surfaces must remain the same.
- Planned curing of the exposed surfaces will increase surface strength and reduce porosity.
- Adequate and appropriate on site protection of finished work and unfinished formwork is paramount.
- Expect a degree of Architectural concrete repair works to be required. This is inevitable with site based in situ concrete and a contingency for such repairs should be integrated into the scheme.
- Select the most suitable choice of sealant from sample trials.
- Compile a thorough Operations and Maintenance manual at handover.



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