

## Design Safety - Good Practice

### Precasting the Concrete

#### The problem/challenge

Reduce length of construction time, exposure to hazards and simplify site processes.

#### The risks

The longer the site construction period, the higher the potential for accidents.

#### The solution

Precast concrete items and structures where ever feasible.



Precast Wall Panels and Columns for a Reservoir



Precast Snail Trap Structures

#### Health & Safety benefits

- Off-site construction results in cleaner, quieter, shorter and safer construction on site.
- Precasting takes place in the factory, i.e. at ground level and in the dry.
- Fewer activities/trades on site = fewer man hours on site = less exposure to hazards.
- Less construction plant/machinery required on site (other than craneage).
- Excavations are 'open' for a shorter period.
- Significantly less working at height on site = fewer falls.
- Units can have handrail sockets cast in, hence handrails installed soon after erection.
- The precast industry attracts and retains highly-trained dedicated labour and saw a 65% reduction in accidents (during manufacture) between 2000 and 2007.

#### Other potential benefits

- Sustainability: efficient design can save on material quantities.
- Improved quality control.