

### Removing the risk of falls through floor openings

By casting-in GRP mesh into floor openings such as service risers, it is possible to remove the risk of falls during construction, both for in-situ and pre-cast floor slabs. By only removing small sections of the protection where services are installed, the rest of the opening is left protected.



In cases where the permanent works design includes steel riser gratings, if suitable cast-in rebates are designed within the floor slab they can provide support for both the temporary and permanent riser protection. This is preferable to drilled and bolted supports which have to be installed within the riser once the floor slab and core have been cast, before striking the formwork below

Where precast concrete panel systems for stair cores and lift shafts such as twin wall systems are combined with the traditional RC frame construction, early contact with the supply chain will be needed to specify a rebate design detail in the panel or an alternative means of pre-installed support.



The additional benefit of pre-cast systems is the contribution to our 25% by 2025 strategy: off-site manufacturing provides a quality product with the added safety and production benefits of reduced work at height and reduced delay from bad weather.

#### Safe by Design

- **Early coordination and collaboration between the temporary and permanent works designers to establish permanent works specification and options for temporary works protection of floor openings**
- **Where pre-cast cores are used, liaise with pre-cast supply chain to determine a means of riser grating support – either cast in or an alternative pre-installed method**
- **Determine and procure suitable method of temporary opening protection and support**