

Good Management & Practice

Formwork & Falsework

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Background & Introduction - Formwork



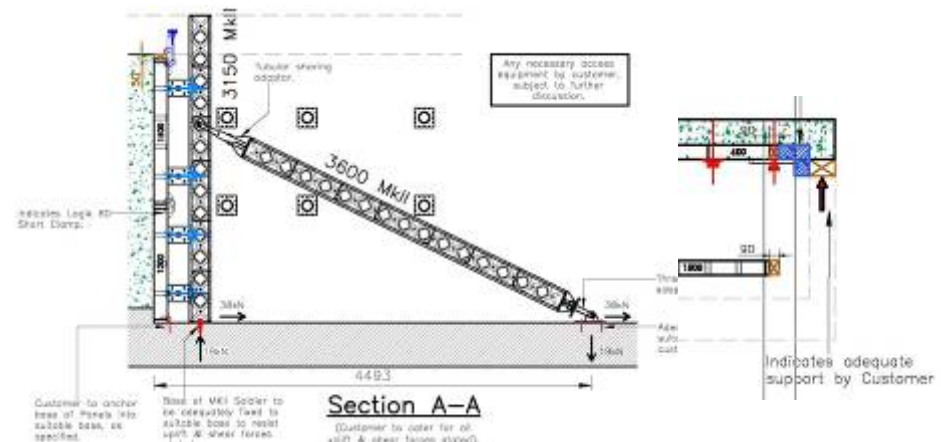
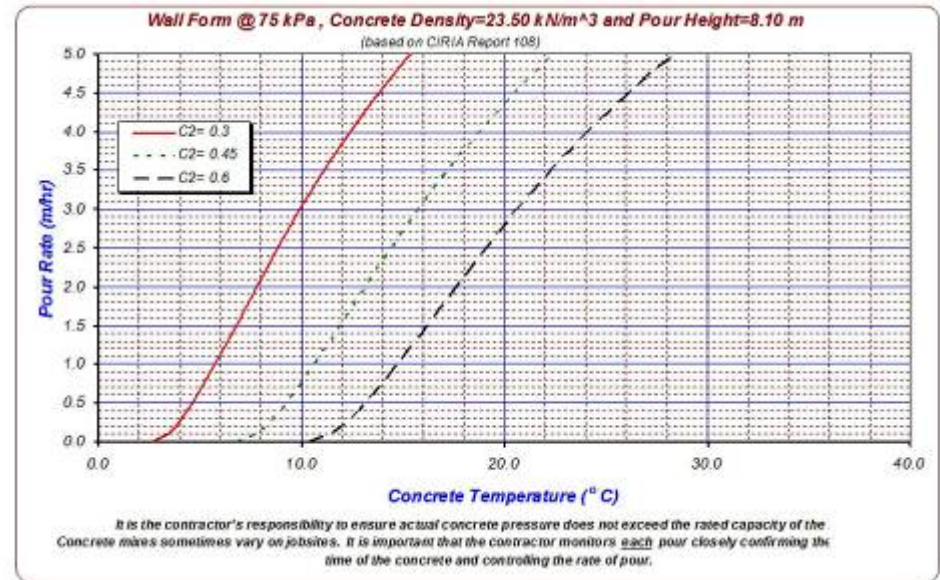
- Structure used to contain and support wet concrete until it is able to support itself
- Many different types including:
 - Standard timber shutters
 - Proprietary panel systems
 - Component systems (soldiers, walings, plywood)
 - Specially fabricated shutters

Design Brief Information - Formwork

- Structure layout & location of construction joints
- Construction sequence
- Concrete mix design certificate
- Construction programme
- Planned concrete delivery rate/rate of rise
- Specified finish requirements

Potential Pitfalls - Formwork

- Drawings not checked and issued for construction
- Changes on site which could increase the maximum concrete pressure
- Anchors for single sided formwork
- Anchors for inclined formwork
- Timber infill & make-up pieces
- Stop-ends
- Striking time



Background & Introduction - Falsework



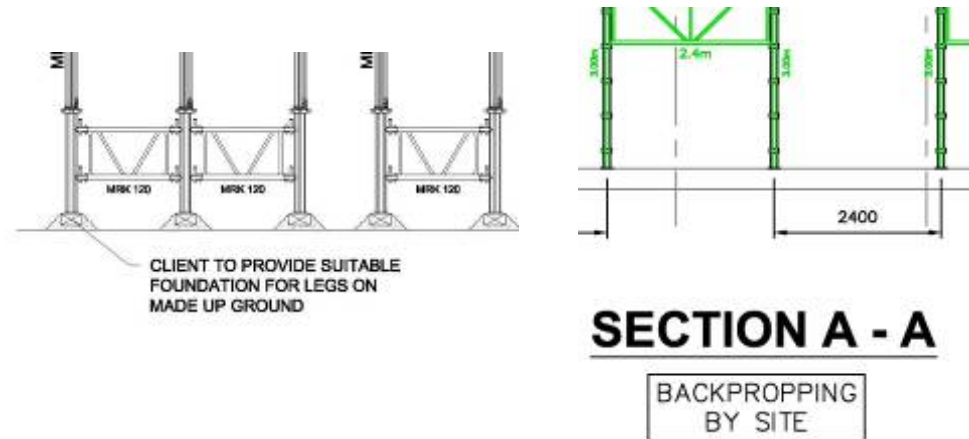
- Temporary structure used to support a permanent structure while it is not self-supporting
- Many different types including:
 - Tube & fitting scaffolding
 - System scaffolding
 - Proprietary aluminium systems
 - Specially fabricated structures

Design Brief Information - Falsework


- Structure layout & location of construction joints
- Construction sequence
- Concrete placement method
- Additional loading on falsework or slab
- Restrictions on standard layout
- Specified finish requirements

Potential Pitfalls - Falsework

- Drawings not checked and issued for construction
- Falsework foundations inc. backpropping
- Lateral stability of falsework
- Timber components including primaries, secondaries & plywood
- Edge formwork and stop-ends
- Striking time



2. Unless otherwise stated, the structure is designed as "FIXED AT THE HEAD" i.e. not free standing when loaded. It is the clients responsibility to ensure that the permanent works and the interface with the soffit as constructed on site can resist and safely transfer all notional and actual horizontal loads.

 **IMPORTANT NOTE:**
CLIENT MUST ENSURE THAT THE SLAB IS SELF SUPPORTING PRIOR TO STRIKING THE FALSEWORK .

Sources of Further Information

- BS 5975 Code of practice for temporary works procedures and the permissible stress design of falsework
- CIRIA R108 Concrete pressure on formwork
- Concrete Society CS144 Checklist for assembly, use and striking of formwork
- Concrete Society CS123 Checklist for erecting and dismantling falsework
- HSE CIS56 Safe erection, use and dismantling of falsework

Any Questions?